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Global Mental Health Policy Diffusion, Institutionalization, and Innovation

by

Gordon Chit-Nga Shen

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Health Services and Policy Analysis

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Lonnie Snowden, Chair
Professor Todd LaPorte
Professor Stephen Shortell
Professor Heather Haveman

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Abstract

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Professor Lonnie Snowden, Chair

Mental health is an integral part of health and well-being. Mental health enables people to realize their potential, cope with the stressors of everyday life, and make contributions to society. Mental, neurological and substance use (MNS) disorders constitute 13% of the global burden of disease. And yet, across all countries, public investment in preventing and treating this cluster of disorders is disproportionately low relative to this disease burden. Health systems have not adequately or sufficiently responded to the burden of MNS disorders: the gap between the need and supply of treatment ranges from 76% to 85% in low- and middle-income countries, and from 35% to 50% in high-income countries. Mounting evidence underlines the inequitable distribution, poor quality, and inefficient use of scarce resources to address mental health needs. Globally, annual spending on mental health is less than US $2 per person in high-income countries and less than US $0.25 per person in low-income countries, with 67% of these financial resources allocated to stand-alone mental hospitals. Flagrant abuse of human rights and discrimination against people with mental disorders and psychosocial disabilities have been found in such psychiatric institutions. The redirecting of mental health budgets toward community-based services, including the integration of mental health into general health care settings, is needed. To address this state of affairs, this dissertation takes a fresh look at the actions taken to formulate a comprehensive, coordinated response from health and social sectors. It is founded at the nexus of new institutional, world culture, and diffusion of innovation theories.

This dissertation employs a mixed methods approach, combining statistical and survey analyses. A mental health policy is an official statement of a government that defines its vision, values, principles, and objectives to improve the mental health of a population. It also outlines the areas of actions, strategies, timeframes, budgets, targets and indicators used to realize the vision and achieve the objectives of the policy. In the first study, I examine the coercive and emulative isomorphic effects on the diffusion of mental health policy across geopolitical borders. Using discrete-time data for 193 countries covering the period from 1950 to 2011, I conduct an event history analysis to examine the influence of WHO accession, foreign aid, and peer influence on mental health policy adoption. The results confirm that the act of adopting mental health policy is partly owed to membership in the

World Health Organization, as well as influence of neighbors in the same World Bank and World Health Organization regions.

National mental health policy adoption is trumpeted as a milestone for mental health reform. Is mental health policy limited to a rhetorical plane or taken up for pragmatic reasons? The effectiveness of this "upstream" factor could be realized based on examining "downstream" models of deinstitutionalized programming. While mental health policy adoption is treated as an outcome of interest in the first study, it is treated as a predictor in the second study. More specifically, I test the phase of policy adoption as a determinant of psychiatric bed rate changes using panel data for the same 193 countries between 2001 and 2011. The analysis finds that late-adopters of mental health policy are more likely to reduce psychiatric beds in mental hospitals and other biomedical settings than innovators, whereas they are less likely than non-adopters to reduce psychiatric beds in general hospitals.

Deinstitutionalization is a much more complex and sophisticated process than reducing dehospitalization, or the reduction of psychiatric beds. It is also about improving the quality of care provided by inpatient facilities while increasing access to care through the development of mental health services in other medical and community settings. However, progress towards mental health reform is often stalled because it is an essentially contested issue in professional and advocacy circles and a highly politicized one among governments. For these reasons, the third study gathers contemporary perspectives on deinstitutionalization from 78 mental health experts. The survey administered assesses their knowledge, attitude, and practices of expanding community-based mental health services and/or downsizing institution-based care. The respondents also attested to the enabling, reinforcing, and constraining factors prevalent in the 42 countries they collectively represent. The qualitative evidence is complementary to the quantitative evidence in that it portrays the contemporary mental health system as being controlled by a nucleus of inpatient care. It further suggests that innovations are made in linking specialty services with primary and social services to support people with mental, neurological, and substance use disorders and their families as they (re)integrate into their communities.

Mental health care has branched out in new directions at the turn of the 21st century. Time and again when governments are in the throes of strengthening their mental health systems, a closer look into the setup of infrastructure, essential medicines, human resources, and civil society involvement becomes necessary. This dissertation demonstrates that deinstitutionalization is a result of mental health policies imposed from the top down by the government. The experience with deinstitutionalizing mental health care also involves grassroots mobilization of social change by citizens, clients, families, and other advocates. In parallel with service reorganization, advances have been made in training lay personnel to offer services to people with MNS disorders. Research and development have made treatment more cost-effective and accessible. Cutting across temporal and geographic borders, tradition and modernity, this dissertation probes into the permeability of mental health policy and unpacks the complexity of deinstitutionalization.

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Introduction

An international consensus arose after World War II about the need for thorough change in psychiatric care. The World Health Organization and countries in North America and Western Europe have since been heavily promulgating new policy directions in mental health (Goodwin, 1997; Olson, 1996). The main declared goal of national mental health reforms is to overcome the asylum-based system of care and establish new community-oriented therapeutic approaches. Since then, in many countries, the neologism "deinstitutionalization" has been used to denote such a move away from traditional institutions, which has resulted in an exodus of patients into the community. Mental hospital beds in each country have declined because older hospitals have downsized or closed altogether, while psychiatric wards in general hospitals as well as outpatient and day treatment services were established. Outside of hospitals, a wide range of community-based treatment facilities have also been developed, including multidisciplinary psychiatric teams, residential home visits, domiciliary services, day care, and support from social workers. Concurrent developments in diagnostic criteria, neuroscientific approaches, and psychopharmacology have implored psychiatric and psychoanalytic professionals to search for new frontiers in therapeutic practice. However, transforming the locus of care from institution- to community-based settings was much more complicated than policy-makers had anticipated and, in fact, had unintended consequences in the form of re- and trans-institutionalization for people with the most severe and chronic mental illness (Priebe, 2005; Scull, 2003). The research literature has not yet reached consensus on competencies needed to reform mental health systems and the conditions under which it happens. The impetus of my dissertation titled "Global Mental Health Policy Diffusion, Institutionalization, and Innovations" is three-fold. First, I seek to gain a broader understanding of mental health reform in the context of social, political, economic, and demographic changes experienced by societies in the decades following World War II. I am also interested in whether psychiatric deinstitutionalization, commonly included in mental health policy, is enacted in structural changes, namely decrease in psychiatric bed to population rate. Many of the structural changes that were initiated in previous decades continue to be implemented in some countries. And so, I seek to compare local practices that further deinstitutionalization and to document both the challenging and enabling circumstances under which they have been carried out, especially in less developed countries.

What are the programmatic and ideological frameworks, and contextual requirements, underpinning this decisive paradigmatic shift? A universal logic behind having a modern, functional mental health system is well documented (Novella, 2010; Inoue & Drori, 2006; Meyer et al., 1997). There are at least three complementary rationales as to why individuals with mental, neurological, and substance use (MNS) disorders should be cared for in the community rather than in an institutional environment. First, the public health rationale is that it would be more cost-effective to offer preventive and treatment services in community settings other than mental hospitals and asylums. MNS disorders have a significant and far-reaching impact on individuals and societies. They collectively represent 8% to 14% of the global burden of disease (Kessler et al., 2009; Kessler & Ustun, 2008; Lopez et al., 2006). MNS disorders are also highly comorbid with physical ailments and infectious diseases. A burgeoning body of research exists on the clinical efficacy and cost-

effectiveness of interventions used to address MNS disorders (Bruckner et al., 2011; Chisholm et al., 2007; Patel et al., 2007). This cluster of disorders is projected to increase in prevalence by 37.6% between 1990 and 2010 given concomitant demographic, epidemiologic, and economic transitions (Whiteford et al., 2013). These transitions mean the demand for mental health services will not abate, and the integration of mental health into general health will serve as a foundation for the future's health system.

The second is a human rights rationale. Human rights abuses against people with mental disorders are pervasive, even though the profile of abuse is somewhat different for countries on different parts of the income spectrum. Traditional healers and families have been documented to chain and beat people with MNS disorders for lack of more accessible and effective solutions in low- and middle-income countries (Joop & de Jong, 2002). This is not to mention that the lack of access to any mental health care is fundamentally a human rights violation (Drew et al., 2005, 2011). In spite of the evidence on the global burden of MNS disorders, negative socio-economic consequences of neglecting to address them, and cost-effectiveness of interventions for them, mental health in general continues to be marginalized in international- and country-level agendas.

The final rationale is an economic one. Mental ill health has a bidirectional relationship with poverty (Lund et al., 2011). MNS disorders not only have negative consequences on the individuals who are under-treated or not treated, but pose as a threat to national economic growth (Wang et al., 2007b; Demyttenaere et al., 2004). Mental health interventions can decrease presenteeism, absenteeism, and critical incidents in school and in the workplace (Wang et al., 2007, 2008), and thus the income and material well-being of those afflicted with MNS disorders are at constant risk. Lost productivity accumulates as decreased national wealth, economic growth, and prospects for job creation. There is less robust evidence on the benefits of poverty alleviation interventions, but prior studies have shown the positive mental health effects that conditional cash transfer and asset promotion programs confer to beneficiaries (Fernald et al., 2008). The public health, human rights, and economic rationales have been offered as reasons why mental health and development aims should be intertwined and mental health care should be scaled up as part of national development efforts.

National-level changes in policy-making, resource allocation, and organization of governmental institutions reflect norms of the world society. DiMaggio and Powell (1983) defined isomorphism as a process of homogenization that forces one unit to resemble other units that are in the same population and confront the same set of environmental conditions. Research in this sphere spans the institutional, organizational, and industry levels of analysis. This research tradition has established that isomorphic policies and practices spread from one unit of analysis to another following through an initial process of diffusion, followed by a process of institutionalization. This two-stage process of diffusion is driven by resource dependence, social comparison, or network ties linking potential adopters. Cross-national isomorphism has been observed for cases such as decolonization (Strang, 1990), education (Meyer et al., 1992) and environmental protection (Frank et al., 2000). These studies have identified infrastructure, professionalization, and culture as key factors in shaping isomorphic processes (Guler et al., 2002; Guillen, 1998; Meyer et al., 1997). Even though these empirical research studies marshaled data collected from a large number of countries, they do not deal with mental health care. Cross-national research focusing on mental health care tend to be limited to small number of countries, including Olson's (2006) comparison of Great Britain, Norway, Canada, and the United States's mental health systems, Knapp et al's (2007) review of the economic consequences of deinstitutionalization in the U.K.,

Germany and Italy, and Lurie's (2005) review of national mental health policy in Australia, the U.K., the U.S. and New Zealand. Even more sparse are studies focused on developing countries, with the exception of Faydi et al.'s (2011) assessment of mental health policy in Ghana, South Africa, Uganda, and Zambia, McDaid et al.'s (2008) recount of economic rationale in promoting mental health in low- and middle-income countries, and Chisholm et al.'s (2007) estimation of cost for scaling up mental health care in low- and middle-income countries.

I have thus employed mixed methods to look at the distribution and determinants of these two forms of isomorphism—diffusion and institutionalization—in the mental health care field. The first study, titled "Mental Health Policy Diffusion Across Nations," addresses the policy diffusion literature. I used the WHO Mental Health Atlas dataset and other secondary datasets to better understand the cross-national diffusion of mental health policy across 193 countries from 1950 to 2011. More specifically, I used discrete-time event history analysis to test three hypotheses and one proposition. The hypotheses focus on the vertically coercive effects based on country accession to the World Health Organization, horizontally coercive effects of official development assistance between countries, and geographically bounded contagion effect. The proposition asks whether the same diffusion curve is attributed to similarities in country characteristics. I treated policy adoption as a dependent variable in this study, and as an independent variable in the next study.

Mental health policy needs to be workable for the country as a whole. As discussed earlier, mental health is a political and social concern in addition to being an epidemiologic and economic one. Large-scale burden of chronic disorders can destabilize governments, hamper economic growth, and exacerbate poverty. Failure to promote and protect the mental health of citizens is fundamentally a gross violation of human rights. Despite these pronounced reasons, the priority governments give to MNS remains low. If fiscal expenditure is an indication of the priority given to mental health, the global median percentage of health budget expenditures governments have dedicated to mental health is a paltry 2.8% (WHO, 2011). MNS disorders' priority is even lower on low-income countries' agendas at a median percentage of 0.5%. Worse yet, the allocation of these meager resources reinforce institutionalized mental health care rather than deinstitutionalized care—with 36% to 77% of national mental health budgets being devoted to managing people with MNS disorders in long-stay mental hospitals (WHO, 2011). Despite the adoption of mental health policies, concerns around implementation of them abound.

The objective of the second study, titled "Institutionalization of Deinstitutionalization: A Cross-National Analysis of A Governance Gap in Mental Health Care," is to examine the extent to which deinstitutionalization has been implemented across 193 countries. The central question I posed, which is informed by neo-institutional theory, is whether late adopters of mental health policy hold an efficiency or legitimacy motivation compared to early adopters and non-adopters. I mined the same dataset, WHO Mental Health Atlas, and other secondary datasets to infer national governments' motivation vis-à-vis the enforcement of a specific component contained in mental health policy, or deinstitutionalization. Deinstitutionalization is defined as the practice of caring for individuals with mental, neurological, and substance use disorders in the community rather than in an institutional environment. I used random effects linear models to see if the population-based rates of three types of psychiatric beds—in mental hospitals, in general hospitals, and in all biomedical settings—changed in 193 countries from 2001 to 2011. The objective of the first two studies is to test hypotheses on the conditions under which different factors will lead to convergence in policy adoption and implementation. I used the

mental healthcare field as a reference point. The theoretical directions developed in these papers are taken up in the third study.

The organization of mental health care has experienced tremendous change in the past half century, driven by political commitment at national and intergovernmental levels in response to the challenges posed by mental health problems. However, diversity among countries renders most generalizations speculative. Resources such as funding, workforce, and infrastructure vary dramatically from country to country, and new investment is limited. Some countries take pride in sophisticated service systems, whereas others continue to rely almost exclusively on mental hospitals and asylums. Reforms championed are hampered by the lack of comparable information across countries and the lack of context-specific research, particularly in less developed countries. However, many exciting local initiatives are emerging. These innovative local practices deserve to be translated into national policies and practice, buttressed by adequate resources, and diffused outside of their homegrown contexts.

The final study, titled "The State of Deinstitutionalization: A Comparative Study of Mental Health Care Delivery and Service Organizations in 42 Countries," is a comparative analysis of the state of deinstitutionalization and mix of hospital- and community-based mental health care in low-, middle-, and high-income countries. The main method of data collection for this study was a survey of 78 mental health experts representing 42 countries, which was fielded in collaboration with the Mental Health and Substance Abuse Department of the World Health Organization and with support from the Calouste Gulbenkian Foundation. The survey consists of both open- and close-ended questions. It differs from the two other studies in that I assumed a qualitative approach in recording salient methods reformers used to transform their mental health systems and understanding the trials and tribulations they faced in the process of deinstitutionalizing mental health care. The strength of this study lies in its core objective to identify and conceptualize the mechanisms and conditions under which the two sets of isomorphic behavior—policy adoption and institutionalization of deinstitutionalization—occurred in different countries. Even though this study is last in order, I had proceeded with analysis for this qualitative study first because I used its results to guide the choice of independent variables and construct a conceptual framework. As part of my dissertation, I carried out three studies looking at mental health policy and the extent to which governments have aligned the need, demand, and supply of mental health care. The dissertation offers theoretical contributions to policy diffusion and neo-institutional literature, as well as policy recommendations for future global health and national planning forums.

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This degree is a key milestone in my professional and intellectual development, and I could not have completed it without the advice and support from my faculty advisors, colleagues, family, and friends. First and foremost, I wish to acknowledge members of my dissertation committee for the feedback, guidance, and encouragement they have given me throughout the process of developing this dissertation.

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Like Todd, Heather Haveman also gave me a fresh perspective on the organization sociology literature. The theoretical frameworks constructed and employed in the first two studies reflect what I have learned from a neo-institutional and population ecology expert like her. Heather has such a sharp research acumen and keen interest in the empirical context, as shown through the comments she made in the Organizations course, the Sociology colloquium and the MORS colloquium. My interdisciplinary work has elevated because of our relationship.

Last, but not least, Stephen Shortell deserves a heartfelt thank you. I am not the first -and certainly not the last- person to remark on the tremendous contributions Steve has made to the School of Public Health and the public health field in general. It was a pleasure serving as his Graduate Student Instructor for the strategic management and organization in health course he co-taught with Jeff Oxendine and as his Graduate Student Researcher for the ATHENA Breast Health Network evaluation project he co-led with Joan Bloom. I can only hope to become a researcher and mentor as dedicated as Steve.

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Paper One

Mental Health Policy Diffusion Across Nations

Despite the progress made in raising the priority of non-communicable diseases on the global health agenda, it remains unclear whether traction is gained in addressing the burden of mental, neurological, and substance use disorders in national contexts. Mental health policy defines the government's vision for the future mental health of its population. It offers a framework under which treatment and preventive care are delivered to those in need, while preventing fragmentation in the health system. Following the tenets of neo-institutional theory and diffusion of innovation theory, I focus on the coercive and emulative effects that result in the diffusion of mental health policy from country to country. Many have argued that international norms influence government behavior because of mandates assigned to member states by international organizations. Dependency on external resources also affects the behavior of governments. This dependence has been accompanied by greater involvement of foreign aid donors in the formulation of national policy. And finally, mounting adoption of a given policy alters the risk, benefits, and information on the adoption process itself for all national governments. I use panel data on mental health systems of 193 countries to test these mechanisms. I find that the adoption of mental health policy is highly clustered temporally and spatially. Results of event history analysis of discrete-time data covering the period from 1950 to 2011 provide partial support for my predictions that the World Health Organization is a key actor responsible for coercive isomorphism. My findings suggest that official development assistance is insufficient for mental health policy-making. The evidence further shows that policy transitions are influenced by a country's sociocultural peers and peers in the same World Bank and World Health Organization regions.

INTRODUCTION

Commonality amidst diversity is an intriguing phenomenon observed when variegated countries adopt mental health policy. This phenomenon has been variously called policy innovation, policy diffusion, policy transfer, policy convergence, and lesson drawing in the research literature.[1] This study focuses on policy diffusion, which I define as a pattern of successive adoption of mental health policy across countries and over time. Treating the year of mental health policy adoption as the outcome of interest raises some profound questions. For example, what is the rate and pattern of policy diffusion across countries? Documented cases where an innovation diffuses through a population often follow a logistic curve (Rogers, 1983). Why do some countries adopt mental health policy later than others,

[1] A summary of these concepts is available in Appendix A.

or not at all? Adopters and non-adopters differ with regard to certain national characteristics. Adoption patterns could also be the result of communication made among countries on how to solve a shared problem that is bounded by geopolitical borders, which in this case is the burden of mental disorders. And finally, adoption of a particular policy could be attributed to external diffusion pressures stemming from globalization and membership in international organizations.

World polity theorists depict a world constituted by cultural norms that dictate the mission and action of organizations and actors embedded within it (Meyer et al., 1997; Boli and Thomas, 1997; McNeely, 1995; Meyer, 1987). Countries are increasingly interconnected as information transpires across geopolitical boundaries through communication, collaboration, competition and other norm-setting channels (Abrahamson and Fairchild, 1999; Abrahamson, 1991; Granovetter and Soong, 1983). World polity theory and institutional theory share a similar premise: social norms and operational models are first invented and institutionalized within certain countries, spread outside of them, and then eventually acquire legitimacy regionally or globally (Meyer, 1987). National governments internalize certain norms and models salient in the global society, which are reflected in isomorphic socio-political policies, structures, and programs. The diffusion of mental health policy, like other innovations, is expected to follow a sigmoidal curve as countries initially adopt a given policy at a rapid rate, reach an inflection point, then taper off from adoption (Greenhalgh et al., 2004; Rogers, 1983, 2003; Berry, 1994; Walker, 1969).[2] This curve reflects the differences among nation-states in their readiness to change and propensity to deal with political and policy risks.

Four mechanisms have been identified and tested in the policy diffusion literature: coercion, emulation, learning, and competition (Dolowitz and Marsh, 1996, 2000; Dobbin et al., 2007). These mechanisms can be situated on a coercive-voluntary continuum. On the coercive end of the continuum, Drezner's (2001) structure-based approach emphasizes the environmental pressures that tightly constrain national policy responses. For example, political leaders in developing countries have little choice but to accept conditionalities imposed on them by international financial institutions given the dire consequences of refusing debt relief and economic development aid. The magnitude of such environmental pressures directly determines their course of action, in turn leading to policy convergence among countries.

Moving along the continuum from hard to soft power, the catalyst for voluntarily adopting certain policies is to avoid the defamation incurred from other countries for not preserving the status quo. When existing governmental policies are functioning properly there is no need for politicians and public administrators to search for lessons learned elsewhere because everything can operate through established routines. When established routines stop addressing new environmental contingencies, however, a search for new policy, planning, and/or legal solutions becomes necessary (Rose, 1991). An alternative is for decision makers in a focal country to replicate the *modus operandi* other key countries have

[2] The S-curve is formally represented by the equation $P = K / (1+e^{-(a+bt)})$ where P is the percentage of potential adopters who have adopted the innovation, K is the asymptotic ceiling or equilibrium value of P, t is the time, a is the constant of integration locating the curve on the time scale, and b is the rate-of-growth coefficient. Determinants of a and K are of interest in this study if indeed the data assumes an S-curve. In relation to study 3, if decision makers engage in fully rational learning rather than bounded rational learning, then I would observe an exponential curve and not an S-curve (Weyland, 2005). In other words, if diffusion is really driven by decision makers' belief that a new model was important for enhancing efficiency, quality and accessibility in the mental health system, then the curve should keep accelerating rather than peter out.

already adopted (Gray, 1973; Menzel and Feller, 1978). Competition is not discussed because it is outside the scope of this study, which is focused on mental health policy, but it deserves to be said that internationalization of financial market places increasing pressure on all countries and organizations embedded within them to conform to the management principles and shareholder value orientation originating from the dominant countries (Guler et al., 2002).

The coercion and emulation diffusion mechanisms are significant forms of social communication that link individual countries to the broader global community. This study seeks to advance the world society and policy diffusion arguments through the direct testing of the coercion and emulation mechanisms. This paper is organized as follows. I will first discuss how the world society, comprised of international organizations, civil society, and other powerful actors, influences countries' behavior by applying external pressure on them to meet obligations to care for the mentally ill population. I will then discuss countries' likelihood of mimicking policy decisions made by their role models. Historical, geographical, and structural composite characteristics will be used as indicators of the emulation mechanism since it is debated in the global mental health literature as to which country is the role model for mental health care. In the methods section I will discuss how event history analysis is used to empirically test the coercion and emulation as predictors of successive mental health policy adoption. This paper closes with a discussion of the intersection of policy diffusion and the health sector.

THEORY AND HYPOTHESES

Coercion

The world polity shapes countries' identities, structures, programs, and policies via cultural and associational processes (Meyer et al., 1997; McNeely, 1995; Meyer, 1980). The coercive mechanism stems from power and resource differences among countries, transnational and international organizations. Coercion can be further parsed out as being either vertically (e.g. between international organization and countries) or horizontally (e.g. between countries) coercive (Dolowitz and Marsh, 1996). Unlike the other diffusion mechanisms, coercion is unique and worth testing because it assumes that national autonomy and sovereignty are largely absent. International organizations and donor countries use non-financial and financial means to achieve international policy convergence, and therefore international organization membership and monetary aid flow are chosen as the main measures of coercion in this study.[3]

Vertical Coercion

International organizations (IOs; or International Governmental Organizations) promote legitimated models, norms, and principles to their members. The World Bank, International Monetary Fund, European Union, Organization for Economic and Co-operation Development, United Nations, and the European Court of Justice are leading examples of vertically coercive drivers of diffusion. They would disseminate standardization of some sort either through their ties with individual sovereign states, through regional blocs,

[3] Non-financial instruments (i.e. diplomatic meetings, academic conferences) could also spur ideas across national boundaries, but those are not included in my analysis due to the dearth of secondary, cross-national datasets accounting for them.

or through multi-member cooperatives (i.e. BRICS). They also employ a mix of financial and non-financial instruments to buttress their promotion of sector-wide reform. IOs impose a set of standards, norms and principles, rules and decision making procedures that their members are expected to conform to.

The motto "no reform, no money" implies that countries must follow best practices or, at the very least, strive to meet IOs benchmarks; not doing so jeopardizes countries' chances of receiving loans and structural adjustment packages (Luke and Watkins, 2002; Gilpin, 2000; Stokke, 1996; Uvin, 1996). International financial institutions—most notably the International Monetary Fund and the World Bank—and regional development banks make decisions about a country's need for aid and set loan conditions oftentimes based on its standing in the international investment community (Simmons, 2001; Henisz et al., 2003; Mosley et al., 1995). Taking development aid as an example, aid-dependent countries have little bargaining power when confronted with the decision to either focus on donor-identified problems and international policies, such as Millennium Development Goal 5 "Improve Maternal Health," or remain true to their own set of priorities and cultural values. Foreign entities have spent anywhere from one-third to one-half of the African region's GDP on developing its countries' health and education systems (van der Walle, 1999; MacLean, 1997; Brown, 1995). Aid-dependence is a double-edged sword: countries comply with IOs' directives either to receive a benefit (e.g. monetary sum, status enhancement) or to avoid a penalty (e.g. being blacklisted) (Sharman, 2008). International organizations ultimately shape policy in countries, particularly those that rely on them for trade, foreign investment, aid, grants, loans, and/or security.

International organizations also employ a range of "softer" instruments to foster policy development (Jakobi, 2009; Abbot and Snidal, 2000; Dolowitz and Marsh, 1996; Finnemore, 1993; Collier and Massick, 1975). Gruber (2000) argues that supranational institutions possess "go-it-alone" power, or the ability to unilaterally influence a government's policy choice by altering the nature of the status quo it faces. IOs issue guidelines, rankings, quality scorecards, and target indicators, to give a few examples of the myriad instruments used to set said status quo. Weyland (2007) called these instruments "availability enhancements" in the context of international financial institutions. In the area of retirement age pensions, for example, the World Bank has been credited for disseminating both the notion of defined contribution and funding reform models to implement it (Brooks, 2007; Holzmann and Hiinz, 2005). These instruments are developed in cooperation with government agencies, academic institutions, professional societies, governing boards, advisory bodies, or expert panels. In the context section I will further discuss the role of collectives, such as the Mental Health and Poverty Project and the International Consortium on Mental Health Policy and Services, which play a mediating role and help bridge the divide between IOs and nation-states. IOs ultimately help to lower the search cost of acquiring knowledge about policy practices taking place abroad by providing technical assistance on the usage of instruments and access to clearinghouse of statistical information to their member countries.

The World Health Organization (WHO) is a United Nations agency leading the charge on attaining the highest possible level of global mental health care. It was established on July 22, 1946 and became effective on April 7, 1948 with a mission to ostensibly uphold the "highest attainment of physical and mental health." The WHO plays an important role in harmonizing governments' responses to health problems, avoiding duplication of policy-making efforts, and minimizing discrepancies in health policies among its member countries. The entity differs from other IOs in unique ways. It is one of the few IOs with authority on

the reduction the global burden due to mental disorders.[4] However, it does not have a mandate as a donor, and so it is unable to make long-term investments in mental health service development. The WHO disburses moderate sums of money to build agenda-setting capacities and encourage governments to develop new programs within their jurisdictions. The WHO does not itself issue laws and legal obligations, such as declarations of intent, treaties, conventions, contracts, and regulations that member states must obey. It does, however, involve third parties (e.g. regional commissions, other UN agencies, professional bodies, academia) to work closely with member states to produce ministerial declarations. The WHO's strength lies in the technical assistance it provides to members during all stages of combating an epidemic: prevention, screening, treatment, and continuous care for people with diseases and disorders. More specifically, the WHO promotes discursive dissemination of health policy and inclusion of health in national agendas through various means: articulation of policy options based on evidence available; provision of technical assistance to countries; publication of policy guidance packages and checklists; commission research; strengthening international and intersectoral partnerships; hosting conferences and meetings; and monitoring and evaluating member states' activities. The *WHO Mental Health Policy and Service Guidance* package and the *Mental Health Policy, Plans and Programmes* module inform country stakeholders on how to formulate an explicit mental health policy. Given the WHO's role in moving ideas across national borders, country membership in this international organization is related to policy diffusion following this hypothesis:

> Hypothesis 1: The earlier a country becomes a member of the World Health Organization, the more likely said country will adopt a mental policy.

Members of the United Nations may also become members of the WHO by accepting the latter's Constitution. Countries that are not members of the United Nations may be admitted as members after their application has been approved by a simple majority vote of the World Health Assembly. International organizations have an influence on governmental and non-governmental organizations by shaping their understanding of health as a social concern. There are now 194 members of the WHO, of which 193 are in my study sample.[5] [6] In areas where international organizations such as the WHO cannot impose policy innovations on governments against their will, peer-to-peer governmental influence may be a more significant way to shape the focal government's preferences.

Horizontal Coercion

Horizontal coercion is observed when two countries are involved in a donor-recipient relationship. Interdependencies between countries have been observed owing to shared markets and capital flows. A small number of countries (i.e. U.S., Sweden, Japan) actively manage their impression by regularly inviting foreign counterparts to examine their programs and policies. These exemplars also coopt international institutions in order to indirectly motivate other governments to take an expected course of action. Donor countries

[4] IOs that have overseen mental health, psychosocial support projects include, but are not limited to, UN agencies (e.g. UNICEF, UNRWA, UNAIDS), EC, and the OECD. According to Keiko Inoue and Gili Drori (2006), the proliferation of the global organizational field of health is evident from their count of over 2,600 international organizations working in health.
[5] WHO members overlap with 192 UN member countries except Liechtenstein, plus Cook Islands and Niue.
[6] South Sudan is the 194th country to become a member of the WHO. I excluded it from my study sample because it declared independence from Sudan on July 9, 2011, the same year as the last year of my study period.

and IOs have traditionally dictated the terms of financial support for health care improvement so that developing countries have to either assume the "vertical" approach—disease-specific interventions, or the "horizontal" approach—broad-based health system strengthening (Waage, 2010; Mills, 2005). Given that concessions flow from bilateral or multi-lateral organizations to recipient countries and policy influence follows the same direction, the following hypotheses on Official Development Assistance[7] and timing of mental health policy adoption is asserted:

> Hypothesis 2: The more Official Development Assistance for Health a country receives from an international organization and/or a donor country, the more likely that focal country will adopt a mental health policy.

Recipient countries are hypothesized here to have a higher likelihood of falling into the late adoption stage as a function of the amount of Official Development Assistance for Health they received.[8] Taken together, the coercion diffusion mechanism involves incentivizing recipient countries to better address mental ill health in the population.

Emulation

Diffusion theorists share the view that policy choices made by one country's decision makers are shaped by the choices made in other countries (Dolowitz and Marsh, 2000; Berry, 1994; Berry and Berry, 1990; Menzel and Feller, 1977; Grupp and Richards, 1975; Walker, 1969). The last section laid out the rationale behind overt and *active* forms of policy contagion, culminating in hypotheses 1a, 1b, and 1c, which together offer the interpretation that developing countries' policy agendas are more susceptible to international organization and aid donor influence, and therefore more likely to adopt mental health policy, plus adopt it later in the diffusion cycle. This section shifts the focus of the present discourse to more covert and passive forms of policy contagion, namely relationships between countries. Mimetic isomorphism is the tendency to imitate another unit, in this case country, under the belief that doing so would yield benefits to the self (Haveman, 1993; DiMaggio and Powell, 1983). Emulation is a form of non-instrumental compliance. It differs from learning, a form of instrumental compliance, in that the actor engaged in ritualistic copying does not fully comprehend the boundary conditions needed to achieve success (Davis and Greve, 1997; Haveman, 1993; Eyestone, 1977). This is a pitfall of mimicking the success of countries that have ratified mental health policy. In sum, countries that have ratified exemplar policies may

[7] The OECD Development Assistance Committee (DAC) defines Official Development Assistance (ODA) as grants and loans given to countries and territories on the DAC List of ODA Recipients and to multilateral institutions. Governments provide ODA through two major channels: as bilateral aid, through transactions directly with focal points in developing countries (governments, local, or international NGOs) and as multilateral aid, through multilateral organizations, such as the UN family (WHO, UNICEF, UNFPA, UNDP), development banks (African Development Bank, Asian Development Bank, Inter-American Development Bank, World Bank), and regional blocs (European Community). ODA's main objectives are economic development and welfare of developing countries. It is concessional in character and conveys a grant element of at least 25% (calculated at a discount rate of 10%).

[8] The DAH database has a broader range of financial instruments than ODA, even though ODA to the health sector is the largest component of DAH. The DAH includes nonconcessional loans provided by the World Bank and regional development banks to developing countries and funds from private foundations and NGOs (own funds) that contribute directly to the promotion of development and welfare in the health sector in developing countries (WHO, 2002).

induce non-adopting countries to choose the same model and improve upon them (Cerny, 1997).

Status Differentials / Similarity

The policy diffusion literature is divided as to whether small, lower status units of analysis are more or less likely to adopt an innovation emanating from large, higher status units. The hierarchical diffusion hypothesis posits that innovations tend to appear in the most advanced or largest centers, and successively disseminated to less advanced or smaller ones (Weissert and Scheller, 2008; Wejnert, 2002). This phenomenon is also observed in the United States, where larger, wealthier, and more industrialized states have adopted innovative measures before smaller, poorer and less developed nation-states because they have more slack resources and information (Walker, 1969, 884). Small states react by consciously mimicking larger, more advanced states as a way to demonstrate the so-called positioning behavior. Collier and Messick's (1975) would argue the opposite: Countries at lower levels of social, political and economic modernization would *not* adopt innovation. If necessary conditions hold, there would rarely be any cases of policy adoption below a certain threshold, or a "floor effect," but there would be great variation in the degree of modernization above the same threshold. If both necessary and sufficient conditions hold, policy adoption tends to occur when countries reach the same level of modernization. Once a critical mass is doing things in a certain way or a cluster of countries is at the cusp of making a certain commitment, that particular course of action becomes taken-for-granted and institutionalized, and thereafter other social actors and countries will undertake the same obligatory course of action without extensive rationalization (March, 1981). I take a more neutral approach in seeking to understand the probability and timing of mental health policy adoption based on the degree of demographic homogeneity among countries in the various stages of adoption: innovators, early adopters, early majority, late majority, and laggards. Simply put, the prevailing social, economic, cultural, and political contexts have an impact on mental health policy adoption across countries.

A "reference group" provides a benchmark against which other actors in the same population compare themselves to. A more nuanced question is whether laggards in policy adoption emulate countries of equal or higher status. Leon Festinger (1954) and Robert Merton (1968) have claimed that individuals compare themselves to reference groups of people who occupy social roles to which they aspire. Extrapolating to the country level of analysis, governments may imitate what selected countries do in mental health care because those very countries are perceived to be both higher status and exemplars. There is also reason to suspect, however, that governments imitate the practices of countries they have a similar social standing with. Social network research on the notion of structural equivalence would support the claim that policy-makers tend to look to those who share a similar structural position while they are prospectively evaluating different policy options (Fitzgerald et al. 2002; Galaskiewicz and Burt, 1991; Fennell and Warnecke, 1988; Burt, 1987).

Whether a country replicated the mental health policy of a peer or a superior could be inferred from the degree of homophily countries have with preceding adopters, suggesting the following proposition:

Proposition: Countries that adopt a national mental health policy during the same phase in the diffusion cycle tend to display a higher degree of demographic resemblance to one another than to countries that adopt during other phases.

Homophily has been measured with "hard" and "soft "indicators. Hard indicators are structural antecedents of innovation, including organization size, functional differentiation (e.g. division of labor), slack resources, degree of specialization, and management decision making structure (Damanpour, 1991; 1992; 1996; Burns and Wholey, 1993; Meyer and Goes, 1988). Soft indicators are determinants that can also increase a focal organization's propensity to adopt an innovation, including culture, climate, leadership, power dynamics, and social relations (Kanter, 1988; Van de Ven., 1999). On a more macro level, the internal determinants model posits that demographic characteristics of jurisdictions affect the rate of policy adoption (Bennett, 1997; Strang and Tuma, 1993; Nolan and White, 1983; Gray, 1973; Walker, 1969). Intrinsic characteristics of countries are postulated to be independently responsible for policy adoption and will be treated as covariates in this study's event history analysis.

Demographic Differentials / Proximity

In addition to temporal and structural factors, geographic proximity could explain an observed pattern and rate of mental health policy adoption. If diffusion travels along geographic lines, then proximate countries would come to resemble one another more than they would to distant ones. The influence of geography on innovation diffusion is important for three reasons. First, policy diffusion occurs regionally when there is a clear exemplar within it (Greve et al. 1995). Second, proximity determines adoption when neighbors of the early adopter become increasingly aware of the utility of a given innovation (Bennett, 1992). Policymakers and citizens share a human cognitive bias towards evidence that is familiar and convenient (Tversky and Kahneman, 1973). And finally, geographic proximity is likely to increase interaction and communication (Strang and Soule, 1998; Strang and Tuma, 1993). The satisficing search for solutions to common problems becomes less arduous with inter-governmental interaction and cross-pollination of national media syndicates (Walker, 1969; Cyert and March, 1963).

To juxtapose innovation diffusion with spatial heterogeneity, I tested geographic contiguity on mental health policy adoption. In a federalist system, the probability of a state enacting a certain policy is increased when states within the same region have already enacted it (Mooney and Lee, 1995; Berry, 1994; Berry and Berry, 1990; Walker, 1969). A positive regional effect lends support to a similar conjecture for a regional bloc's influence on national mental health policy development (McDaid, 2008; Alarcon et al., 2000; Gureje & Alem, 2000; Shinfuku). I thus assert the following hypothesis:

Hypothesis 3: The higher the proportion of mental health policy adoption by countries in its regional bloc, the more likely a focal country will also adopt it.

Neighbors are countries that share a common geographical border. Crudely speaking, neighbors compete with one another to attract "good things" and repel "bad things." For instance, a negative spillover across jurisdiction lines occurs when the economy of one jurisdiction is in shock because it lacks a tax or fiscal policy that its neighbors recently

adopted. Negative spillover is not a concern of this study because the burden of mental disorders is a problem contained within geopolitical borders and therefore a responsibility of the national government. However, there are positive influences of innovation adoption found across various levels of analysis, and policy adoption is no exception. Actors' susceptibility to peers' influence in the matter of innovation adoption is a function of the quality and quantity of social relationships they are engaged in (Guler et al., 2002; Gatignon et al., 1989; Rogers, 1983; Kimberly and Evanisko, 1981; Robertson, 1971). "Cosmopolitan" organizations are more likely to monitor comparable organizations (Burns and Wholey, 1993; Fennell and Warnecke, 1988; Robertson and Wind, 1983; Westphal et al., 1997). And finally, McVoy (1940, p. 227) found U.S. state public policies to have diffused in a concentric circle pattern. The information and material resources available in a common space helps these different units (individuals, organizations, states, countries) overcome uncertainty—often in the form of negative public opinion—that they would encounter during the innovation adoption process. Mental ill health, as a problem framed to be shared with neighboring countries or countries in the same region, is predicted to enhance chances of policy adoption in a focal country.

CONTEXT

Collective Problems versus Contained Problems in Health

Government and inter-government organizations have different policy responses based on the nature and scope of the problem they are trying to tackle. In this section, I will first compare and contrast collective and contained problems, then situate the epidemic of mental illness as a contained problem. In doing so, I will present the problem of the global burden of mental illness and the world polity's response to it through a brief review of the global health literature. The borderless nature of certain threats requires a range of coordinated international responses. Examples of these collective problems include global warming, infectious disease outbreaks, environmental pollution, and foodborne illness. When two or more countries share a problem, they look to each other or to international organizations to jointly formulate an effective solution. Coercive, competitive, and cooperative ways to address collective problems reflect the functional interdependences and power asymmetry between actors in the world society. Already remarked on in the last section is how international standards and principles could raise domestic standards, thus affect market dynamics both between and within countries (Vogel, 1995). International investment, trade and intellectual property policies increase competition for capital and export markets (Sharman, 2008). Market competition could also have positive spillovers on each country involved, such as decreasing corruption and increasing research and development (Shipan and Volden, 2008; Volden, 2002). Taken together, institutional and competitive "bandwagons" could stimulate both the diffusion and adoption of innovations (Abrahamson and Rosenkopf, 1993).

The second type of problem governments confront is largely contained within geo-political borders. Contained problems are concerns for which citizens turn to their government, such as education, social security, welfare, health care, city planning, and state security and protection.[9] This study deals with the contained problem of the prevalence of

[9] Issue-specific references: Pension reform (Weyland, 2005; Brooks, 2007); human rights legislation (Hafner-Burton and Tsutsui, 2005; Goodman, 2001); economic reform (liberalization, deregulation, privatization;

mental, behavioral, and substance abuse disorders. An initial question is whether actors in the world polity share a normative consensus that it is the government's responsibility to provide services to address these disorders. A secondary inquiry is whether third parties, such as IOs, voluntary associations, and professional societies, consider it necessary for national governments to meet a certain level of quality for the mental health services rendered. There is anecdotal evidence indicating that spillovers do happen across national and regional boundaries, in cases such as medical tourism, brain drain, multinational corporations offering health products and services, and humanitarian relief efforts (Wismar et al., 2011; Tol et al., 2011). The development and management of the mental health systems do remain, for the most part, responsibilities of country governments (UN, 2011; WHO, 2001a).

Mental health systems operate in a strong institutional but weak technical environment (Perrow, 1985; Meyer and Scott, 1983). The mental health care field has historically been fraught with a lack of clarity in the definition of mental disorders and in the therapeutic techniques to manage symptoms and remedy illnesses. The World Health Organization's International Classification of Diseases and the American Psychiatric Association's Diagnostic and Statistical Manual have undergone 11 and five revisions, respectively, to refine the diagnostic categorization of mental disorders. The ambiguity in determining the qualification for a clinical diagnosis also blurs the meaning of being in various states - healthy, sick, in treatment, in remission and in recovery. Mental health services are considered to be a "soft technology" because the process of converting an input (e.g. sick client) to an output (e.g. recovered client) requires much more than administering psychotherapy and medication (Glisson, 2002). The construction of mental illness also goes hand-in-hand with gaps in providing preventive, therapeutic, and custodial care for those in need.

Three types of policy diffusion mechanisms—coercion, emulation, and learning—are relevant to the particular problem of neuropsychiatric disorders. I deal with coercion and emulation in the present study, and learning in the third study of this dissertation. In the third study, I will come to show that despite the occurrence of policy diffusion, tackling a contained problem (e.g. burden of mental disorders) is perpetually challenging because its means-ends relationship with a touted solution (e.g. deinstitutionalization) is unclear.

Mental Health Policy

Psychiatric reforms began in the aftermath of World War II, under the guise of the modern mental health care postwar societies are expected to offer their citizens. In many countries, this historical movement went hand-in-hand with general societal reforms aimed at other marginalized groups, such as the emancipation of colonized populations, women's rights, and civil rights. Emblematic landmarks in the domain of mental health include the Community Mental Health Centers Act of 1963 in the United States, Mental Health Act of 1959 in the United Kingdom, the 1975 report of the German Enquete commission, and Italian Law 180, or Basaglia's Law, in Italy. Mental health policy is an official statement that

1980s-1990s; all countries engaged in process of selling their state-owned sectors, lowering barriers to trade, removing capital controls, and granting independence to their central banks) (Nelson J, 1990; Williamson, 1994; Ramamurti, 1999); gender mainstreaming (True and Mintrom, 2001); promulgation of school curriculum (Meyer et al., 1992), environmentalism; civil service reform (Halligan, 1996); public sector downsizing (Lee and Strang, 2006); treatment and prevention of infectious diseases (Walt et al., 2004).

conveys a government's values, principles, and objectives for improving the mental health of its citizens (WHO, 2003). Townsend et al. (2004) have observed four broad, salient domains in national mental health policies: context, resources, provision, and outcomes. These domains can be further disaggregated into policy components: Organization of services; human resources; involvement of users and families; advocacy and promotion; human rights protection of users; equity of access to mental health services across different groups; financing; quality improvement; and monitoring system (Faydi et al., 2011; Gulbinat et al., 2004; WHO, 2003).[10] In recognition that not all policy domains and components are relevant to different cultural contexts and can withstand the test of time, papers such as Jenkins et al.'s (2004) have offered methods on how to appraise a country situation to ensure a good fit between a mental health policy and its health system. A universal mental health policy template or blueprint does not exist. However, room exists to iteratively revise mental health policies so that their elements can be implemented given the finite resources and limited knowledge base available to governments (Gulbinat et al., 1996).

National policies have advantages over voluntary standards or IOs recommendations. Policies lend political support and visibility to the mental health sector. This formal commitment harmonizes the effort and investment stakeholders make in mental health care, better involving the public sector, private sector, academia, professional bodies, and family and user NGOs. Mental health policy is also a mechanism to make governments accountable for allocating resources to meet stated goals, objectives, and targets.

There are at least four ways in which policymakers become aware of global "best practices" during the mental health policy formulation process. Man-made conflicts and natural disasters have been catalysts for the development of a national mental health policy. (Hamid and Everett, 2007; Stockwell et al. 2005; Munir, 2004). During times of crisis affected countries are also particularly vulnerable and need humanitarian assistance from non-governmental actors. Humanitarian services lay the foundation for development assistance and protracted economic growth. In the case of mental health, what starts as psychosocial first aid, debriefing, and counseling to change the prognosis of trauma in the aftermath of wars or disasters are precipitous to the expansion of mental health services across the country (Jones et al., 2009; Mollica et al., 2004). These seminal events ultimately bring international attention to the deficiencies in a focal country.

Three other elements influence the process of policy-making. Pure learning occurs when policy-makers consult research or grey literature published on the subject matter (Thornicroft, 2011; Cooper, 2003). Empirical evidence that informs health policy generally falls into three categories: clinical efficacy, effectiveness, and policy research (Sturm, 1999). The learning and emulation mechanisms interact when a potential policy adopter learns about the means-ends relationship from exemplar countries (see, for example, Lurie, 2005 and Rochefort and Goering, 1998). Seminars, conferences, declarations, and working groups are venues that facilitate policy exchange and dialogue across countries in the Latin American (Alacron and Aguilar-Gaxiola, 2000; Mari Jde et al., 2007), African (Omar et al., 2010), and European regions (Thornicroft, 2011; Muijen, 2008). The learning and coercion mechanisms interact when transnational collectives advocate for policy development across countries, such as the International Consortium for Mental Health Policy and Services

[10] The organization of services is the topic of interest in the second study of my dissertation in which I break down the concept of deinstitutionalization into the development of community mental health services, downsizing large mental hospitals, and development of a mental health component in primary health care settings.

(Gulbinat et al., 2004), the Mental Health and Poverty Research Programme Consortium (Faydi et al., 2011; Omar, 2010), the Grand Challenges in Global Mental Health Initiatives (Collins et al., 2011), Platform for Innovations in Global Mental Health, and the Gulbenkian Platform for Global Mental Health. The key distinction between humanitarian assistance and the other three ways of influencing mental health policy development is that the former involves civil society and professionals, whereas the latter set is funded and administered by IOs or countries.

METHODS

To examine the effects of coercion and emulation on the likelihood of mental health policy adoption globally, I examined 193 countries from 1950 to 2011. The first recorded mental health policy ratification took place in 1950 and the latest year for which data exists on the same event in other countries is 2011. I excluded South Sudan from my sample because it declared independence from Sudan as recently as July 9, 2011 and became the 194th WHO Member Country the same year as the last year of my study period.[11] Of the 193 sampled countries, 148 countries (77%) adopted a mental health policy during this observation period while 45 countries (23%) did not.

Dependent Variable

The dependent variable for this study is the rate of national mental health policy adoption.[12] The source of data is the WHO Mental Health Atlas ("Atlas"), which contains the latest estimate of infrastructure and resources available to prevent and treat mental disorders and to protect the human rights of people living with these conditions (WHO, 2001, 2005a, 2011). Atlas was published in 2001 (n=185 WHO Member States), 2005 (n=193 WHO Member States), and 2011 (b=183 WHO Member States).

The wording of the questions on national mental health policy were inconsistent across the three cross-sectional waves of Atlas: while the 2001 and 2005 waves asked about the existence of a national mental health policy and, if yes, the year of its *initial formulation*, the 2011 wave asked about the existence of an officially approved mental health policy and, if yes, the name of the document and the year of its *last revision*. To establish the earliest mental health policy ratification, I cross-referenced the Atlas data with data from two other datasets—the World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS; N=42 WHO Member Countries) and WHO MiNDbank (N=150 WHO Member Countries)—to verify whether and when each country actually ratified it. WHO-AIMS is a tool used to collect essential information on the mental health system of

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[11] The following were also excluded from the sample: US territories (American Samoa; Guam), UK overseas territories (Anguilla; British Virgin Island; Montserrat; Turks and Caico Islands), Special Administrative Regions of China (Hong Kong; Macau), special collectivity of France (New Caledonia), former blocs (Trust Territories of the Pacific Islands; Yugoslavia), occupied Palestinian territories (West Bank and Gaza Strip), Commonwealth of the United States (Northern Mariana Islands), and other countries that are not WHO Member States (French Polynesia; Scotland; Tokelau; Wallis and Futuna Islands).

[12] There are 194 countries which are also WHO Members. Members of the United Nations may become members of WHO by accepting the latter's Constitution. Other countries may be admitted as members when their application has been approved by a simple majority vote of the World Health Assembly. Territories which are not responsible for the conduct of their international relations may be admitted as Associate Members upon application made on their behalf by a Member or other authority responsible for their international relations.

low- and middle-income countries and their respective regions (WHO, 2009a). Data for WHO-AIMS were collected by a team led by a focal point in the respondent country and were, in most cases, approved by its Ministry of Health (WHO, 2005b). WHO MiNDbank is an online platform for the sharing of information related to disability, human rights, mental health, health and development (WHO, 2013). It features policies, plans, strategies, and legislation, along with international and regional treaties. I used discrete-time event history analysis to examine the timing of mental health policy adoption and tested variables that may have led to the occurrence of this seminal event.

Independent Variables

The three primary independent variables of interest are: year of entry into the WHO, amount of aid given or received, and contagion effect within regions. To test Hypothesis 1, I created a variable *WHO_entry* using the International Governmental Organization Data, version 2.3 (Pevehouse et al., 2004). Intergovernmental organizations are defined as international organizations that have at least three nation-states as their members in this dataset, which contains information on organizations that operated from 1815 to 2005. The year in which each member became a party to the WHO Constitution was verified using WHO's *Basic Documents* (WHO, 2009b). The second major predictor variable in this study is the amount of aid both given to and received by sampled countries. Two types of aid were accounted for in this study: Official Development Assistance and, as a subset of it, Official Development Assistance for Health. The OECD Development Assistance Committee collects Official Development Assistance (ODA) statistics from 30 DAC member countries, 20 non-DAC countries, 37 multinational organizations, and one private donor. ODA data captures strictly development aid (long-term response) and not humanitarian aid (short-term response). I used data available from all donors, for all types of aid modalities, and from 1980 to 2011 to create the variable *ODA* to test Hypothesis 2.[13] [14] Of note is that ODA and DAH record the amount of aid committed and disbursed separately, and I tested them separately in my analysis.[15] The WHO collects DAH statistics from 25 donor countries and 119 recipient countries from 2000-2010, which were respectively used to create variables *DAH_given* and *DAH_received* to test Hypothesis 2. All aid statistics were included in my analysis as either total net or percentage of Gross National Income.

Hypothesis 3 was tested using a measure of the contagious effects of regional reference groups. Previous studies on U.S. states, countries in the European Union, and firms suggest that geographic proximity triggers cross-population contagion (e.g. Meyer and

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[13] Refer to this link for the full list of DAC data submitters: http://www.oecd.org/dac/stats/dacdatasubmitters.htm

[14] This includes both bilateral and multilateral aid. Bilateral aid is given from donor countries directly to recipient countries, whereas multilateral aid is given by donor countries to IOs, which in turn disburse it to recipient countries. Since the 1970s, the share of ODA has remained stable at 70% for bilateral aid and 30% for multilateral aid.

[15] The OECD DAC defines commitment as "A firm obligation, expressed in writing and backed by the necessary funds, undertaken by an official donor to provide specified assistance to a recipient country or a multilateral organization" (OECD, 2013). Commitments are considered to be made at the date a loan or grant agreement is signed or the obligation is otherwise made known to the recipient (e.g. in the case of budgetary allocations to overseas territories, the final vote of the budget should be taken as the date of commitment). Disbursement is defined as "The release of funds to or the purchase of goods or services for a recipient; by extension, the amount thus spent." Disbursement figures are further broken down by geographic origin and destination, types of aid (e.g. grant, loan, technical co-operation), and disbursement basis (i.e. actual expenditures).

Gaba, 2008). I thus created separate variables to see if a focal country's decision to adopt a mental health policy was influenced by its WHO, UN, or geographic regional reference group.[16] In the analysis I included these variables as a cumulative count of countries that have adopted a national mental health policy, which was segregated by region and updated yearly.

Control Variables

Countries converge on the measure of mental health policy adoption due not only to their spatial proximity to earlier adopters and temporal contiguousness to earlier adoption events, but also similarities in their characteristics. I narrowly defined mimetic isomorphism based on geographic proximity in Hypothesis 3 and operationalized the temporal element with the dependent variable. To elaborate on the Proposition stated, I controlled for a number of time-constant and time-varying factors that may have an effect on the adoption of mental health policy. The other purpose of including them is to see if emulation moderates coercive isomorphism, mimetic isomorphism or contagion effects. These extra-, inter-, and intra-country factors may also have varying magnitudes depending on the stage of diffusion (Tolbert and Zucker, 1983). The 15 control variables I used fall into five areas: environmental conditions, quality of political institutions, social gradient, stage of economic growth, and population status. They are summarized in Technical Appendix B.

Environmental Conditions

I controlled for three environmental forces—disasters, wars, globalization—and a state fragility summary measure in my analysis. Natural and technological disasters disrupt the order of a country's health system and could potentially spur policy development as part of rebuilding efforts (WHO, 2013; Baingana et al., 2004). Psychological trauma follows specific conflict or emergency situations, such as the Indian Ocean tsunami and conflicts in the West Bank and Gaza Strip. Other mental, neurological, and substance use disorders are also precipitated by conflict and natural disasters. Therefore, I controlled for the annual number of disasters, which was furnished by the International Disaster Database (EM-DAT, 2012). Wars, unlike disasters, are an anticipated shocks to countries engaged in them. During times of war, governments are less likely to make changes to their health systems given that resources are diverted to national defense. For this reason, I included data on the number of historical intra-, inter-, and extra-state wars from the Correlates of War Project in my analysis (Small and Singer, 1982; Singer and Small, 1972). A country's fragility is closely associated with its capacity to manage natural and man-made conflicts, make and implement public policy, and deliver essential services to its citizens. The resilience of its health system, more specifically, is measured by its ability to maintain the population's quality of life, respond effectively to environmental contingencies, and sustain economic development. The State Fragility Index and Matrix 2012 is a sum of an effectiveness score and legitimacy score (Marshall and Cole, 2011). Each country received a score based on four performance

[16] WHO Member States are grouped into six WHO regions and each region has a regional office. The six regions are: Africa (AFRO), Americas (PAHO), South-East Asia (SEARO), Europe (EURO), Eastern Mediterranean (EMRO), and Western Pacific (WPRO). The same Member States were categorized in the analysis into six geographic areas (Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania) and 22 UN regions (Eastern Africa, Middle Africa, Northern Africa, Southern Africa, Western Africa, Caribbean, Central America, South America, Northern America, Central Asia, Eastern Asia, Southern Asia, South-Eastern Asia, Western Asia, Eastern Europe, Northern Europe, Southern Europe, Western Europe, Australia and New Zealand, Melanesia, Micronesia, Polynesia).

dimensions: Security, Political, Economic, and Social Legitimacy. The State Fragility Index, used in my analysis, combines scores on these eight indicators, ranging from 0 "no fragility" to 25 "extreme fragility.

The health sector has traditionally operated nationally, but geopolitical borders have been increasingly porous, even eroding them, given a few key trends such as the mobility of health professionals, health tourism, multi-national companies specializing in health products and services, and disease transmission. Globalization is a process of creating networks of connections among actors at multi-continental distances that, in turn, causes policy convergence. I used the KOF Index of Globalization to assess the degree of countries' openness to change (Dreher et al., 2008; Dreher, 2006). The overall index covers the economic, social, and political dimensions of globalization. It is a sum of eight component scores: economic globalization, actual flows, restrictions, social globalization, personal contact, information flows, cultural proximity, and political globalization. The KOF Index of Globalization ranges from 1 "no globalization" to 100 "most globalization."

Political conditions

I captured the quality of political institutions in three ways: history of independence, regime type, and government effectiveness. Colonization or other dependency relationships are likely to have left an imprint on health policy development in countries subjugated over the past two centuries (O'Quinn, 2011; King, 2002). This includes countries that have previously been ruled by other countries as a colony, dependency, League of Nations mandate, UN trust territory, or other type of possession, as well as countries that have seceded from existing ones and countries that have merged into existing ones. I used the ICOW Colonial History Dataset to see whether colonial rule has a general impact on focal countries' mental health policies after they become independent. Sub-Saharan African countries often have one dedicated mental hospital dating from the colonial era and little much else offered in inpatient facilities, outpatient, or community settings (Jenkins et al., 2011c). I also controlled for three other types of independence from the same dataset, namely formation, secession, and partition (Hensel, 2009).[17] Large mental institutions are still widespread in countries belonging to the former Soviet Union, as another example (Goodwin et al., 2002). Sovereign nations are also more likely to adopt the mental health policy of their former or current governing state.

Comparative politics studies suggest regime type is associated with public policy outputs (Mares and Carnes, 2009; Kim, 1996; Sloan and Tedin, 1987). I maintain this tradition by asking whether some political system structures are more apt at developing mental health policy than others. The aim of the Polity Project is to describe three authority

[17] ICOW defines formation, decolonization, secession, and partition in the following way: formation is an instance where the entity was formed from other entities that have no direct analog in the COW interstate system. For example, the United Kingdom became independent without seceding from or being colonized by the equivalent of any current COW actors. Decolonization is where the entity was a dependency ruled by a foreign power before achieving independence. This category includes traditional colonies, protectorates, and parts of empires, as well as any other entities that were ruled by a foreign power or that were part of an entity that was not in the COW system. Secession is an instance of the entity being a part of another state before achieving independence, with the original state surviving in reduced form. Secession only refers to leaving a COW system member that remains in the system afterward, as with Eritrea leaving Ethiopia, or with most of the former republics leaving the Soviet Union or Yugoslavia while Russia or Serbia remained. And according to ICOW, partition is where the entity was partitioned out of another state as it achieved independence, with the original state not surviving. Partition only refers to leaving a COW system member that does not remain in the system afterward, as with the former Czechoslovakia.

characteristics of states in the world system: Political system durability; regime type; and degree of democracy and autocracy (Jaggers and Gurr, 1995). The latest version of the Polity Project, or Polity IV, operationalizes regime authority type as a democracy-autocracy spectrum (Marshall et al., 2011). I included this polity score in my analysis, which ranges from -10 (hereditary monarchy) to +10 (consolidated democracy).[18] The claim for including regime type in my analysis is that democratic governments are more responsive to their citizens than autocratic governments, and hence more likely to accommodate the needs and demands of their citizens without violent conflict (Henderson, 1991).

The linkage between government effectiveness and policy reform has been examined in previous studies (Jun and Weare, 2011; Mares and Carnes, 2009). Government effectiveness is part of the World Bank's Governance Matters Project, along with Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Regulatory Quality, Rule of Law, and Control of Corruption (Kaufmann et al., 2010). The Worldwide Governance Indicators is a composite measure of the perceptions of the quality of public services, quality of the civil service and degree of its independence from political pressures, quality of policy formulation and implementation, and credibility of the government's commitment to such policies. The government effectiveness point estimate I used ranges from -2.5 (weak government effectiveness) to 2.5 (strong government effectiveness) for each country.

Social Conditions

Social disparity was controlled for through the ethnolinguistic fractionalization and human rights indices. Evan Lieberman (2007) has highlighted ethnic politics as a negative source of influence on expenditures and policies related to AIDS. The causal pathway that he drew may be applicable to mental disorders, which are also highly stigmatized and highly comorbid with HIV/AIDS: when societies are ethnically divided and fragmented, elites are less likely to mobilize around the idea of risk incurred from a stigmatized condition under the fear that it would hurt the reputation of their group. Instead, elites would ostensibly emphasize that any such risks are contained within the "out-groups," or that the threat mental disorders pose to the general population is exaggerated altogether. Governments that favor elite groups are less likely, or not likely, to adopt policies in order to avoid political resistance and plunges in public opinion. I statistically controlled for the potential negative effects of ethnic, linguistics, and religious gradients on mental health policy adoption in my analysis using Fractionalization Data (Alesina et al., 2003). This Fractionalization Data is the probability (0-1) that two randomly drawn individuals come from the same population.

The international human rights framework acknowledges the right to mental health as well as physical health. The relationship between mental health and human rights violations is endogenous: discrimination and marginalization increase individuals' propensity for developing mental health problems while seclusion and restraint of patients in health care setting hamper their recovery (Drew et al., 2005; Gostin, 2001). Governments prioritize the needs, rights, and interests of people with mental disorders to varying degrees. To test this claim, I included the proxy of Physical Integrity Right Index from the Cingranelli-Richards Human Rights Dataset in my analysis (Cingranelli et al., 2013; Cingranelli and Richard, 1999). It is an additive index of torture, extrajudicial killing, political imprisonment, and

[18] I omitted country-year observations that were coded as -66 "interruption periods," -77 "interregnum periods," and -88 "transition periods" in Polity IV.

disappearance indicators. It ranges from 0 (no government respect for these four rights) to 8 (full government respect for these four rights).

Economic Conditions

Governments face difficult choices in prioritizing health over other economic development issues, especially in the midst of a global economic recession. There are two competing claims as to why countries at various economic stages would undergo policy reform. The first claim is that countries adopt mental health policy because there are sufficient resources as a precondition to do so. In this scenario there is also a continual need to couple political backing with sustainable ways to finance sectors related to health, such as environment, housing, social services, and public health (WHO, 2002). Policy-makers face three key nuanced financing questions even if health, let alone mental health, is prioritized: the sufficiency of resources for mental health; the protection of individuals or households against the economic consequences of mental ill health; and the efficient use of available resources for mental health (Chisholm, 2007). A second scenario is that countries adopt policies in spite of the fact that they were not developmentally ready may do so because they are under the influence of global norms. Those facing fiscal crises are more vulnerable to catchy policy innovations pursued by other countries (Davis and Greve, 1997). In sum, the direction of fiscal conditions influencing mental health policy adoption is opaque.

I used two surrogate measures to see if the availability of financial resources or the level of investment in mental health increases the likelihood of mental health policy adoption. The World Bank classifies economies according to 2012 GNI per capita in US dollars, calculated using the World Bank Atlas method (World Bank, 2012). The four groups included in my analysis as an ordinal variable and their cut-offs are: low income, $1,035 or less; lower middle income, $1,036 - $4,085; upper middle income, $4,086 - $12,615; and high income, $12,616 or more. As an alternate economic indicator, I used the total expenditure on mental health as a percentage of GDP, which was calculated by multiplying the proportion of mental health in health budgets, in constant 2010 US dollars, and the expenditure of health as a percentage of GDP, which varies by country-year. These respective figures were collected from the World Bank World Development Indicators and WHO National Health Account databases.

Population Status

I included four control variables to account for health and demographic gradients in populations: burden of disease; international migrant population; Millennium Development Goals; and Human Development Index. Epidemiological evidence suggests that delay or failure in seeking treatment for mental disorders would gradually impair one's productivity in the workplace or in school (Wang et al., 2007). Governments that do not attempt to bridge the gap between need, demand and availability of mental health services stand to lose a significant portion of their GNI (Glied and Frank, 2006). The magnitude of disorders on the country level is best estimated by the Global Burden of Disease Study (Whiteford et al., 2013; Global Burden of Disease Study, 2010; Mathers et al., 2008; Murray and Lopez, 1997). I included the disability-adjusted life years caused by depression, anxiety, schizophrenia, psychoses other than schizophrenia, epilepsy, dementia, disorders related to the use of alcohol and illicit drugs, eating disorders, and childhood behavioral mental disorders in my analysis.

Internally displaced people, immigrants, and refugees are at high risk for developing mental, neurological, and substance use disorders in their host countries (Bass et al., 2013;

Betancourt and Kahn, 2008; Bolton et al., 2007; Alegria M et al., 2004; Mollica et al., 1992, 1987). This poses a problem to governments of countries hosting them. I tested two inter-related variables in my analysis, both from the United Nation's Global Migration Database: International migrant stock as a percentage of the total population (both sexes) and refugees as a percentage of the total population (both sexes) (UN, 2013). I calculated the latter by multiplying the percentage of migrants in the total population by the proportion of refugees among all migrants.

The Millennium Development Goals and Human Development Index are measures of national progress towards the goal of eliminating extreme poverty.[19] The Millennium Development Goals are eight international development goals that were established following the Millennium Summit of the United Nations in 2000, following the adoption of the United Nations Millennium Declaration.[20] All 189 United Nations member states and at least 23 international organizations committed to help achieve these goals by the year 2015. Countries can be ranked on how far they have come in achieving targets originally set for the various goals using the MDG Progress Index (Provost, 2013; Leo and Thuotte, 2011). Investments made in reducing child mortality rates (Goal 4), improving maternal health (Goal 5) and combating HIV/AIDS, malaria, and other diseases (Goal 6) may have positive spillover effects on mental health care. Therefore, I used the same Index as a control for mental health policy adoption. The same rationale holds for inclusion of the United Nations Human Development Index in my analysis. The Human Development Index is a composite statistic of life expectancy, education, and income indices used to rank countries into four tiers of human development (UNDP, 2013).[21] It ranges from 0 (low value) to 1 (high value).

Analysis

I used discrete-time event history methods to test the effects of coercion and emulation on mental health policy adoption. Discrete-time event history analysis is an appropriate choice for my time-to-event data because policy adoption is intrinsically a rare event that usually happens at the turn of the fiscal year. All variables were updated annually except for ethnolinguistic fractionalization, resulting in annual spells with time-varying covariates. Adoption was treated as an absorbing event whereby countries were removed from the risk set upon adoption of a mental health policy. In other words, a country is either censored because it adopted a mental health policy or because it reached 2011, the end of the study period, and has yet to adopt any mental health policy. I constructed and compared study periods resulting from a uniform (e.g. WHO establishment in 1946, first international mental health policy adoption in 1950) or varied (e.g. year of last subordination[22]) study entry time. Regardless, I chose a functional form (e.g. time squared) for the baseline hazard

[19] The global poverty line is set at $1.25 in real PPP 2005 dollars, though there are country-specific indicators which seek to increase median wages and incomes.

[20] The goals are: eradicating extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality rates; improving maternal health; combating HIV/AIDS, malaria, and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

[21] The United Nations Human Development Index consists of three dimensions and ten indicators: health (child mortality, nutrition), education (years of school, children enrolled), and standard of living (cooking fuel, toilet, water, electricity, floor, assets). It was created by Mahbub ul Haq and Amartya Sen in 1990, and is updated annually by the UNDP HDRO with calculations based on data from UNDESA, Barro-Lee Educational Attainment Dataset, UNESCO Institute for Statistics, World Bank and IMF.

[22] Year of sovereignty and year of last subordination were collected from the Issue Correlates of War Colonial History Data Set.

function based on an examination of the occurrence of adoption during each year or interval. As the final step of the data preparation process, I tested for multi-collinearity among the predictor terms by regressing each independent variable on the other independent variables. If a high correlation between any indicators is observed, I estimated separate equations.

My dependent variable Pi (t) is the discrete-time hazard that a country adopts mental health policy i at time t, given that it is at risk of doing so. Pi (t) is related to the covariates with the following equation:

$$P(t) = \emptyset[\propto \ + \beta 1 \varkappa(t) + \cdots + \ \beta j \varkappa(t)] \ + \ \mu(t)$$

where Φ is the cumulative density function, α is the function of the spell, and the xi (t)'s are covariates that affect governmental adoption decision. I assumed that Φ (.) the cumulative density function for the error term is normally distributed and use a logit model to estimate the probability of adoption in a given year within a pooled sample (Buckley and Westerland, 2004). When analyzing panel data in which events occur at regular, discrete points in time, pooled cross-sectional logistic regression is the preferred method for event history analysis (Beck et al., 1998). The logit link estimates a discrete-time proportional odds model directly analogous to a Cox proportional hazard model, but I prefer the former because it can handle tied events and makes no assumption about the exact timing of an event, presuming only that an event occurred within a given interval (Blossfeld et al., 2002; Yamaguchi, 1991; Allison, 1984). Because my dataset contains repeated observations on countries, I estimated robust standard errors using the Huber-White sandwich estimator (White, 1980). This method allowed me to relax the assumption of independence of observations and yields asymptotically consistent estimates even when errors are heteroscedastic, as is often the case in diffusion processes.

Secondary quantitative data were not available for predictors chosen for the countries and years in the sample. A complete case analysis of data not missing at random can lead to biased parameter estimates, a reduction in sample size, and larger standard errors. Therefore, I elected to perform multiple imputation after examining descriptive statistics for missingness pattern. The objective of multiple imputation is not to predict missing values so that they are close to the true values, but to handle missing data in a way that would result in valid statistical inference (Rubin, 1987). I carried out multiple imputation in three sequential steps: formulate 20 sets of simulated values, apply standard analyses to each imputed dataset, then pool the imputed datasets to obtain a single set of parameter estimates to account for missing-data uncertainty (Royston, 2005; van Buuren et al., 1999).[23] For all resulting models, I looked to see if auxiliary R-squares are all below a 0.7 cut-off. I compared models using the likelihood ratio test to help determine the final baseline and multivariate models, which are presented in the next section.

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[23] I chose the multiple imputation by chained equation (MICE) approach over the multivariate normal modeling approach because the former better accounts for longitudinal data. Following the MICE procedure, I generated the imputed values from a series of univariate models (e.g. linear regression or predictive mean matching for continuous variables, ordinal logistic regression for ordinal variables) in which a single variable is imputed based on a group of variables. Data for variables with missing values were imputed in wide form, otherwise cases would not be considered independent in long form because there is more than one observation per country. Also, if a case has a valid response for one time point but missing data at others, then the country's valid response is likely to be a good predictor of the missing value.

RESULTS

Displayed in figure 1 is the diffusion curve of mental health policy adoption globally. Descriptive statistics and a correlation matrix for the variables across all periods are presented in table 1, while table 2 shows the results of the event history analyses of national mental health policy adoption, as reported in the WHO's *Mental Health Atlas*. Model 1 includes only the control variables, models 2 through 4 each contains a coercion or emulation variable, and model 5 includes all predictor variables.

The results indicate partial support for hypotheses of diffusion that stress multilateral and bilateral relationships sampled countries have with a particular international organization and with one another, respectively. Figure 1 shows a discernible cross-national pattern in rates of diffusion. It helped verify that the frequency of the policy adoption over time is normally distributed, and that the cumulative distribution assumed an S-shape from 1950 to 2011 (Rogers, 2003; Gray, 1973; Walker, 1969). This logistic growth curve holds for international mental health policy diffusion as the year dummies (not reported here) in all event history analysis (EHA) models had negative coefficient in early years, positive coefficients in the middle, and negative coefficients toward the end of the series. All models in table 2 were estimated with year as a quadratic variable because this particular functional form for duration dependence have more favorable deviance, BIC, and degrees of freedom when compared with models containing linear time, log time, and time dummies (Buckley and Westerland, 2004). Hypothesis 1 predicted that the earlier a country became a member of the World Health Organization, the more likely the focal country would adopt a mental policy adoption. The multivariate results show some support for this hypothesis: for every calendar year increase in WHO accession, there is a 1.13 increase in the relative odds of adopting a mental health policy in year ti given "survival" up to the end of the previous calendar year was observed, as shown in model 2 of table 2. However, the effect size was nullified after controlling for all the covariates in model 5.

In Hypothesis 2, I predicted that the more aid a country receives from another country or to an international organization, the more likely said country would have adopted a mental health policy due to conditionalities imposed on aid recipients by donors. I did not find support for this hypothesis using either Official Development Assistance or Official Development Assistance for Health data from the OECD's International Development Statistics Database and WHO's Global Health Observatory Data Repository, respectively. I chose to present only the Official Development Assistance results in model 3 because of the limited time frame in which Official Development Assistance for Health data were collected.[24] The coefficient of the logged amount of Assistance disbursed, though not statistically significant, suggests that the 159 countries that have received aid are equally likely to adopt a mental health policy as the other 34 countries. Likewise, I found similar coefficients and standard errors for aid reported to have been pledged or disbursed by 45 donor countries, in separate analyses not reported here. There are two caveats to these null findings. The first is that the architecture of Official Development Assistance is complex: flows to developing countries and multilateral institutions are provided by official agencies, including state and local governments, or by their executive agencies, and each transaction

[24] Official Development Assistance for Health data were collected from 2000-2010 only, whereas broader Official Development Assistance data are available from 1960-2011.

supposedly meets two stringent tests: it is administered with the promotion of the economic development and welfare of developing countries as its main objective; and it is concessional in character and conveys a grant element of at least 25 per cent. The second caveat is that mental health activities are not assigned its own sector code by the OECD Development Assistance Committee, thus making it difficult to estimate the magnitude of mental health-related activities in relation to other aid activities. Furthermore, health, population, and water and sanitation combined have a small part in the grand scheme of foreign assistance (OECD, 2011).

Hypothesis 3 predicted that countries are susceptible to adopting the same policy innovation already taken up by their neighbors in the same regional bloc or geographic region. I find evidence in support of this hypothesis for cumulative mental health policy in regional blocs only. The contagion effect of WHO regions is 3.43 and UN regions is 1.81, while geographic regions seem to have the opposite effect at -3.5, as evidence in model 4. The magnitude of the three coefficients decreased slightly, but their direction remains the same in model 5.

Results for the country demographics variables offer weak support for a diffusion model that emphasizes status differentiation. The proposition posited a higher degree of demographic similarity between countries in the same phase of mental health policy adoption than countries in other phases. Statistically significant effects were observed for World Bank income group and migrants sub-population across the five models. For every percent increase in migrants relative to the general population, the relative odds of adopting a mental health policy in a given year decreases by 0.26 (model 2) to 0.27 (models 1 and 4), holding other explanatory variables constant. For every graduation to a higher income group, the relative odds of adopting a mental health policy in a given year increases by 0.42 (model 3) to 0.48 (model 5), holding other explanatory variables constant. These findings indicate that more democratic and prosperous countries are also more likely to adopt a mental health policy. Mental health policy diffusion was better able to reach these types of countries because of their greater access to information, slack budgets to devote to additional cost of expanding mental health care, and preexisting structures in these countries to buttress mental health care reform.

The results for the control variables show no support for the argument that a history of state independence, be it formation, colonization partition, and/or secession, or regime type have any bearings on the likelihood of mental health policy adoption. Neither one of the two exogenous forces—occurrence of disasters and globalization—is a significant predictor of adoption. There is also no evidence that the various population measures, namely the proportion of refugees in the lay population and Human Development Index score, significantly affected governments' adoption decision. These results indicate that a particular constellation of extra-, inter-, and intra-country parameters is needed to cross the diffusion threshold and for mental heath policy to be adopted.

DISCUSSION AND CONCLUSION

Countries exhibit similar developments in health policy despite marked differences in governance structures and economic growth trajectories. Policy convergence might be the result of independent responses from countries that face similar epidemiological, economic, and demographic transitions. However, comparative analyses of public policies across countries in political science have revealed alternative explanations for the diffusion

phenomenon. Policy diffusion research has shown that adoption is a result of mixed underlying processes involving independent adoption, dyadic emulation, and collective consensus (Elkins & Simmons, 2005; Knill, 2005; Lenschow et al., 2005; Dolowitz & Marsh, 2000; Drezner, 2000). What all these pathways have in common is that actors are informed about the policy choices of others (Strang & Meyer, 1993). Governments are likely to look to countries they perceive to have a high degree of homophily with themselves for solutions to shared policy problems, namely the burden of mental, neurological, and substance use disorders prevalent in their respective jurisdictions. Similarity in health policy could also be due to economic, institutional, communication, and professional linkages that bind countries. The spread of a policy innovation can be facilitated by international organizations and regional blocs, which aim to level political and economic asymmetries among member countries. To date, international diffusion of mental health policy has not been examined conceptually and operationalized empirically for a large sample of countries even though the theory of policy diffusion is well developed. The objective of this study is two-fold: describe the adoption pattern of mental health policy innovation over time and analyze the factors that account for the empirically observed spreading process.

The cumulative adoption of mental health policy over time follows an S-shaped curve. I tested myriad spatial, structural and socioeconomic factors that could explain this particular adoption pattern among 193 countries over the course of a decade from 2001 to 2011. Internationally driven initiatives can help raise awareness for mental health. International organizations and regional blocs, in particular, can help shape diffusion processes above and beyond the technical and efficiency gains of mental health policy. In this case, mental health policies in the countries experienced changes following advice and consultation from the World Health Organization. Multivariate regression results show that WHO accession has a weak association with mental health policy adoption. Multivariate results also show that there is a contagion effect among member countries in the same WHO and UN region. And thus it can be inferred that policy recommendations and norms around mental health care cascade from the World Health Organization headquarters to regional offices, then to country offices, and finally to governments of its member countries. Aid transactions make up another one of the many pathways for countries to learn about policy innovations. Bilateral, multilateral, and private donors stand to foster greater inclusion of mental health into their health system strengthening, disease-specific, and poverty reduction initiatives. I did not find evidence in support of this hypothesis using either Official Development Assistance or Development Assistance data of aid donors or recipients. This claim deserves further testing for other disease-specific, economic or anti-poverty policies as there are still lively debates about accountability, transparency and overall effectiveness of foreign assistance programs.

Theorists in the policy diffusion research tradition have also asked whether policy convergence is observed for countries sharing the same boundaries. Previous studies have examined whether global (i.e. globalization) or regional (i.e. European integration) have any domestic impact. Policy innovation can transpire through influence ties between geographically contiguous states for several reasons. Neighbors cooperate to assure consistency in policy regimes across their region. Neighbors also have unrivaled access to one another's policy-making environment for the purposes of social learning and peer comparison (Shipan & Volden, 2006; Berry & Berry, 1990). Indeed, many countries lead or follow the lead of others in their regional bloc (Mooney, 2001; Walker, 1969). For these reasons, I operationalized geographic contagion in three ways: United Nations regions, World Health Organization regions, and geographic regions. I found the most pronounced

contagion effect for WHO regions, followed by UN regions. Converging policy developments are more likely for countries that are characterized by high degree of similarity in institutional arrangements and culture. This proposition held up for migrant sub-population and national income status. The absence of support for the other country demographic factors invites more research to support the proposition that policy innovations compatible with the experiences, values, ideas, and needs of host countries are more likely to diffuse.

There are three limitations to my study. First, my study does not speak to the effects of policies pertaining to diseases and disorders and social factors that are associated with mental, neurological, and substance use disorders (Lund et al., 2011; Baingana et al., 2005; Fazel & Danesh, 2002; Mechanic & Rochefort, 1994).[25] Eric Novella (2010) labeled the asylum model of care as "hyper-inclusive" because people served by it are under strict monitoring and control. The shift from this model to a community-oriented one meant granting more opportunities to people formerly marginalized to participate in other functional spheres of society. Society no longer prevented people with psychiatric disorders from earning and saving money, getting married and starting families, obtaining jobs or attending school, voting, and other entitlement of citizens. And likewise, mental, neurological, and substance use disorders have identifiable social determinants and protective factors, all of which need to be considered when developing intervention strategies (Das et al., 2009). Mental health parity, recovery, and deinstitutionalization are therefore not bounded and discrete movements. Rather, health has direct and indirect ties with other policy domains because people with mental, neurological, and substance use disorders need "continuity of care" or "wrap around services," which are highly individualized, community-based services that are offered through agencies representing multiple sectors. This is especially the case for long-term residents of mental hospitals and asylums who have been liberated from a place swelling with sensory deprivation to the community offering a multiplicity of social exchange. Ideological frames, tactical innovations, and/or organizational structures would presumably "spill over" from one policy domain to another if wrap-around services are coordinated across sectors (Barzelay, 2001; Strang & Myer, 1993; Goffman, 1974). According to Rachel Jenkins and her coauthors (2001b), opportunities are abound for mental health to be integrated with plans for other diseases and with national health plans, including sector wide approaches ("SWAps"), international health partnerships ("IHP+"), national strategy applications ("NSAs"). Mental health could also be mainstreamed with initiatives in the education and welfare sectors, and with internationally agreed upon needs in poverty reduction, such as the Millennium Development Goals. Following this line of reasoning, broader questions than policy innovativeness and diffusion abound: What are the patterns common across policy domains? Do policies interact and jointly determine the likelihood of an individual policy's adoption? The diffusion of mental health policy may be hypothesized to affect the rate, sequencing, and direction of another policy, and vice versa. There is ample room for theorizing on patterns of relationships between mental health and other types of policies.

[25] Here, I am referring to diseases and disorders that are comorbid with mental, neurological, and substance use disorders, such as HIV/AIDS. Scholars have also pointed out that development of general public welfare services have enabled the deinstitutionalization of mental health services, such as poverty reduction, prisoners' rights, disability pensions, public housing, old age pensions, unemployment payments, and universal health coverage.

Second, I used proxies to measure the ties between countries and the WHO. The degree of state openness, exemplified by mass media and diplomatic relations, is likely to change governments' opinions of themselves, their peers, and their perceived leaders. Past scholarship has suggested that policy diffusion happens in the context of a network (Desmarais et al., 2013; Centola & Macy, 2007; Volden, 2006; Provan & Milward, 1995). Direct contact provides opportunities for up-to-date information, reliable advice, and tacit learning. Furthermore, positions in common, overlapping networks can invoke new cognitive categories, social comparison, and competitive behavior (Burt, 2000, 1987; Coleman & Perl, 1999; Strang & Meyer, 1993). In future work I hope to refine my estimates of mental health policy diffusion by considering networks that span jurisdictions. Quantitative studies with more statistical power are apt to look at more complex forms of contagion, which entails the mutual reinforcement of multiple independent sources of isomorphism to sustain policy adoption. Future qualitative studies can also make a finer grain distinction between communication and influence between the WHO and its member countries, and among member countries (Oliver & Myers, 2000). Teasing apart these processes would convey information on the potential to impact actions of national governments.

Lastly, this study is very limited in terms of specifying the institutional mechanisms that facilitate or impede the acceptance of mental health policy. I used the year of initial mental health policy adoption as the indicator of diffusion. Components of the mental health policy that were added, deleted, or edited in policy revision could be treated as separate outcomes (Carter & LaPlant, 1997). Future work remains with analyzing the number and types of policy components and content in each country's mental health policy, which will be possible with the launch of MiNDbank come December 2013 (WHO, 2013). Not all processes may have, or have fully, manifested and institutional factors operated during the 65 year study period. Data collection for a new wave of the WHO Assessment Instrument for Mental Health Systems is promising on this front. In future studies I will exploit information on the distribution and determinants of adoption between mental health policy and policies related to it in order to validate the findings presented here. These three limitations provide opportunity for future theoretical and empirical research.

Diffusion scholars can continue to gain purchase on questions about mental health policy and policies related to it, and about processes that underlie their adoption within and across countries. Policy is not the sole object that diffuses across geopolitical borders. Its adoption also hinges on issue framing and theorized models of implementation. And thus policies involving high distributional conflicts among domestic actors and actor coalitions have a lower chance of being adopted compared to less contested regulatory policies with smaller distributional conflicts (Pierson, 2000; Radaelli, 2000). The same relationship may hold for policies that push for ideational change: policies that contain an idea easy to grasp and pose less of a challenge to embedded beliefs of domestic actors are easier to spread (Lenschow et al., 2005; Thelen, 1999). Professional associations, research consortia, advocacy groups, and the media each play a unique role in shaping the funding structure, perceived costs and benefits, metrics of success, and cultural categories relevant to the policy-making process (Best, 2012; Carpenter, 2002; Kingdon, 1984). There is ample room left for theorizing on the forces at play in policy diffusion, as evidence by the boundary conditions found in the case of global mental health.

Mental health is a "triply marginalized" issue on the agendas of international organizations and most governments: mental, neurological, and substance use disorders are marginalized compared to other non-communicable diseases; non-communicable diseases

are marginalized compared to communicable diseases; and health overall is marginalized compared to other policy areas. Health sector reformers tend to favor "silver bullet" interventions, such as antiretroviral treatment, Directly Observed Treatment Short Course, and insecticide treated bed nets (Bobashev et al., 2011; Duncan et al., 2000). Policy-makers intentionally ignore the complexity in combating the AIDS, tuberculosis, and malaria epidemic when they implement these silver bullets apart from community-based support and rehabilitation practices. The situation is much more dire for mental, neurological, and substance use disorders, which are left off the agenda of the United Nations High Level Meeting on Prevention and Control of Non-communicable Diseases in 2011. "Four by four" was heavily promoted in said meeting, referring to four non-communicable diseases (diabetes, cardiovascular diseases, chronic respiratory diseases, cancer) and modifiable risk factors (tobacco use, unhealthy diets, physical inactivity, and harmful use of alcohol). Policy-makers do not readily grasp the chronic nature of non-communicable diseases (Beddington et al., 2008). The long time it takes for the benefits of prevention, treatment, rehabilitation, and other multi-axial and multi-sectoral interventions to be realized for individuals and for society is a disincentive for policy-makers, administrators, and professional to invest in preventing and treating chronic diseases. The inherent tension and competition for scarce resources between medical and public health communities, combined with cleavages between mental health and other medical professionals further perpetrate widespread stigma against mentally ill people and hinder further investment in mental health at both the planning and policy levels.

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Table 1. Sample Means and Correlations

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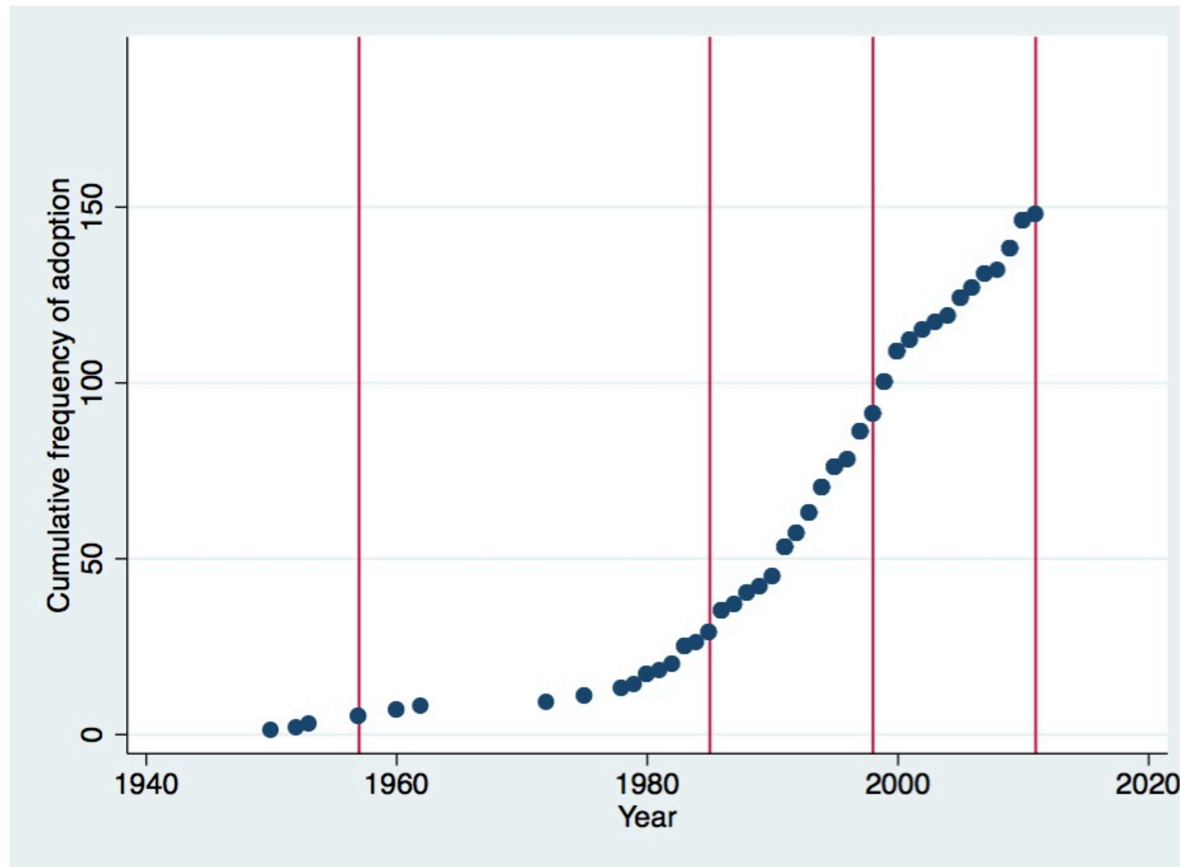
APPENDIX

Appendix A. Summary of Concepts Related to Policy Diffusion

Appendix B. Description of Variables and Indicato

Figure 1. Diffusion of Mental Health Policy



Note: 45 countries are non-adopters and 148 are adopters. Of the adopters, 5 are innovators (1950-1957), 24 are early adopters (1960-1985), 62 are early majority (1986-1998), and 57 are late majority (1999-2011).

Table 1. Sample Means and Correlations

Variable	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Mental health policy adopton	0.22	0.42	0	1														
2. WHO entry year	0.76	0.43	0	1	0.27*													
3. Log of ODA disbursed to recipients	3.62	2.13	-4.61	10	0.3*	0.39*												
4. Contagion effect - WHO region	0.38	0.31	0.02	0.91	0.3*	0.1*	0.1*											
5. Contagion effect - UN region	0.45	0.28	0.06	1	0.42*	0.19*	0.24*	0.82*										
6. Contagion effect - Geographic region	0.37	0.31	0.02	1	0.31*	0.15*	0.13*	0.94*	0.85*									
7. Polity score (regime type)	0.39	7.45	-10	10	0.22*	0.18*	0.25*	0.1*	0.26*	0.16*								
8. Independence	0.37	0.48	0	1	0.07*	0.35*	-0.01	0.2*	0.07*	0.19*	-0.22*							
9. World Bank income group	1.28	1.1	0	3	0.14*	-0.04*	-0.48*	0.14*	0.17*	0.19*	0.38*	-0.35*						
10. Log of disasters	1.13	0.96	0	4.62	0.2*	0.06*	0.5*	0.05*	0.17*	0.1*	0.06*	-0.28*	-0.16*					
11. Instances of war	0.09	0.29	0	1	0	0.13*	0.13*	-0.05*	-0.02	-0.04*	-0.07*	0*	-0.14*	0.15*				
12. Globalization Index	45.69	17.88	11.92	92.72	0.33*	0.1*	0.02	0.24*	0.38*	0.29*	0.59*	-0.35*	0.76*	-0.03	-0.15*			
13. Migrant:Total Population	1.22	1.47	-2.3	4.46	-0.17*	-0.09*	-0.47*	0.1*	-0.05	0.14*	0.07	0.02	0.54*	-0.38*	-0.15*	0.39*		
14. Refugee:Total Population	-2.96	2.82	-11.25	3.6	-0.24*	0.02	0.01	-0.11*	-0.28*	-0.12*	-0.13*	0.06	-0.05	-0.1	0.04	-0.05	0.37*	
15. UN Human Development Index	0.64	0.18	0.18	0.95	0.19*	-0.01	-0.38*	0.27*	0.35*	0.34*	0.44*	-0.39*	0.88*	-0.13*	-0.16*	0.82*	0.45*	-0.13*

* $p<0.05$

Table 2. Proportional Odds Discrete-Time Event History Models Predicting National Mental Health Policy Adoption

Independent variable	1	2	3	4	5
WHO entry year		1.135+			0.902
		(0.589)			(0.588)
Log of ODA disbursed to recipient countries			0.147		0.106
			(0.102)		(0.111)
Contagion effect - WHO region				3.343+	3.300*
				1.298	(1.290)
Contagion effect - UN region				1.811**	1.638*
				(0.691)	(0.680)
Contagion effect - Geographic area				-3.500*	-3.194+
				(1.675)	(1.659)
Polity score (regime type)	0.006	0.000	0.001	0.006	-0.001
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Independence	-0.056	-0.197	-0.054	0.056	-0.040
	(0.259)	(0.273)	(0.263)	(0.279)	(0.294)
World Bank income group	0.276	0.340	0.421+	0.332	0.482+
	(0.239)	(0.238)	(0.253)	(0.252)	(0.272)
Log of disasters	0.191	0.150	0.125	0.213	0.133
	(0.178)	(0.176)	(0.189)	(0.180)	(0.196)
Instances of war	0.110	0.048	0.055	0.133	0.041
	(0.362)	(0.352)	(0.359)	(0.350)	(0.343)
Globalization Index	0.005	0.002	0.001	0.005	-0.001
	(0.011)	(0.012)	(0.012)	(0.012)	(0.012)
Migrant:Total Population	-0.272+	-0.264+	-0.236	-0.269+	-0.237
	(0.155)	(0.156)	(0.159)	(0.153)	(0.158)
Refugee:Total Population	-0.094	-0.098	-0.108	-0.077	-0.091

	(0.072)	(0.072)	(0.075)	(0.075)	(0.078)
UN Human Development Index	-0.483	-0.573	-0.309	-0.499	-0.486
	(1.531)	(1.496)	(1.535)	(1.661)	(1.640)
Year^2	0.001**	0.001**	0.001**	0.001**	0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-6.396**	-7.144**	-6.933**	-6.646**	-7.603**
	0.574	0.723	0.730	0.591	0.851
Number of cases	6685	6685	6685	6685	6685

+ p<0.10, * p<0.05, ** p<0.01

*Robust standard errors are in parentheses. All models control for year as a quadratic variable and were built after 20 imputations

APPENDIX

Appendix A. Concepts Related to Policy Change

Concept	Reference	Definition	Comparison
Policy innovation	Rogers, 2003; Gray, 1973; Walker, 1969	Program or policy which is perceived as new by the nation considering to adopt it.	It is critical to study innovations after the conception of the idea but prior to the government entity—be it a national legislature, a state agency, a city—adopting or rejecting a new policy.
Policy transfer	Dolowitz and Marsh, 1996, 2000	Transfer of specific policies as a result of strategic decisions taken by actors inside and outside government.	Seeks to understand the process by which policies and practices move from exporter and importer jurisdictions.
Policy diffusion	Rogers, 2003	Diffusion is any pattern of successive adoptions of policy innovations. It is a process by which policy innovations spread across jurisdictional boundaries.	*Diffusion vs. adoption*: Diffusion is distinguished from adoption in order to identify the forces that facilitate or impede diffusion specifically.
			Diffusion vs. transfer: Unlike policy transfer, which is an action-oriented intentional activity, policy diffusion refers to uncoordinated interdependence.
			Diffusion vs. convergence: diffusion is the spread of policies and ideas between countries, while convergence represents similar developments taking place in different countries without direct linkage between them. Policy transfer and diffusion are process measures, while policy convergence is an outcome measure (Beerkens, 2005).

Policy convergence	Clark and Kerr 1983	Tendency of societies to grow more alike, to develop similarities in structures, processes and performances. Pattern of increasing economic, social and political organizational similarity between countries, as driven by industrialization, globalization and regionalization.	
Lesson drawing	Rose, 1991	Political actors or decision makers in one country draw lessons from one or more other countries, which they then apply to their own political system. Stimulus to search is a result of dissatisfaction with the status quo. Process of lesson-drawing starts with scanning its own standard operating procedures, then organization's own past (institutional memory) programs in effect elsewhere if the problem is unprecedented ("definition" step), and ends with the prospective evaluation of what would happen if a program already in effect elsewhere were transferred here in future.	Decentralized authority is sometimes described as a quasi-laboratory for the national government. Incrementalism is a subtype of lesson-drawing as the state draws on its own experience more so than from others' experience. This is not to discount the incremental innovations that can be achieved in the process of policy diffusion.
			Positive vs. negative lessons: A positive lesson occurs when a policy that works is transferred with suitable adaptations, whereas a negative lesson describes instances where observers learn what *not* to do from watching the mistakes of others.

Lesson drawing vs. innovation: Innovation is a complete novel policy or program, whereas a lesson is a shortcut of sorts, utilizing available experience elsewhere to define a program or policy new to the institution adopting it, seen as attractive because prospective evaluation evidence shows it has been effective elsewhere (Rose, 1991).

Appendix B. Description of Variables and Indicators

Variable (Concept)	Hyp	Indicator		Definition	Source of Data	Years available	N	Operationalization
Dependent (Diffusion)		Policy adoption	MHPol_A	Year of mental health policy adoption	WHO's Mental Health Atlas, cross-checked with WHO-AIMS and WHO MiNDbank	2001, 2005, 2011; adoption year recalled	184 (2011); 193 (2005); 185 (2001)	Nominal (Y/N on adoption), ordinal (5 phases of adoption), interval (year)
Independent (Coercion)	1	International organization membership	WHO_entry	Year country became a WHO member	Koc University's International Governmental Organization Data (v2.3)	1964-2005	214	Interval (year)
	2	Official Development Assistance	ODA	ODA disbursement and commitment to recipient countries - %GNI; total net (current prices USD million)	OECD's International Development Statistics online database	1960-2011 (disb) 1966-2011 (comm)	159 (recipients) and 45 (donors)	Ratio (% or $)
	2	Development Assistance for Health	DAH	Commitments and disbursements to donor or recipient countries (Million, constant 2009 US$)	WHO's Global Health Observatory Data Repository	2000-2010	119 (recipients) and 25 (donors)	Ratio ($)

Independent (Emulation - proximity)	3	Proximity to earlier adopters	UN_prox; WHO_prox; Geo_prox	Regional contagion effects from UN, WHO, or geographic regional reference group	WHO's Mental Health Atlas	2001, 2005, 2011; adoption year recalled	184 (2011); 193 (2005); 185 (2001)	Ratio (cumulative freq %)
Control (Emulation - similarity)	P	Environmental conditions	SFI	State Fragility Index, which ranges from 0 “no fragility” to 25 “extreme fragility.”	Integrated Network for Societal Conflict Research's State Fragility Index and Matrix 2012	1995-2012	167 countries with populations greater than 500,000 people	Ordinal (scale)
			DISASTER	Number of natural and technological disasters	Centre for Research on the Epidemiology of Disasters' EM-DAT The International Disaster Database	1995-2013	213	Interval (# disasters)
			WAR, EVENT	Any involvement in intra-, inter- or extra-state wars	Correlates of War Project's The New COW War Data (v4.0)	1816-2007	243	Nominal (Y/N instance of war)
			GLOBAL	KOF Index of Globalization, which ranges from 1 "no	Swiss Federal Institute of Technology Zurich's KOF Index of	1970-2010	207	Ordinal (scale)

			globalization" to 100 "most globalization"	Globalization			
	Political conditions	INDEP	Independence is disaggregated into formation, colonization, secession, and partition.	Paul Hensel's (University of Texas) Issue Correlates Of War Colonial History Data Set (v0.4)	301-2002	222	Nominal (Y/N historically)
		POLITY	Regime type, or a polity score that ranges from -10 "hereditary monarchy" to +10 "consolidated democracy"	Ted Robert Gurr (University of Maryland) and Monty Marshall's (Societal-Systems Research, Inc.) Polity IV Project	1800-2012	167	Ordinal (scale)
		GOVEFF	Government Effectiveness, which ranges from -2.5 "low" to 2.5"high"	World Bank's Governance Matters Project	1996-2011	215	Ordinal (scale)
	Social conditions	ELF: ETHNIC, LANGUAGE, RELIGION	Fractionalization is the probability (0-1) that two randomly drawn individuals come from the same population. It is a cumulative index of ethnic, language, and religion	Alberto Alesina et al., 2003	Cross-section, varies but mostly 2001		Ratio (probability)

			heterogeneity in countries.			
		PHYSINT: POLPRIS	Physical Integrity Right Index ranges from 0"(no government respect for these four rights" to 8 "full government respect for these four rights"	Cingranelli-Richards (CIRI) Human Rights Dataset	1981-2011	200	Ordinal (scale)
	Economic conditions	INCOME	Income groups (low, lower-middle, upper-middle, high) based on GNI per capita, Atlas method (current US$)	World Bank's World Development Indicators	1989-2012	252	Ordinal (4 income groups)
		Health_GDP	Total expenditure on health as % of GDP	WHO National Health Account database & World Bank World Development Indicators	1995-2011	194	Ratio (%)

	Population status	DALY_MNS	Disability-Adjusted Life Years (DALY) rates per 100,000 individuals for mental, behavioral and substance use disorders	Institute for Health Metrics and Evaluation's Global Burden of Disease Study	1990 (countries); 2000 (region only), 2004 (countries), 2010 (countries)	193 (2010), 187 (2004)	Ratio (prevalence rate)
		MIGPOP : REFPOP	International migrant stock as a percentage of the total population (both sexes) and separately refugees as a percentage of the total population (both sexes).	United Nation's Global Migration Database	1990, 2000, 2010, 2013	232	Ratio (%)
		MDG	Millennium Development Goal Progress Index, which ranges from 0 (low achievement) to 7 (high achievement). The Index is an additive score of the eight MDG targets.	Center for Global Development	2010-2013	134 (developing countries)	Ordinal (scale)

	HDI	Human Development Index, which ranges from 0 "low" to 1 "high"	United Nations Development Programme	1960-2012	194	Ordinal (scale)

Paper Two

Institutionalization of Deinstitutionalization: A Cross-National Analysis of Governance Gap and Mental Health Reform

Policies generate accountability for health care, and they offer a useful standard against which government performance can be assessed. A central question of this study is whether the ideological imprint left by policy is realized in the decades following its adoption. I investigate whether mental health policy adoption induced a transformation in the structure of mental health systems. Mental health policies expressly promote the notion of deinstitutionalization, which mandates that the care for individuals with mental, neurological, and substance use disorders be offered in the community rather than in institutional environments. Psychiatric beds reify, rather than break down, deinstitutionalization. And bed-to-population ratio is an indicator often used to gauge the resources available for inpatient service provisions in the national census. To explain cross-national variation in population-based psychiatric bed rates, I thus examine the status of national mental health policy adoption and other predictors using panel data on 193 countries between 2001 and 2011. My regression results demonstrate a precipitous reduction in psychiatric bed rates following mental health policy adoption. More specifically, late-adopters are more likely to reduce psychiatric beds in mental hospitals and other settings than innovators, whereas they are less likely than non-adopters of mental health policy to reduce psychiatric beds in general hospitals. As an innovative policy continues to spread globally, a threshold is eventually reached beyond which adoption of an innovative policy may confer more legitimacy than improvement in technical performance. Based on the empirical evidence, countries late to adopting a mental health policy are motivated to implement the deinstitutionalization component for technical efficiency reasons rather than ones related to attaining legitimacy in the world society.

INTRODUCTION

Countries that subscribe to international norms and ideas of progress and advancement do not uphold them in national policies due to peculiarities like cultural differences, resource availability, and political and legal infrastructure. Problems with policy adoption are especially pronounced when institutional inertia is present, which is manifested in heated parliamentary deliberations and legislative proceedings addressing reform measures. A whole host of sociopolitical forces are at play during these decision making processes. Even if policies are ratified, governments frequently fail to implement their terms and conditions. Policies are broad statements of intentions and general directions their writers wish to undertake. They also outline methods and principles that the government (or any entity, for that matter) will use to achieve its directive. Policy, however, needs to be

complemented with local catchment area and organization plans, funding, programs, personnel, and regulation for policy aims to be fully realized. In this study, I am interested in whether mental health policy galvanizes a revolution in the organization of mental heath systems. More specifically, this study looks at whether mental health policies help shift the practice of caring for individuals from institutional environments to the community. Deinstitutionalization is a suitable case to investigate because it is fundamentally an administrative philosophy rather than a technical advancement, so variance in its implementation within and between countries invokes both social legitimacy and cost-effectiveness impetuses behind policy change (Jacob et al., 2007; Provan & Milward, 1995; Scott & Black, 1986). Isomorphism across countries may be observed in policy adoption, but not necessarily in downstream outcomes such as convergence in the state administrative apparatus and health care infrastructure (Haveman et al., 2001; Abrahamson, 1991). While I treated mental health policy adoption as an outcome of interest in the first study, I used it as a predictor for gradual alteration in the structure of mental health systems in this study. The objective of this study is to empirically analyze whether the institutionalization of deinstitutionalization policy changed the supply of psychiatric beds in 193 countries from 2001 to 2011.[26]

Public policy is an artifact infused with the aspirations of politicians, the public, interest groups, and other constituents. There are two competing theoretical explanations as to why policy-makers are motivated to adopt and implement policy: external legitimacy and internal efficiency.[27] National governments are influenced by a wider institutional environment which bounds all sovereign states. In the first study, I tested the claim that key actors (e.g. international organizations, dominant countries) within the international community frame problems, solutions, and modes of operation in a certain way and expect other actors to conform accordingly. The mere act of adopting a policy emits a signal to international audiences of a focal government's commitment to a given principle - be it economic neoliberalism, modernity, or democracy. Country governments enact policies that follow conventional scripts used in the world society (Meyer et al., 1997). However, policy innovations that spread from one country to another may not end up being the means to fulfilling domestic ends. If the legitimacy hypothesis holds true, I would expect a decoupling between deinstitutionalization policies and practices. Governments claim they would make their mental health system appear similar to those of other countries vis-à-vis adoption of

[26] The terms 'institutionalization' and 'deinstitutionalization' have specific denotations in different analytical communities. According to Philip Selznick (1957: 17), institutionalization is a process by which structures or activities become "infused with value beyond the technical requirements at hand." The phenomenon of institutionalization can be observed as "the emergence of orderly, stable, socially integrating patterns out of unstable, loosely organized, or narrowly technical activities" (Broom & Selznick, 1955: 238). I adopt this particular, theoretical meaning of institutionalization. The meaning of deinstitutionalization is one I invoke from the public health literature: the practice of caring for individuals in the community rather than in an institutional environment, with resultant effects on the individual patient, the individual's family, the community, and the healthcare system (Fakhoury & Priebe, 2002; Bachrach, 1976). This is related to the definition of deinstitutionalization found in the organization sociology literature, or the erosion or discontinuity of an institutionalized organizational activity or practice, but not one I refer to directly in this paper (Davis et al. 1994; Oliver, 1992). In summary, in this study institutionalization entails the integration of deinstitutionalization practices and structures into existing sources such as policy and law, professional development, and industry norms.

[27] They both stem from Suchman's (1995:574) definition of legitimacy as "a generalized perception of assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions."

the deinstitutionalization component of mental health policy, but they do not actually restructure the system so that it is more cost-effective and humane. This reflects the roles, at times conflicting, that government plays as both an identity-confirming actor and as a managing central authority.

A different interpretation of why governments adopt policies is because they use them to formally declare how much they prioritize a specific problem on the national agenda. Geopolitical borders are constructs of a common wider culture, which plays a minor role in shaping national policy. Membership in the world polity is a necessary, but not sufficient, condition in helping countries overcome the inertia of their mental health systems. Those who hold the internal efficiency viewpoint instead emphasize the synergized, rational response of constituents to the mental illness epidemic. Policies help guide efforts to transform interventions to treat people with mental disorders, but the process is fraught with elastic incentives, politics, and scientific evidence. If the efficiency hypothesis holds true, I would observe isomorphism in the structure of mental health system across countries and over time. Mental health policy gains, specifically deinstitutionalization, traction in countries as a result of changing ideas ("legitimacy") or incentives ("efficiency"). I test both hypotheses using the World Health Organization's (WHO) *Mental Health Atlas*, a country-level, panel dataset on mental health systems.

The main contribution of this study to the governance gap literature is the addition of a temporal dimension in testing the predictions of the legitimacy and efficiency hypotheses. Along the sigma-curve of innovation diffusion, a few early-adopters ("innovators") are followed by a critical mass of late-adopters ("laggards") and finally non-adopters ("resisters") (Rogers, 1983). These three categories can be further disaggregated into five sub-categories in a finite population: innovators; early adopters; early majority; late majority; and laggards. I used these subcategories in my analysis. This pattern reflects, on the whole, countries' readiness for change and propensity to take political and policy risks. The natural variation in phase of adoption conveniently lends itself as a predictor of policy implementation. Early adopters are not assumed to have "first mover advantage," especially in the case of deinstitutionalization, but they are assumed to have an important influence on late- and non-adopters (Koyanagi, 2007; Haug & Rossler, 1999). Late- and non-adopters draw technical, administrative, and political lessons from earlier adopters.

Late adopters of deinstitutionalization are of particular interest to me because it is equally plausible for them to have legitimacy or efficiency motivations. The common line of thought is as such: early adopters of a certain organizational form are motivated by economic and technical needs, whereas late adopters are chiefly concerned with status enhancement (Zucker, 1983; Tolbert & Zucker, 1983). A late-adopting country is motivated to conform to norms institutionalized in the world society. Late-adopting countries are heavily constrained by isomorphic pressures and thus succumb easily to the bandwagon effect (Braun & Gilardi, 2006; Finnemore & Sikkink, 1999; Ikenberry, 1990). Proponents of the legitimacy side fail to recognize, however, bureaucrats' and technocrats' ability to recognize the efficiency gains from adoption opportunities. Late-adopting countries could be motivated to customize mental health policy so that their mental health system is eventually set up to maximize the system's capacity and meet the demands for treatment, preventive, and rehabilitation services. With sufficient resources and stewardship, late adopters have the potential to interpret a policy innovation and establish expansive provisions as a result of purposefully and creatively applying knowledge gained from earlier adopters (Clark, 1985).

Deinstitutionalization is a major component of national mental health policies. It is broadly defined as the most appropriate arrangement of facilities in order to deliver mental

health services. Taylor et al. (2009) concluded their systematic literature review by noting that type treatment setting is correlated with the quality of living conditions, effectiveness of the treatment modality, and use of seclusion and restraints. The type of treatment setting determines various patient outcomes, such as hospital admission and readmission, relapse, medical and treatment adherence, quality of life, and social functioning. Two seminal reports on this subject are the UN's 1991 *Principles for the Protection of Persons with Mental Illness and the Improvement of Mental Health Care* and WHO's 2001 World Health Report *Mental Health: New Understanding, New Hope,* both of which state that care should be shifted from hospital- to community-based treatment facilities (WHO, 2001a). This recommendation has been iterated time and time again by other flagship global mental health initiatives that followed, namely the Grand Challenges in Global Mental Health, Mental Health and Psychosocial Support Network, EMERALD (Emerging mental health systems in low- and middle-income countries), PRIME (Programme for Improving Mental health carE), mhGAP (WHO Mental Health Gap Action Programme), Mental Health and Poverty Project Research Programme Consortium, Platform for Innovations in Global Mental Health, Gulbenkian Mental Health Platform, International Consortium on Mental Health Policy and Services, and, most recently, the Comprehensive Mental Health Action Plan 2013-2020. The country-level evidence, however, suggest a lackluster implementation of deinstitutionalized psychiatry, as there remains a wide gap between the closure and mental hospitals and building up of community-based services.[28] In the absence of community services and family care giving, patients with severe mental illness and comorbidities continue to be committed involuntarily to psychiatric hospitals and forensic psychiatric wards of general hospitals, a phenomenon called "re-institutionalization." Another outcome of deinstitutionalization is "trans-institutionalization," or the process where former patients are abruptly displaced so that they end up in prisons, boarding houses, nursing and elderly homes, youth centers, and homeless shelters. These outcomes reflect deficiencies in implementing deinstitutionalization policies because insufficient financial support and provision of prevention and treatment services were given to protect patients from the "revolving door" phenomenon.

This paper is organized as follows. In the next two sections I will review the relevant literature that support my interpretation of late-adopting nation-states' behavior as being driven by internal efficiency or external legitimacy motivations. I will then give a brief overview on deinstitutionalization in the 21st century. The methods section will lay out my plan to test two hypotheses primarily using the WHO *Mental Health Atlas* dataset. The results will be presented, followed by a discussion of their tie-in with new institutional theory.

THEORY AND HYPOTHESES

Efficiency

Constructivists and realists have long disagreed on whether culture should be factored into the conceptual model of policy adoption and implementation. Realists believe behavioral consistencies reflect inherent needs and interests. Rational choice theorists consider the nation-state as a rational, unitary actor pursuing fixed preferences in an anarchic international arena (Waltz, 1979; Goldsmith & Posner, 1999, 2002). Policy-makers valorize

[28] A second 'mental health gap' that deserves mention is one that exists between the epidemiological burden of mental, neurological, and substance use disorders and the provision of psychiatric and mental health services (see, for example, Wang et al., 2007).

deinstitutionalization because it is instrumental to cutting down on the exorbitant cost of delivering mental health care in residential facilities and hospitals. However, a prerequisite for adopting a mental health policy in a focal country may be the availability and access to an evidence base of mental health policy as it has been tested in other contexts (Pindyck, 1991; Arrow & Fisher, 1974). In this section, I will discuss the economic rationale behind policy adoption lag and the assumption that late adopters are risk averse and tend to learn from earlier adopters.

The underlying mechanisms of policy adoption and implementation differ for early- versus late-adopters. Countries that are innovators in mental health care tend to face two dilemmas. Early on in the diffusion process for any given issue area, they face a lack of information: not all policy alternatives are known and the relative merits of the known alternatives are uncertain. Governments can make equity, quality, and efficiency extrapolations of deinstitutionalization from the general health sector. The general lack of information about the cost of all policy options and the benefits of their concomitant solutions hampers governments' ability to make rational decisions. Taking this into account, early adopters would have to invest slack resources into experiments with reorganizing the mental health system on a trial (and error) basis (Mukand & Rodrik, 2002; Lindblom, 1959). Policy experimentation of this sort carries significant political and economic risks. Government stakeholders and special interest groups associated with them have a huge stake in these experiments, and so there is the potential of a test population of citizens being exploited in producing results (Greenberg et al., 2003; Berk et al., 1985). Another trade-off early adopters make once they embark on such an irreversible course of action is surrendering option value, or surrendering the benefit that incurs from delaying a decision to conduct experiments. High sunk costs are incurred if deinstitutionalization proves to be a failure because the political or financial price of reversing it is exceedingly high or because the policy itself cannot be easily undone once enacted. On the upside, investment in pilots could pay off in dividends such that mental health systems could be iteratively, incrementally improved. On the whole, pioneers in mental health care stand to reap the benefits (e.g. increased regional influence, image improvement) of discovering new norms and practices.[29]

Policymakers in late-adopting countries draw vicariously on experiences accumulated at home or learn lessons from abroad (Roger, 2003; Helco, 1974; Mansfield, 1971). They perceive early-adopting countries as laboratories, experiments, test sites, pilots, or demonstration projects that produce technical information on an innovative policy's development and implementation process (Volden, 2006; Nelson, 1993). The option value of a decision is at its highest early in the policy diffusion process. Therefore, forbearance or waiting become the best default strategy for decision makers concerned with risks (Bernanke, 1983). Late adopters refuse to adopt a policy until a clear causal relationship between policy action and outcomes has been established. They are the target audience for at least three types of research - clinical efficacy, cost-effectiveness, and policy research (Sturm, 1999). The complicating factors are scant evidence on deinstitutionalization and accessibility to it. Comparative studies of mental health services, programs, and policies are limited, with A 10/90 divide exists in internationally accessible mental health literature, whereby between developing and developed countries (Saxena et al., 2006; Saraceno & Saxena, 2004). Therefore, the extent to which research is translated into policy varies significantly from country to country. As the number of countries gaining experience with

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[29] As an extension of this statement, early adopters do not have a strong reason to broadcast pilot information unless the international community sanctioned their choices in the first place (Davis & Greve, 1997).

deinstitutionalization gradually increases, the practices that come to be taken for granted would have to spread through other channels such as consulting companies, international organizations, advocacy networks, academic meetings, dignitary visits and study tours (Haas, 1980:367-68; Walker, 1969). The option value increases and sunk cost decreases as more information is available, which suggests the following hypothesis:

> Hypothesis 1: Late adopters of mental health policy are *more* likely than early adopters to gradually reduce the number of psychiatric beds within their country.

If I observe a steeper rate of institution-based care downsizing for late-adopting countries than early adopting countries, then that is one way of inferring that the former adopted mental health policy in the first place for internal efficiency reasons.

Information asymmetry and uncertainty about mental health policy are expected to decrease over the life cycle of its adoption across countries (Simmons & Elkins, 2004; Meseguer, 1997). If mental health policy, specifically the deinstitutionalization component, is adopted for efficiency reasons, I predict a decrease in the number of psychiatric beds.[30] Any efforts taken to learn about natural experiments occurring elsewhere or pilots taking place at home would mediate the relationship between policy adoption and bed changes, since this assumption was found in the third study of this dissertation. Factual information serves as an aid in political debates and the policy-making process. It also facilitates adoption of a broad concept like deinstitutionalization to local needs, circumstances, and preferences.

Legitimacy

Constructivists place an emphasis on social norms because international political order is derived from them (March & Olsen, 1998). Germane to the present discussion of whether mental health systems are designed for efficiency or legitimacy reasons is the perspective of institutional sociologists. Neoinstitutional theorists challenge the assumption of purposive rationality in organizational behavior and argue that organizations routinely follow taken-for-granted models, standards, and myths in the institutional environment, regardless of their functional utility (Meyer & Rowan, 1977; Zucker, 1977). Organizations that are seeking legitimacy and support do so by incorporating elements of widely accepted cultural models into their structures and procedures (Pfeffer & Salancik, 1978; Meyer & Rowan, 1977; Berger & Luckmann, 1967). Extrapolated to a macro level, countries have a high propensity to enact scripts (e.g. policy) composed of standardized elements that are deemed legitimate in their environments. They also have a high likelihood of sharing certain features with other countries, for example a national constitution, welfare system, or separation of power within the government.

World culture is formed through embedded exchanges among countries in the world society (McNeely, 1995; Meyer et al., 1997; Boli & Thomas, 1999). Ontological values, in turn, percolate from the world society on down to each individual constituent (Meyer, 1997; Meyer et al., 1987). Citizens of the world society come to embody common beliefs and knowledge systems. Therefore, national identities and interests are continually morphing.

[30] I expect changes in the mix of mental health care facilities as well; specifically an increase in outpatient and day treatment facilities and a decrease in community-based psychiatric inpatient facilities, community residential facilities, and mental hospitals. I did not, however, examine these indicators.

Legitimacy is a currency in the world society.[31] In the first study, I questioned whether supranational institutions (e.g. WHO) and peer states independently or jointly influence a focal country's behavior through socialization and habitualization (DiMaggio & Powell, 1983; Berger & Luckmann, 1967). Ideas of the wider environment shape countries' social structures and regulatory behavior through implicit or explicit rules. Here, I invoke the same logic and further question whether countries adopt mental health policy in order to enhance their legitimacy on the global stage. It remains to be tested the extent to which global models, standards, scripts, rules, and myths penetrate sub-national spaces. Therefore, I seek to demonstrate the potential convergence in the structuration of mental health care activity across countries. Countries are perceived as products of social processes and their action could be explained by logics of appropriateness in vogue in the world society (Strang & Meyer, 1993).

The adoption and institutionalization of deinstitutionalization policy are given separate but equal attention in the first study and present one, respectively. Institutionalization is a social process by which structures, policies, practices, and programs are instilled with enough value so that they first acquire social legitimacy, are normatively and cognitively held in place by members of the world society, become taken-for-granted by the collective, and ultimately acquire a "rule-like" status (Selznick, 1996; Tolbert & Zucker, 1983: 25; Meyer & Rowan, 1977; Zucker, 1977). Institutionalization is also a gradual process that occurs in multiple stages, and so isomorphism may be observed for mental health policy adoption (first stage) but not necessarily for deinstitutionalizing mental health care (second stage). If this is the case, psychiatric beds would continue to accommodate patients in need of extended treatment even if those rotating in and out of these beds are better served by their families and in the community. Administrative structures created in response to policy demands have also been demonstrated to be routinely decoupled from technical work processes (Burns & Wholey, 1993; Meyer & Rowan, 1977; Meyer et al., 1981) for education (Weick, 1976), welfare (Strang & Chang, 1993) and human rights (Cole, 2005; Hafner-Burton & Tsutsui, 2005) policies. The common explanation cutting across sectors as to why policies do not have intended effects is because they were ratified as symbolic gestures in the first place. Furthermore, policies "lose their bite" because they are not revised periodically and gradually become obsolete. This is especially the case when it is the government who is solely in charge of domestic implementation and no enforcement or accountability mechanisms are in place (Hafner-Burton & Tsutsui, 2005).

Historical continuity poses as an additional consideration of a policy innovation's importance. The precipitation of change occurs when existing structures or modes of operation come to be viewed as problematic, thus disrupting the "logic of good faith" (Meyer & Roan 1977). What starts as a fad, in this case deinstitutionalization, can acquire institutional status to the extent that it is socially accepted as a crucial element of the health system (Elsbach, 1994; Tolbert & Zucker, 1983; Meyer & Rowan, 1977; Zucker, 1977). The early efficiency gains sought by early adopters are gradually displaced by normative pressure on those remaining in the study population to develop isomorphic practices, forms, and policies (Meyer & Rowan, 1977; Eyestone, 1977). In Hall's seminal study on the diffusion of

[31] Legitimacy can be garnered from a vast array of sources external or internal to the organization. External sources include licensing boards, credential bodies, accreditation bodies, funding agencies, epistemic communities, professional associations, unions, rating agencies, business consortiums, public opinion polls, and the media. And internal sources include workers, managers, human resource specialists, and board members. These sources could operate independently or jointly to rate the legitimacy of a given organization.

Keynesian ideas, he noted, "the process whereby one policy paradigm comes to replace another is likely to be more sociological than scientific" (Hall, 1993: 280). Tolbert & Zucker (1983) proposed that early adoptions of civil service reforms by city governments were motivated by technical or economic needs, while later adopters responded to the growing social legitimacy of these programs as take-for-granted improvements in organizational structure. Since their study, this hypothesis has been tested in empirical studies on adoption of personnel programs (Baron et al., 1986), CEO long-term incentive plans (Westphal & Zajac, 1994) and Total Quality Management (Westphal et al., 1997), drug abuse treatment units (D'Unno et al., 1991), equal opportunity employment laws (Edelman, 1992), and adoption of personnel administration programs (Baron et al., 1986).

Late-adopting analytical units tend to substitute institutional rules for technical rules. Why is this? Early adopters seek to fulfill task-related requirements while late adopters seek to fulfill symbolic requirements. When confronted with the same uncertainty, late adopters are more likely to economize on search costs and imitate the actions of other organizations (Meyer et al., 1983; Cyert & March, 1963). Late adopters are also less likely to conceive a feasible way to operationalize policy innovations because they are missing the R&D (research and development) capacity and capabilities. And yet the rapid spread of reforms puts increasing pressure on laggards to jump on the bandwagon in order to avoid the stigma of appearing different from others (Abrahamson & Rosenkopf, 1993; Burt, 1987; Fligstein, 1985; Coleman et al., 1966). As a result, they are more likely to abandon the models advanced by earlier adopters after futile attempts at implementation. I am testing Tolbert & Zucker's original hypothesis for deinstitutionalization practices across countries. Within the world society, deinstitutionalization is expected to become an increasingly socially legitimated and taken-for-granted administrative apparatus. Late into the diffusion process, I would expect countries to adopt deinstitutionalization as a social "fact" of health care reform rather than adopt it for its compatibility with intra-country circumstances.

One way for countries to signal their compliance with international norms is to adopt policies considered to be sound in the health sector. Decision makers in later adopting countries seek to enhance their legitimacy, credibility, and reputation by importing advanced innovations. To them, upholding a mental health policy could also act as a demonstration of modernity, shield for inaction, or as a veneer to cover up corruption (Hafner-Burton & Tsutsui, 2005; Meyer & Scott, 1983: 125). Adopting policy may additionally boost the public opinion and interest groups' support of the national government, especially during an electoral cycle. If the benefits gained by committing the act of (belated) policy adoption are strictly normative, then I propose the following hypothesis:

> Hypothesis 2: Late adopters of mental health policy are *less* likely than early adopters to gradually reduce the number of psychiatric beds within their country.

If late adopters demonstrate no change in psychiatric bed rates over time compared to early adopters, then it stands to reason that legitimacy must have been a motivating factor behind mental health policy adoption. The legitimacy hypothesis predicts that reduced variety would be observed in mental health policies, but variance would remain in the composition of mental health systems across countries.

The mental health sector is a fitting context for me to test the competing hypotheses about motivations behind policy adoption because it is subject to strong institutional and technical pressures; the architecture of mental health systems is subject to functional

demands and is guided by legitimated principles (Perrow, 1985; Scott & Meyer, 1983). As the legitimacy of deinstitutionalization grows in the world polity, governments feel increasing pressure to ratify that particular component of mental health policy so as to not appear as a deviant country. The act of adoption itself, however, does not necessarily compel the national government to decrease the number of beds in psychiatric facilities, which is really the essence of deinstitutionalization. The institutionalization of deinstitutionalization is rendered superficial if it stops short at policy adoption and does not penetrate any deeper in the transformation of mental health systems.

CONTEXT

Deinstitutionalization is one of the major milestones in the care of people with mental, neurological, and substance use disorders in the second half of the twentieth century. Deinstitutionalization is broadly defined as the shift in provision of mental health care in an institutional environment to the community. Deinstitutionalization has also been construed as an administrative apparatus that is designed to prevent chronic disability, uphold human rights, and reduce the cost of care (Thornicroft & Bebbington, 1989). The goal of the movement is to coherently assimilate activities, policies, and organizational structure at the local, national, and global levels (Soule, 2004). The concept started gaining momentum in North America and Western Europe in the 1950's. As the deinstitutionalization process unfolded, however, policy planners and health providers began to realize that equal consideration must be paid given to the development of alternative outlets for services, in addition to the closure and downsizing of institutions. The distribution of mental health facilities in different environments has resultant effects not only on individual patients, but also their family members, communities they are embedded in, and the sectors that serve them.

As the deinstitutionalization process unfolded, policy planners and constituents of the healthcare community began to realize the unanticipated consequences of this revolution in the mental health field. Many countries rely on mental hospitals as the main hubs of mental health care, yet oftentimes mental hospitals are not well maintained, resulting in squalid and deplorable living conditions. Psychiatric facilities may not even be fully equipped with medical equipment and basic amenities such as toilets, beds, and personal space. Staff-to-patient ratios are low in these facilities, partly owed to the mental health workforce shortage, which makes it unlikely patients will receive high quality care and individual attention. Patients who reside in mental hospitals are segregated from society for many reasons, including stigma from the public, abandonment by their families, and hospitals being located far away from urban areas. The deinstitutionalization movement is successful if one focuses only on benchmarks found in administrative data for reimbursement purposes or census of mental health facilities and their residents: closure of hospitals and asylums, cuts in the number of beds, and decrease in rates of inpatient admission, bed rotation factor, average length of stay, and number of residents (Hatta et al., 2010; Myklebust et al., 2010; Keown et al., 2008).

In spite of these undesirable features of psychiatric facilities, the lack of synchronicity in closing or downsizing them with scaling-up community-based services has engendered

myriad problems.[32] Mental health care incurs exorbitant costs because of both the severity and chronicity of certain conditions. Taking a step back, national governments are actually confronted with a two-fold challenge of managing this population's chronic disorder and sustaining their livelihood in the community. Patients who have had a protracted tenure in psychiatric facilities have often been there since signs and symptoms of their illness manifested early during childhood or adolescence (Steel & McKay, 2000; Torrey, 1997; Reeler, 1992).[33] A sudden and abrupt reduction in psychiatric beds has resulted in the associated phenomenon of trans-institutionalization to psychiatric units in general hospitals (Sealy & Whitehead, 2004), nursing homes (Bowersox et al., 2013), family households (Pycha et al., 2011), supported housing (Mundt et al., 2012), and prisons (Yoon et al., 2013; Hartvig & Kjelsberg, 2009; Lamb & Weinberger, 1998). The rest of the health and human service system simply were not ready to cope with the burden imposed on them by recently emancipated people with severe mental illness. They were not ready to deal with servicer users who experience heightened stress as a result of living in the community, let alone assist with their recovery process (Engel, 1977). The lack of synchronicity between institution- and community-based services ultimately resulted in fragmentation of services, lack of quality assurance over available services, financial cutbacks, and workforce shortages (Mechanic & Rochefort, 1990).

Community-based care is touted as a solution to compensate for underdevelopment of the mental health sector. The WHO has long advocated for community-based mental health services in all countries, which holds a promise of diverse service settings, increased access to care, and more efficient utilization of community health resources (WHO, 2007, 2003a, 2003b).[34] The trick is for governments to strike the right balance in the mix of community, outpatient, and inpatient services. Community mental health services would constitute the basis of the mental health system; this category encompasses case management, outreach interventions, psychiatric rehabilitation villages in rural areas, Assertive Community Treatment, and other ancillary services.[35] Outpatient clinics have a triage function of assessing patient condition, referring patients to specialists if so needed, and providing follow-up care. And finally, inpatient care, in the form of psychiatric emergency services or short-term hospitalization, is in place to prevent long-term institutional placement. Inpatient care settings provide vigorous treatment and monitoring during acute episodes, thus allowing for continuing care in other settings between episodes.

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[32] Community-based services include, but are not limited to, vocational training, supported employment, family care-giving, psychiatric beds outside mental hospitals (e.g. in general hospitals), day care services, residential care in the community, mobile clinics, outreach services, self-help and user groups, and mental health services delivered electronically.

[33] E. Fuller Torrey (1997) remarked on how most of those who were deinstitutionalized from public psychiatric hospitals in the United States were severely mentally ill. Between 50 and 60 percent of those discharged were diagnosed with schizophrenia, another 10 to 15 percent were diagnosed with manic-depressive illness and severe depression, and an additional 10 to 15 percent were diagnosed with organic brain diseases -- epilepsy, strokes, Alzheimer's disease, and brain damage secondary to trauma. The remaining individuals residing in public psychiatric hospitals had conditions such as mental retardation with psychosis, autism and other psychiatric disorders of childhood, and alcoholism and drug addiction with concurrent brain damage.

[34] The WHO Pyramid Framework advocates for the most numerous services to be offered by informal community mental health organizations, followed by primary care settings, general hospitals, formal community mental health organizations, and lastly specialist mental health services (see, for example, WHO, 2007).

[35] Ancillary services include, but are not limited to, vocational training, psychosocial rehabilitation programs, psycho-educational efforts (e.g. clubhouses and support groups), supported housing, day care, and personalized care from nurses, social workers, and caretakers.

Custodial services provided by large institutions - most evidently mental hospitals and asylums - are only justified for a small proportion of patients with severe and chronic mental disorders. Patients of community-based treatment facilities fare better than patients of inpatient treatment on various outcome measures, such as relapse rate, delay or failure in help-seeking, treatment compliance, adherence to medication intake, number of admissions to inpatient or residential facilities, homelessness, illicit substance use, and criminal involvement (Talbott, 1978; Breakey, 1996a). Community-based care is considered to be more humane, higher quality and more cost-effective compared to institution-based care.

Deinstitutionalization is a critical juncture from which vectors of mental health reform emerge.[36] Very few countries have achieved an optimal mix of mental health services. As a corollary, there is no gold standard of system organization that can meet all the needs of people with mental, neurological, and substance use disorders across countries. The trajectories of mental health care (re)organization offer a provocative basis of comparison by which to identify points of convergence or divergence for countries (Mahoney, 2001; Pierson, 2000; Thelen, 1999). Developed and developing countries face different challenges when it comes to mental health system development. The population in developing countries make up 84% of the world's population, yet developing countries claim only 11% of the world's net health spending (Schieber, 1999). Developing countries grapple with under-provision of resources, personnel and services, so non-state actors working in this sphere advocate for increased investment in those requiring mental health care. Developed countries also face other problems such as parity in the provision of resources between physical and mental health services, the need to promote detection and treatment of mental disorders in primary care settings, and competing demands of psychiatric and other specialty services. Given the resource constraints, governments of developing countries are hard pressed to invest in trial-and-error experiments to search for the optimal mental health policy framework and implementation plan suitable for their population.

The situation is different for developed countries. The process of deinstitutionalization has led to closures of mental hospitals and asylums, as well as a reduction in the number of patients in the standing ones. However, the development of community-based residential and occupational facilities and uptake of incident clinical cases have not been commensurate with changes made among institutions (Thornicroft & Tansella, 1999). Recent research further suggests a nascent, reflexive trend in Europe towards the re-institutionalization of care, marked by the rising number of supported housing facilities, forensic psychiatric beds and penitentiaries (e.g. correctional facilities, jails, prisons), in addition to existing asylums, mental hospitals and private clinics (Priebe et al., 2008; Salize et al., 2008). This is observed in the wake of trans-institutionalization, or the act of transferring patients from mental hospitals to other institutions such as homeless shelters, custodial institutions, and prisons (Lurie, 2005; Barbato, 1998). The experiences of different countries converge on one salient point: if the process of deinstitutionalization unfolds too quickly, the burden would be shifted onto other human and human service sectors.

Since the deinstitutionalization movement among developed countries generally preceded the one among developing countries, the latter stands to gleam lessons from the

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[36] Inter-sectorial collaboration is not mentioned but is equally, if not more important in mental health care. Full social participation for people with mental, neurological, and substance use disorders requires sustained access to jobs, schools, and other services; this requires cooperation among education, social services, labor, and justice sectors. Also outside the purview of this study are providers of therapeutic interventions outside of biomedical institutions, such as shamans, traditional healers and priests.

former in three main respects: the release of individuals from hospitals into the community; the diversion from hospital admissions; and the development of alternative community services (Lamb & Bachrach, 2001). This study addresses the second component. I look specifically at changes in inpatient psychiatric beds among 193 countries over the course of a decade because they are expensive to maintain. These results have implications for the proper mix of mental health service organizations and ideal conditions under which deinstitutionalization happens.

METHODS

Data

The primary data source of this study is the World Health Organization's Mental Health Atlas ("Atlas"). Atlas serves as a map of mental health infrastructure and resources in the world. Three waves of Atlas data are available: 2001, 2005, and 2011 (WHO, 2001b; WHO, 2005; WHO, 2011). The instrument was piloted in one developing and one developed country in 2001. In that same year, the first wave of data was collected, followed by the second wave of data collection in 2005. One improvement of 2005 over 2001 is the triangulation of data sources in the process of compiling a profile for each country. This entails having a WHO headquarter staff member cross-walk information reported by survey respondents against grey and peer-reviewed literature, epidemiological information, reports on country projects, and WHO staff travel reports on the same country. The Atlas dataset was updated for the third time from 2010 to 2011. Of the current 194 WHO member countries, associate members, areas, and territories, Atlas data was obtained from 184 countries in 2001, 193 countries in 2005, and 184 countries in 2011.

The Atlas dataset was fielded in five languages: English, Arabic, French, Russian and Spanish. Its questions are organized into 12 sections: mental health policy; national mental health program; mental health legislation; substance abuse policy; therapeutic drugs; budget for mental health care; methods of financing mental health care; mental health in primary care and training; psychiatric beds; professionals; programs for special populations and NGOs; and mental health information gathering systems. A focal point for mental health in the Ministry of Health was responsible for completing the survey on behalf of his/her WHO Member State, Associate and Area. In some instances the WHO Regional Offices assisted in collecting the data.

Dependent Variable

The dependent variable is a description of the physical capital of the mental health system, since I am interested in deinstitutionalization's adaptation to local contexts. Specialist mental hospitals are disproportionately distributed across every country, with the majority of them located in urban areas. Hospital inpatient beds make up one of the most expensive components of mental health systems, accounting for up to three quarters of some national mental health budgets (Mental Health Foundation, 1993). Cost containment aside, questions on how many psychiatric beds are needed and whether existing psychiatric beds are well managed and clinically appropriate continue to be heavily debated (Candiago et al., 2011; Johnson, 2011; Tyrer, 2011; Pedersen & Kolstad, 2009; Lund & Flisher, 2006; Marks et al.,

1994; Thornicroft & Strathdee, 1994).[37] The density of psychiatric beds, as enumerated from various biomedical settings, per country, and across time, is a fitting indicator for these reasons.[38] There are four potential indicators from Atlas: total number of psychiatric beds in the country; total number of beds in mental hospitals; total number of beds in general hospitals and total number of beds in other settings. I struck the fourth candidate indicator from consideration because it was worded as "beds in other settings" for the 2001 and 2005 waves and "beds in community residential facilities" in the 2011 wave. This inconsistency was confirmed as I ran Spearman's correlation comparing the pairs of cross-sectional data, which was high between 2001 and 2005 (rho=0.96; p=0.000) but low between 2011 with 2001 (rho=0.4206; p=0.0045) and with 2005 (rho=0.5033; p=0.0008). This led me to question the consistency of rates of total bed across the three waves as well, but I found high Spearman correlations for that indicator. I proceeded with the analyses looking at population-scaled rates of total beds, general hospital beds, and mental hospital beds as the outcomes of interest. Crude count and rate per 100,000 population were available for them and I chose the latter. I further transformed the rates of beds into their logarithm to control for outliers.

Independent Variables

The independent variable is the timing of deinstitutionalization adoption. The wording of the questions on national mental health policy was inconsistent across the three cross-sectional waves of Atlas: while the 2001 and 2005 waves asked about the existence of a national mental health policy and, if yes, the year of its *initial formulation*, the 2011 wave asked about the existence of an officially approved mental health policy and, if yes, the name of the document and the year of its *last revision*. To establish the earliest mental health policy adoption, I manually cross-walked the Atlas data with data from two other datasets - the World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS) and WHO MiNDbank - to verify whether and when each country actually adopted it. WHO-AIMS is a tool used to collect essential information on the mental health system of 42 low- and middle-income countries in 2005 (WHO, 2009). Data for WHO-AIMS were collected by a team led by a focal point in each respondent country and were, in most cases, approved by its Ministry of Health (WHO, 2005b). WHO MiNDbank is an online platform for the sharing of information related to disability, human rights, mental health, health and development (WHO, 2013). It features historical mental health policies, plans, strategies, and legislation, along with international and regional treaties, for 150 countries. The year of initial adoption of national mental health policy was compiled based on Atlas, WHO-AIMS, and MiNDbank.

Deinstitutionalization is one specific component of national mental health policy (Townsend et al., 2004). Even though the first two waves of Atlas assessed the existence of five components in the national mental health policy, none were explicitly worded as

[37] The quality of bed management depends on the availability and usage of concomitant resources available, such as home assessment, clinical gatekeepers for admissions, clear records of each admission, mental health team continual assessment, inpatient case meetings, and immediate transfer to housing upon discharge. Psychiatric beds should be prioritized for seriously mentally ill patients, or those who have had multiple admissions in the past, those who have been legally detained, and those who have failed to adhere to treatment and prescribed regimes.

[38] The count and rate of five types of mental health facilities would also be suitable candidates, but they were collected for the 2011 wave only. The types of facilities are outpatient facilities, day treatment facilities, community-based psychiatric inpatient facilities, community residential facilities, and mental hospitals.

deinstitutionalization.[39] In the absence of information about the attributes of mental health policies, the year of initial adoption of national mental health policy was taken as the main predictive indicator. There are three potential ways to construct this variable: nominal, ordinal, and continuous. The nominal variable is simply adopter versus non-adopter with non-adopters as countries that did not ratify any mental health policy. The ordinal variable indicates the five phases of adoption: Innovators (2.5%); early adopters (13.5%); early majority (34%); late majority (34%); laggards or non-adopters (16%). Everett Rogers (2003) originally specified these cut-offs under a normal curve, which continues to be used in policy diffusion research. Non-adopters are coded as such and late majority make up the referent category of the ordinal variable. And finally, the year of mental health policy adoption was also treated as a continuous variable, which was zeroed on the year before the first historic adoption. I specified models with each of the three functional forms as a robustness check of the assumption that there is a linear relationship between mental health policy adoption and bed rate change. The independent and control variables were all lagged by one year. This way the risk of adoption in each year depends on the characteristics of the nation in the prior year. Lag effects address simultaneity bias; if lag effects are not used, regression coefficients will be overestimated and the standard errors will be underestimated.

Control Variables

Mental Health System Characteristics

Control variables are characteristics that could moderate the relationship between time of mental health policy adoption and implementation. I included a number of mental health system and country characteristics as control variables in my analysis. Mental health policy has greater effectiveness when accompanied with a mental health plan and law (Faydi et al., 2011; Flisher et al., 2007). Mental health plans and law translate the vision, values and principles articulated in policy into concrete strategies and activities. A national mental health plan describes the course of action. It also indicates what has to be done, who has to do it, during what time frame and with what resources. A mental health law lays out the recriminations for the failure to carry out the terms of the plan. Simply put, without a plan or law, the policy itself would have no traction. The year of initial formulation of national mental health plan and law were controlled for in my analysis.

Formal and informal human resources are on the front lines of delivering mental health services. It is important to account for the mass of mental health workforce in my analysis because they are the source of normative isomorphism (DiMaggio & Powell, 1983). Professional associations, such as the World Psychiatric Association, hold conferences and issue guidelines and newsletters to uphold clinical standards. These are channels to facilitate the exchange of ideas and knowledge across geopolitical borders. Second, the authority of health care professionals is derived from their ability to develop and translate rationalized and universalistic knowledge (Drori et al., 2002; Stone, 2000; p.24). Ruef & Scott (1998) delineated normative control into managerial legitimacy (e.g. efficiency, cost-containment) and technical legitimacy (e.g. patient care quality, specialty training). Health care professionals are in the position to provide expert advice and recommendations to administrators and policy-makers. Their stance on deinstitutionalization can spur or thwart the movement nationally and globally. Taken together, mental health professional presence

[39] The five components of mental health policy assessed are advocacy, promotion, prevention, treatment, and rehabilitation.

is operationalized as the logged rates of psychiatrists, nurses, psychologists, and social workers per 100,000 population in my analysis.

Civil society advocates for certain policy ideas, inculcate awareness of deinstitutionalization to the public, and generally promote selected policy cues (Cobb et al., 1976). The notion of recovery has permeated the promotion of mental health care provision in the community across many countries. Recovery neatly couples with deinstitutionalization in that it entails non-coercive therapeutic alliances between professional and service users, and empowerment and autonomy among service users and their families (Sowers, 2005; Roberts & Wolfson, 2004; Anthony, 1993). INGO's, such as the World Network of Users and Survivors of Psychiatry, World Federation of Mental Health, and MindFreedom International, and local NGOs, such as Basic Needs in the UK, Mental Disability Advocacy Centre in Budapest, and Disability Rights International in the US, are champions of recovery and other elements missing or neglected in existing mental health policies (Boli & Thomas, 1999; Keck & Sikkink, 1999). These INGO's maintain contact networks through which ideas and discourses are spread across nations (Boli & Thomas, 1997; Balla, 2001; Katz, 1958; Gouldner, 1957). Together with local NGO's, they demand corrective actions from governments and mental health professionals. User and family associations are also well positioned to advocate for families as primary caretakers of patients. The organizational structures of user associations, family associations, and local and international NGOs are more adaptive and flexible compared to those of government agencies and professional associations, and so they are predisposed to reacting quickly to environmental exigencies. I operationalized interest group presence as two dichotomous variables: the existence of at least one user or family association and NGOs' involvement in mental health the same country.

Deinstitutionalization efforts would ideally be tailored to the availability of financial resources (Jenkins et al., 2011; McDaid et al., 2008). A policy innovation could either stimulate huge appropriations or have little monetary impact, depending on the fiscal conditions under which adoption occurred (Walker, 1969). If slack resources are available, then decision makers can afford the luxury to experiment and accept the risk of failure (Cyert & March, 1963). Investment of resources is an explicit, observable, irrevocable proxy of a focal government's commitment to a mental health policy innovation (Gustafson et al., 2003; Rogers, 1995; Salancik, 1977).[40] Dedicated and ongoing funding to implement and to routinize deinstitutionalization is thus operationalized as the total expenditure on health as a percentage of GDP, which varies by country-year. The figures were collected from the WHO National Health Account and the World Bank's World Development Indicators databases.

Five other features of the mental health system were taken into account. The magnitude of the mental health policy problem is captured by the annual prevalence rates of disorders on the country level, with international epidemiological data provided by the Global Burden of Disease Study (Whiteford et al., 2013; Global Burden of Disease Study, 2010; Mathers et al., 2008; mhGAP, 2008; Murray & Lopez, 1997).[41] The logged rate of

[40] Public financing for health is generally derived from taxation, government-owned insurance schemes and profit and non-profit donors and grants.

[41] This overlaps with seven conditions the WHO has identified as priority conditions. They are depression, schizophrenia and other psychotic disorders, suicide, epilepsy, dementia, disorders due to use of alcohol, disorders due to use of illicit drugs, and mental disorders in children. They were identified as priority conditions on the basis that they represented a high burden (in terms of mortality, morbidity, and disability); caused large

disability adjusted life-years due to mental, neurological, and substance use disorder per 100,000 population was included in the analysis. Information on the scale of mental, neurological and substance use disorders and its related indicators could help determine resource allocation and development priorities by Ministries of Health and Finance (Streveler et al., 2004). The usage of an information system to keep track of the transition from institution- to community-based care was therefore controlled for in my analyses. The caveat here is that application of the same data in monitoring and evaluation of mental health systems was not assessed in Atlas.

To determine if clinical consultations have been held outside of psychiatric institutions, I controlled for the integration of mental health into general health care and the existence of a system of community-based care. Mental health problems often co-occur with acute and chronic physical health problems and adequate access to mental health specialists is challenging, even though effective treatment exists for most common mental health problems and their comorbid conditions. A viable, pragmatic option for integrating mental health into primary health care or community-settings is task-shifting, or having specialists transfer some of their clinical skills to non-specialists typically through classroom training that is followed by clinical supervision. The rationale for integrating mental health care into primary care and community-based settings is manifold: improving access to mental health care; providing care for comorbid physical health problems; avoiding fragmentation of health services; reducing stigma; improving health outcomes holistically; and optimizing on the small number of psychiatric specialists (Patel et al., 2013; Lund et al., 2012; Thornicroft et al., 2010; WONCA, 2008; Hyman et al., 2004). These integrated programs would ideally be in place in order for individuals with common mental health problems to thrive in the community. A segment of that same population requires integrated therapy consisting of psychosocial and pharmacological interventions. The discovery of antipsychotic medication has been credited to complement the development of community-based psychosocial treatment and rehabilitation (Glied & Frank, 2006; Torrey, 1997). And antidepressant and antipsychotic drugs are typically listed on national essential drug lists. Therefore, national expenditure on this particular consumable, as a percentage of total expenditure on health, was controlled for in the analysis.

Country Characteristics

Certain country-level factors can also enable or inhibit mental health policy implementation. I included six that are motivated by prior literature and results of the third study of this dissertation. Governments face difficult choices in prioritizing mental health over other issues, especially in the midst of a global economic downturn. In addition to health expenditure as a percentage of GDP, I used the sampled countries' income category to see if it affects changes in psychiatric bed rates. The World Bank classifies countries according to 2012 GNI per capita in US dollars using the World Bank Atlas method, thus yielding low, lower middle, upper middle, and high income economies (World Bank, 2012). These four groups are included in my analysis as an ordinal variable.

Disasters, devastating in and of themselves, present an opportunity for radical innovation within the mental health system. Natural and technological disasters disrupt the order of a country's health system and could potentially spur changes in the quantity of beds

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economic costs; or were associated with violations of human rights. The WHO mhGAP initiative has come up with an integrated package of interventions for each condition (mhGAP, 2008).

during the rebuilding efforts. I controlled for the annual count of the disasters, which was furnished by the International Disaster Database (EM-DAT, 2012). Wars are man-made disasters and are thus an anticipated shock to countries engaged in them. During times of war, governments are more likely to allocate resources on national defense than on other policy agenda items. For this reason, I used data on the number of historical intra-, inter-, and extra-state wars from the Correlates of War Project (Small & Singer, 1982; Singer & Small, 1972). A dichotomous variable for any engagement in war and a count variable of the number of wars in a given year were included in my analysis. The expected results would shed light on whether deinstitutionalization is part of the overall transition from an emergency state to a more sustainable footing.

Government effectiveness is directly tied to the quality of mental health policy formulation and implementation. A measure of effectiveness comes from the World Bank's Governance Matters Project, which has a point estimate ranging from -2.5 (weak government effectiveness) to 2.5 (strong government effectiveness) for each country. Governments that are coopted by elite groups in society are also less likely to enforce policies benefitting the disenfranchised, namely those with mental, neurological, and substance use disorders. I statistically controlled for the potential negative effects of ethnic, linguistics, and religious cleavage on mental health policy implementation using Fractionalization Data (Alesina et al., 2003). Fractionalization is the probability (0-1) that two randomly drawn individuals come from the same population. This summary score and its three components - ethnic, linguistic, language - were separately controlled for in my analysis. And finally, governments prioritize the needs, rights, and interests of people with mental, neurological, and substance use disorders to varying degrees. To test this claim, I included the proxy of Physical Integrity Right Index from the Cingranelli-Richards Human Rights Dataset in my analysis (Cingranelli et al., 2013; Cingranelli & Richard, 1999). It is an additive index of torture, extrajudicial killing, political imprisonment, and disappearance indicators, which ranges from 0 (no government respect for these four rights) to 8 (full government respect for these four rights). Political imprisonment, a dimension of physical integrity, was tested separately in my analysis because psychiatric institutionalization has been used as an instrument of political control and social oppression. It is an ordinal variable with categories 0 (many people imprisoned because of their religious, political or other beliefs in a given year), 1 (few people imprisoned), and 2 (no persons imprisoned).

Selected covariates were log transformed and centered to avoid potential collinearity problems where outliers were observed from their scatter plots with the dependent variable. For variables with multiple indicators, I performed sensitivity analyses to explore the degree of correlation between indicators as initial evidence of reliability. I also fitted separate models for candidate indicators. The control variables I just described are summarized in Appendix A.

Analysis

The analysis entails of running random effects (RE) linear models according to the following prediction equation:

$$Yit = \alpha 0 + \beta 1x1 + \varepsilon it + \mu t$$

where Y_{it} represents the logged rate of psychiatric beds, β's are the matrices of parameter estimates, *i* represents country and *t* is the year of observation subscript. ε_{it} and μ_t are the

between- and within-period error terms, respectively. Regional-level factors cause errors to be correlated across observations, or intra-cluster correlation, so RE modeling was used as an estimation approach to produce efficient estimates. In RE models the variation across countries, or psu's, is assumed to be random and uncorrelated with the main predictor or the other independent variables included in the model. The assumption behind RE is that the error term is not correlated with predictor variables, thus allowing time-invariant, country-specific characteristics to be explanatory variables. In other words, the RE model assumes that the intercepts differ for each country, or corr (μ_t, $MHPol_{it}$)=0.

Random effects models were compared to two other sets of models for sensitivity analysis. RE models were compared to log linear models using the Breusch-Pagan (B-P) Lagrange multiplier test. If the B-P null hypothesis is rejected, then the RE is preferred. If I fail to reject the B-P null hypothesis then log linear is appropriate because no clustering is observed across the three waves. RE models were also compared to fixed effects (FE) linear models. FE modeling was used as the alternative estimation approach to address potential omitted variable bias problems with RE models, which cause the error terms to be correlated with the independent variables. FE models remove the effect of these omitted, time-invariant characteristics from the predictor variables so the predictors' effect could be better assessed. Like RE, the FE model accounted for clustering in the data by estimating a separate intercept for each wave while the log linear regression model estimated a common intercept for all countries in the sample. I used the Hausman test to compare the RE and FE models. If the Hausman null hypothesis is rejected then I will use the FE model because it is more consistent, whereas if I fail to reject the Hausman null then the RE model is retained because it is more efficient.

The three sets of aforementioned models were produced with only the independent variable (e.g. $MHPol_{it}$). I then repeated the procedure for the multivariate analysis with independent and control variables. Log linear models were also produced for each wave, and goodness-of-fit chi-square test was used to see how well each model fit the data. The FE and RE models included wave-specific intercepts, and robust option was used to correct for heteroskedasticity. Stata version 12 was used for all analyses.

RESULTS

Figure 1 is a map showing countries in various stages of mental health policy adoption. The Atlas data indicate that 148 countries adopted mental health policy and 45 have not done so from 1950 to 2011. Descriptive statistics and correlation matrices for mental hospital beds, general hospital beds, and all psychiatric beds are respectively presented in tables 1, 2, and 3. Univariate regression results for the main independent variable are reported in table 4. To assess the relationship between phase of mental health policy adoption and bed rates I had initially divided the variable into five categories – innovators, early adopters, early majority, late majority, and laggards. The results of table 4 show that between phase effects were almost entirely driven by the innovators, pointing to the difference between innovators and other groups in mental health system reform. I thus retained the 'innovators' category, collapsed the three later adopting groups (early adopter, early majority, late majority) into a 'late adopters' category, and renamed laggards as 'non-adopters' for the mental health policy adoption variable for subsequent analyses. Regression results for these models are reported in table 5. Model 1 ("baseline model") include only

control variables, while models 2 to 4 ("multivariate model") contain independent and control variables.

The results indicate support for a model that stresses difference in bed rates by mental health policy adoption phase. Hypothesis 1 posited that late adopters of mental health policy are more likely than early adopters to reduce the number of psychiatric beds, regardless of type, in their country. The mental hospital bed rates (model 2) and overall bed rates (model 4) shown in table 5 confirm this hypothesis. I find no evidence in support of the corollary, or hypothesis 2, that late adopters of mental health policy have a lower likelihood of reducing the number of psychiatric beds than early adopters. In model 4, the expected rate of all psychiatric beds per 100,000 persons is 197% higher for innovators than late adopters, all else being equal. Moreover, in model 2 the expected rate for mental hospital beds per 100,000 persons also increased by a dramatic 241% for innovators as compared to late adopters, with all else being equal. These expected differences suggest late adopters are more likely to decrease the overall rate of psychiatric beds, and specifically mental hospital beds, than early adopters.[42] This was not the case for general hospital beds (model 3). Compared to late adopters, non-adopters have a pronounced 248% increase in the expected rate of general hospital beds per 100,000 population, as per model 3. This is preliminary evidence suggesting that late adopters are more likely than non-adopters to cut down on the number of beds in general hospitals.

Results for the mental health system and country demographic variables offer limited support for a model emphasizing change in psychiatric bed rates. The findings indicate that a mental health law makes countries significantly more likely to decrease the rate of all psychiatric beds. This confirms previous findings that the passage of psychiatric legislation augmented psychiatric deinstitutionalization in countries such as Australia (Callaghan & Ryan, 2012), United Kingdom (Linford, 2005), Italy (Palermo, 1991), and United States (McGarry & Kaplan, 1973). The mental health workforce seemed to be a countervailing force to deinstitutionalization in that the rate of psychiatrists or nurses is directly proportional to rates of mental hospital, general hospital, and overall psychiatric bed rates, holding all other explanatory variables constant. For every 10% increase in the rate of psychiatrists per 100,000 population, there is an expected increase of 2.24% to 2.56% in rate of psychiatric bed per 100,000 population, depending on the model. Likewise, the rate of psychiatric bed per 100,000 population is expected to increase anywhere from 2.25% to 2.56%, depending on the model, when the rate of nurses per 100,000 population increases by 10%. These independent main effects further correspond to a related, long-standing clash between proponents of institutional psychiatry and advocates of mental patients' rights (Novella, 2010; Koyanagi, 2007). Deinstitutionalization poses radical challenges to the basic tenets of medicine and traditional configurations of biomedical institutions, so it is not surprising that some of its fiercest opponents are psychiatrists and nurses. Psychiatric institutions may be significant contributors to the local economies of isolated communities, as is the case in former Soviet Republics, which means closing or downsizing them would dim the employment prospects of former staff and instigate other negative consequences on the local economy (Mundt et al., 2012; Scheffler & Potucek, 2008).

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[42] It also deserves mention, though not reported in the tables, that the expected log mental hospital bed rates for countries with mental health policy have a 0.17 lower probability (p=0.004) than non-adopting countries. The same relationship is observed for general hospital bed rates, though lower in magnitude and it did not reach significance (-0.017; p-value-0.902). Overall bed rates did not reach significance and displayed a coefficient in the opposite direction (0.04; p-value=0.744).

And finally, the pattern of statistical significance seemed to be especially acute when there are exogenous shocks to the mental health system in the form of war, natural disasters, and infringement of human rights. Oftentimes, mental health comes to the attention of local policy-makers after a terrible global tragedy, such as the Asian Tsunami or war in Afghanistan. For every occurrence of natural disaster historically, there is an expected decrease of 1% in mental hospital (model 2) or overall (model 4) psychiatric beds per 100,000 population. Disasters beings to the fore a combination of challenges, some unique to the health sector, that contribute to inequities in accessing mental health care: stigmatization, lack of empowerment within a highly vulnerable population, abuse of human rights and reluctance to change historical allocations of resources (WHO, 2013b). The relationship is the opposite for wars: general hospital beds per 100,000 persons is expected to increase by 57% (model 3) and overall hospital beds per 100,000 persons by 36% (model 4) for every instance of war. Nonetheless, wars help cast a spotlight on these challenges and the opportunities to prevent and alleviate mental health problems. It is promising to find that humanitarian and emergency relief have left an imprint on affected countries such that governments have been compelled to strengthen health systems during the recovery period.

The extent to which deinstitutionalization efforts are tailored to available national resources or population needs is limited. The results for the control variables show no support for the argument that population status (e.g. ethnolinguistic fractionalization; burden of mental, neurological, substance use disorders), spending on health, or national income level changed psychiatric bed rates over the course of a decade. The interaction of mental health spending and national income deserve further attention, perhaps using other indicators. Even where there is a political responsiveness to the burden of mental illness, the level of available resources earmarked to address it would depend on the state of the economy. So, even if a considerable percentage of the total health budget is allocated to mental health, this would not amount to much in terms of net resources if the level of national income is low. Another pertinent challenge is the uneven distribution of available resources to rural versus urban areas. Governments have an imperative to keep public finance under control or to make loan repayments, which means that mental health services are particularly vulnerable when public services have to be cut. Building a revenue collection and financing system that relies less on out-of-pocket payments and more on tax-funded mental health treatment or social insurance prepayment schemes is one way to advance the deinstitutionalization movement (Dixon et al., 2006).

Neither civil society (e.g. NGO's, user and family association) participation nor health information technology is a significant predictor of logged bed rates. This is contrary to prior expectations since civil society plays a vital role in challenging the prudence of government action and compensating for areas where mental health is given a low priority (Wright & Stickley, 2013; Sanchez & Katz, 2006). Also surprising is the non-significance of health information technology. Even if policy-makers give greater priority to mental health, a paucity of information and data infrastructure are key constraints on the development of mental health services and resource allocation. And lastly, I found no evidence to support the arguments that government effectiveness, community-based care, and mental health care in primary settings affect psychiatric bed rates.

I conducted three additional analyses to check for robustness of results presented in table 5 using alternate estimation methods. First, I estimated the three types of logged bed rates using ordinary least squares (OLS). Coefficient estimates for mental health policy adoption had magnitude and direction consonant with those produced by OLS with random effects, but the former set did not reach significance. This is likely due to violation of key

OLS assumptions. The results of Breusch-Pagan test, found on the bottom of table 5, suggest that the OLS with random effects is more appropriate than OLS alone. Second, I analyzed my dataset using OLS with fixed effects instead of random effects. The point estimates and standard errors of table 5 held. I suspect that country fixed effects relevant to bed rate changes changed over a ten-year period. The Hausman test results, also found on the bottom of table 5, pointed to the selection of random-effects models as the more conservative choice. In the third robustness check, I estimated logged bed rate changes with predictor variables lagged by one year. The coefficient estimates for the hypothesized effects followed the same pattern of significance reported in table 5, except for changes in standard errors for the covariates. This suggests little autocorrelation among the three waves of the WHO Mental Health Atlas dataset.

DISCUSSION AND CONCLUSION

This paper contributes to the empirical literature on health governance and also the neo-institutional literature on isomorphism. Deinstitutionalization represents a neo-liberal mode of emancipating people with mental, neurological, and substance use disorders from psychiatric institutions and supporting them to live in the community. The impetus is to move severely mentally ill people out of psychiatric institutions and into the community, then closing down part or all of those institutions. Today, more than a half century after the first country ratified a mental health policy, neither the sentiment nor the program has changed. National governments reflect, enact, and propagate deinstitutionalization in varying degrees. Policies are not only artifacts of nation-states' sovereignty, but also support of the internationally sanctioned ideologies . The act of adopting a policy allows countries to (re)build their public image and, indirectly, maintain their regional influence (Novella, 2010; Hazelton, 2005). However, national governments may not be compelled to address the needs of people with severe and chronic mental illness unless they realize that the epidemic has a direct impact on the economy (Knapp, 2012; Knapp et al., 2011; McDaid et al., 2008). A key example of the low policy priority given to mental health is the World Bank's 1993 World Development Report, which highlighted mental health as a major contributor to the global burden of disease, but failed to include anything in the recommended minimum essential health services that would address mental disorders (World Bank, 1993). If the programs associated with deinstitutionalization are to be improved, the original decisions behind enacting mental health policy must be rigorously evaluated.[43] My study is one of the first to test whether the universal aspiration to deinstitutionalize psychiatry has been attained using empirical data on national mental health systems. Having layered a temporal dimension onto the spatial dimension of this phenomenon, I was able to observe whether governments adapted or abandoned this particular core belief animating mental health policies.

I compared 193 countries belonging to different phases of mental health policy on the extent to which they comply with international norms surrounding deinstitutionalization. The cornerstone of deinstitutionalization is the reduction of inpatient, psychiatric beds. I

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[43] There is extant research focusing on providers and patients. Provider-specific studies compare hospital and community settings at a particular point in time using cross-sectional designs, compare types of providers or service models to divert people from hospital admissions, and cost or cost-effectiveness variations among these modalities. Patient-specific studies tend to follow people and measure changes in their clinical profile and quality of life as they experience episodes of decompensation, episode of treatment, and make the transition from the residence in psychiatric facilities to the community.

chose this particular indicator as the outcome of interest because it is an explicit, rationalized, and differentiated feature most commonly used to compare national health systems. Regression modeling of the standardized rates of mental hospital, general hospital, and overall inpatient psychiatric beds revealed variation between countries in the timing and intensity of deinstitutionalization. Early adopters offer prescriptive actions that are substantiated by efficiency logics, scientific evidence (e.g. epidemiology, cost-effective analysis), and technical knowhow that would not only facilitate policy diffusion, but help decision makers in later adopting countries discern appropriate from non-appropriate activities and goals. Late adopters draw on earlier adopters' experiences and have acted quickly in downscaling psychiatric institutions. Policy development and oversight are strongly linked in this scenario. I found evidence supporting this claim in terms of an increase in logged rates of psychiatric beds in mental hospitals and across all biomedical institutions for innovators relative to late adopters, after adjusting for characteristics of the mental health system and the country. This is not surprising when considering that deinstitutionalization has been happening in innovator countries for the past half century and their psychiatric bed rates have fluctuated since. There are movements of trans-and re-institutionalization, discussed in the Introduction, where trends of increasing psychiatric beds and mental health wards have been documented in developed countries (Pedersen & Kolstad, 2009; Lund & Flisher, 2006; Priebe et al., 2005; Scull, 2003). Finally, there are outliers like Japan, which adopted a mental health policy as early as 1950, but which also has one of the highest ratios of psychiatric beds per capita in the world (Hatta et al., 2010; Kuno & Asukai, 2000). Governments are just as likely to gain acceptance for unfamiliar practices, forms, and values associated with deinstitutionalization under the logic of legitimacy. Policy development and oversight are decoupled in this scenario. I did not find evidence supporting this diametrically opposing argument in rates of psychiatric beds for non-adopters relative to innovators, holding other control variables constant. The evidence suggests that late adopters of mental health policy - *ceteris paribus* - are more likely than innovators to reduce psychiatric beds, but this input-output-outcome relationship merits further research attention.[44]

My empirical results provided support for the independent impact of mental health law, workforce, disasters, war, and political imprisonment on changes in bed rates. My analysis, however, provided no support for the integration of mental health in primary care and community-based settings, civil society participation, health information technology usage, spending on health, national income level, and population mental health and social status. The absence of supporting evidence on these variables invites more research. Alternative indicators could be developed and used in multi-level analysis to see if the results reported in this paper are affected by the state of knowledge on variables chosen or by measurement error in the indicators themselves.

My study is limited in three ways. First, this is a study of contemporary mental health care. My panel includes only three waves of data ranging from 2001 to 2011, which prevented me from observing the dynamic process of mental health policy implementation. This limitation made it so that I could only make coarse grain comparison of the

[44] Resources are bundles of inputs used to promote health; combining staff, monetary capital, medications and other consumables. Outputs are volumes and qualities of prevention, treatment, care and rehabilitation services yielded. Outcomes are gauged in terms of symptom alleviation, changes in behavioral patterns, personal and social functioning, improved quality of life (including for families), and perhaps some wider social consequences to each individual service user.

implementation patterns among three phases in the mental health policy diffusion cycle. It may be the case that certain factors operate well before or well beyond the horizon of the study period. One scenario is that the least 'disabled' and most 'independent' patients are discharged first to show encouraging signs of moving people from hospital to community. This evidence of success would be harder to replicate in patients with higher needs and severe and chronic mental illness. As this closure process is underway, decision makers might be alarmed by the escalating costs, both in hospitals and the community. Governments that do not have separate plans and budgets would find it difficult to sustain both institution and community services during the transition period of closing and downsizing psychiatric institutions. Deinstitutionalization is a gradual process that occurs in multiple stages, so isomorphism may be observed for mental health policy adoption (first stage) but not necessarily for mental health care organization and practice (second stage). Simply put, deinstitutionalization could have fallen short at the first stage, reached maturity at the second stage, not have happened at all or, equally plausible, took longer than a decade to be actualized. Future research may investigate the linearity of the deinstitutionalization process in countries.

A second limitation is that my data did not allow for analysis of different translations of mental health policy, even if one was ratified. Every country has an amalgam of mental health policy components and, moreover, psychiatric beds make up one metric of accomplishment for deinstitutionalization.[45] Savvy policy-makers may be tempted to concentrate on changing only the areas of the health system that can generate visible and immediate benefits even if the need for them is lower. It is easier or cheaper to transform infrastructure rather than apply tacit knowledge in other ways, and in this sense it would not be surprising to see rapid reduction in beds in late-adopting countries rather than innovator countries.[46] Tacit knowledge takes longer to penetrate countries, especially ones with a decentralized government, because it is acquired mostly through learning by doing (Strumpf, 2002). Return on workforce development investments, for example, may take several years before improvements in treatment and care are observed. The (re)configuration of existing services also does not necessarily mean that there will be immediate improvements in clinical outcomes and quality of life for former patients. International organizations, civil society, and others have advocated, and continue to advocate, for a long-term commitment to service delivery from governments so as to support vulnerable individuals over time in a stable livelihood in the community.

Even though the crux of the philosophy of deinstitutionalization is about downsizing or downscaling psychiatric institutions, concomitant development of community-based services has just as much, if not more, importance for persons with sub-clinical threshold and clinically diagnosed mental, neurological, and substance use disorder. Documented rates of psychiatric beds found in general hospitals are the closest proxy of community-based services in this study. The utilization of psychiatric beds in general hospitals has the added benefits of reducing stigma of mental disorders, facilitating public access, minimizing violations of human rights, and bringing greater attention to the diagnosis and treatment of comorbid conditions (Candiago et al., 2011; Sealy & Whitehead, 2004; Bauer et al., 2001; Vazquez et al., 2001). Nonetheless, the extent to which psychiatric deinstitutionalization has

[45] I did not use the components of mental health policy as the main predictor variables because the Atlas dataset contains information for them in the 2005 wave only. The release of WHO MiNDbank would be an infusion of data filling this information void.

[46] The five countries in the innovator category are Argentina, Czech Republic, Japan, Kuwait, and Singapore.

been embedded in cognitive and cultural frames, rules, routines, and other settings remains to be measured. Deinstitutionalization may denote reduced bed capacity, but not less patient demand for treatment. Aside from measuring the shift away from dependence on psychiatric institutions, the methods of this study can be replicated for changes made to psychiatric departments in general hospitals, clinics, nursing homes, and private practitioners. It can also be replicated for parameters of mental health service utilization, such as admission rates, bed occupancy, average length of stay, readmission and relapse rates, default rates, and outpatient attendance rates. Deinstitutionalized mental health care also entails growing community-based services, which can be measured via the density of supportive housing, satisfaction of family caretakers, and prison populations. The extent of decoupling in loci of health care prompts future studies to look at the concordance between development of community services and reduction in institution-based services. Finally, the implementation of mental health policy depends on many country- and health system-level factors, which undoubtedly also play a role in a national government's decision to have adopted it in the first place. My results indicated that bed rate changed in contingent ways, yet the control variables I used are insufficient in explaining the inter- and intra-country variance. These findings provide impetus for future study on the institutionalization of deinstitutionalizing mental health care as a process shaped by characteristics of the countries, as well as one determined by the diffusion of mental health policy internationally.

In the past decades many countries have initiated extensive mental health care system reforms, and the main goal of these reforms has been transferring treatment of the mentally ill from psychiatric hospitals to the community. In many countries, structural reforms have been guided by mental health policies. Mental health policies are not, in and of themselves, necessarily "good"; the true measure of national governance is the configuration and performance of mental health systems. Institutional theorists have argued that practices are adopted solely for symbolic reasons if the institutional legitimacy they confer are "decoupled" from routine, technical activities of the organization (Meyer & Rowan, 1977). Institutionalized forms of practice could just as likely have evolved from their original, technical forms over time (Ansari et al., 2010; Westphal et al., 1997). Public health studies have demonstrated that community treatment models, namely forensic community outreach teams, home treatment, rehabilitation, crisis resolution, court diversion schemes, hostels, and assertive community treatment are more effective than hospital treatment models and can reduce the number of relapses and hospital admissions and shorten average length of stay (Euoprean Commission, 2013; Tyrer et al., 1989; Stein & Test, 1980). Close monitoring of patient status and their adherence to treatment have also been demonstrated as effective ways to help people with serious mental illness be integrated into the community (Slade, 2010; Davidson & Strauss, 1992). However, alongside the research supporting these reforms is research which has shown the negative, often unintended consequences of deinstitutionalization based on outcomes such as increase in the mortality rate and increase in trans-institutionalization rates of chronically ill patients, most commonly referred to as the "Revolving Door Syndrome" (Gafoor et al., 2010; Priebe et al., 2008, 2005; Strauss & Kastner, 1996). Psychiatric care is not divorced from other spheres of medical and social services, and therefore sound health service planning requires cooperation among constituents and sectors in order to adequately address the global burden of mental, neurological, and substance use disorders.

TABLES AND FIGURES

Figure 1. Phases of Mental Health Policy Adoption

Table 1. Descriptive Statistics and Pairwise Correlation Matrix of All Psychiatric Beds

Table 2. Descriptive Statistics and Pairwise Correlation Matrix of Psychiatric Beds in Mental Hospitals

Table 3. Descriptive Statistics and Pairwise Correlation Matrix of Psychiatric Beds in General Hospitals

Table 4. Univariate Linear Random Effects Models Predicting Psychiatric Bed Rates

Table 5. Multivariate Linear Random Effects Models Predicting Psychiatric Bed Rates

APPENDIX

Appendix A. Summary of Measures

Figure 1. Phases of Mental Health Policy Adoption

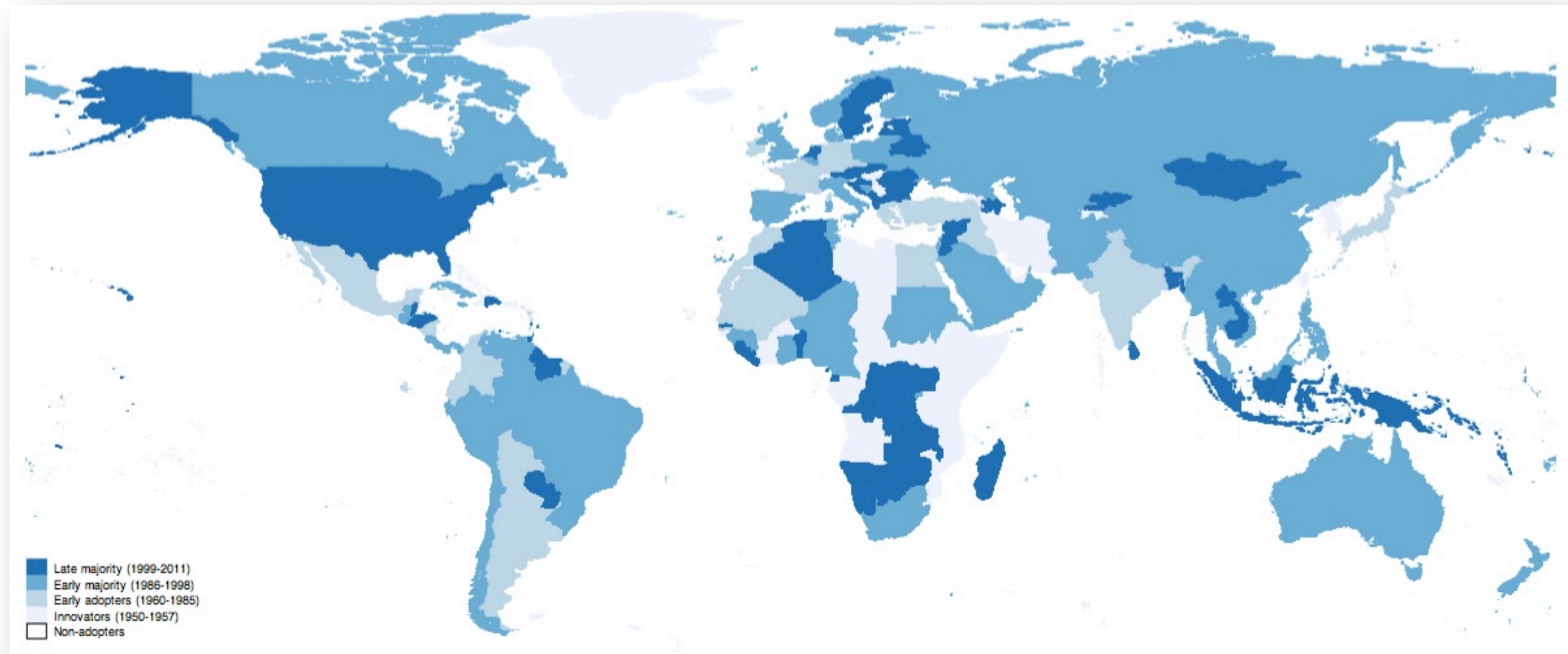

Table 1. Descriptive Statistics and Pairwise Correlation Matrix of All Psychiatric Beds

Variable	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Log of all psychiatric beds	2.76	1.71	-4.05	5.76																					
2. Mental health policy	1.58	1.51	0	4	-0.01																				
3. Mental health plan	2.78	1.35	0	4	-0.06	-0.45*																			
4. Mental health law	2.48	1.47	0	4	0.45*	-0.17*	0.03																		
5. Log of psychiatrists	0.01	2.12	-6.21	3.72	0.83*	0.02	-0.05	0.45*																	
6. Log of nurses	1.05	2.32	-6.91	6.81	0.79*	-0.04	-0.02	0.41*	0.77*																
7. Log of psychologists	-0.32	2.4	-6.21	4.66	0.65*	0	0.01	0.3*	0.77*	0.63*															
8. Log of social workers	-0.55	2.47	-6.91	6.17	0.64*	0.06	-0.02	0.28*	0.71*	0.62*	0.8*														
9. Mental-primary care	0.93	0.26	0	1	0.29*	-0.12*	0.03	0.12*	0.2*	0.23*	0.16*	0.05													
10. Community care	0.76	0.42	0	1	0.25*	0.03	-0.05	0.15*	0.24*	0.3*	0.18*	0.19*	0.32*												
11. User & family assocs.	0.79	0.41	0	1	0.15*	-0.08	-0.08*	0.24*	0.2*	0.08	0.18*	0.1	0.11*	0.08											
12. NGO's	0.88	0.32	0	1	0.06	-0.1*	0.06	0.07	0.04	0.13*	-0.02	-0.04	0.13*	0.24*	0.24*										
13. Health info. tech.	1.12	0.47	0	2	-0.16*	0.03	-0.04	-0.1*	-0.17*	-0.22*	-0.04	-0.04	-0.19*	-0.33*	-0.01	-0.03									
14. Log of MNS disorders	8.03	0.37	5.31	8.68	0.29*	-0.06	-0.07	0.17*	0.33*	0.31*	0.26*	0.13*	0.13*	0.3*	0.01	-0.01	-0.31*								
15. Pharmaceutical:Health spending	23.12	10.44	6	70.5	-0.3*	0.15*	0	-0.21*	-0.34*	-0.3*	-0.32*	-0.32*	-0.09*	-0.18*	-0.09*	-0.04	0.07	-0.13*							
16. Health spending (%GDP)	6.42	2.75	0.5	21.89	0.34*	-0.01	0.08	0.24*	0.34*	0.28*	0.45*	0.32*	0.12*	0.12*	0.21*	0.11*	-0.13*	0.22*	-0.2*						
17. World Bank income group	2.35	1.11	1	4	0.69*	0.1*	-0.05	0.29*	0.77*	0.67*	0.73*	0.71*	0.18*	0.35*	0.13*	0.08	-0.19*	0.32*	-0.34*	0.24*					
18. Log of disasters	1.13	0.96	0	4.56	-0.19*	-0.05	-0.03	-0.03	-0.08	-0.17*	-0.17*	-0.13*	0.01	-0.02	0.17*	0.15*	0.07	-0.01	0.08	-0.1*	-0.12*				
19. Instances of war	0.12	0.33	0	1	-0.15*	-0.08	0.09	0.03	-0.11*	-0.09	-0.08	0.04	-0.07	-0.05	0.14*	-0.01	0	-0.06	-0.02	0.01	-0.03	0.3*			
20. Ethnolinguistic fractionalization	1.24	0.6	0.01	2.52	-0.4*	-0.04	0.03	-0.17*	-0.48*	-0.29*	-0.43*	-0.33*	-0.11*	-0.12*	-0.04	-0.05	0.05	-0.2*	0.06	-0.17*	-0.35*	0.07	0.15*		
21. Political imprisonment	1.22	0.83	0	2	0.33*	0.06	-0.02	0.15*	0.36*	0.36*	0.46*	0.34*	0.02	0.12*	0.05	0.14*	-0.06	0.14*	-0.15*	0.31*	0.39*	-0.29*	-0.11*	-0.14*	
22. Government effectiveness	-0.08	0.99	-2.32	2.34	0.65*	-0.01	0.07	0.31*	0.69*	0.62*	0.69*	0.66*	0.21*	0.35*	0.19*	0.17*	-0.14*	0.25*	-0.3*	0.3*	0.81*	-0.05	0.02	-0.27*	0.4*

* p<0.05

Table 2. Descriptive Statistics and Pairwise Correlation Matrix of Psychiatric Beds in Mental Hospitals

Variable	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Log of all mental hospital beds	2.54	1.7	-3.51	5.44																					
2. Mental health policy	1.58	1.51	0	4	-0.04																				
3. Mental health plan	2.78	1.35	0	4	-0.1*	-0.45*																			
4. Mental health law	2.48	1.47	0	4	0.42*	-0.17*	0.03																		
5. Log of psychiatrists	0.01	2.12	-6.21	3.72	0.79*	0.02	-0.05	0.45*																	
6. Log of nurses	1.05	2.32	-6.91	6.81	0.76*	-0.04	-0.02	0.41*	0.77*																
7. Log of psychologists	-0.32	2.4	-6.21	4.66	0.61*	0	0.01	0.3*	0.77*	0.63*															
8. Log of social workers	-0.55	2.47	-6.91	6.17	0.62*	0.06	-0.02	0.28*	0.71*	0.62*	0.8*														
9. Mental-primary care	0.93	0.26	0	1	0.22*	-0.12*	0.03	0.12*	0.2*	0.23*	0.16*	0.05*													
10. Community care	0.76	0.42	0	1	0.22*	0.03	-0.05	0.15*	0.24*	0.3*	0.18*	0.19	0.32*												
11. User & family assocs.	0.79	0.41	0	1	0.01	-0.08	0.16*	0.24*	0.2*	0.08	0.18*	0.1	0.11*	0.08											
12. NGO's	0.88	0.32	0	1	0.04	-0.1*	0.06	0.07	0.04	0.13*	-0.02	-0.04	0.13*	0.24*	0.24*										
13. Health info. tech.	1.12	0.47	0	2	-0.13*	0.03	-0.04	-0.1*	-0.17*	-0.22*	-0.04	-0.04	-0.19*	-0.33*	-0.01	-0.03									
14. Log of MNS disorders	8.03	0.37	5.31	8.68	0.26*	-0.06	-0.07	0.17*	0.33*	0.31*	0.26*	0.13*	0.13*	0.3*	0.01	-0.01	-0.31*								
15. Pharmaceutical:Health spending	23.12	10.44	6	70.5	-0.26*	0.15*	0	-0.21*	-0.34*	-0.3*	-0.32*	-0.32*	-0.09*	-0.18*	-0.09*	-0.04	0.07	-0.13*							
16. Health spending (%GDP)	6.42	2.75	0.5	21.89	0.26*	-0.01	0.08	0.24*	0.34*	0.28*	0.45*	0.32*	0.12*	0.12*	0.21*	0.11*	-0.13*	0.22*	-0.2*						
17. World Bank income group	2.35	1.11	1	4	0.63*	0.1*	-0.05	0.29*	0.77*	0.67*	0.73*	0.71*	0.18*	0.35*	0.13*	0.08	-0.19*	0.32*	-0.34*	0.24*					
18. Log of disasters	1.13	0.96	0	4.56	-0.26*	-0.05	-0.03	-0.03	-0.08	-0.17*	-0.17*	-0.13*	0.01	-0.02	0.17*	0.15*	0.07	-0.01	0.08	-0.1*	-0.12*				
19. Instances of war	0.12	0.33	0	1	-0.24*	-0.08	0.09	0.03	-0.11*	-0.09	-0.08	0.04	-0.07	-0.05	0.14*	-0.01	0	-0.06	-0.02	0.01	-0.03	0.3*			
20. Ethnolinguistic fractionalization	1.24	0.6	0.01	2.52	-0.33*	-0.04	0.03	-0.17*	-0.48*	-0.29*	-0.43*	-0.33*	-0.11*	-0.12*	-0.04	-0.05	0.05	-0.2*	0.06	-0.17*	-0.35*	0.07	0.15*		
21. Political imprisonment	1.22	0.83	0	2	0.35*	0.06	-0.02	0.15*	0.36*	0.36*	0.46*	0.34*	0.02	0.12*	0.05	0.14*	-0.06	0.14*	-0.15*	0.31*	0.39*	-0.29*	-0.11*	-0.14*	
22. Government effectiveness	-0.08	0.99	-2.32	2.34	0.57*	-0.01	0.07	0.31*	0.69*	0.62*	0.69*	0.66*	0.21*	0.35*	0.19*	0.17*	-0.14*	0.25*	-0.3*	0.3*	0.81*	-0.05	0.02	-0.27*	0.4*

* $p<0.05$

Table 3. Descriptive Statistics and Pairwise Correlation Matrix of Psychiatric Beds in General Hospitals

Variable	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Log of all general hospital beds	0.98	1.84	-4.96	5.25																					
2. Mental health policy	1.58	1.51	0	4	0.14*																				
3. Mental health plan	2.78	1.35	0	4	-0.17*	-0.45*																			
4. Mental health law	2.48	1.47	0	4	0.35*	-0.17*	0.03																		
5. Log of psychiatrists	0.01	2.12	-6.21	3.72	0.71*	0.02	-0.05	0.45*																	
6. Log of nurses	1.05	2.32	-6.91	6.81	0.63*	-0.04	-0.02	0.41*	0.77*																
7. Log of psychologists	-0.32	2.4	-6.21	4.66	0.66*	0	0.01	0.3*	0.77*	0.63*															
8. Log of social workers	-0.55	2.47	-6.91	6.17	0.6*	0.06	-0.02	0.28*	0.71*	0.62*	0.8*														
9. Mental-primary care	0.93	0.26	0	1	0.15*	-0.12*	0.03	0.12*	0.2*	0.23*	0.16*	0.05													
10. Community care	0.76	0.42	0	1	0.19*	0.03	-0.05	0.15*	0.24*	0.3*	0.18*	0.19*	0.32*												
11. User & family assocs.	0.79	0.41	0	1	0.13*	-0.08	0.16*	0.24*	0.2*	0.08	0.18*	0.1	0.11*	0.08											
12. NGO's	0.88	0.32	0	1	0	-0.1*	0.06	0.07	0.04	0.13*	-0.02	-0.04	0.13*	0.24*	0.24*										
13. Health info. tech.	1.12	0.47	0	2	-0.16*	0.03	-0.04	-0.1*	-0.17*	-0.22*	-0.04	-0.04	-0.19*	-0.33*	-0.01	-0.03									
14. Log of MNS disorders	8.03	0.37	5.31	8.68	0.23*	-0.06	-0.07	0.17*	0.33*	0.31*	0.26*	0.13*	0.13*	0.3*	0.01	-0.01	-0.31*								
15. Pharmaceutical:Health spending	23.12	10.44	6	70.5	-0.36*	0.15*	0	-0.21*	-0.34*	-0.3*	-0.32*	-0.32*	-0.09*	-0.18*	-0.09*	-0.04	0.07	-0.13*							
16. Health spending (%GDP)	6.42	2.75	0.5	21.89	0.41*	-0.01	0.08	0.24*	0.34*	0.28*	0.45*	0.32*	0.12*	0.12*	0.21*	0.11*	-0.13*	0.22*	-0.2*						
17. World Bank income group	2.35	1.11	1	4	0.64*	0.1*	-0.05	0.29*	0.77*	0.67*	0.73*	0.71*	0.18*	0.35*	0.13*	0.08	-0.19*	0.32*	-0.34*	0.24*					
18. Log of disasters	1.13	0.96	0	4.56	-0.18*	-0.05	-0.03	-0.03	-0.08	-0.17*	-0.17*	-0.13*	0.01	-0.02	0.17*	0.15*	0.07	-0.01	0.08	-0.1*	-0.12*				
19. Instances of war	0.12	0.33	0	1	-0.12	-0.08	0.09	0.03	-0.11*	-0.09	-0.08	0.04	-0.07	-0.05	0.14*	-0.01	0	-0.06	-0.02	0.01	-0.03	0.3*			
20. Ethnolinguistic fractionalization	1.24	0.6	0.01	2.52	-0.34*	-0.04	0.03	-0.17*	-0.48*	-0.29*	-0.43*	-0.33*	-0.11*	-0.12*	-0.04	-0.05	0.05	-0.2*	0.06	-0.17*	-0.35*	0.07	0.15*		
21. Political imprisonment	1.22	0.83	0	2	0.46*	0.06	-0.02	0.15*	0.36*	0.36*	0.46*	0.34*	0.02	0.12*	0.05	0.14*	-0.06	0.14*	-0.15*	0.31*	0.39*	-0.29*	-0.11*	-0.14*	
22. Government effectiveness	-0.08	0.99	-2.32	2.34	0.63*	-0.01	0.07	0.31*	0.69*	0.62*	0.69*	0.66*	0.21*	0.35*	0.19*	0.17*	-0.14*	0.25*	-0.3*	0.3*	0.81*	-0.05	0.02	-0.27*	0.4*

* $p<0.05$

Table 4. Univariate Linear Random Effects Models Predicting Psychiatric Bed Rates

	Psychiatric beds in mental hospitals	Psychiatric beds in general hospitals	Psychiatric beds in all settings
Innovators	1.598***	1.388	1.825***
	(0.388)	(0.815)	(0.417)
Early adopters	-0.240	0.214	0.043
	(0.375)	(0.428)	(0.382)
Early majority	-0.130	0.127	0.290
	(0.317)	(0.340)	(0.317)
Non-adopters	-0.482	0.627	-0.089
	(0.453)	(0.435)	(0.384)
Constant	2.601***	0.707**	2.622***
	(0.234)	(0.241)	(0.246)
Number of observations	430	408	457

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Robust standard errors are in parentheses. Late majority is the reference group for the mental health policy adoption variable.

Table 5. Multivariate Linear Random Effects Models Predicting Psychiatric Bed Rates

Independent variable	1	2	3	4
Innovators		1.228*	0.506	1.091*
		(0.37)	(0.97)	(0.25)
Non-adopters		-0.088	1.247*	-0.021
		(0.41)	(0.34)	(0.30)
Mental health plan	-0.02	0.004	-0.162	-0.046
	(0.08)	(0.09)	(0.12)	(0.08)
Mental health law	0.15	0.161	0.193	0.202*
	(0.10)	(0.11)	(0.12)	(0.08)
Log of psychiatrists	0.266*	0.261*	0.232+	0.249*
	(0.11)	(0.11)	(0.12)	(0.08)
Log of nurses	0.265*	0.258*	0.233*	0.245*
	(0.06)	(0.06)	(0.09)	(0.05)
Log of psychologists	-0.033	-0.024	0.151	-0.068
	(0.09)	(0.09)	(0.17)	(0.07)
Log of social workers	0.017	0.007	-0.136	0.026
	(0.07)	(0.07)	(0.13)	(0.06)
Mental-primary care	1.355+	1.429+	-0.631	0.672
	(0.76)	(0.76)	(0.96)	(0.42)
Community care	-0.052	-0.063	-0.181	0.038
	(0.15)	(0.16)	(0.26)	(0.13)
User & family assocs	-0.398	-0.477	-0.319	-0.466
	(0.35)	(0.37)	(0.39)	(0.32)
NGO’s	-0.014	-0.036	0.865	0.179
	(0.42)	(0.53)	(0.66)	(0.50)
Health info. tech.	0.158+	0.176+	-0.047	0.059

	(0.09)	(0.09)	(0.13)	(0.07)
Log of MNS disorders	0.099	0.088	0.156	0.047
	(0.09)	(0.09)	(0.14)	(0.07)
Pharmaceutical:Health spending	-0.016	-0.02	-0.021	-0.016
	(0.01)	(0.01)	(0.02)	(0.01)
Health spending (%GDP)	-0.052	-0.04	-0.044	-0.026
	(0.04)	(0.04)	(0.05)	(0.03)
World Bank income group	0.188	0.176	-0.05	0.053
	(0.12)	(0.11)	(0.17)	(0.10)
Log of disasters	-0.086+	-0.094+	-0.016	-0.102*
	(0.05)	(0.05)	(0.08)	(0.05)
Instances of war	0.18	0.182	0.453*	0.307*
	(0.20)	(0.20)	(0.22)	(0.14)
Ethnolinguistic fractionalization	-0.247	-0.265	0.028	-0.271
	(0.22)	(0.21)	(0.24)	(0.18)
Political imprisonment	0.116+	0.115+	0.109	0.100+
	(0.06)	(0.07)	(0.09)	(0.05)
Government effectiveness	-0.017	-0.081	0.34	0.051
	(0.19)	(0.19)	(0.25)	(0.13)
Constant	0.524	0.579	0.111	1.937
	(1.37)	(1.53)	(1.80)	(1.22)
Number of observations	117	117	118	131
Breusch-Pagan chibar2(01)		20.08*	25.34*	25.71*
		0.00	0.00	0.00
Hausman chi2(13)		8.75*	14.27*	4.36*
		0.00	0.00	0.00

+ p<0.10, * p<0.05

Robust standard errors are in parentheses. ‘Late adopters’ is the reference category against which innovators and non-adopters were compared to. It is a combination of early adopters, early majority, and late majority in Table 2.

APPENDIX

Appendix A. Summary of measures

	Indicator		Definition	Source of Data	Waves	Operationalization
Dep.	Psychiatric beds	lnBEDS_MH_R	Rate of beds in mental hospitals per 100,000 population	WHO's Mental Health Atlas	3	Interval (logged rate)
Indep. - H1 (Eff.); H2 (Legit.)	Mental health policy adoption	i.MHPol_Yr_Diff	Five phases: innovators; early adopters; early majority; late majority; laggards	WHO's Mental Health Atlas; WHO-AIMS; WHO's MiNDbank	3	Ordinal variable constructed based on spline interpolaton of year
Ctrl - M.h. system characteristics	Mental health plan adoption	MHPlan_Yr_Diff	Five phases: innovators; early adopters; early majority; late majority; laggards	WHO's Mental Health Atlas	3	Ordinal variable constructed based on spline interpolaton of year
	Mental health law adoption	MHLaw_Yr_Diff	Five phases: innovators; early adopters; early majority; late majority; laggards	WHO's Mental Health Atlas	3	Ordinal variable constructed based on spline interpolaton of year
	Human resources - Psychiatrists	lnPSYCHI_R	Rate of psychiatrists per 100,000 population	WHO's Mental Health Atlas	3	Interval (logged rate)
	Human resources - Nurses	lnNURSE_R	Rate of nurses per 100,000 population	WHO's Mental Health Atlas	3	Interval (logged rate)

	Human resources - Psychologists	lnPSYCHO_R	Rate of psychologists per 100,000 population	WHO's Mental Health Atlas	3	Interval (logged rate)
	Human resources - Social Workers	lnSOCWORK_R	Rate of social workers per 100,000 population	WHO's Mental Health Atlas	3	Interval (logged rate)
	User and family associations	USERFAM	At least one user or family association in the country	WHO's Mental Health Atlas	1	Nominal (Y/N)
	NGOs	NGO	NGOs are involved in mental health in the country	WHO's Mental Health Atlas	2	Nominal (Y/N)
	Service integration	MHPRIM	Mental health within primary health care	WHO's Mental Health Atlas	3	Nominal (Y/N)
	Community-based care	COMMCARE_R	System of community-based care for mental health	WHO's Mental Health Atlas	3	Nominal (Y/N)
	Information system	HIT	Data on mental disorders in annual reporting systems	WHO's Mental Health Atlas	3	Nominal (Y/N)
	Financing and budget	MentalHealth_GDP	Total expenditure on mental health as % of GDP	WHO's National Health Account database; World Bank's World Development Indicators	3	Ratio (%)

	Medicine	Pharm_Health	Expenditure on pharmaceuticals as % of total expenditure on health	WHO's World Medicines Situation Survey	1 (1999)	Ratio (%)
	Disorder prevalence	lnDALY_MNS_R	Disability-Adjusted Life Years (DALY) rates per 100,000 individuals for mental, behavioral and substance use disorders	Institute for Health Metrics and Evaluation's Global Burden of Disease Study	3: 2000 (region only); 2004 (countries); 2010 (countries)	Interval (logged rate)
Ctrl - Country char.	Income group	INCOME	Income groups (low, lower-middle, upper-middle, high), based on GNI per capita, Atlas method (current US$)	World Bank's World Development Indicators; OECD's International Development Statistics online database	3	Ordinal (4 income groups)
	Natural disasters	lnDISASTER	Number of natural and technological disasters	Centre for Research on the Epidemiology of Disasters's EM-DAT The International Disaster Database	3	Interval (logged # disasters)

	Man made disasters	WAR, EVENT	Number of intra-, inter- and extra-state wars	Correlates of War Project's The New COW War Data (v4.0)	3	Nominal (Y/N instance of war); Interval (# of wars)
	Ethnolinguistic gradient	ELF: ETHNIC, LANGUAGE, RELIGION	Fractionalization Index is the probability (0-1) that two randomly drawn individuals come from the same population. It is a cumulative index of ethnic, language, and religion heterogeneity in countries.	Alberto Alesina et al., 2003	1 (mostly 2001)	Ratio (probability)
	Human rights	PHYSINT: POLPRIS	Physical Integrity Right Index ranges from 0 "no government respect for these four rights" to 8 "full government respect for these four rights." Political imprisonment, as one dimension of physical integrity, is an ordinal variable that ranges from 0 "many people imprisoned because of their religious, political or other beliefs in a given year," 1 "few people imprisoned," 2 "no persons imprisoned"	Cingranelli-Richards (CIRI) Human Rights Dataset	3	Interval (scale)

	Government effectiveness	GOVEFF	Government Effectiveness Index, which ranges from -2.5 "low" to 2.5"high"	World Bank's Governance Matters Project	3	Interval (scale)

Paper Three

The State of Deinstitutionalization: A Comparative Study of Mental Health Care Delivery and Service Organization in 42 Countries

A judicious mix of community and hospital services is necessary to achieve excellence in mental health care. Psychiatric institutions and specialist services tend to be inefficient and inhumane, and yet most countries continue to spend the majority of their national mental health budgets managing a small minority of people with mental, neurological, and substance use disorders in them. Deinstitutionalization is conceptually about overcoming the inertia inherent in psychiatric institutions. Transforming mental health systems is an onerous task which also involves developing services in other medical settings, such as primary care services, psychiatric services based in general hospitals, and community mental health services. Mental health care that is self managed or managed by informal community mental health services have the potential to reach a higher proportion of those in need at a low cost. How does theory translate into practice? And what are the challenges met in the implementation of deinstitutionalization? I surveyed 78 mental health experts spanning 42 countries on their perceived usefulness of different methods used to expand community-based mental health services and/or to downsize institution-based care. They were also asked about the conditions under which said methods were implemented. The results reveal several viable paths to deinstitutionalization. Respondents highlighted the most pertinent methods to disrupt institutionalized patterns of authority and facilitate the development of new mental health services. Countries' propensity towards deinstitutionalization depends—directly or indirectly—on their historical trajectories in political, social and economic development, and on opportunities to introduce mental health reform.

INTRODUCTION

In the past two decades, the global disease burden has been shifting from communicable to non-communicable diseases and respectively from premature death to years lived with disability (Murray et al., 2012). Mental and substance use disorders make up a substantial component of this global epidemiological transition. This cluster of disorders has substantial comorbidity with other diseases, such as HIV/AIDS, cardiovascular disease, and diabetes. The Global of Disease Study has shown that the burden of mental and substance use disorders, as a proportion of morbidity from all causes, has increased from 5.4% (C.I. 4.5%–6.2%) in 1990 to 7.4% (6.2–8.6%) in 2010 (Whiteford et al., 2013). In the same period, the total burden of mental and substance use disorders increased by 37.6%, from 133.6 million (95% UI 111.5 million–158.0 million) disability-adjusted life years in 1990

to 183.9 million (153.5 million–216.7 million) in 2010.[47] This historical trend is expected to continue given population growth and a changing age structure.

The sheer magnitude of mental and substance use disorders pose a challenge to governments of both developed and developing countries. A study commissioned by the World Economic Forum estimated that the cumulative effect of mental disorders on lost economic output constitutes upwards of US $16 trillion in the next 20 years, equivalent to 25% of the global GDP in 2010 constant dollars (Bloom et al., 2011). The achievement of Millennium Development Goals 4, 5, and 6 is indirectly tied to a sufficient provision of mental health services (Tsai & Tomlinson, 2012; Fisher et al., 2011; Skeen et al., 2010; Prince et al., 2007; Sachs & Sachs, 2007). Despite the threat to human development and poverty alleviation, the availability of affordable, cost-effective, and feasible interventions for mental and substance use disorders have been neglected on the agendas of most countries, development agencies, and foundations.

Mental and substance use disorders have not traditionally been treated as a global health priority, especially compared to communicable diseases and other non-communicable diseases. This is evident from the United Nations High-level Meeting on Non-Communicable Diseases that took place in September 2011, the resulting Political Declaration of which focused only on cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases (United Nations, 2011). The adoption of the Comprehensive Mental Health Action Plan 2013-2020 by the 194 WHO member states during the World Health Assembly in May 2013 is a promising change (Saxena et al., 2013). This is because services for mental and substance use disorders have typically been sidelined, and in many countries segregated altogether from mainstream health care (Degenhardt et al., 2009; Ustun, 1999). The incommensurateness between the burden of mental and substance use disorders and the resources allocated to preventing and treating them are especially acute in developing countries, which spend less than 2% of their health budgets on mental health (WHO, 2011). The commitment of governments and international organizations to either build or increase capacity for service provision for people with mental and substance use problems is needed.

Institutionalized, or centralized, care and community-based, or decentralized, care would both have to be considered in a discussion of mental health system responsiveness to the burden of mental, neurological, and substance use disorders. The majority of research on deinstitutionalization country case studies tend to look exclusively at the density and utilization of beds in institutional settings, as Candiago et al. (2011) did for Brazil, Pedersen & Kolstad (2009) did for Norway, Priebe et al. (2008) did for nine European countries, and Hatta et al. (2010) did for Japan. Fewer studies would draw a holistic picture of all mental health services offered by the public sector, as Lund and Flisher's (2006) did, for example, for South Africa. These two types of studies provide an excellent overview of historical trends and changes in service settings, and they have proposed evidence-based recommendations for changes to services norms. Treatment and prevention packages have

[47] GBD 1990 and 2000 looked at mood disorders (depression and bipolar disorder), anxiety disorders (panic disorder, obsessive-compulsive disorder, and post-traumatic stress disorder), schizophrenia, drug use disorders, and alcohol use disorders (alcohol-induced psychoses, alcohol dependence, and alcohol abuse). GBD 2010 encompassed a wider range of disorders, consisting of 20 disorders. They are anxiety disorders, eating disorders (anorexia nervosa and bulimia nervosa), childhood behavioral disorders (attention-deficit/ hyperactivity disorder and conduct disorder), pervasive developmental disorders (autism and Asperger's syndrome), idiopathic intellectual disability, bipolar disorder, unipolar depression, substance use disorders, and illicit drug use disorders (opioid dependence, cannabis dependence, cocaine dependence, and amphetamine dependence). Two residual categories capturing other mental and substance use disorders were also estimated in GBD 2010.

been developed for countries of all income groups (Tol et al., 2011; Patel et al., 2009, 2007; Chisholm et al., 2007).[48] Rarely, however, did I encounter public health literature that addresses the cost-effectiveness of treatment modalities as they are embedded in different settings. Exceptions include Marks et al. (1994) and Knapp et al. (1994), both based on the same trial where two arms (home-based versus inpatient and outpatient care) were randomized in the UK. The three papers written by Dan Chisholm (2004, 2007, 2012) are rare exceptions of cost-effectiveness studies conducted in countries that have dedicated meager resources to health care services for neuropsychiatric conditions. Along with Shekhar Saxena, Dan Chisholm (2012) estimated the financial cost of scaling up the provision of a set of mental healthcare interventions in sub-Saharan African and South East Asian countries to be as low as US$3.25-3.80 ($Int4.90-5.70) per capita per year based on a comparison of 44 individual or combined interventions for neuropsychiatric conditions. If primary care interventions are scaled up for depression, then between 10% and 30% of the present burden of depression could be abated in 14 subregions of the world (Chisholm et al., 2004). These studies have collectively demonstrated that patients can benefit from deinstitutionalization and that costs are no higher in hospital settings than in community settings. In spite of the nascent evidence on cost-effectiveness and clinical efficacy, treatment rates for people with mental and substance use disorders are low, with treatment gaps of more than 90% in some countries (Kessler & Ustun, 2008; Wang et al, 2007; Andrews et al., 2004). Even in developed countries, treatment is typically sought many years after the initial onset of symptoms.

The reasons for treatment and prevention gaps lie in both the supply and demand sides. Already mentioned is the scarcity of available human and financial resources, inequities in their distribution, and inefficiencies in their use (Saxena et al., 2007). Stigma toward mental and substance use disorders has a wide reach: the mores constrain the use of available resources, as well as sway decisions on distributing funding and interventions (Mak et al., 2007; Hinshaw, 2007; Corrigan, 2004). The combination of stigma and treatment gaps result in the social exclusion of individuals with mental and substance use disorders and violations of their basic human rights (Kleinman, 2009; Desjarlais et al., 1996). Screening, treatment, and other interventions for mental and substance use disorders are ultimately embedded in the general healthcare system. They would not be effective, or existent even, unless bolstered by an infrastructure built to care for individuals in the community, as well as in institutions.

A key public sector response to the issues burgeoning the burden of mental and substance use disorders and treatment gaps for them is deinstitutionalization, defined as the shift in locus of care from the traditional, institutional settings to community-based settings. Deinstitutionalization remains a challenge to implementing evidence-based treatment and preventive package, especially in developing countries (Ngo et al., 2013; Collins et al., 2011). There have been many affirmations that mental health care in all countries should be centered on services that are accessible to the general population (e.g. WHO 2011 World Health report, Lancet 2007 and 2011 series on global mental health, mhGAP intervention guide, WHO Global Mental Health Action Plan 2013). A so-called optimal mix of services pyramid is promulgated by the WHO when it comes to (re)organizing services for mental health, and it is replicated in Figure 1 (WHO, 2007). It illustrates how the majority of mental health care can be managed by patients themselves, their family members, or members of

[48] There are also 14 mental health policy and service guidance packages that were developed by the WHO to support policy development and service planning, even though they have not been published as academic books and journal articles.

informal community mental health services, such as community-based groups, religious organizations, and schools. A subset of that same population requires medical attention from formalized social service networks, which consist of primary care services, psychiatric services in clinics and general hospitals, and mental hospitals.

The reality, however, is that mental hospitals and asylums are the most prevalent, yet costly services available internationally. These are facilities that provide both specialized inpatient care and long-term residency for people with severe mental disorders. There are economic and human rights imperatives for closing down or downsizing psychiatric hospitals and mental asylums in favor of the development of community-based arrangements. Of the 2% of health budget spent on mental health quoted earlier, 80% of it is earmarked for mental hospitals (WHO, 2009). And yet, mental hospitals and asylums operate on a high margin cost per service user—the same resources that are diverted away from community-based services. They are also grounds where infringements on human rights have occurred in the forms of secluding, restraining, and housing patients in crowded and unhygienic conditions (Drew et al., 2011; Wing & Brown, 1970; Goffman, 1961). And finally, in countries with a significant rural-urban divide, biomedical facilities only serve a small fraction of the catchment area because they are too far or too difficult for people in need of services to get to. Family and community foster spaces that could facilitate the recovery process, and yet the need for self-care and informal community care are not met.

Despite advice from WHO and evidence pointing to a decentralized model of care, most countries have not made this transition. Developed countries have undergone three general phases in reforming their mental health systems: founding of asylums, decline of the asylum, and reform of mental health services (Goffman, 1974; Foucault, 1965; Szasz, 1961). This is credited to the advocacy for services to be offered in community settings, advanced clinical and epidemiological understanding of mental illnesses, the advent of psychotropic drugs to manage psychotic episodes, and financial incentives set for deinstitutionalization in national budgets (Glied & Frank, 2006). These efforts, however, have not culminated into success in stabilizing the medical conditions of former patients and reintegrating them into society (Eisenberg & Guttmacher, 2010; Torrey, 2010). Priebe et al. (2005) documented a phenomenon of "reinstitutionalization" that has emerged in European countries, which could constitute the fourth phase in the trajectory of mental health system evolution. Mental hospitals and asylums have a high inertia in both developed and developing countries. No one country is the total arbiter of deinstitutionalization. State and non-state actors have encountered many practical and policy challenges while actualizing the visions of deinstitutionalization. They have also devised innovative solutions in transforming mental health systems under trying circumstances. The purpose of this study is to seek expert opinions on strategies and methods useful in facilitating the process of deinstitutionalization in their respective countries.[49] It is a systematic investigation of existing and emergent approaches implemented to change mental health-related settings around the world.

The remainder of this paper is outlined as follows. I will elaborate on the themes that have emerged from answers to open-ended questions. Interspersed throughout the Results section are also responses to scales on the perceived usefulness of methods on two dimensions of deinstitutionalization: expand community-based mental health care and

[49] For the purposes of this survey, experts are defined in a two-fold manner as those who have been substantially involved in the strategic work or management of expanding community based-mental services and/or downsizing hospital-based care, and those who have studied and commented on these areas.

downsize institution-based care. I will conclude with a discussion of the contributions of this study, its limitations, and implications for global mental health research and practice.

METHODS

Study Design

In this initiative, the working definition of deinstitutionalization was generally the expansion and/or reorganization of mental health care. The methods to operationalize deinstitutionalization either helped to expand community-based mental health services or downsize long-term institution-based care. Mental health accounted for all mental, neurological and substance use (MNS) disorders, or conditions that affect the central nervous system and are leading causes to the global burden of disease. MNS disorders included, but were not limited to: depression, psychosis, bipolar disorder, epilepsy, developmental and behavioral disorder in children and adolescents, dementia, alcohol use disorder, drug use disorders, and self-harm/suicide.

The survey and recruitment materials were developed concurrently in three phases from July to December 2012. A literature review was carried out during the first phase to enumerate the approaches to deinstitutionalization that have been documented in peer-reviewed and grey literature. The investigators then deliberated on the content and format of the survey based on said information and on their collective experiences. They came to a consensus on a few decision rules. The survey and recruitment letter would be phrased such that they would not impose existing definitions of "deinstitutionalization" or "innovation" on the respondents. Open-ended questions would precede close-ended questions. The former seeks to assess the prevalent practices of mental health care in the respondents' countries while the latter seeks to assess the utility of known practices and those they had additionally endorsed. In acknowledgement of the disjunction between institution- and community-based care in question 5, the investigators prompted respondents to provide methods pertaining to other facets of deinstitutionalization in question 6. These two methods directly solicited respondents' perception of methods endorsed. In the final phase of survey development, the entire survey was piloted among three WHO staff members who were or remain involved in the reform of mental health care, and substantive changes were made based on their feedback.

This study is an assessment of deinstitutionalization from the vantage point of experts. Experts are key informants who could contribute to the overall knowledge base of deinstitutionalization by sharing their professional and personal insights as to how mental health services are organized and delivered in their respective country. The group consisted of researchers, program managers, and consultants and advisors working in public health and economic development organizations, hospitals, research institutes, and universities. They were asked to identify themselves as either a doer or an observer. A doer is someone who "has been substantially involved in the strategic work or management of expanding community based-mental services and/or downsizing hospital-based care." An observer refers to someone who "has studied or commented on expanding community based-mental services and/or downsizing institution-based care." I fielded the survey to doers only.

The subject recruitment period spanned a total of five months. The recruitment process is displayed in Figure 3. Phase 1 took place between December 7, 2012 and February

17, 2013. An initial list of 81 experts was compiled based on feedback from the WHO Mental Health and Substance Abuse Department and a wide range of stakeholders. However, during that time, only 76 experts were contacted because the other five experts' e-mail addresses were defunct and more time was needed to track down their most current e-mail addresses. Among the 68 experts who responded to the first letter, 49 self-identified as doers, five as observers, and two abstained from answering the question. The response rate of Phase 1 is thus 89% (68/76). The 56 respondents who belonged to the first phase sample provided 105 names in total for Phase 2 recruitment. Seven of the Phase 1 respondents each provided more than two names. In these instances, random numbers were generated for their referrals and the two referrals with the highest numbers for each of the seven respondents were then selected. Only 95 of the 105 doers referred were retained for Phase 2 recruitment.

Phase 2 occurred between February 4, 2013 and May 10, 2013. The formal letter of invitation, or letter 2, and the survey were sent to 152 people. The survey was made available in English only but responses in any language were welcomed. This target group consisted of the 57 experts purposively sampled during Phase 1, and 95 doers that they, in turn, identified given snowball sampling. The 57 Phase 1 experts, in particular, included the 49 self-identified doers and eight others purposively pulled back into the sample. Respondents were assured at the outset that they have the option of answering only parts of the survey directly relevant to their work and experiences. They also reserved the option to decline answering the survey. Those who declined to complete were encouraged to either answer only the parts of the survey relevant to them or suggest someone they felt who was more suited to answer the survey. Two reminders were sent to improve response rate. Of the 152 people recruited during Phase 2, 79 of them returned a completed survey, thus yielding a 52% response rate. Two people filled out the survey together but gave separate demographic information, and one person mistakenly filled out the survey twice, commenting separately on two different countries in which they had been involved in mental health work. I accepted all surveys submitted. The study protocol was approved by the institutional review board of the University of California, Berkeley.

The final sample consisted of 78 experts, and their descriptive statistics are provided in Table 1. I sought the participation from those located in any country and region of the world given that this is a study of global mental health. There was a fairly even representation from across 42 countries spanning all four income groups and six WHO regions, as shown in Figure 2. North America (1%), Middle East (5%), and Latin America & Caribbean (9%) were under-represented relative to the other four World Bank geographic regions. There was a preponderance of male respondents (72%). They were, on average, 52.7 years old (std. dev. 10.3 years). Three measures qualify the respondents' status as experts. First, they have an average tenure of 24.3 years (std. dev. 11.4 years). Second, the majority of them hold a doctoral (14%), medical (32%) or master's (8%) degree. Finally, target respondents represent a variety of sectors: academics (43%), civil society (39% local, 20% international), government (37%), international organizations (10%), and user and family organizations (8%). These experts collectively hold rich knowledge and experience on service provision for MNS disorders.

Analysis

Two researchers from the University of California, Berkeley (GS and EN) conducted the quantitative and qualitative analyses of the survey, a copy of which is included in

Appendix B. GS conducted the analysis of the quantitative data based on questions 5 and 6. GS cross-walked the methods provided for question 6 with those listed under question 5. For methods that overlapped, GS resolved the discrepancy in their ratings. Frequency distributions, univariate summaries, and histograms were then produced based on respondents' subject ratings according to the ordinal scales.[50] The methods respondents listed for question 6 were assigned codes using the qualitative data coding scheme and the respondents' wording were paraphrased and placed in parentheses. Frequency distributions are provided for questions 6 and 7 due to small sample sizes. The comments respondents gave pertaining to any of the 24 methods in question 5 or suggested method in question 6 were coded as qualitative data. GS also added three individual characteristics (age, tenure, job title) and six country characteristics (World Bank income category, economic group, geographic region, UN region, World Bank region, and WHO region) to the quantitative dataset. This allowed for cross-tabulations and calculation of correlations between code frequency and individual or country characteristics.

GS and EN conducted the qualitative analysis jointly. While GS had been involved in the data collection phase of this project and had previously worked with the WHO on issues of deinstitutionalization, EN was brought in as an independent analyst without previous involvement with the current project, the WHO, or deinstitutionalization research. The total number of words analyzed is 46,230, including 10,014 for question 3a, 13,711 for question 3b, 4,947 for question 4a, 7,237 for question 4b, 7,411 for question 5's comments, and 2,910 for question 6's comments.

Qualitative data analysis was conducted using framework analysis (FA), which combines the empirical rigor and inductive orientation of the grounded theory approach with the pragmatic, problem-centered dimension of policy research, and has proven suitable for healthcare research (Ritchie and Spencer, 1994; Ward et al. 2013). Prior to analysis, names and affiliations were removed from all survey responses and replaced with study identification numbers in order to reduce bias on the part of either analyst. GS and EN first underwent 'familiarization,' the phase of FA that involves full immersion in the data, momentarily bracketing out preconceptions, questions, and aims associated with the study, as a methodological technique to reveal all salient themes arising from within the data as such. At the end of familiarization, they independently documented what they found to be recurrent themes. The two lists were integrated, then refined with consideration of original research questions (this latter process was additive—no salient themes were discarded regardless of its concurrence with the original aim), and a final 'framework' and list of codes were created. Table 2 contains a list of the themes, codes, and their definitions. GS and EN then independently 'indexed' (FA's term for 'coded') all qualitative survey data using HyperRESEARCH software according to the code list. Divergences between the two analysts' coding choices were discussed and settled, resulting in a final HyperRESEARCH file that acts as the basis for the qualitative results presented in this paper. In summary, the analysts took into account the respondents' conceptual definition of de-institutionalization vis-à-vis their recount of the historical processes and mechanisms through which deinstitutionalization was implemented in their country, and finally generalizations were made across countries.

[50] Using a 1-5 ordinal scale (1 = not at all useful to 5 = very useful), respondents were asked to rate how useful they found various methods to downsize institution-based services. They also were provided a 'not applicable' option, denoting that the method had not been used in the country on which they were reporting.

RESULTS

Respondents were asked to rate the perceived usefulness of 24 pre-defined methods to their respective country. The 10 most highly ranked methods to downsize institution-based services and to expand community-based services are displayed in Tables 3 and 4, respectively. The findings provided in Table 5 can be interpreted in two ways. First, the various methods found useful for expanding community-based services are highly associated with those that are useful for downsizing institutions. In fact, the correlation of the methods' usefulness for expanding community-based services and downsizing institution-based services ranged from 0.58 to 0.96. Second, significant differences in ratings, where they exist, indicate that the methods are more useful for expanding community-based services than for downsizing institutions. And finally, respondents were also asked to provide additional methods, and four salient types emerged: managing the workforce; aligning financing; rallying support; and capitalizing on timing and sequencing.

To situate the methods in country contexts, thirty-three codes emerged from our framework analysis approach to the information provided by respondents. The descriptive statistics of these codes, and valence assigned to them, can be found in Table 6. The codes were aggregated into six themes: country context; health system; research; human resources; community-based care; and public outreach. In turn, I present these themes in three parts, organized in this section based on the open system perspective: exogenous shocks to the mental health system; mental health system; and public responsiveness (Scott & Davis, 2003). Exogenous shocks are infrequently occurring forces that have a seismic, yet unanticipated, effect on the organization and functioning of the mental health system. Mental health systems are not leviathans, rather I view them as a gestalt, examined via five facets: leadership and governance; financing; workforce; soft technology; service networks, and community-based care. Public responsiveness encompasses the views of and reactions toward mental health by a broad range of constituents, who may in turn exert influence on the system. The patterns and quotes presented in this paper are intended to be evidence for policy recommendations.

1 Exogenous Shocks to the Mental Health System

Exogenous shocks from the country that health systems are embedded in have either inhibited or spurred the functioning and development of mental health services. Therefore, I begin by situating our discussion on various historical factors respondents recalled as having affected mental health reform. R76 of Sweden gives an excellent reflection that is also a culmination of the codes that fall under the current theme of country context:

> Emergency situations, whether it was the war or tsunami, helped us to educate the importance of mental health and psychosocial need to all the people and agencies on the ground. There was also less control from the central mechanisms and as such it was easy to convince the locals and develop the community mental health services as we seen it.
>
> Similarly, crisis situations helped people to develop commitment towards their communities and a passion to address the need of the communities. When the age old traditions were shaken, it was easy to introduce new things in the service delivery

> too. For example when the community was sensitized towards human right issues, it was easy for us to talk about the rights of the mentally ill clients. Likewise when the traditional state owned institutions faced problems in funding and staffing, it was easy for us to introduce managing mentally ill in the community settings.
>
> Tsunami gave the opportunity of influx of huge amount of foreign aid and we used those aids strategically with a vision of establishing community based mental health services and were able to get the Mental Health Policy done.
> – R76

As the inertia of health systems gradually increases, what factors make it increasingly difficult to reform them? On the flip side, what factors would punctuate that equilibrium? I present three sets of exogenous shocks—humanitarian emergencies, demographic divide, and foreign presence—each of which could, depending on the circumstances, be interpreted as an impetus for the status quo or impetus for reform.

1.1 Humanitarian emergencies

Emergency situations, while unfortunate, can nonetheless serve as a critical window to implement fundamental changes to the system because they garner broad attention and elicit monetary support from the public. A multi-sectorial response is needed in the midst or aftermath of an emergency to protect and improve people's mental health and psychosocial well-being. Responses pertaining to humanitarian emergencies are generally divided into natural and man-made disasters. Three respondents representing Southeast Asia—Indonesia (R3), Sri Lanka (R41), and Philippines (R75)—commented on the devastating effects of the 2004 Indian Ocean earthquake and tsunami on their respective countries. Two respondents spoke about earthquakes in Chile (R52) and Haiti (R78). A common point across all respondents is that they identified natural disasters as a catalyst for change. Here are two examples:

> Development of mental health service in the primary care has been initiated since 2005. It was started in Aceh Province after the 2004 Tsunami. –R3
>
> Soon after the 2010 earthquake in Haiti, PIH/ZL recognized the earthquake as a catalyst to expand PIH/ZL's mental health services in Haiti and to support the government's capacity to develop a sustainable, community-based mental health system. One month after the earthquake the country's Minister of Health requested the assistance of PIH/ZL in supporting the government in developing a mental health response to the disaster. –R78

While the catalyzing role of disasters is shared across contexts, the point of departure is whether countries head in a positive or negative direction in terms of stigma after disasters strike:

> I can only speak from my experience but I suppose the tsunami (and OPT) gave us this opportunity but in my experience huge money is wasted by Regional Offices in conferences at 5 star hotels and travel and their own huge bureaucracy. –R41

> An example: 2010, great earthquake, 2 of the 4 psychiatric hospitals suffered damages that affect 50% of their old fashioned buildings.
>
> One, El Peral together with the Health Service offers the Ministry of Health authorities a plan: 2 new short stay services in general hospital of the surroundings, one of them considering the transference of human resources from the hospital, plus the discharge of 48 persons to 4 residential facilities to be created in the community. This means the end of short stay attention in the hospital. We tell the authorities that this plan will mean great conflicts, strikes and political turmoil. The plan is accepted and after 2 years and great difficulties is completely realized, except for the transference of medium stay facility for psychosis to the general hospital that was also considered. The ministry of health develops a similar technical offering to the other hospitals, it is rejected by the local authorities all together with unions and political representatives of the district. The ministry authorities prefer to avoid a conflict, as a result about 18 million dollars were allocated for reconstruction of an old psychiatric hospital that was formerly an hospital for tuberculosis, located far away from any important city.. This at the cost of not expanding the community and general health mental services and keeping persons institutionalized. –R52
>
> The acceleration of the programme was felt after Tsunami hit Banda Aceh in Indonesia and series of devastating typhoons in the Philippines. This disaster situations have became gateway for mental illness (once stigmatized condition) to be received in the community with greater tolerance as trauma and distress became reality and so evident during critical incidents. –R75

Corruption was observed in Sri Lanka and Palestine by R41. In Chile, post-disaster resources and technical support were dedicated to repairing mental health institutions and reverting to the status quo rather than building anew community-based ones. On a positive note, mental health actually gained wider acceptance in the Philippines. And finally, two respondents iterate the need for sound mental health planning as part of the national-level disaster preparedness:

> We decided to pilot the implementation of the project to Bicol Region which is considered as one of the more underprivileged region in the country which is vulnerable to disasters because of typhoons and volcanic eruptions. –R75
>
> The process of expending community-based mental health care and downsizing institution-based services is very much in play currently, and in nascent stages as the emergency in Haiti has been prolonged by cholera and other major challenges to addressing basic needs –R78

a point that will be increasingly emphasized given climate change.

In the case of man-made disasters, there are many forms and manifestations, and mental health service organization is susceptible to these winds of change. Albania, Spain, Yemen, Uganda, Nicaragua, Chile, and Georgia are all examples of states so fragile that they could not, and perhaps still cannot, sustain any form of mental health care. Respondents

within them all expressed how their respective mental health systems were adversely affected by the ruling administration. Here are four evocative quotes:

> First, the ambivalence, if not the [anti-Franco] resistance in the early years of reform, and in the last five years the effort to destroy everything done by right-wing governments, facilitating the privatization of services, first with companies public subject to private law, then with mixed formulas and now with direct private management of public health care. There is a setback that is a return to the Psychiatric Hospital Headquarters as assistance axis. –R50

> What went well was the roll-out of phase one, in the course of which the big institutions in Tbilisi were closed and replaced by smaller units…However, because of lack of continued funding after the summer of 2012 and because of political instability following the October 2012 [Georgia] election that led to a total change of government, the process is now stalled and we are waiting for more clarity as to which direction things will be going. In other words, the reform process is uncompleted and got stuck somewhere half-way. –R63

> In fact, mental health needs more advocacy and awareness as being a huge problem mainly after 2011 crisis [2011 Yemen revolution]. –R39

> The process in el Peral started due to the initiative and commitment of professional groups from inside and a complementary support from the South Metropolitan Health Service, that had a tradition towards community psychiatry even before 1973 when the [Pinochet] dictatorship repressed these initiatives. –R52

R59 of Afghanistan keenly says the following about service delivery improvement as a function of coupling interventions: "Addressing service delivery needs in a fragile state has to be accompanied by capacity building and policy development in order to foster structural changes within the health care system." Escalated violence does have positive impact on the mental health system, as abstracted from the following quotes:

> Along the 70s a new generation of professionals grew up fighting against the lack of freedom along the Franco's Dictatorship. Restored the Democracy in 1978, groups of leaders were ready to take over the direction of some psychiatric institutions and some become public officers under the health administration. The main result was the new General Health Law (1986), where the community-based care principles were fully integrated within the new Law. –R28

> From a general point of view, it was successful to use the emergency of the displaced Iraqis' crisis as an opportunity to attract interest toward mental health (including donors' attention) and to combine a bottom up approach with a top down one. –R8

> After the fall of the Taliban, the rebuilding of the Afghan health care system, from scratch, provided opportunities to integrate mental health into basic health services through the use of funds that became available during this complex humanitarian emergency. –R59

> Generally, there has been significant positive progress in the reorganization and development of mental health services in Rwanda, from our experience. It is important to consider the significant strides taken in Rwanda in improving health care delivery generally over the past decade, and the growing place of integrated mental health services in that process, especially given the legacy of the 1994 genocide. –R79

> The current work involves provision of mental health support to refugees [in India]. There are more than ten million asylum seekers and refugees in the world. Majority of them are from low-income countries, often residing in refugee camps. The mental health needs of refugees are often neglected. There is a higher prevalence of mental disorders and suicides in the refugee camps. –R48

These five respondents are empowered to make changes in Spain, Iraq, Afghanistan, Rwanda and India because health reform was coupled with the countries' overall rehabilitation efforts.

1.2 Foreign presence

There are four chief ways in which a focal country is influenced by a foreign actor to drive at mental health reform. First multilateral organizations. Even though a few countries in our sample have experience working with the EU or UNHCR, myriad have worked with the WHO. The country-WHO dyadic tie could be one of loose coupling or tight coupling. An example often cited to show that there's loose-coupling is commemorating World Mental Health Day every year or adopting mhGAP guidelines in the design of training programs:

> World Mental Health Day is a regular calendar activity in the regions and districts. –R44

> We have worked with the government on World Mental Health Day events each year, which have improved awareness about available services. –R78

> On going training, based on key concepts (mhGAP) + supervision…-R58

> We have developed a training program based on major mental disorders (all included in mhGAP) and the piloted a supervision and mentorship program for health center nurses to care for patients with major mental disorders. –R79

R78 also cited the use of "Building Back Better: Sustainable Mental Health Care After Emergencies" and R53 the use of "Integrating mental health into primary care." Furthermore, R76 commented on how active the mental health program in the European regional office was in publishing papers and reports during his tenure as the regional advisor for mental health. The next level in coupling would be the country that relied on the WHO for technical or financial support.

> The psychiatric nursing programme was one of the most successful mental healthcare expansion programmes in Ethiopia. This was initiation by the advice of the WHO and supported by the WHO. –R2

> Among major stakeholders the forces which advocate for mental health reform according to recommendations of WHO and other international organizations, are much weaker (these are some NGOs) than those who support status quo situation [in Lithuania]. –R17

> Although not a method itself, it is worth highlighting that WHO received funds for the implementation of the MH reform in the country [Albania]. These funds facilitated many of the initiatives that were undertaken, as well as the methods used. –R20

> The activities of the various plans and strategies implemented are embodied in the reports submitted to the WHO office in Niamey [, Niger] during the years 2000, 2001, 2002. –R23

Even from these four quotes one can see the level of accountability involved in country-WHO relationship. The highest level of coupling, what I called tight-coupling, often involves having team or unit in the WHO that works directly with the focal country's ministry of health, as R41 from Sri Lanka describes:

> All WHO Country offices have a small team (or at least one professional) skilled in community mental health. Very few WHO local professionals have any interest or skills in mental health. –R41

The reviews of WHO working alongside the government is mixed overall. These are respondents who expressed positive views:

> Many consultations with colleagues from WHO/HQ and from Collaborating Centers (UK, Italy, Spain), with MOH authorities, etc, helped gaining consensus around the needed MH reform. –R20

> With that in mind, a re-engagement of WHO/PAHO with the [Haitian] government could be an important component of helping to organize a coherent government plan for decentralization, and organization of fragmented responses among organizations. –R78

> Without doubt the most important change was the establishment of a small team at WHO Country Office. I was based for a number of years in Sri Lanka and often revisited West Bank and Gaza. Working for the WHO gave me instant access to senior officials and Ministers. It was very important however to get the WR on board and this was my first essential challenge! –R41

And here are those who expressed negative views:

> Another unrelated point was the lack of support from the Regional Office [SEARO] which constantly worked against us. We did not build up good relationships with the Regional Office and particularly the Regional Advisor for Mental Health. Our example was never promoted within the Region. –R41

Note that in each case the respondent directed his/her views specifically toward the WHO headquarter, regional office, or country office, so it is safe to assume that each level operated independently in the focal country.

Second, international NGOs such as Save the Children UK, Bipolar UK and CBM were mentioned to operate in Serbia (R11), Uganda (R45) and the Philippines (R75), respectively. Third, bilateral relations were mentioned but not in great detail. Respondents gave us evidence of their affiliated countries' concerted efforts to look outwards by learning from other countries and exchanging experiences and insights with other countries. They referenced specific countries (R50 Brazil and London; R76 Norway), "other countries" in general (R54, R58, R75, R79), countries of similar income status (R58, LMICs), and regional blocs (R20) in their transcripts. There was also mention of active bilateral relationships, such as the partnership between East London NHS and Uganda's Butabika national referral hospital (R45). Mental health reform was the purpose behind diplomatic missions in Jordan (R8) and Belgium (R54):

> Study visit to countries with already built positive experience of mental health reforms. –R8

> Provide opportunities to visit services in other countries where a similar system has already been developed. –R54

R78 also reported that his/her organization in Haiti received funding from both Grand Challenges Canada and the U.S. National Institute of Mental Health to carry out their work.

And finally, there were numerous responses regarding the role of international experts. While some respondents embrace the participation of foreign experts:

> Invoking foreign experts was among valuable methods of advocacy. Experts from old EU countries or representatives of international institutions get more attention by governmental bodies in Lithuania usually. –R46

> A useful contributor to the success of these programs has been the creation of global health delivery fellowships for qualified expat psychiatrists, who make a commitment to living full-time in the local context and working within the structures of PIH/ZL to help to elaborate the system of care. This has been important given the lack of psychiatrists in the country, and therefore lack of clear supervision and training on biomedical mental health interventions. –R78

others were not so inviting:

> One off consultant's reports rarely make an impact [on Sri Lanka]. –R41

> Flying in specialists from western countries [to Uganda] who conduct a short training and leave again. –R51

The contrast between these two sets of quotes make it clear that in order to avoid the "parachute phenomenon" involving the rapid entry and exit of international experts, the host organization and country government must put measures in place to make sure that the experts have staying power or their contribution would be sustained by a local expert.

2 Mental Health System

It is useful to review how respondents conceptualize their affiliated country's mental health system before I launch into a discussion on the five facets of the system. Here are two representative quotes where the respondents describe the scale of mental health systems:

> The health system has too many interphases at national, provincial and district level. The translation of legislation and policies is not consistent at all these levels. –R66

> One of the keys for success is that scaling must be (a) Smooth and proportionate (b) With a progressive and simultaneous development of the different levels…Think globally – Act regionally. Each region must be considered as a specific reality and be worked as an individual case. National plans dilute in regions. –R58

R31 gives a comprehensive overview of what should be accomplished as a result of deinstitutionalization:

> It is important that all departments of psychiatry (when they open or when they want to develop community services) have a clear plan of functioning with goals, a comprehensive and integrated mental health types of services (inpatient unit, day hospital, community mental health teams, home visits, etc.), needed facilities and resources. The plan must be adapted to the needs of the population it serves. –R31

The transformation of mental health systems generally entails a combination of the following: establish a community mental health center, dedicate acute beds or medium-stay units to psychiatry in general hospitals, downsize mental hospitals and asylums, and implement some form of community-based service. Respondents would give us an idea of the composition of their mental health systems by reporting a precise number of facilities within them, such as health centers (R12), outpatient mental health centers (R17), or general hospitals (R30). R32, of India, poignantly called these the "jigsaw puzzles of metal health care."

Although respondents tend to favor a mix of community- and institution-specific infrastructure and services, the exact model of deinstitutionalization varies from one country to the next. One interesting variation lies in the choice countries have made to proceed with deinstitutionalization in a contiguous or parallel manner. The contiguous approach to reforming mental health systems would start by "reduc[ing] the centrality" of psychiatric hospitals and asylums, according to R52 of Chile, by doing the following:

> The more feasible and practical option was to improve the quality of services being offered through upgrading the hospitals to function as state of the art tertiary care centers. –R47

> Transformational plan of the psychiatric hospital: re-evaluation of the patients to identify the ones who can be discharge, selection of few wards to start improving the environment conditions and implementing an alternative model of care, development of an admission unit within the psychiatric hospital to stop any other admission except for the acute cases. –R8

but attempts to do so cannot be made hastily:

> Reducing beds without proper community support structures does lead to a "revolving door" into psychiatric facilities and added stigma and discrimination as people tend to cause disruptions in their communities. –R53

The parallel manner to reforming mental health systems starts by thinking about where, other than traditional psychiatric institutions, that mental health care could be provided:

> The psychiatric hospitals were big and in quite bad conditions that they easily promote the feeling of urgency for a change among the "reformers". The risk is to invest a lot of resources (funds, human resources, time) for limited and also not so visible changes. It is obviously easier to establish something new from scratch than to transform/change something in something else. –R8

This is a generally a two-step process. The first step is to map out a continuum of care that should be aligned with users' clinical and recovery pathway. The second step is to build the infrastructure to fill the nodes missing in said continuum:

> Get started, do it locally and develop pilots. Keep it simple. Ask Ministers to open everything! If they can't ask the Director General or other senior staff…Providing mental health in primary care on its own is not the solution – it will fail. Local specialist mental health services have to be within reach. -R41

Any given piece of the jigsaw puzzle is not a panacea for inadequate mental health care. Rather, resources have to be harmonized across this continuum, which R50 synonymously refers to as a network:

> Convert mental health networks in clinical management units with autonomous management to integrate all organizational and budgetary resources, and coordinate the social services (social housing, homes ...) –R50

Innovations can be found in each node of the continuum of care.

Time and time again respondents would conjure up the notions of "top-down" or "bottom-up" diffusion of innovation in their mental health system. R77, of New Zealand, alluded to top-down service planning when he/she says: "Good planning is critical at all levels and this needs to cascade from national to regional and district planning." Respondents often referred to bottom-up planning as scaling-up (successful) pilots from a

sub-national (provinces, districts, regions, counties) level to broader geographic levels. Transplanting infrastructure and services from one unit to another unit belonging to the same level was also considered as a bottom-up approach. Deinstitutionalization is ideally a cyclical process where feedback between top-down mandates and bottom-up innovations iteratively occurs, but the following experience from the Philippines seems to suggest otherwise:

> Mental health policies at national level remains at national level and does not translate into proper action felt in the grassroots. Regional mental health policies, strategies and plans remain within the small "pilot" areas near the regional office or areas they have identified but does not involve the whole region or translates into better services at the grassroots in Camarines Sur, Camarines Norte which are also parts of the region. –R26

The process of changing the configuration of mental health systems could possibly be disrupted in either the top-down or bottom-line direction. As is, they do not meet in the middle.

The temporal dimension of deinstitutionalization seemed to be much more idiosyncratic to each country than the spatial dimension. In Italy and Georgia's experience, institutions were closed down very quickly.

> The transfer of resources from institutions to community services must be immediate, if the momentum is lost it will never happen...This was the consequence of a political decision by the government to speed up the process, by setting up a deadline for the final closure of mental hospitals together with economic sanctions for the regions not able to conclude the process on time. Actually, the process started in Italy in 1978 by the Law 180 was lagging behind and no steps were in place for the final closure of last hospitals. The political decision to speed up the process quickly changed the scenario. –R6

> Sudden closure shifted patients to prison [in Georgia]. –R75

Juxtaposing against this phenomenon, R63 from Georgia feels that building community-based care and downsizing institution-based care have to happen gradually; otherwise it would backfires as in the United Kingdom (R64):

> A key element in moving from one system to the other in a gradual phased fashion. –R63

> The old institutional models of care and treatment gradually re-emerged in the community context and impacted on the efficacy and acceptability of these services. –R64

Overall, I see a lack of consensus when it comes to the rate of deinstitutionalization.

The path to deinstitutionalization is not a linear one. Ten respondents pinpointed a seminal year (R31, 1999 in Portugal; R42, 1993 in Spain; R46, 2012 in Lithuania; R46, 1999 in Viet Nam; R57, 2011 in Georgia; R58, 1990 in Nicaragua) or a pivotal decade (R29, 1960's

in Tanzania; R52, 1960s in Chile) when their country began to embark on the path to deinstitutionalization. After that starting point though, countries follow strikingly different growth trajectories, as witnessed by these three respondents:

> From 1986 until now, I have worked in three different historical moments [of Nicaragua] and under three different ideological backgrounds. In the 80´s, under the Sandinista Revolution, MH was a top priority for the MoH. There was a fast process of de-institutionalization of the Psychiatric hospital in Managua (today Hospital Psicosocial Jose Dolores Fletes) and the introduction of community based services. There was a National MH Program. Lack of human resources and budget were the main constraints. After 1990 there was a radical conservative change and there was a slow but steady deconstruction of the process. The resources were privatized or closed, no coordination efforts and the hospital again as the center for intervention. Now, with the Sandinista party against in power, there are attempts to go back to the 80's, but political will is unclear, there is a lack of coordination among national and regional instances, no national policies (although there are plans) and a private sector that has occupied most of the space and is now a key actor in the provision of services. –R58

> In the experience of El Peral, [Chile] as a balance things went well, but at the cost of great conflicts, subject to political swings, pressures, ministry and local health priorities, in what was an extremely long process that finally couldn´t complete the hospital´s transformation, although at the end of 2010 it had 20% of the beds it had at the beginning. –R52

> A mental health Programme of Work (POW) was developed (2007-2011) for implementation [in Ghana] and now a Mental Health Strategy mental to promote community mental health (2013-2018) is almost being finalised. –R60

Respondents have preliminarily offered the dearth of facilities, personnel shortage, lax regulation as obstacles:

> However, the different real policies among the several administrative autonomous regions were quite dissimilar. While in Andalusia, Asturias and Navarra (around 9 million inhabitants) closed down all their psychiatric hospitals, these institutions were maintained in the rest of Spain, although some psychiatric units were also established at general hospitals and community-based care was more or less reinforced in the rest of territories. –R28

> Since there are not enough institutions for those who need institutional care in Ethiopia we cannot talk about downsizing institution based care. In our context community based care is decentralizing the care from the capital city as there had not been care outside the main city where only one mental hospital and one outpatient clinic used to be the care facilities in the country for a long time. –R10

> The unclear role and limited involvement of the district level made people concerned about how to scale up the community care services in the situation where there was little provincial mental health staff. –R56

This motivated us to deconstruct mental health systems into five facets in order to identify the challenges, opportunities, and methods that pertain to deinstitutionalization.

2.1 Leadership and governance

2.1.1 Policy and law

Mental health policy and legislation are legal provisions related to mental health. As seen in Figures 4a and 4b, respondents felt that local area or hospital-level plans, national or regional mental health policy, strategies, and plans, and mental health legislation were more useful for expanding community-based mental health care than for downsizing institution-based care, respectively. R54 clearly articulates what the process ought to be normatively:

> Translating intentions into policy with clear vision, timetable, funding streams, implementation guidance and support, monitoring and expected outcomes. –R54

Deinstitutionalization, however, is a tall order for policy-makers because it encompasses many diverse components, according to R1:

> Advocate policy that favour community mental health activities and explicitly mention downsizing large mental hospitals and opening up of more general hospital psychiatry units, build up network of like-minded mental health professionals, build up capacity of mental health professionals in community mental health, start building network of families as partners in care, introduce evidence based interventions. –R1

Nonetheless, having legislation approved by the judicial branch, policy ratified by the legislative branch, or plan enacted by the executive branch of a government is considered to be a huge milestone in and of itself:

> The National Mental Health Blueprint (2007 to 2012) has been a huge step forward. The focus was to extend mental health support to all age groups – young, adults and elderly. –R16

> In 2007 Seimas (Lithuanian Parliament) approved a modern mental health policy document. This was a good achievement on the level of MH policy formulation. –R17

> Having a policy and a plan, offered a 'justification' to undertake several consultations (with international visitors in some cases) at national and regional level, with policy-makers and with professionals from the field, with public and with private sectors, etc., that proved to be extremely useful during the implementation phase. Later on, we would simply recall to a document that had been done involving many actors. –R20

Policy and laws are merely "in the books" if implementing them proves too arduous or there is no motivation to promulgate them at all. The respondents pointed out how mental health policy and laws are symbols of the deinstitutionalization process only:

> [Lithuanian] Government tends to follow path of imitation of reforms, when in documents changes are going on, while in reality there is still a heavy dependence on culture of stigma, paternalism and primitive option of biomedical model (medical model of mental disabilities is strongly prevailing over social model of mental disabilities, promoted by UN CPRD). –R17

> I have not seen much in the way of effective legislation [in Haiti] and it took me years to find someone who could actually tell me the legislation. –R18

> When I worked in Uganda the mental health act was old and hardly applicable. –R51

> Legislation takes a long time. In Afghanistan nobody in the MoPH knew where the mental health act was. Formally it existed but nobody had seen it or had a copy of it. –R59

> The Philippines does not have Law specific to mental health. The bill for MH law had been filed in 2007 but remain dormant in the Philippine congress ever since. –R75

Another possibility is that policies and laws are not properly implemented, thus bringing about consequences largely unintended:

> Before its passage, a New Mental Health Law was perceived as an attempt to form a parallel structure and separate psychiatric services from primary health care. A lot of time, energy and resources were lost due to this misunderstanding resulting in a procrastinating in a passage of the LAW. –R9

> It is our observation that community mental health has been a failure because of the current mental health law of 1951 (Mental Disorders Act). The advocates for the removal of persons with mental health problems from the community and have them institutionalize them in mental hospitals. –R13

These are instances where a parallel system was created or, worse yet, institutionalization was perpetuated due to loopholes in the policy and/or law.

Why did these policy and laws become obsolete or fail altogether? First, one must differentiate the importance and role of policy versus law, as R53 had elaborated on here:

> Legislation that clearly sets out community mental health care and integrated hospital care is important but not sufficient to ensure effective community and decentralized care. One may even suggest that legislation is a necessary but nor sufficient backdrop to community mental health. The Mental Health Act of 2002 in SA states clearly that mental health should be provided primarily in community and primary care settings. It also determines that certain mental health functions must be integrated into general hospital services but this has not occurred to the degree anticipated….

> Policy is also important but does not carry the sanction of retribution and compulsion that law does and is therefore not as effective as legislation. On the other hand policy can include levels of detail and strategic and implementation plans that legislation cannot….
>
> Law is "stronger" than policy in making sure that mental health is implemented in a particular manner. –R53

To reiterate, legislation is a necessary but not sufficient condition to expanding community-based mental health care and downsizing institution-based mental health services; policy must be coupled with law. Furthermore, a plan is needed to operationalize the terms set up in policy and law:

> In Portugal, the methods that proved to be more effective in the first phase of the mental health reform were the approval of a new mental health legislation and a new mental health policy. However, it was the development of a national mental health plan, initiated ten years later, that really made possible the implementation of most of the goals established in the policy. –R43
>
> At the time when I was the program manager (2005-2008) of the mental health programme in [the Philippines'] Health Department, we were aware that the MH policy had been written but (crafted since 2001) does not have an implementing guideline. Because of this, the policy remains to be just piece of paper that was un-appreciated and therefore not put into service. To make it a living document, we convene our Non Communicable Disease coordinators from the different regions as well as other MH stakeholders in a workshop that would put flesh in the policy. After a hard and arduous process, the implementing guideline was signed by Secretary of Health which then became our main instrument in establishing community mental health. –R75

To give law, policy, and plans "teeth," respondents felt that funding and other resources must be earmarked specifically for deinstitutionalization:

> Having policies and legislation [in Pakistan] is useful however given the fact that often commensurate resources are not provided for implementing the policies and legislations. –R47
>
> In this aspect, the National Plan [of Chile] didn´t receive the enough budgetary support to accomplish its objectives adequately, especially in the enough expansion of community based mental health and psychiatry teams, but anyway results are very interesting. –R52

And finally, respondents are cognizant of the fact that policy and laws should be updated and revised:

> As earlier mentioned, Zambia has just started reforming the mental health system and our target in the repealing of the old law so that we can have a new law that will

> be responsive to the needs of persons with mental health problems and protect their human rights. It has not been easy to put in place a draft bill because the putting up of the draft bill has given birth to two critical groups that seem not to agree on critical issues that should go in the draft bill. –R13
>
> The mental health legislation is outdated regarding De-I approaches and should be improved considerably. –R46

I now shift the discussion to actions taken to sway the opinion of policy and law-makers so that the political climate becomes hospitable to mental health reform.

2.1.2 Political will

Respondents spoke at length about the need for leaders to have "will," "vision," "commitment," and "ownership" of the concomitant development of community-based mental health services and containment of institution-based services. R52 and R58 of Chile and Nicaragua, respectively, gave an excellent summary as to why political support is crucial:

> With no political will things don't go ahead. Besides, at the ministry of health level this is never a great priority and if problems and conflicts emerge, they will prefer to avoid them... With this I say, decisions must be supported at the highest possible level, involving most levels possible, and with the enough political and budgetary support. –R52
>
> Nicaragua is a perfect example of the relationship between politics and health and that a stakeholder interested in expanding services and help in a reform must begin by having a strong and proactive action at governmental level, being involved not only as potential consultant, but as active actors in fostering change. –R58

Mental health policies, laws, and action plans cannot be actualized without the support of leaders, or else attempts to do so may be delayed or thwarted. Those who lobby for government support do so in a very direct manner, so that politicians and civil servants would realize that enacting deinstitutionalization is a win-win move. Advocates share a few common ways of engaging legislators, politicians, and policy-makers. R41 explained on how building relationships with leaders requires savviness, persistence, and careful planning:

> Get to know the process of how decisions are taken (including across Government) e.g. HR plans in Vietnam where most Ministry of Health staff were not aware of plans by the Ministry of Education to invest in a massive increase in the general health workforce. This takes a long time. One off consultant's reports rarely make an impact. Perhaps our greatest impact was working alongside staff responsible for mental health policy at the Ministry of Health and helping to write the Policy documents, including the National Mental Health Policy. I spent months in the MOH Sri Lanka doing this work…
>
> Bell curve – who changes and who doesn't. Know key players and remember most People are scared of change. Do not try and tackle institutional change head-on as

> Problems are rarely solved in Institutions which created them. Adopt an approach where you slowly change the service which will change people's thinking and attitudes and ask people to visit and make even better changes in their areas…
>
> Build relationships with senior staff and Ministers and this takes time. Be prepared. Presentation of information/evidence should be quickly understood and initially less than a page – Ministers have short attention spans and do not read large documents. Be realistic and do not ask for huge increases in resources. –R41

These are broad-based efforts intended to capture the attention of leaders:

> The community engagement was reinforced by regular meetings with community leaders in which reports about our activities would be presented and testimonials from patients and families would also be presented. The community would give honest feedback and direction about the programme and we took these feedbacks seriously. –R2
>
> More important are the oral submissions and the seminars we had with parliamentarians who later assigned the committee on health on a fact finding mission. After the national tour, a parliamentary report was produced with recommendations that the old law and the policy be reviewed. –R13
>
> There is also the demand from the general public to approach Members of Parliament to write in to the mental health institutions to respond to all sorts of mental health issues. -R16
>
> There were meetings with local authorities and central authorities organized, trainings facilitated, opinion letters delivered. R-46

Advocates made themselves heard through letter writing and meetings held on an ad hoc basis. R5, a respondent from Indonesia, further stressed the need to incorporate anecdotal success stories, pilot program results and campaign messages (i.e. World Mental Health Day) in correspondences with leaders. There were also more formal and targeted ways to secure leaders' commitment to deinstitutionalization, which requires them to be physically present and interact with others:

> Our first step in providing Capacity building for LGUs which starts with forging partnership with the LGUs and signing of memorandum of agreement with HELP Learning Center Foundation (HLCF) stipulating the role of each partner. –R26
>
> A committee of MH professionals, MH advocates and law-makers was created to promote public discussion of new legislation on the rights of people with mental disorders (including compulsory admission and compulsory treatment), and on the organization of mental health services. –R31
>
> Participation in work groups launched by ministries was more unsuccessful in the final outcome than successful as our input was not recognized finally. E.g.

> Implementation plans of National Mental Health Strategy for periods 2008–2010 and 2011–2013. –R46

> Lobby in the sense of working side by side with the MoH, stressing MH as a top priority, introducing MH in the political agenda, in providing guidance both at the national and regional levels. –R58

What is salient across these quotes is that leaders would only escalate their commitment if they feel accountable to key stakeholders rather than to a faceless and nameless mass public. The most permanent approach is to create a unit that is embedded in the government and charged with overseeing deinstitutionalization:

> The families have formed a strong organization and are well represented at the ministerial level in the [Malaysian] Mental Health Promotion Council. –R1

> Establishment of mental health unit within [Jodanian] MoH and of a National Technical Committee for Mental Health. –R8

> There is also a dedicated agency ([Singapore] Agency for Integrated Care) to help to co-ordinate between the health and social sector. –R16

In consideration of decentralization, multi-level governance, or federalism, cooperation must be sought from all levels of government, which was especially true in Ethiopia (R10) and the Philippines (R75):

> Regional health bureau did not own the program and made mental health service one of its priorities. This may be due to lack of knowledge about mental health being one of the leading causes of public health problems of communities. –R10

> The success and failure community mental health depends on the local chief executives and the municipal/city health officers. The policies, advocacy materials, training modules, screening tools and other strategies can only do so much, but without the support of the mayors and governors the community mental health is next to impossible. –R75

National governments may not have enough clout to extend control into lower, sub-national level governments. Different levels of the government in a given country may hold different, perhaps conflicting, motivations as to why each should take up mental health reform. To further quote R75 on the situation in the Philippines and R63 on Georgia:

> The decentralization of government system in the Philippines in the mid-90s is a major hindrance in advocating for health programs, especially the mental health. The lack of control and/or supervision over the local government units by the Health Department made it very hard to promote the community mental health program…

> A good number of local chief executive considers MH not their concern because of other more pressing problems, not to mention that provision of mental health services had a bigger budget in the national government. Most local government

> units have delegated the health concern of their constituents at the bottom rung in the ladder of priorities. They would rather invest in infrastructures than services, where the results are more tangible to people. This is a sure formula that would make them more popular to voters. Majority of provincial governor would rather send patients with mental illness to National Center for Mental Health in Manila; they were willing to spend for the transportation and other incidental expenses to enable the families of these patients to be transported to Manila and be confined in the national institution. Some provinces or cities with enough resources would boast of building mental hospital or small center to confine the patients and prevent these patients to be town nuisance, especially for municipalities frequented by tourist. –R75

> In a country where everything depends on personal interests of politicians and/or decision makers such a long-term commitment is not guaranteed. –R63

Sustained political support does confer myriad advantages and resources, as stated by those in Singapore (R16), the Philippines (R26), and Ethiopia (R36):

> Support from the government (both in terms of policy changes and funding). –R16

> The LGUs are appreciative of our work and quite proud that their health clinics have developed mental health capabilities. They give free medicines as much as their budget and Philhealth capitation funds can provide. They are happy with the partnership and most of them make provisions for the HELP Program coordinator be part of their Health Board or enter into a resolution declaring partnership in health programs. –R26

> The government (and UNHCR) had assigned mental health as one of the needed components in the matrix of responsibility for the camps. Having this understanding of clear acknowledgment of the need and assignment of responsibility to IMC made implementation and communication easier. –R36

So the pay-off in having buy-in from leaders is high. Next, I focus specifically on issues around mental health system financing.

2.2 Financing

Resource constraints pose the main challenge to deinstitutionalization. Respondents laid out funding issues pertaining to INGOs, the WHO, and national governments. The WHO and national governments are the funding sources. R36 from Ethiopia and R63 from Georgia revealed the obstacles they face in vying for funding in order to sustain their work as INGOs:

> For INGOs, mental health training, capacity building and supervision of staff is usually the most expensive, time consuming and challenging task, given limited budgets, short and unpredictable program funding cycles, staff turnover and limited existing structures for such training. –R36

> Also, an important factor is the rather short-term interest of donors, who in this case financed the first phase but then failed to provide finances for the second. This is a serious obstacle. –R63

The majority of excerpts pertain to another type of recipient—those who are employed in the mental health sector and rely on funding from the focal country's government and international aid agencies (R5 from Indonesia and R11 from Serbia). R39 of Yemen gave us a good summary as to why this is difficult to appeal for funding particularly from the national and/or sub-national government:

> Lack of ownership at policymaking level has been manifested in different ways. For example, the very scarce resources for mental health priority areas from government expenditures, and the extremely weak supporting supervision by the health offices to the training outcomes whether in mental health or other areas. Such problems are actually chronic problems of the health system and are attributed to many factors including scarce financial resources and fragmentation of the health system (e.g. vertical programming). –R39

Policies and legislations simply cannot be enforced and strategies and plans cannot be implemented without budgetary support, as stated by respondents from Ghana (R9), Haiti (R18), Niger (R23), Spain (R42), Pakistan (R47), and Chile (R52). In fact, R23 went on to say that the "…lack of funding has completely compromised any improvement trends." Another version of the same message was stated by R76 of Sweden: "Political decisions and verbal intentions proclaimed by political decisions makers [carry little or no weight] as long as they are not financed." Mental health is often sidelined on political agendas or they are given a superficial treatment, as evident by the experience in the Philippines:

> A good number of local chief executive considers MH not their concern because of other more pressing problems, not to mention that provision of mental health services had a bigger budget in the national government. Most local government units have delegated the health concern of their constituents at the bottom rung in the ladder of priorities. They would rather invest in infrastructures than services, where the results are more tangible to people. This is a sure formula that would make them more popular to voters. –R75

This duality in stewardship and funding among national and sub-national governments was reverberated by R12 from Indonesia, a telltale sign that each country may not necessarily have a homogenous response to deinstitutionalization.

The finance mechanisms respondents suggested generally fall into one of three stages of mental health system maturation. In the earliest stage of deinstitutionalization, "double funding" is needed so that hospital downsizing and development of community-based services can happen simultaneously:

> Establish the community services before closing the beds…needs 'double funding' for at least 2 budget cycles (2 years). It takes at least that long to get the money out of the institutions [in Australia]. –R33

> A bridging finance program to develop new community services before parts of the institution could be closed releasing elements of the [United Kingdom] budget. –R40

In the second stage, financial resources could gradually be reallocated from institution- to community-based care once the appropriate infrastructure is in place in the community. These are excerpts that provide more details:

> The creation of mechanisms making possible the reallocation of resources from psychiatric hospitals to community services proved to be a key issue both to expanding community-based mental health care and downsizing institution-based services [in Portugal]. -R43

> Changing the funding method of hospitals, encouraging them to discharge patients in time…The changing into the global funding scheme was beneficial for many service users as they got discharged from [Georgia] institutions in 2008-2010, thus reducing days in hospitals and encouraging development of community-based services. Another model was introduced in 2011 – episode-liked funding; this also ensures the short-term hospital stays for users and calls for the need of supportive community-based care. –R57

> Especially important is to make sure that money spared through the downsizing of hospitals, which often were located at very attractive places – follows the patients to the new established community based services [in Sweden]. –R76

Note from the second and third quote that having a sound discharge plan in psychiatric hospitals and asylums is a second precondition to shifting money to community-based, rehabilitative services. At this stage resources are also starting to be segmented for service providers ("supply" side) and for service users ("demand" side). Five respondents talked about the role of health insurance in Chile (R4), Netherlands (R24), United States (R49), Nicaragua (R58), and Rwanda (R79). The introduction of insurance payment for neuropsychiatric disorders has been integral in patient choice of treatment, and been instrumental to deinstitutionalization ("Public insurance stopped paying mental hospitals for newly admitted patients to chronic wards since 2001" –R4).

During the late stage of deinstitutionalization, funds could be used to test different models of care that take place in the community:

> All have developed some special programs, specially forensic programs, in some cases at the cost of making great budgetary inversions for programs that function far away from any important population center, (the main forensic unit is far away from any big city of Chile). –R52

> Identified funding for pilot projects, with application process requiring outline of local strategy [in Belgium]. –R54

Pilot projects and programs will be discussed further in the community-based care sub-section. For now, what are the solutions respondents offered that would ensure pilot projects and programs be funded continuously? Respondents from Sri Lanka (R41) and

South Africa (R53) specifically invoked to term "ring fencing" to stress the need to separate expansion of community-based care from other items in the national budget. R77 said that mental health expenditures are closely monitored in New Zealand to ensure funding would not fall back into physical health services in the subsequent fiscal year. Ring-fencing and monitoring are two of the many safeguards that should be in place to make sure mental health reform is not susceptible to budget cuts if the government faces an economic downturn or, worst yet, a fiscal crisis.

2.3 Workforce

A major source of both challenges and innovative solutions involves the domain of the health workforce, including staffing, training, and incentives for performance and tenure.

2.3.1 Staffing

More than a quarter of the respondents (24) identified the shortage of qualified staff as a barrier. These included the lack of funding for community care staff regardless of country income level, the lack of human resource provision during the integration of mental health care into primary care cited in several upper-middle income cases, a general lack of staffing in LMIC's, and a lack of psychiatrists in particular in LMIC's. The lack of national or regional government provision for community mental health staff can limit the scope of deinstitutionalization efforts:

> The unclear role and limited involvement of the district level made people concerned about how to scale up the community care services in the situation where there was little provincial mental health staff. –R56, Vietnam
>
> The government would not recruit community mental health workers. –R41, Sri Lanka
>
> Insufficient endowments for nurses in community care. –R42, Spain

Beyond community-based care, many LMIC respondents discussed a broader shortage of staff, regardless of placement:

> Given the human resource gap in Tanzania, with a workforce which is only around 40% of the required numbers, provision of mental health services has been hugely constrained. –R44
>
> Lack of human resources and budget were the main constraints. –R58, Nicaragua

Another issue particular to LMIC's was the scarcity of psychiatrists. Whereas the dominance of the biomedical model and over-medicalized staff may be a problem across the board, in some LMIC's, staff ratios may not be the first concern. For instance, consider the case of Lithuania, an upper-middle income country, in which the high ratio of psychiatrists is cited as a marker of distance from the goals of deinstitutionalization:

> Teams are excessively medicalized – 1 psychiatrist for 20.000 population, 1 social worker and 1 psychologist for 30.000-40.000 population. With such composition of human resources, these centres cannot perform the main mission – provide community services, meet the needs of mental ill people and stop tradition of institutionalization. –R17

In contrast is the case of Haiti, where the lack of psychiatrists is viewed as an urgent problem, thus taken up as a target of intervention by a foreign NGO:

> In 2000 and 2004, Rwanda welcomed its first psychiatrist, and first neurologist, respectively, since the genocide. While there is still only one neurologist, the number of psychiatrists had risen to six by 2012… A useful contributor to the success of these programs has been the creation of global health delivery fellowships for qualified expat psychiatrists, who make a commitment to living full-time in the local context and working within the structures of PIH/ZL to help to elaborate the system of care. This has been important given the lack of psychiatrists in the country, and therefore lack of clear supervision and training on biomedical mental health interventions. –R79

Nonetheless, disproportionately medicalized staffing is not limited to high-income countries. For instance, in Laos (R15), the lack of clinical psychologists and occupational therapists is viewed as a limitation, leaving minimal resources for treatment beyond psychotropic drugs and basic counseling. In India, there exists both an overall shortage of psychiatrists *and* the tendency to funnel available resources toward medicalized approaches (R55). Even when psychiatrists are present in a given country, their high salaries and expected standards of living relative to other mental health staff might bar them from being included in a program (this issue will be discussed further below).

On the flip side, the availability of staff, not surprisingly, was widely cited (51 respondents) as a facilitator of deinstitutionalization. Human resource provisions were prompted variously by implementations of national and regional legislation and plans (or by foreign NGOs in some contexts where national legislation and plans were lacking), the placement of mental health staff in primary care and general hospitals, transferring staff from hospitals to community care, the allocation of staff across regions and beyond urban centers, and perhaps most importantly, the flexible sourcing and training of personnel in response to shortages. Finally, the role of nurses has proven pivotal in many cases, particularly in LMIC's.

Due to the lack of psychiatrists and other clinicians in LMIC's, nurses are crucial to scaling up mental health services, as they constitute a larger, more flexible pool with wider geographic distribution. In Indonesia (R12), nurses constitute 60 percent of the health care workforce, and their deployment in mental health has proven efficacious:

> The lesson here was the need to recognize the importance of focusing on primary care nursing and village volunteer capacity building rather than training doctors while recognizing the need for complementary roles of doctors and nurses and village volunteers for optimal community care.

> After implement Model of Professional Nursing Practice in Mental Hospital in 2000, the finding: decrease long of stay from more 100 days to 13 days, increase patient and family satisfaction.

Similarly, in Ethiopia (R36), the psychiatric nursing program (funded by the WHO) was lauded as "one of the most successful mental healthcare expansion programmes" in lieu of psychiatrists:

> New masters (MsC) programs for Clinical and Community Mental Health are available in Ethiopia for nurses. The 3 senior mental health officers recruited for [our] project and stationed at each camp clinic have such MsC degrees. Although IMC is providing additional training (e.g. mhGAP, mental health case management), having such qualified national staff available has been extremely useful in filling the gap for clinical mental health services in the camps, given that psychiatrists are often not available, and may not be willing to live in hardship conditions and require higher salaries.

One on-the-ground challenge facing community psychiatric nurses is the tendency for them to be burdened with duties other than mental health care (perhaps due to the perception of nurses as generalized staff), hence a need to ensure their proper deployment (R60). With such circumstances in mind, the clarification of provider roles is deemed a useful task (R78, R79).

In order to further discuss the pivotal role of nurses and non-psychiatrists in providing care in face of staffing shortage, I turn now to the broader issue of training.

2.3.2 Training

As with any other resource, political, legislative, and financial support constitute basic starting points for the sustained provision of staff. But in the case of many LMIC's, respondents emphasized the essential role of training, including formalized degree and certification programs, short courses and workshops by national and international experts, mental health training for medical professionals other than psychiatrists, and mental health training for non-medical staff and community members. Furthermore, two themes recurred across this array of approaches: the necessity of task shifting for the distribution of care beyond central hospitals, and the significance of ongoing supervision for the success of training programs.

Successful degree and certification programs discussed by respondents include the creation of Community Psychiatry Nursing and Clinical and Community Mental Health master's degree programs (R09, R36), the integration of mental health into nursing and medical school curricula (R5, R19, R31, R38, R47, R79), the provision of graduate-level psychiatry training (R09, R31, R42), mental health technician licenses (R34), and the certification of peer specialists (R49). Shorter programs involving workshops (R38), multi-day training (R26), and 6-month training (R21) have also been implemented. However, the efficacy of one-time training programs is questionable, as discussed below in relation to supervision.

On the flip side of providing mental health training to non-psychiatrists, some respondents discussed the need to reorganize traditional psychiatric programs (R47), as skills

required for community mental health care are often not accounted for, given the almost exclusive reliance on the biomedical model (R30, R50). As R30 writes:

> Most psychiatrists in Sri Lanka feel community mental health means giving medication in the community… Developing skills necessary for community mental health is not part of the training of psychiatrists here. The training at present focuses almost exclusively on the knowledge and skills based on the biomedical model. Attempts to include other skills even in a minimal manner failed. Influence of the pharmaceutical companies too could be a factor. Most of the diploma holders and MOMHs seem better equipped to the community setting. As the power is shifted in favour of psychiatrists here developing community services has been difficult.

Thus, the incorporation of non-biomedical models into the psychiatric curriculum may cultivate new generations of psychiatrists who act as facilitators rather than barriers to integrated community mental health.

Many (26) respondents also discussed the training of primary and general health care providers as a method for expanding care, using guidelines such as the mhGAP as well as newly translated or drafted training materials. This is discussed in more detail in the community-based care section, though it is worth noting that the cases that had negative experiences with this approach cited the lack of supervision (R1, R2, R4) and the already-heavy workload of nurses (R70) as reasons for failure. Overall, much more enthusiasm was expressed toward the success of training nurses than training physicians.

While formalized degree and certification programs for psychiatric nurses and community mental health workers might be considered higher-level interventions, the concept of and impetus for task-shifting are often described as bottom-up, at times creative tactics to either complement top-down planning or compensate for the lack of top-down resources. To take Sri Lanka as an example: a national mental health policy led to plans for the appointment of psychologists, occupational therapists, and social workers in all districts of the country. Additionally, "200 Medical Officers of Mental Health - MOMH (one for every 60,000 population) and over 500 nurses (one for every 30,000 population) [were appointed] to work in community psychiatry." Yet, despite such immense progress, staffing remained an issue. Thus:

> In areas with a shortage of staff (particularly nurses) full time psycho-social workers have been trained who have identified and supported almost 70% of new cases of serious mental illness. An evaluation of their role showed them to be extremely effective at managing people in the community and keeping people in contact with services. –R41

And in Eastern Sri Lanka, R30 writes:

> Task shifting was necessary and very useful. Doctors with some training and nurses did most of the clinical work. The consultant was involved only when the help was needed. The government would not recruit community mental health workers. With support from administrators we trained cleaning staff in the health sector to provide community services. They had an initial training and weekly ½ day training. They are the backbone of our services now. They maintain a database of all the clients and

visit their houses. As they are from the community they serve they are accepted well by the clients and their families.

While task shifting may have begun in many cases as a compensatory mechanism under undesirable circumstances, the involvement of paraprofessionals and community workers is in fact well aligned with the fundamental aims of deinstitutionalization beyond the question of need. As R26, of the Philippines, articulates:

> The idea of "professionalizing" community based mental health seems to be a contradiction in terms. There is a need to multiply the skills of psychiatrists among non-psychiatry general physicians and non-professional (paraprofessional) community workers in low and middle income countries because of the very low ratio of mental health workers per 100,000 population. There is therefore a need to recognize the "gifts" and capabilities of non-psychiatrists and paraprofessional and to encourage them to grow under supervision and with continuing medical education support. This cannot be done unless there is enough interested people with interest in mental health, mental health practitioners to develop and sustained efforts of the grassroots and of course, sufficient funding.

Furthermore, as R68 of Cambodia suggests, training members of the community has benefits beyond poor ratios:

> The aim of this training is to enable these key resource people to be able to identify people with mental health problems, manage their problems and refer to professional if they are not able to help them. These key resource people work alongside with TPO counselors in order to raise awareness about mental health and psychosocial problems to their community members. The training to these people is the key to success because *they are the ones that the community members trust the most*. They know the community much better than us and *they are the key to sustainability*, as they will continue to help the community members when TPO withdraws. [Emphasis added.]

Indeed, the array of trainees discussed by the respondents—community health workers and nurses (numerous respondents), volunteers (R5, R32, R48, R67), village leaders (R19), religious leaders (R19), traditional and religious healers (R19, R55), midwives (R26), teachers (R19, R55), peer specialists (R49), family members (R61), and former patients (R25)—suggests a more integrated approach to mental health awareness and care. In a sense, task-shifting that involves the community can be seen as a way to combat a limited conceptualization of deinstitutionalization, well captured by R41:

> Perhaps the greatest failure in Sri Lanka (before my time) was a policy of transferring large numbers of patients in a few areas of the country to smaller Institutions. As a friend said: 'when the army leaves the Barracks, it is still an Institution.'

Regardless of the importance of training, as R51 of Uganda writes succinctly: "Training without supervision and follow-up is not useful." In fact, the majority of negative comments related to training involve the dearth of supervision. However, the value of

supervision was shared among numerous respondents, not merely those with negative experiences implementing training efforts:

> Before 2007 a number of doctors from provincial hospitals were trained in mental health locally by a Lao senior psychiatrist but there were not regularly mentored to ensure that their mental health services were properly provided… Continuous supervision and coaching by BasicNeeds-Lao PDR team is highly needed to ensure the quality mental health services. –R15
>
> Primary care professionals trained on mental health stopped seeing people with mental disorders after a few months in many places (they could restart seeing them after a new training session). –R4, Chile
>
> Furthermore the secondary level of care was not ready to provide support and supervision and therefore it was difficult for the PHC workers to translate the knowledge, competence and skills learnt during the trainings in their clinical practice. –R8, Jordan
>
> Practice-oriented mental health trainings for general health workers and ongoing clinical supervision in the basic health care system led to substantially increased demand for and access to basic mental health care services. –R59, Afghanistan
>
> Building the community-supported mental health care network through a series of training courses on a wide range of skills for the collaborative team to develop skills in different tasks, including regularly supportive supervision and coaching for primary health care workers by the mobile team of specialists from provincial hospitals and the provision of favorable working conditions [was a successful approach]. –R56, Vietnam

In Ethiopia, an audit demonstrated that the training of primary health staff without continued supervision (or consistent medication supply) wound up with poor results: "virtually no primary care staff was providing mental health care." Furthermore, as the respondent commented, if any given intervention fails to prove efficacious due to inadequate supervising, negative opinion is formed of the program through word of mouth, leading to potential underutilization by the community (R2).

Several respondents also commented on the insufficiency of short-term, one-time training by foreign experts:

> Flying in specialists from western countries who conduct a short training and leave again [has not been successful]. If there is no continuous follow-through, e.g., supervision, in the place of work of the trainees, it will be hard for the local trainees to implement what they have learned. –R51, Uganda
>
> The INGO had brought in an expat psychiatrist for a brief time period who provided a two-day training in prescribing psychotropic medication for general healthcare staff, which was not based on national or mhGAP guidelines. Staff for this training had not been systematically selected and there was no follow-up or supervision. IMC assessments showed that healthcare staff needed more training and

> was not using skills effectively and that people with severe mental illness did not receive appropriate care and no follow-up was carried out. –R36, Ethiopia

Several respondents mentioned attempts to overcome the limitations of geographic distance through telecommunications, with varying degrees of success:

> Supervision of providers by email and by phone has been an important development which has supported the independence of local providers in delivering care for complex clinical presentations –R78, Haiti

> Training government doctors without proper mentoring [is a barrier to success]. Teleconference as a form of mentoring worked sometime for us but involves so much effort from the HELP Learning Center Staff to follow up the doctors, and nurses to prepare cases for the teleconference. –R26, Netherlands

> Comprehensive, Skype-based training program that was carried out for about 6 months in total: the first 3 were regular biweekly training sessions and then there were monthly calls to provide follow up. –R21, Australia

2.3.3 Motivation

Beyond the provision of training, the motivation and morale of staff members determines much in their tenure, turnover, and performance. The most commonly cited issue in the domain of motivation is the need for incentives. At the economic level, the presence or absence of financial incentives for professionals can determine the success or failure of a move to deinstitutionalize. R56 of Vietnam provides a backdrop against which it becomes clear why such incentives are necessary in the context of involving primary care in mental health service provision:

> Integration of mental health care into the existing primary health care system is promoted to be a best way for scaling up the community mental health care services especially where there is a shortage of the skilled specialists. In practice, implementing this is very challenging, and the results sometimes are not satisfying. More work was added to the primary health staff who was assigned to do everything related to health care for their population, while incentives were not used enough. Thus, they did not always have enough motivation to perform, which lead to undesired results. The over-use of specialists' time at the tertiary care level in dealing with mild problems at the primary care level makes the integration approach less sustainable.

For psychiatrists and general practitioners, work in traditional institutions and other branches of medicine may be more lucrative and offer more comfortable living conditions than community mental health work (R16, R36, R56). For public health workers, the lack of ability to claim for allowances might be an economic disincentive for participating in mental health work (R69). In some cases, the lack of wages for peer support workers and other volunteers lowered morale and participation, as they also needed to maintain other gainful employment (R7, R45).

Lastly, even those who did commit themselves to new community-based programs were not always satisfied with the outcome:

> When new services started functioning the salaries were sometimes insufficient, or necessary administrative preconditions were not met, and thus people who had committed themselves to the new approaches found themselves hanging in the air. (R63)

When financial incentives were properly realized, the results were generally positive:

> The creation of financial incentives for good innovative projects made possible the implementation of more than 50 new projects that could be used as demonstration projects. Some of these projects were evaluated and their results were very important to prove the effectiveness of community based care. –R43, Portugal

> Financial incentives for mental health professionals to move from mental hospitals to community services [was a successful method] –R6, Italy

> [The] creation of global health delivery fellowships for qualified expat psychiatrists, who make a commitment to living full-time in the local context and working within the structures of PIH/ZL to help to elaborate the system of care [was a successful method]. –R78, Haiti

Beyond the economic logic, another significant factor in participation is the social psychological complex involving stigma and prestige—in other words, symbolic capital. As R39 of Yemen suggests:

> Stigma is not only linked to the patient but also to the service provider. That is way many physicians do not prefer to specialize or work in mental health.

That is, as an indirect result of the stigmatization of mental illness, medical professionals may be reluctant to participate in psychiatric work due to negative perceptions from their community. Moreover, those who do choose the path of psychiatry may view the shift to community mental health work as a further diminishment of value to not only their work, but their social identity. Thus, strategies to increase the symbolic capital conferred by community mental health work is also a mode of incentivizing participation in the broader deinstitutionalization process:

> The closure of mental hospitals will be thwarted by professionals, especially doctors, if they will see the closure as a process in which their prestige and/or remuneration will be damaged. Therefore a high status must be bestowed to the work in community services. (R6, Italy)

Relatedly, R54 of Belgium notes the low engagement of psychiatrists, as community mental health work "doesn't fit conventional clinical career path to senior status," and R74 of Japan reported the alienation of psychiatrists from general hospitals, which "caused decrease of medical students who want to become psychiatrists."

Although not many respondents elaborated solutions to the problem of prestige, R8 of Jordan documents an innovative approach that might suggest some potential directions:

> The very strong investment in developing, building capacity, mentoring and constantly motivating a number of young psychosocial professionals as members of multidisciplinary teams working in community services was also fundamental to the success of the project. It attracted the attention, admiration and then support of the high level politicians, of the donors and of the strong personalities in the country such as some members of the Royal Family. It also contributed to combat the stigma against mentally ill people but also the very strong stigma against the mental health field and professionals.

Indeed, the establishment of community mental health work as a viable and desirable career path is key to the cultivation and retention of human resources.

Across the cases, more negative accounts were given of the participation and retention of doctors than nurses, although there were exceptions. In general, more enthusiasm was reported on the part of nurses newly trained for mental health work, whether in the community or in other health facilities. As R5 of Indonesia writes:

> One component of capacity building also did not fare well ie the training of primary care doctors. While nurses were enthusiastic in obtaining training and the attrition rate was low, in the case of doctors the results were far from satisfactory. Many doctors posted at primary care centers were fresh graduates who were focused on studying for post graduate entry and therefore did not take the training seriously. Even if they did express enthusiasm, they did not stay on long enough at the primary care center. Many of the primary care doctors were not local Acehnese (as opposed to the nurses) and had opted to go to Aceh only because it was considered a hardship posting and therefore they would be paid more, and more importantly the compulsory service would be shorter and therefore they would be able to get into post graduate courses earlier. The lesson here was the need to recognize the importance of focusing on primary care nursing and village volunteer capacity building rather than training doctors while recognizing the need for complementary roles of doctors and nurses and village volunteers for optimal community care.

A respondent who has worked both in Tanzania and in Canada reported difficulty in retaining psychiatrists in deinstitutionalization-focused work:

> There was concerted effort to obtain training of psychiatrists in developed and developing countries for the purpose of training and supervising primary health care workers. Many who went for further studies received better paying jobs elsewhere and did not return. It is only now that the country has been training psychiatrists for a greater part of the past ten years that we have begun to populate zonal hospitals with specialists. (R29)

As noted above, community health work does not fit the conventional notion of a career path for many physicians. And although responses reported more positive experiences with nurses, the possibility for career advancement remains relevant:

> The other problem was inability to retain the trained nurses. Since their career pathway was not carefully paved the nurses had to leave the job for a better career development which made the turnover very fast and this lead to closure of some centers. (R10, Ethiopia)

Aside from the career-focused approach to motivation, respondents cited the importance of and methods for inspiring interest and enthusiasm for leadership and staff, thus heightening commitment. One approach is participation in the community:

> Involving medical students in community health work and research so that they acquire skills and enthusiasm to work in rural areas. –R51, Uganda

> Nurses too were involved [in outreach]. They saw recovered clients actively participating in community activities and this gave enthusiasm to work, in the wards they only see patients in an un-well state. –R30, Sri Lanka

On the flip side, another respondent notes that going to the community, in the first place, requires existing motivation:

> The team must go to the community (with any of the different possible formulas adapted to the context) and not wait that the patient goes to the health facility. And, as I said in the previous point, this requires a lot of effort, commitment and motivation from the professionals. –R58, Nicaragua

While it seemed that enthusiasm or lack thereof can constitute the ethos and morale of an entire team (R15, R30), this doesn't prevent the capacity of a few to spark motivation:

> Strong leadership from a small enthusiastic and committed senior team able to take the staff with them on the journey. –R40, United Kingdom

Finally, empowering and recognizing staff in their work is another approach to cultivating commitment:

> Joint assessments and decision making by team members: This gets the nurses involved form the beginning. They take an interest and ownership. –R30, Sri Lanka

> Training, the supervision and the commitment of the nurses to establish units in their respective hospitals and dissemination of information to the community by the nurses went very well. –R10, Ethiopia

> Ministers, senior staff, clinical staff and Agencies (NGO's) and all people need to feel that they were responsible for making a difference and be recognised for their work and commitment. Small groups or oneself should never take all the credit. –R41, Sri Lanka

In some cases, the high turnover of staff is conditioned by exogenous forces (see discussion above) far beyond the program level. R36, working in Ethiopia, faced broader shifts across the healthcare system and constraints of the funding cycle:

> There was a turnover of medical directors (who were doctors and oversaw each health facility of which there was one in each camp) and other healthcare staff. Also, when one medical director left, he was often not immediately replaced. This made it challenging to work with consistent leadership and made continuity and capacity building difficult… For INGOs, mental health training, capacity building and supervision of staff is usually the most expensive, time consuming and challenging task, given limited budgets, short and unpredictable program funding cycles, staff turnover and limited existing structures for such training.

As discussed earlier in the paper, the stability of the health system is inextricably tied to the political stability of the country. There is no easy answer to such broad and deep troubles, and perhaps one response is to defer to creative technological means in face of human and natural volatility (see discussion of the case register in the information technology section).

2.3.4 Professional Response

Given the fundamentally radical challenge deinstitutionalization poses to the traditional conception and configuration of psychiatry, it is not surprising that some of its most stubborn opponents stem from within the health system. Such resistance can be categorized into several forms: resistance to downsizing or closure of hospitals and expansion of community care by hospital administrators, staff, and unions; resistance to the integration of mental health care into general and primary health practice by physicians and other health workers not previously involved in mental health; resistance to non-biomedical approaches to mental health by psychiatrists; and resistance to task-shifting by mental health professionals. As R52 of Chile aptly summarizes:

> Local and medical authorities of Health Services and catchment areas where a psychiatric institution is located often have common interests according to mental health attention, they share what I define as an unconscious collusion, both act in order to keep things the same, general health doesn't want psychiatric patients inside their hospitals, institutional psychiatrists want to stay inside their institutions.

Both the downsizing (not to mention closure) of hospitals and the expansion of community care are viewed as threats to the financial resources, power, and prestige of institutions. Respondents discussed lack of ownership across the general health system (R69), favoring of the status quo and unwillingness for hospital administrators to reallocate funding (R51, R62) or reorganize hospital structure (R62). As R54 of Belgium relays: "Hospitals are particularly resistant to community services 'filtering' 'their' patients." At times, health administrators may also fear conflict and act against deinstitutionalization, even to the disregard of normative economic reasoning:

> The ministry authorities prefer to avoid a conflict, as a result about 18 million dollars were allocated for reconstruction of an old psychiatric hospital that was formerly a hospital for tuberculosis, located far away from any important city. This was at the cost of not expanding the community and general health mental services and keeping persons institutionalized. –R52, Chile

Hospital staff can also constitute a powerful contingent in obstructing change, particularly with the assistance of unions:

> During the whole process there were even problems to be tackled with some forces within professional organizations and especially trade unions who considered community based mental health and sectorized team psychiatry to be against the interest of their members. These problems however could be overcome, even if they underlined time after time the necessity for even a bottom up approach. –R76, Sweden

> In case of downsizing of mental hospitals, loss of political support over time compounded by resistance from entrenched mental health professionals and paraprofessionals meant that this initiative withered away despite a promising start. –47, Pakistan

> The closure of mental hospitals will be thwarted by professionals, especially doctors, if they will see the closure as a process in which their prestige and/or remuneration will be damaged. Therefore a high status must be bestowed to the work in community services. –R6, Italy

> The first attempt to expand service in a community and downsize Accra Psychiatric Hospital in 1998, was met with a strong resentment from the psychiatric nursing staff who didn't want to leave the hospitals for the community care. –9, Ghana

On the flip side of psychiatrists who refuse to depart from the institution, general health practitioners resent the entry of mental health into their institution or practice, either due to the undesirable addition to their responsibility, workload, and training (R1, R61), or due to their own stigma toward mental illness (R70). Depending on the method for financing services, general hospital administrators may also view the inclusion of mental health care as a cost with little benefit:

> By law psychiatric services are free and financed from the budget allocations and psychiatric illness is not covered by NHIS. Service was never properly cost for assessment of actual funding needs. Poor financing of mental health resulted in neglect of the psychiatric service in the districts since it was perceived by the managers as a financial burden on the institution (eg. District hospitals). –R9, Ghana

A more conceptual, although no less economic problem is the entrenched ideology of the biomedical model.

> The hardest thing in the process was battling very rigid attitudes of the professionals and their reluctance for any changes in the way of their work. Inability to allow for the inclusive way of thinking as a consequence of the long term exposure to the medical model of disability embodied in the professionals. –R11, Serbia

> The attempt to take a multi-agency approach to rehabilitation of people with chronic mental illness by introduction of livelihood initiatives had failed. This was because

> treatment of mental illness is still seen as a purely medical or biological intervention and comprehensive rehabilitation is still a new concept in many parts of the world including Indonesia. –R5

> The acceptability of a non-medication treatment like psychotherapy, from the perspectives of both care providers and users, is still limited in a context where overreliance on medicines has existed for decades. The noncompliance with the stepped care guidelines by the care providers was observed in which sophisticated services of both medication and psychological treatment were applied for persons with mild disorders. –R56, Vietnam

Physicians were also skeptical of the participation of non-physicians in mental health care, as this disrupts traditional notions of medical knowledge and hierarchy. Respondents cited the refusal for medical professionals to value the input and contribution of nurses, PSWs, community workers, and laypersons (R30, R32, R49).

Although interest groups in favor of stasis tend to be more powerful than those in favor of reform (R17), respondents nonetheless have reported support and progress from many fronts. In Italy (R6), strong commitment was found among a professional leadership as well as administrative and political support. In Spain (R28), dedicated professionals pressured the institutions through strikes, and formed professional societies to counter the resistance of unions and other detractors. In Chile (R52), a psychiatric hospital (El Peral) uniquely favored rather than inhibited a community mental health network in its historical catchment area, and a critical mass of allied mental health professionals was formed. In Rwanda (R70), national and hospital administration have shown support for the provision of mental health service in the post-genocidal context. Many other respondents also cited the participation of enthusiastic, committed professionals and administrators, and emphasized the necessity of building a network of such like-minded professionals in effort to maintain momentum for change (R4, R31, R36, R40, R57):

> This method gives a vital impulse to both directions here, and requires a chain of community-based services (to effectively treat patients and avoid readmission, to provide rehab and recovery services, etc.). The managers of these departments (at 3 multi-profile hospitals in Tbilisi) actively promote community-based care. –R57, Georgia

In sum, as the pillar of deinstitutionalization, the workforce must be sufficiently staffed with well-trained, dedicated members for success at the program as well as the systemic level. This requires not only funding, but leadership, motivation, and a grasp of the basic aim of expanding care beyond the traditional hospital.

2.4 Soft Technology

2.4.1 Medicine

The overriding issues respondents identified are medication availability in medical facilities and service users' access to them. Across the board, respondents echoed the need for free or subsidized medicines. To substantiate their claim, they provided us with four main ways their affiliated countries have addressed this problem. The first way to improve access to psychotropic drugs is to create a formulary (R18 of Haiti, R66 of South Africa, R78 of Haiti, and R79 of Rwanda). More specifically, the act is to integrate psychotropic drugs into the national Essential Drug List. The second way is to create a prescribing guide that is tailored to the Essential Drug List (R18 of Haiti). The third way is to create training materials that would be useful in imparting knowledge on key aspects of prescribing, such as indications and contraindications, dosage, interactions, and side effects (R18 of Haiti and R36 of Ethiopia). And finally, health facility censuses routinely report the historical and current volume of prescriptions (and perhaps dispensing) that would, in turn, inform bulk purchasing decisions in the future (R18 of Haiti). The concern raised by R17 of Lithuania and R30 of Sri Lanka is the hand pharmaceutical companies have in each of these four areas.

2.4.2 Information technology

Technology has the ability to help bridge the physical distance between patients and health care providers and between rural and urban populations. There are several types of technology being used in the countries I sampled from, including case registries in Nicaragua:

> The introduction of a case register (either al local / regional level) is a technical intervention that will help patients in a vulnerable situation even if the political context and policies change. Even if there is a radical change of context and the register is abandoned for some time by health authorities, it can be easily reassumed and updated in the future. –R58

R58 likens a case register to a permanent fixture that can withstand changes in local conditions. This conveys a sense of optimism that perhaps technology is a lasting means to achieving deinstitutionalization. R23 and R35 from Niger, R24 from the Netherlands, and R61 from India also found positive patient outcomes from mobile consultations with their care providers. R24 and R61 speak of mobile clinical consultations here:

> E-Health or E-mental Health has been a game changer for the largest Dutch Mental Healthcare Organisation in the Netherlands…It created a paradigm into online health care. It has been proven to be as effective as traditional personal intervention. The current use of this method is blended, with personal conversations combined with online treatment. (such as cognitive behavior exercises, registration of occurrence and self-management). –R24

> Tele-psychiatry services especially mobile tele-psychiatry services have helped take the service to almost the door step of the patient, using easily available technology this has also helps to optimize the scarce mental health manpower resources by saving time and travel of the professionals...We have also seen that the tele-

> psychiatry services have been able to reduce the DUP of the patients i.e people were being identified and referred to the clinics more quickly [in India]. –R61

These anecdotes indicate to us that technology improves communication between patient and providers for therapeutic treatment purposes. It also services the purpose of facilitating clinical training among providers. Here is an example of how it has been incorporated into the training taking place in Haiti:

> Supervision of providers by email and by phone has been an important development which has supported the independence of local providers in delivering care for complex clinical presentations. –R78

I also saw the introduction of telephone hotlines in Sri Lanka (R30) that are staffed by nurses and intended to support users and their family members.

Information systems were overwhelmingly touted as leading contributors to deinstitutionalization compared to other types of technologies just mentioned. An information system is commonly defined as a database of electronic medical records collected at the facility level. Information systems are a promising innovation that are becoming increasingly prevalent across countries. They are being piloted in a hospital in Pantang, Ghana as part of the Mental Health and Poverty Project (R9), for instance. However, five respondents (R15 of People's Republic of Lao, R16 of Singapore, R18 of Haiti, R20, and R63) did express hesitation regarding their fit within their respective countries. While R15 said it would be "difficult" to implement electronic mental health in LMIC's and R16 said "concern is always cost," R18 tells us why in a sarcastic manner:

> Bringing about change in information systems proved very difficult – someone recommended a checklist to our team, and I first had to ask for a printer, copy machine, paper and pens. –R18

R20 and R63 explicate a bit further:

> Another aspect is that the information system in the country was extremely poor, and although we developed tools and facilitated the use of them (patient chart, referral and counter referral protocols, etc.) we may have had to insist more on these issues. –R20
>
> It is a very important contribution to the development of case management and a smooth handover of cases from one service to the other – but it is only a tool, not replacing case management as such! –R63

These three comments all seek to correct a fallacy about information systems—information systems are merely supplements to the mental health system. The utility of an information system would only be realized if it were added to a strong foundation.

A different dialogue is taking place among respondents who belong to countries with more developed mental health systems. These are contexts where the physical health information system took precedence over the mental health one, and therefore the challenge is to carve out a spot in the information system already in place, according to these three respondents:

> Incorporation of mental health into the national health information system [of Chile]. –R4

> Mental health information was integrated into the health information system to monitor and evaluate the programme [in South Africa]. –R66

> We are integrating mental health into systems of care developed by PIH for HIV and adapted by Rwanda MOH. –R70

Those planning to implement an information system must be keenly aware of whether it would be buttressed by existing infrastructure in the health sector. They should also highlight a uniform, comprehensive system's ability to output information that would, in turn, help both facility managers deliver mental health services, as well as civil servants plan for future provision of resources.

2.4.3 Research

There has been a lot of buzz in recent news around "big data" as a tool to either improve health facility or government performance. This resonates with related ideas of "evidence-based management," "evidence-based policy," and "data-driven governance." Our data sheds light on the type of information that is useful for planning and enforcing deinstitutionalization and the actors who translate said information. Local experts serve their country during the risk assessment or risk management stage of deinstitutionalization. Just as important as the actions around analyzing risk is the proximity of the local experts to regulatory decision making. During the risk assessment stage, these experts went about gathering facts in a formalized and technical manner. The following quotes would come to show that:

> Engage local knowledge to identify relevant mental health and psychosocial stressors and account for this when planning clinical services and resource allocation [in Haiti]. –R18

> Direct implantation support from experts (translating international evidence into local context), including supporting local decision making regarding building community services and closing hospital beds [in Belgium]. –R54

Local experts tend to be engaged at arms-length during the risk assessment process, as is the case in Portugal. "The implementation of the plan was very successful in the first 3 years, when there was a strong support from the Ministry of Health and the team responsible for the coordination of the plan had a significant capacity to take decisions and included people with expertise in a wide range of fields" (R43). From a rationalist standpoint, these local experts helped find the means to achieve policy goals once those goals had been selected.

During the risk management stage, stakeholders would incorporate scientific findings into normative consideration on deinstitutionalization policy alternatives. In fact, I see local experts working alongside policy-makers on this matter as a national technical committee in Jordan (R8), national steering committee in Albania (R20), technical team in Zambia (R13),

consortium in Haiti (R78), and a national working group in Uganda (R51). These quotes give us more details on the composition and function of these bodies:

> The establishment of a National Steering Committee of MH (NSC) with stakeholders belonging to different realities and chaired by Deputy Minister of Health and the elaboration of a national policy initially, followed by a national mental health plan, were the key elements in the reform process in the country. The NSC had several members, some of these members (from different sectors within MOH, for instance) played a key role in facilitating the project implementation, creating needed conditions, etc. –R20

> A technical team was formed comprising key government ministries namely; Ministry of Health, Chainama Pyschiatric Hospital, Ministry of Community Development and Zambia Agency for Persons with Disabilities. Others from the Civil Society are Mental Health Users Network of Zambia, Zambia Federation of the Disability Organizations and four (4) representatives from Open Society Foundation…[the technical team of key stakeholders] have come up with a "Framework for Change"-Pathway to Health, Human Rights and Community –based supports protecting and promoting Legal Capacity and Transforming the Mental Health System in Zambia. –R13

> The PIH/ZL team assembled a consortium of experts to support the piloting of a model of community-based delivery of mental health services in rural Haiti within its network of hospitals. –R78

> National working groups that regularly came together to develop policies, guidelines for a national plan on public mental health services on different levels in health care. –R51

A positivist would interpret the local experts' role as identifying issues that they consider relevant to policy debates and invoking key scientific evidence as a prerequisite for said debates.

Local experts, alone or with colleagues, tend to conduct one of two types of research—epidemiology and program evaluation—with the aim to strengthen deinstitutionalization planning and implementation. Epidemiology, as the study of distribution and determinants of health states and events, was applied to study neuropsychiatric disorders in our sampled countries. Various epidemiological investigations were carried out: surveillance, descriptive studies, and analytical studies. Surveillance and descriptive studies to study distributions of neuropsychiatric disorders, a proxy of which is the keyword "catchment area," which was mentioned 24 times in total. Analytical studies elucidate determinants of disorders and, more importantly, directly assess the needs of sub-populations with different disorders. Here's a sample of how our respondents are doing this:

> Research projects also have played significant role in expanding community based care. In three different districts [of Ethiopia] mental health services have been initiated following surveys for mental disorders in those districts. –R10

> [in the Philippines] Conduct Needs Assessment Survey to the participants prior to the implementation of the program to assess the needs of the community insofar as mental health is concerned [, then] create a year-long program based on needs assessment results, including its evaluation at the end of the year. –R14

> IMC on the other hand conducted a mental health situational analysis to identify care seeking patterns and community knowledge and attitudes towards mental health [in Ethiopia]. –R36

> Tanzania mainland completed a situation appraisal report (2001) on availability of infrastructure, personnel, psychotropic medicines, funding for mental health care and evidence of policy commitment. It also looked at the level of integration of mental health services into primary health care. –R44

> The aim of this [community baseline] assessment is to understand the community, identify the existing resources available, understand the problems, how people cope/deal with problems, etc… and also assess the baseline problems, resource, knowledge etc… in order to compare after the intervention [in Cambodia]. –R68

Furthermore, R40 mentioned the need to have a detailed analysis of the attributes and needs of the patients in the United Kingdom and R18 forthright lamented on the lack of any epidemiological or systematic investigations to characterize the needs of the Haitian community.

Program monitoring and evaluation is a systematic method respondents have used to collect and analyze information to answer questions about the efficiency and quality of their program or project. It is also an effective method to see the level of effectiveness of programs and projects, or whether benefits reached the intended recipients, if not target populations in the catchment area of interest. This is either done on the national program and initiated by the government, as is the case in Ghana and Zambia:

> [Using] WHO AIMS (20012) -bases for future planning…MOH Strategic Plan now in the process of development, assessment of the impact will be possible after implementation and evaluation. –R9

> In 2008, a study looking at mental health in Zambia was conducted and there was consensus that we need to decentralize mental health services so that they can get as close to the people as possible. –R13

The same is done on the facility-level in Lithuania, Sri Lanka, and Rwanda:

> Although formally authorities declare that full accessibility for all kind of outpatient mental health services is secured, independent analysis shows that the only component which is de facto secured, is that medications are available (they are well reimbursed by health insurance), while other obligatory components of community based services for persons with severe mental disorders (psychosocial rehabilitation, psychotherapy, supported housing, professional and vocational rehabilitation) are not provided in Lithuania. –R17

> In Sri Lanka's main hospitals a Community Placement Questionnaire (CPQ) was used to assess the 1,700 long stay patients to identify their needs. The Community Placement Questionnaire is an assessment tool designed to assess the needs and abilities of psychiatric patients who have been long-term residents of psychiatric hospitals. The results of (Community Placement Questionnaire) survey indicated that over 90% of medium to long stay patients at Sri Lanka's large Hospitals are suitable for reprovision of care in facilities near their home and District of origin. Almost 60% required very low levels of support. This is a consistent finding whenever the CPQ exercise has been undertaken in both resource rich and resource poor countries. –R41

> It was felt that the team should have a greater commitment to a "change management process" focusing on the care of patients, starting with increased focus on quality improvement at the district hospital level, and with greater emphasis on measurable outcomes. This improvement at the hospital level was expected to trickle down to the health centers as patients are followed by the team to the community. –R79

Or it is done on the micro, program level in Ethiopia and Australia:

> When did the audit [on training of primary care staff without supervision and ensuring medication supply], virtually no primary care staff was providing mental health care. The trained staff were not sure how to initiate and run the programme; the heads of the health centres were either not supportive of the programme or did not know how to support; then there was no follow-up supervision. –R2

> Doing very basic cost–benefit analyses. Does not have to be highly sophisticated to be effective with government; e.g. the cost of caring for a cohort of patients (e.g. bed occupancy costs) before and after the establishment of the community service that is looking after them. –R33

While it is promising to see monitoring and evaluation occur on all levels of analysis, the efforts seem to have been made in isolation.

Respondents generally agreed on the utility of research in furthering deinstitutionalization. R43 said the results of projects that were evaluated in Portugal were very important to prove the effectiveness of community-based care. R15 of People's Republic of Lao further specified that data and information on mental health have to be quoted and used for mental health advocacy. However, I did not get a sense that pitfalls and best practices in program and project implementation, especially the pilot ones, were widely disseminated. R30 verifies this point:

> Unfortunately, there are no mechanisms to study, evaluate and share these models within the country [Sri Lanka]. Some of these models have almost disappeared without us learning from them. Poor research and reporting too could be factors. –R30

And none of our study data seemed to indicate that monitoring and evaluation was conducted routinely. R15 succinctly states the reasons: "Mental health service planning,

evaluation and monitoring and quality assessment of mental health services are limited due to lack of mental health expertise, manpower and skills as well as financial support to conduct these activities." Resources permitting, I would encourage deinstitutionalization stakeholders to institutionalize a "full-cycle" approach to conducting applied research in their respective settings. A full-cycle approach begins by conducting studies (observational studies, randomized-control trials, etc.), proceeds with tweaking program or projects based on their results, then goes back and forth between observation and operations. Adopting the full-cycle approach would ensure that capacity is truly being built and that the programs and projects housed within it are sustainable.

2.5 Service Networks

Due to the complex nature of psychopathology and the shortage of mental health specialists in many LMIC's, there is a crucial need to distribute the burden of care as well as points of access. This entails balancing the loci of care so that services are provided in health facilities as well as outside of them. As R50 of Spain suggests, service should be conceptualized in terms of planning and programming areas rather than through the limited view of individual programs:

> Do not make an insulated planning any resource or service, whether inpatient or outpatient… planning and scheduling in networks that integrate all services (outpatient, inpatient, partial hospitalization, rehabilitation and residential housing, mini-residences) [is required]… clinical management units [should act] as an organizational response to the network configuration.

This section thus focuses on the integration of mental health care into primary health, the design of clinical pathways, and the establishment of inter-organization and inter-sectorial relationships.

2.5.1 Primary Care Integration

The integration of mental health into primary and general health care is one of the oft-cited approaches to deinstitutionalization. It may involve a range of institutions and methods—large general hospitals, district hospitals, and community primary health centers; training of primary health staff, stationing of mental health liaisons, and systematic referrals between primary care centers and specialized services elsewhere. Aside from facilitating the downsizing of traditional psychiatric hospitals, integration into primary health care can increase access (R13), filter and alleviate the burden of mental health specialists in countries where they are lacking (R63), and reduce stigma toward the seeking of mental health care (R12). These general observations were confirmed by respondent in their rankings of the usefulness of primary health care, community mental health centers, and general hospitals in Figures 6a and 6b. However, from the experience of a three and a half year piloted project on community-based depression management in two provinces of Vietnam, R56 cautions that integration does not always live up to its potential, requires extensive time and effort in setup, and fails to address problems from the psychosocial angle:

> Integration of mental health care into the existing primary health care system is promoted to be a best way for scaling up the community mental health care services especially where there is a shortage of the skilled specialists. In practice, implementing this is very challenging, and the results sometimes are not satisfying. More work was added to the primary health staff who was assigned to do everything related to health care for their population, while incentives were not used enough. Thus, they did not always have enough motivation to perform, which led to undesired results. The over-use of specialists' time at the tertiary care level in dealing with mild problems at the primary care level makes the integration approach less sustainable.
>
> Too much focus on quality of the clinical service delivered at the primary care level, and the overreliance on specialized medical services leads to overlooking the holistic view of care. In this view, others aspects, like social determinants or adherence management, are given less attention. Introduction of new treatment methods required intensive time and effort for training, treatment, supervision, and follow-up. The balance between quality and coverage of care and between the generalized and specialized services need to be carefully considered.

Rather than merely providing a negative view of primary care integration, this comment homes in on the weaknesses prone to this approach, and thus potential spaces open for improvement: the need to account for primary health staff workload when planning for integration; the benefit of incentives in overcoming initial reluctance; the importance of well-planned training and supervision; the articulation of the division of labor between generalized and specialized services; and the consideration of providing psychosocial training or streamlined referral mechanisms for primary health workers. Indeed, cases that cite the success of primary care integration demonstrate some of these characteristics. For instance, the proximity of and coordination with mental health specialists—thus the capacity for follow-up supervision and referral—were deemed crucial by some respondents. Furthermore, the provision of additional resources—thus potentially alleviating some of the workload added to primary health workers and, in the least, *not* creating a financial *dis*incentive—is considered pivotal to the success or failure of an attempt at integration.

> Providing mental health in primary care on its own is not the solution – it will fail. Local specialist mental health services have to be within reach… Community support officers (recruited from local communities) were well connected with and managed by the primary health care system, had regular meetings with staff from this system, and were technically accountable to the medical officer of mental health. All districts had developed a highly organised system of coordination at the primary health care level. –R41, Sri Lanka
>
> Territorialization of the hospital's reference area and transference of resources to the general health network. As hospitalization services were created in general hospitals, those territories send no more patients to the psychiatric hospital. –R52, Chile
>
> Integration of mental health into primary care without increasing resources (human and medication) and without ongoing support from specialists [is not useful]. –R4, Chile

Moreover, as R31 of Portugal suggests, the presence of liaisons or training of general practitioners may not be sufficient:

> Integration of mental health services in the general hospitals without financial and administrative autonomy should not happen... This led to a slow progress of the department in creating new activities and interventions that differed from the other departments in the general hospital… If the departments of psychiatry were able to be autonomous and manage their own budget it would be possible to create partnerships with local Health centers, and to develop the needed community services for rehabilitation and housing of people with long-term mental illnesses. They could also pay for services from other social institutions and NGOs.

Thus, financial and administrative autonomy not only facilitates intra-program productivity, but also inter-program relationships, turning the general hospital from a static site into a node in a broader network of care. In the end, however, there may be other factors that contribute to the outcome of primary health integration. The enthusiastic response of R39 provides a hint: "[integration is] the most effective and appropriate method for Yemen"—that is, in that particular context. In contrast, in spite of investing heavy resources, R8 of Jordan laments that the impact of integration remained minimal. Thus, aside from skill acquisition and compensation, other forms of interest and other factors may still play a role in whether this approach succeeds. Across the respondents, seven cited neutral or modest experiences, seven cited positive experiences, and six cited negative experiences with integration.

2.5.2 Clinical Pathways

One dimension of whether service provision succeeds in a given area comprises of the comprehensive consideration and streamlining of clinical pathways beyond a standalone facility. In this section, facility administration, admissions procedures, referrals, and discharge planning are examined as techniques for directing users toward suitable pathways of care. As discussed above, the poor distribution of type and quantity of labor among health professionals can diminish the value of an otherwise promising model of care. Satisfactory distribution not only involves planning, but also hinges on the buy-in of facility administrators:

> Even if higher level support was provided, the manager of the hospital or a health centre can block or facilitate the work of the programme. –R2, Ethiopia

> It has influenced the difficulty to change its orientation administrative structure of the general hospital, the shift system and financial allocations, those that favor the status quo. –R62, Chile

With support of hospital administration, the revision of admissions procedures is one approach that has proved successful in some cases. One approach is to restrict admissions to acute cases, while redirecting or referring milder cases to other treatment options:

> Reducing admissions through new admissions procedures, only admitting admissions justified by an acute psychiatric disorder (short stay) or refractory condition associated with high-risk behaviours (medium stay). –R52, Chile

> Assessment team / unit as a "gate to the hospital" allowing for better diagnostic process, shorter admission or community treatment option instead of an admission. –R9, Ghana

It is important to note that the reduction of admissions as a strategy involves attentive planning and deep involvement with the patient's care, and does not refer to mere reduction or reduction resulting from reluctance on the part of administrators or professionals to handle mental health patients (R58).

On the other end of hospital admissions is the application of discharge planning toward the aims of deinstitutionalization. Beyond the more traditional functions of promoting medication adherence and providing mechanisms and reminders for follow-up (R18, R70), it constitutes a significant interface between hospital- and community-based care:

> Involvement in discharge rather than admission is where hospital seems to appreciate community role most useful. –R54, Belgium

> The team assigned to the care of discharged patients was immediately fully integrated with the existing community services. –R6, Italy

> Assessment team (prescribers, CPN, social workers) [were involved in discharge planning]. Repatriation exercise at Accra Psychiatric Hospital allowed to reduce the number of the patients on admission from 1200 to 670 within 1.5 years. –R9, Ghana

> Discharge planning: periodically, long stay patient population of the hospital was analyzed to have a clear panorama of their needs, in order to achieve their de-hospitalization (with families, to sheltered residential programs, other social or medical care alternatives). –R52, Chile

Within and without the hospital, a related method for linking services and rerouting care seekers is referrals, both to and from facilities and programs. To take an example from Rwanda:

> Outpatient care at the district hospital where PIH works in northern Rwanda serves as the referral center for our pilot program integrating mental health care into primary care. Without it, it would be difficult for the HC nurses to know they had a referral source, and thus it is key in the continuum of care we are trying to create in Rwanda. –R70

Respondents also utilized tele-psychiatry (R61), family physicians (R65), referral from primary care or psychosocial services in cases suitable for specialized treatment (R36), and at the community level, patients, family members, community members, and traditional healers:

> Most of the referrals came from word of mouth from other service users. Often clients or their family members brought others from their village, who they thought had mental health problems. Mostly these were appropriate. –R30, Sri Lanka

> Local community workers such as teachers, primary health workers, priests, village headman, traditional healers, youth and elders. They in turn would increase general awareness and disseminate the knowledge as well as do preventive and promotional work. The majority of minor mental health problems could be managed by them and others referred to the appropriate level. They are trained to refer psychotic illnesses and more difficult problems to mental health professionals. –R19, Sri Lanka

R55 offers an astute approach to the role of healers: in contradistinction to some respondents that viewed tradition and religious faith as superstitions to be eradicated or replaced in promotion of modern mental health treatment, R55 successfully broadened the network of collaboration and referral in India by approaching religious healing as complementary, rather than contradictory, to mental health methods:

> When we established rapport with the Religious priest at the Dargah, we explained to them the importance of treatment for those who suffered with mental illnesses without questioning their modes and methods of treatment through religious rituals. In-fact our approach was of compensating medical treatment along-with religious rituals. We also trained them on identification of signs and symptoms of mental illnesses so that they could become the referrals of patients for medical treatment for such mentally ill who visited the Dargah. Our approach made them more important because when they referred the patients for medical treatment and treatment started showing cure these people thanked these religious priests in both ways of treatment (Religious rituals and medical treatment).

Across these accounts of referral, admissions reduction, and discharge planning, respondents have demonstrated once and again the necessity of networks in providing integrated care for the patient and optimizing the role of various service providers. Here, I turn to methods for establishing relationships at the inter-organizational level in order to capacitate the functioning of such networks.

2.5.3 Organizational and Sectorial Relationships

The deinstitutionalization of mental health care, as evidenced by the experience of numerous respondents, is not merely a matter of the mental health sector:

> In short, there is a general (false) belief that the burden of mental health issues are solely for the mental health services (in the health department), and each of the related departments tend to work in a vertical column approach without having horizontal connections or inter-sectoral coordination. –R67, Sri Lanka

Both strategically and pragmatically speaking, the establishment of strong relationships with administrative organizations, non-mental health NGOs, and various public sectors is seen as

a cornerstone for prompting and sustaining progress. R54 of Belgium suggests, a concurrence between departments and organizations is necessary to maintain vision:

> Facilitating a clear vision for the overall system and service models to be developed; ensuring range of government departments, professional bodies/unions, user and family organisations are engaged and develop consensus about vision and direction.

Aside from sharing conceptual aim, mutual knowledge of news and workings across departments and sectors offers an avenue for coordination and prevents the inefficient or overlapping allocation of resources:

> Get to know the process of how decisions are taken (including across Government) e.g. HR plans in Vietnam where most Ministry of Health staff were not aware of plans by the Ministry of Education to invest in a massive increase in the general health workforce. This takes a long time. One off consultant's reports rarely make an impact. –R41, Sri Lanka

Respondents variously discussed the value of collaboration with the health, educational, social service/welfare, community development, agricultural, information, law enforcement, and judicial sectors, including intersectorial cofinancing of services (R76, Sri Lanka). Several respondents also mentioned the need to bring together public and private sectors in the discussion of mental health planning (R58, R60, R72). When communication and coordination was lacking between sectors, the provision of wraparound care inevitably fell short of adequacy:

> It is instrumental to create partnership with different partners in community-based mental health care (e.g. health sector, village volunteers, village leaders, caretakers and people with mental illness, education, social welfare and agriculture sectors, ex-employers, organisations working in development for development/livelihoods). –R15, Laos

> Although formally authorities declare that full accessibility for all kind of outpatient mental health services are secured, independent analysis shows that the only component which is de facto secured, is that medications are available… while other obligatory components of community based services for persons with severe mental disorders (psychosocial rehabilitation, psychotherapy, supported housing, professional and vocational rehabilitation) are not provided in Lithuania. Social welfare sector is not developing such services either, as their understanding is that this should be done by health sector. As a consequence, in the current system there is no way to stop tradition of institutionalization of persons with mental illness. Large social care homes (under Ministry of Social Welfare) still keep monopoly of services for persons with moderate and severe mental disabilities, they are funded as a priority by State budget, and recently have received large amounts of EU structural funds for renovation of buildings. –R17, Lithuania

> Initiative to release chained/incarcerated people with mental illness and bring them to mental hospital failed because it did not use system approach. That initiative was

> done solely by the mental hospital and did not involve health office, PHCs, nor other stakeholders. –R3,

> Targeting old long stay mental hospital population. This did not work because in Malaysia there is some form of compartmentalization between health and welfare. As these old long stay population has been in the mental hospital (average 10 years), they will have to be continued to be looked after by the Health Ministry. –R1, Malaysia

At times, the lack of knowledge of the mental health sector may need to be overcome prior to functional cooperation:

> The social sector may have high expectation from the health sector. For example, few of the local NGO/NPO would like to have detailed medical information on the patients' records which would infringe on issues of patients' confidentiality. At the same time, police usually react when there is imminent violence. However some of the early signs of relapse may be more of a nuisance than acute dangerousness. –R16, Singapore

In some instances, inter-organizational and inter-sectorial relationships were formalized into steering committees, technical teams, and working groups, which provide a platform for sustained partnership (R8, R20, R51). Although the broadening of stakeholders involved might lead to more lengthy planning processes, R8 of Jordan suggests that this process builds a more robust movement:

> The National Steering Committee included a high number of stakeholders, a choice that revealed to be successful. In fact, it made the process longer and the mediation and negotiation more difficult, yet it built a very strong and broad consensus and it helped building nationally a momentum for mental health.

Thus, while forming and fostering relationships with organizations and sectors may appear laborious throughout phases of the decision making process, most respondents agree that it is an absolute asset worthy of the investment in time and effort.

2.6 Community-based care

This section provides an overview of measures taken at the program level to achieve the aims of deinstitutionalization, including the provision of community-based care, selection of treatment modalities, and approaches to wraparound. Many respondents (34) discussed the role of pilot projects in deinstitutionalization-oriented care provision. Small-scale pilot projects allow for the feasible investigation of program efficacy, which can potentially be brought to policy-makers as demonstration for potential scale-up (R8), particularly where systemic efforts and resources are wanting:

> Given the lack of resources committed to mental health by the government, we have prioritized the development of a community-based mental health response within the

> PIH/ZL health care system as a model for potential scale-up by the government in the future, based on its success. –R79, Rwanda

Pilot projects also offer a platform for incentivizing experimentation and innovation:

> The creation of financial incentives for good innovative projects made possible the implementation of more than 50 new projects that could be used as demonstration projects. Some of these projects were evaluated and their results were very important to prove the effectiveness of community based care. –R43, Portugal

While some respondents cited the successful replication of projects (R12, R20, R75 *etc.*), other respondents caution that pilot programs and research projects do not often reach the stage of expansion in scale or sustainability (R12, R46, R48, R47, R58, R68, R69):

> Reliance on demonstration /pilot sites which rarely lead to scaling up of services. –R46, Lithuania

> Programmes which were commissioned as a research programme with no sustainability measures [do not succeed]. –R48, India

> The length of intervention should be long enough before the community become more strengthen and able to deal with their own problems. The relapse or reoccurrence of the problems is quite common, so people can easily be given up. Due to funding limit, we can only stay in the community for one year, so we have to move to other areas. –R68, Cambodia

> Establishment of the particular community based service was also successful: Vilnius Psychosocial Rehabilitation Centre was established by NGO Globali iniciatyva psichiatrijoje with financial supported by foregin donors before entering EU… Due to good management this centre did develop into sustainable services provider, but there were no efforts of multiplication of such services by local or central authorities. –R46, Lithuania

Apparent across these accounts is that the value of the pilot is not easily generalized. Yet, regardless of any given respondent's opinion of pilot projects, most have indeed participated in them at some point of their careers, and they hold a prominent presence in the world of mental health reform, which often relies on manageable, small-scale experimentation with new approaches and new sites. The programs discussed below range from decades-long to less than one year, from systemically integrated to the lone effort of its type in the region. First, I turn to efforts at expanding care into the community.

2.6.1 Care provision

In this section, I use the category of community-based care provision to describe efforts to bring mental health service where it was previously difficult to access. The methods discussed by respondents, in order of frequency of discussion, are as follows: outreach and mobile clinics (n=28), community health centers (n=23), local or district level

hospitals[51] (n=7), follow-up in the community (n=7), case detection (n=5), home-based care (n=5), day hospitals (n=3), ambulatory care (n=2), and care at public community sites (n=2). A central lesson across discussions of care is well-articulated by R33 of Australia:

> Community services are a tripod of clinical, disability support (usually NGO) and stable accommodation; not just clinical services. All 3 are interdependent. If one fails the tripod falls.

Community mental health must be envisioned as a continuum of care (R79), and as R4 of Chile notes, such service networks require clear planning of the role of each type of facility; otherwise the benefits of available facilities and services might not be maximized. With this broader picture in mind, approaches described by respondents will be discussed by type here for the sake of clarity.

The most frequently cited method for providing community-based care was outreach and mobile clinics, which were seen as a way to increase access (R2, R12, R30, R78), increase treatment concordance (R30), reduce hospitalization and revolving door admissions (R29, R30), and enable case detection and follow-up (R33). For some, "mental health services require a door to door approach" (R55). However, as R58 of Nicaragua points out, 'outreach' can encompass a broad range of approaches, variously suited to different contexts:

> Outreach can mean very different things. From case management to Assertive Community Treatment. This a fascinating debate: what is a feasible solution in LMIC? How to develop programs of CM or ASCT based in the community?

In India, R48 commented, some programs were implemented as a segment of a larger program, but were irrelevant to the local community. Several respondents preferred the model of CBR (R37, R69), others that of ACT (R1, R25, R58, R64), and some mentioned the use of case management (R38, R57, R58, R63, R65). In Indonesia, a particularly successful outreach program involves psychiatrically trained nurses conducting home visits using motorcycles (R5). In Uganda, staff from regional and district hospitals conduct monthly outreach in the community (R73). In Haiti, mobile teams have been an efficacious model for reaching rural populations (R78). In Ethiopia, mobile outreach services are used to reach users in camps:

> Mobile clinics/outreach services: This has been a critical part of IMCs mental health services in the camps since people with severe mental illness are often not well enough to reach health facilities. Furthermore, frequent (sometimes daily) follow up is needed to assist families in caring for severely mentally ill family members and support medication compliance. This outreach is conducted by refugee volunteers supported by IMC psychosocial workers. –R36

Regardless of the particular method, R2 of Ethiopia provides a reminder:

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[51] Here, only discussions of local and district level hospitals that explicitly elaborate on the issue of the hospital-community interface are included. The numerous efforts at integrating mental health care into primary and general health care or placing beds outside of psychiatric hospitals are discussed in more detail in the service networks section.

> Maintaining commitment is important: outreach dates were known by patients and families and the team used all forms of public transport to make sure staff and treatment were available for those outreaches.

A similarly common method for providing community-based care was the use of community health centers. A respondent from Indonesia writes:

> After implement community mental health nursing in 268 health center (puskesmas) in 23 districts in Aceh after tsunami, the coverage of mental disorder increase more than 14.000 patient (25% of estimation, about 196 in chain, about 150 refer to mental hospital, 40% recover and working again. The coverage more increase after the training of cadre and developing of alert mental health village. –R12

In Sweden, community health centers are used to follow up on psychiatric care from general hospitals as a form of outreach (R76). This is echoed by R54 of Belgium, who suggests:

> [Community health centers] seem to be particularly helpful for staff to manage their transition from hospital to community. Acceptable to new-to-service patients. More likely to be used by ex-hospital patients, impacting on readmission rated.

A respondent from Korea mentions differential models for centers across contexts:

> Due to urban and rural differences in population density, sex ratio, and age, different types of community mental health centers are established to meet special needs of each community. There are three types of community mental health centers in Korea-urban model, rural model, and metropolitan model-each with different managerial styles and services. –R72

However, not all instances were successful:

> To a large degree, most of methods faced failure (relative, not absolute). Formally and officially, more than 100 outpatient mental health centers function in the country with 3 million inhabitants, and a team of mental health professionals (psychiatrists, psychologists, social workers, nurses) in each of these centres provides all necessary mental health services for persons in need of such services. However, independent analysis reveals that these centres are basically prescribing medications, while psychosocial rehabilitation is not performed, and any other psychosocial interventions are very limited. –R17, Lithuania

Similarly, difficulties were faced in the utilization of general hospitals to increase community access to mental health care (more detailed discussion below):

> The development of mental health units in general hospitals was an important component of the mental health reform. However, it failed to be the basis of community care as expected. Many new mental health units in general hospitals didn't develop activities outside the hospital and maintained a very hospital centered approach. –R43, Portugal

The usage of hospital sites for community-based services thus may require an intentional scaling down and reorientation of the hospital before reaching the desired outcome:

> The acute unit was the core of the service. This was kept small so that it could be outward looking than inward looking. Most staff were able to go out and get involved in activities in the community to deal with particular problems of the clients. Hospital stay was kept to a minimum. The hospital interface was kept porous to improve easy movement both ways. The average stay was less than a fortnight. Hospital was used sparingly. We had around 700 admissions a year. –R30, Sri Lanka

Lastly, in Niger, the public space of the fairground is creatively utilized as a site for providing consultation and education:

> Case detection, first aid and monitoring of diseases have been regularly carried out. Indeed, the mobile consultations include the fact that mental health specialists move in a certain number of sites to conduct consultations fairground of patients with psychiatric disorders. After consultation, psychotropic drugs are served to patients depending on the date of the next visit. The fairgrounds are also leveraged to educate and sensitize the population to feel involved in the action. Education awareness and screening cases are continued by the community health worker visits between the specialist. –R35
>
> While the fairgrounds, according to R34 (also of Niger), "are not well suited to the context of mental health in terms of therapeutic management," they are nonetheless a useful space for "awareness and promoting mental health."

2.6.2 Treatment Modalities

A range of treatment modalities were discussed by respondents, both within and outside of the biomedical model. With regard to psychosocial approaches, R12 of Indonesia writes:

> There are a few general hospital implement psychosocial nursing care for the patient with physical problem, the result is patient and family satisfaction increase, depression decrease, ability to handle the stress increase.

Yet, R36 of Ethiopia mentions a difficulty faced by wholly psychosocial services:

> Another INGO had implemented community based psychosocial programming (e.g. mental health counseling) in the camps previously, but had no capacity to address severe mental illness and prescribe medication.

Relatedly, several respondents gestured toward the notion of holistic care beyond medicalization:

> Too much focus on quality of the clinical service delivered at the primary care level, and the overreliance on specialized medical services leads to overlooking the holistic

> view of care. In this view, others aspects, like social determinants or adherence management, are given less attention. –R56, Vietnam

> I led a team to create a national curriculum called Whole Health Action Management (WHAM) Peer Support Training for peer specialists to promote outcomes of whole health (mind and body) for the integration of behavioral health and primary care. –R49, United States

Some models of care (R18, R26, R36, R38, R52, R54, R56) were based on disorder-specific approaches (including comorbidities), at times with attention to priority conditions:

> Creation of specialized treatment programs (Medium stay units) for persons who, while living in long stay facilities were in very bad conditions due to a refractory psychopathologic and behavioural condition. Two programs were developed, one for psychotic disorders and another for pervasive developmental disorders. These programs were able to treat all of these persons, who were about 30% of the former long stay population, and a majority of these persons with psychotic disorders could be discharged to live out of the hospital. Afterwards these programs began to receive persons from the community, specially the one for psychotic disorders. –R52

> Ministry's emphasis on harnessing disease-specific interventions to strengthen the overall primary health care system led to the scaling up of district facility capacity for mental health care. –R79, Rwanda

> Having government buy in and a strategy for mental health as well as mental health selected priority conditions, and master trainers made it easier to expand mental health integration to the camps. –R36, Ethiopia

Yet, such targeted interventions also carry limitations:

> 70% of commune have been covered by the national targeted program. However, much of work still need to be done given this program focus on treatment for people with schizophrenia and epilepsy with medication only. –R56, Vietnam

Differential care and facility utilization according to illness severity, with and without mention of the stepped care model, are also discussed:

> The experience in El Peral is described in the paper attached, it is very important to give adequate solution to the needs of the more severely affected persons living in psychiatric hospitals or in the community. Ultimately, these are the last justification for the existence of psychiatric hospitals, these persons are a few but are a great challenge for mental health networks. –R52, Chile

> Severe cases are institutionalized in mental health hospital or centers for people with mental illness. –R56, Vietnam

> Such outpatient clinics may be selective in managing mild to moderate psychiatric conditions due to their settings. –R16, Singapore

> The reduction over time of hospital based beds particularly for people who are not acutely unwell and who were not receiving high levels of clinical care. –R77, New Zealand
>
> We were able to initiate community services that were able to attract truly chronic untreated patients with psychoses. These people had remained untreated due to lack of access to affordable services. –R61, Chile

One important finding is the potentially powerful impact of family and user involvement in care. R51 of Uganda writes:

> Duration of admission could be shortened by admitting a relative of the patient who stays with the patient. Both receive information on mental illness and management, and psychosocial contributing problems can be discussed and addressed. The relatives participate in groups and assist the nurses and meanwhile get to understand more about the care the patient needs. When the patient recovers the relative will want to go back to "the village" and takes the patient with him/her.
>
> [In contrast,] in the main psychiatric hospital in the country (near the capital) relatives were not admitted. When patients are taken to the hospital the families are often hopeless and do not expect recovery any more (often they have spent a lot of money on local healers) They will leave the patients at the hospital hoping the government will take over the care. They might not witness recovery of the patient and experience what the patient needs to improve. Duration of admission there was usually very long (sometimes years) compared to Mbarara hospital where the average duration was 1 month.

R31 of Sri Lanka writes:

> In most assessments from the beginning the family was involved. This was the default position. The staff started to understand the enormous responsibility of the family and respected them for this. They were courteous towards the family and thanked them for helping us in our work. The nurses and others gave them the necessary skills and knowledge. The skills were learnt when they stayed in the ward with the client throughout the stay. They saw how the staff interacted and dealt with the patient and learnt from that. Very often delusions involved family members and this upsets them. The staff notice and help them to understand that it was due to the disease and not purposefully directed at them. Very often the family notice the improvement and request discharge from hospital. The patient too does not feel abandoned by the family when they are there with the patient. We understood the family was the biggest asset for the client. One to one consultations were done only when the client wanted it or we thought there could be issues that needed this. The staff picked up this concept quickly and this helped us to keep patients well in the community.

Alongside family involvement, R30 also speaks of patient involvement and empowerment as part and parcel of the treatment process:

> An evolving relationship with client/ patient – power and decision making with the staff when unwell and gradually shift towards the patient when recovery takes place (not asking about hallucinations etc. when they are well – not to make them uncomfortable)… Trusting patients to control behaviour in spite of psychopathology and a willingness to take risks.

Other approaches mentioned included demographic-specific programs (e.g., elders, youth, ethnic minorities), early detection and treatment, and the involvement of multidisciplinary teams. Numerous respondents also discussed the importance of self-help and support groups, which combine knowledge sharing, moral support, patient and family empowerment, and avenues for advocacy.

2.6.3 Wraparound

While wraparound has been variously defined since its coining, in this report, it is used as a general term for attempts at addressing the complex needs of users and former users outside of regular treatment facilities, including discussions of vocational training, life skills training, supported employment, rehabilitation centers, housing and residential care, mental health villages, and day care centers. Several respondents note the need for, but at times the lack of integration between psychosocial and livelihood-oriented services. For instance:

> A mixed method of psychosocial/mental health intervention and livelihood/economic empowerment to the beneficiaries is believed to be one of the effective methods in community-based mental health care in Cambodia. To date, there are limited supports that can enable both components (psychosocial/mental health vs. livelihood/community development) to run together. –R68

Training in vocation and livelihood is viewed as particularly central—if at times lacking (R42, R77)—for social functioning and successful reintegration into the community, particularly in regions where families had trouble coping with the financial burden of caring for the patient. One integrative, context-attentive solution was elaborated on by R68 of Cambodia:

> Most of our beneficiaries are very poor; therefore after being improved their psychological wellbeing, they were given the opportunity to access to the livelihood support. TPO Cambodia works with several organizations (NGOs) that help beneficiaries to learn vocational skills or agriculture technique in order to help them enhance their family living. E.g. some were given loan without interest and were taught how to raise chicken without using chemical substances, so that they can set up a chicken farm in a sustainable way. Some people were set up saving group, which help them to be able to support themselves, avoid them being indebted to private moneylenders.
>
> A mixed method of psychosocial/mental health intervention and livelihood/economic empowerment to the beneficiaries is believed to be one of the effective methods in community-based mental health care in Cambodia.

> Once their economic in family is improved, they are more likely able to cope with future mental health problems. But if we only provide psychological supports without providing any opportunity for economic development, they are more likely to have family conflict and lead to the reoccurrence of violence and mental health problems again.

Another creative model comes from Uganda, in which income generated by patients fed back into a group fund to support future need:

> In our support groups for patients with epilepsy much attention was given to income generating activities. Participants decided that patients with less or no fits could contribute financially to the support group to buy drugs and pay for travel expenses of mental health workers as they could generate an income. In the department when we started with occupational therapy and activities the staff reported less aggression of patients. –R51

Collaboration between mental health and other sectors is often involved in the success of wraparound programs:

> A system of concurrently working with NGOs working in the occupational sectors was evolved. Self-employment and other employment opportunities were also enhanced, particularly for women… Provisions for education were enhanced. Enhancement of educational opportunities was provided. Courses on financial prudence were also conducted. –R48, India

Supported employment is also seen as a crucial service by many, though R63 of Georgia notes, “Supported employment is good – but work in a ‘normal’ setting is even better.” Overall, livelihood support, rehabilitation centers, residential facilities, and housing programs are considered by the respondents as a network of mutually supportive services essential to transitioning out of institutionalized care, the absence of which may lead to damaging consequences:

> The development of a national initiative aiming at the development of residential facilities and day centres for people with mental health problems was one the most important strategies to downsize institution-based services. It proved that the reform was really committed to create new and better responses to people with severe mental disorders… a network of residential facilities and day centres [were developed] to respond to the needs of SMI in all catchment areas. –R43, Portugal

> Free or highly subsidised assisted-long-stay facility for recovering patients would have been like placing the last piece of the jigsaw puzzle of mental health care. We held one day workshop on this & which got good response. However, when it came to paying the seed money by the caregivers the response was discouraging. –R32, India

> Our CPQ changed the thinking for many people and ordinary housing was used to house long stay patients without families in Jaffna. Before our arrival staff did not

> believe this was possible. Many patients have now left hospital and vocationally trained either before leaving hospital or 'on the job.' –R41, Sri Lanka
>
> What did not work well was the process of putting people into the community and not attending to their ongoing accommodation needs. Many ended up in sub-standard boarding houses or on the street homeless. It is imperative that the whole of people's needs are met and that social welfare/income needs, housing, employment and clinical follow up needs are all considered when deinstitutionalizing provision. –R77, New Zealand
>
> Sudden closure [of hospital] shifted patients to prison. –R74, Japan

Figures 8a and 8b would reinforce the positive endorsements of supported employment and vocational training. These are means respondents considered more useful for the expansion of community-based mental health care than for downsizing institution-based care. Lastly, several respondents mentioned the creation of mental health villages (R12, R29, R44):

> Development and promotions of agricultural psychiatric rehabilitation villages was a component of this program. These are residential villages build within settings of existing villages and managed by occupational therapists, mental health nurses, artisans and agricultural workers. They foster a therapeutic milieu and opportunity to learn occupational and social skills as well rewarded work. –R29, Tanzania

Although worded in a slightly different way, residential care in the community and day care services received 27% and 25%, respectively, for being 'quite useful' and 'very useful' for expanding community-based mental health care in Figure 9a.

3 Public Responsiveness

3.1 Demographic Divide

Disparities in mental health status are often correlated with other types of demographic disparities in the same population. These are taken into consideration of mental health service planning in the Republic of Korea (R72) and Yemen (R39):

> Due to urban and rural differences in population density, sex ratio, and age, different types of community mental health centers are established to meet special needs of each community. –R72
>
> In the case of Yemen, downsizing institution-based services does not apply , The economic, social and security circumstances is pushing increasing numbers of patients, and at the same time services are very limited ,poor and expensive. –R39

Finer-grained distinctions were made by two respondents for gender differences in India (R48) and for age in Singapore (R16), but the rural-urban divide was the most pronounced type of disparity reported by respondents in other countries. In some countries of our study sample, population density is either higher in urban areas (Republic of Korea, R72; Iran,

R65) or in rural areas (Yemen, R39; Cambodia, R68; Philippines, R26). This poses as a challenge for mental health service delivery because, as R26 aptly said,

> The remoteness, poverty and scanty health care provisions makes for a challenging mental health project that we are currently undertaking in partnership with the Partido Development Administration…-R26

Vulnerable groups that are in need of mental health care reside in both rural and urban backdrops and there are unique challenges to reaching them, as evident by the above quote.

3.2 Stigma and Human Rights

To open the discussion on public awareness of and response to mental health and the mental health system, it is helpful to be reminded of the wide-ranging and at times severe consequences of stigma toward mental illness. To begin with, stigma might prevent an affected person from seeking out or adhering to care, regardless of the form:

> Stigma is one of the biggest factors. People do not come forward, or if they come join the self-help group, [they] leave it half way when their recovery process is yet to be complete. –R7

> Private GPs may not have psychiatric patients in their clinics because of stigma. –R16

> Most patients with severe mental illness were isolated and stigmatized and typically sought care from religious leaders and traditional healers but not at health facilities. –R36

Stigma also has the tendency to be attached to those affiliated with psychiatric patients. In their everyday lives, this often involves their family members, which not only constitutes a social psychological burden, but has palpable effects on the patient's care. R32 of India elaborates on the way stigma influences family caregiver decisions in rural and urban areas:

> [In rural areas], if the affected person is not able to contribute to family income/household chores they may admit her to the government hospital, invariably located at far off district headquarters, even with fictitious residential address so that the hospital will not be able to send her back home later on. Fear of stigma is also one other reason for not taking recovered persons back home. Hundreds of such stable persons with mental illness are stuck in these institutions for years.
>
> In urban areas, where growing aspirations and a fast life prevail, families would rather institutionalise the person because they cannot take long leave or quit job or for fear of stigma which affects life of other family members also.

Although family members, theoretically, are ideal contributors to the deinstitutionalization process, the stigma associated with such participation may add to their hesitation:

> Ideally creation of and empowering family support can greatly help reducing dependence on institutional care... Unfortunately, trained family members volunteer for the cause only till their affected person gets well and reintegrates into the mainstream. From that point onwards they would rather stay away from working for the cause to guard themselves from isolation and discrimination by the community. –R32, India

> People with mental illnesses and their families are still carrying the stigma. As such there is a barrier in identifying as having a mental illness or a relative with mental illness. There has always been a problem in organizing the consumer organizations or family groups and to sustain those initiatives if any. –R67, Sri Lanka

And at times, family members themselves are the origin of stigma toward patients (R27). Also, as discussed in the human resources section, stigma against mental illness also 'infects' service providers, which in turn may affect the availability of staff:

> [One method is to] combat the stigma against mentally ill people but also the very strong stigma against the mental health field and professionals. –R8, Jordan

> The social stigma of mental illness at community level also makes things more difficult. Such stigma is not only linked to the patient but also to the service provider. That is way many physicians do not prefer to specialize or work in mental health. –R39, Yemen

Beyond the motivation of individual professionals, stigma can hinder support for mental health programming at the systemic level:

> Widespread stigmatization of mental illness resulted in lack of a proper understanding and commitment towards change at every level; therefore some of the initiatives were abandoned, mostly due to lack of funds and HR. Issues were addressed at ad-hock basis adding to marginalization of Mental Health Services. –R9, Ghana

Lastly, stigma and discrimination are deeply intertwined with social psychological processes of dehumanization, reflected in the alienation of and human rights violations toward users in the community as well as in health care facilities:

> Human rights of people suffering from mental disorders in local context are regularly violated egregiously. –R78

> Legislation on mental health in Rwanda exists, but the human rights of people suffering from mental disorders are often violated in the community. –R79

> People with severe mental illness did not receive appropriate care and no follow-up was carried out. This resulted in most patients with severe mental illness being chained or tied up at their tent sites, without adequate care or follow-up and facing stigma and abuse (e.g. throwing stones, name calling) by neighbors and communities. –R36

> Some provinces or cities with enough resources would boast of building mental hospital or small center to confine the patients and prevent these patients to be town nuisance, especially for municipalities frequented by tourist. –R75

> In the clinic, patients and families unburden themselves of their harrowing experiences in the Mental Hospital in CAdlan, Pili, Camarines Sur, experiences of being physically restrained and incarcerated against their will. –R26

> Perhaps the greatest failure in Sri Lanka (before my time) was a policy of transferring large numbers of patients in a few areas of the country to smaller Institutions… Because patients (particularly women) were abused they spent all of their time locked in unsuitable and non-therapeutic environments. –R41

> Operation of our Inpatient Unit Short Stay has been the farthest from [meeting] quality criteria and respecting the rights of patients. –R62

> Regarding mental hospitals and asylums, the terrible conditions at the two locked inpatient hospitals in the country (Mars and Kline, and Beudet) has not led to their closure and they continue to operate. We have worked to stop transfer of patients from our hospitals to these institutions. –R78

Having identified the tangible impacts of stigma (not to mention those which are intangible), the role of destigmatization and other forms of promotion should be considered on an equal plane as other aspects of care provision.

3.3 Awareness and Destigmatization

A consistent theme that emerges across reflections is the powerful effect of perceived curability on destigmatization. While over a quarter of the respondents discuss efforts to reduce stigma through various public education and awareness campaigns, as R56 of Vietnam comments:

> Stigmatizing people with mental disorders and adverse attitudes and behavior still exists despite the efforts that have been made toward raising awareness, including education and advocacy activities.

What arose instead as efficacious in fighting stigma and increasing acceptance of mental health care is the perception of treatment efficacy on the part of families, communities, and providers, after personally witnessing the results. This is perhaps due to the general perception of incurability as one source of stigma. As R32 of India writes:

> A sizeable population, both urban and rural, still believes that mental illness is not treatable/curable. Consequently, those in rural areas, who still have joint family system, do not feel the need to medically treat the affected members.

Given this, the demonstration of efficacy, and thus the suggestion of potential curability, is cited as a superior method for destigmatization than awareness campaigns:

> Stigma and fear about people with neuropsychiatric illness remain a significant challenge. Psychoeducation without effective treatment has been much less effective in reducing stigma than has effective treatment and integration in the community… more powerful than going to tell people that mental health is important, is demonstrating that care can be effective… Too much effort, and funding, was expended trying to educate members of the community without reinforcing the quality and quantity of services to patients. As a result, the opportunity was lost to some degree to show that effective care of people with mental disorders is possible, enabling their greater integration and membership as citizens in the community. –R79, Rwanda

> Providing effective intervention: training providers adequately and also providing supervision to the staff. Word of mouth is very important. People in the community talk with one another not only about availability but also whether the interventions were effective. –R2, Ethiopia

> The families and community are amazed at the improvement of their patients and show their enthusiasm by continuing their checkups in the clinic or working as volunteers for mental health. –R26, Philippines

> Send a clear & sustained message that mental illness is treatable & affected can be made to lead a meaningful life. –R32, India

> I also believe, in general, that psychoeducation alone has not destigmatize mental illness in any capacity, such that we continue to have families and communities sometimes push to have patients transferred to the central neuropsychiatric facility. Instead, treatment has been the most effective tool to destigmatize mental illness. –R70, Rwanda

A more violent counterexample of the impact of inadequate service provision on stigma is cited by R53 of South Africa:

> Another big issue for us has been patients who have not been well controlled when admitted to general health facilities and have committed acts of violence, including murdering medical patients in the hospital. This has resulted in calls to go back to psychiatric hospitals and protecting citizens from the mentally ill. We then here a lot of criticism of human rights and questions about what the rights are of the victims of violations by mentally ill people.

Such an incident reaffirms that the quality of treatment must be seriously considered as a factor in destigmatization. Other care-based approaches to reducing stigma included the placement of beds outside of psychiatric hospitals (R12, R15, although R18 did not find this useful), outpatient mental health care in general hospitals (R12), human rights monitoring at hospitals previously known for abuse (R41), and reducing stigma of providers toward psychiatric patients (R70, R78). Of course, none of this discounts the significance of

psychoeducation and awareness campaigns, which were cited as a method in many cases beyond those already discussed (R11, R16, R50, R55, R56, R57, R76, R77), but only two respondents (R55 and R57) discussed observed impacts of such efforts, perhaps due partly to the difficulty of measuring such impact.

Lastly, one unique method is worth noting here in relation to the perception of curability. R30 of Sri Lanka discusses an approach to training in which "staff were not made aware of the marked negative view with regards to prognosis of mental illness in the developed countries," which, among other factors, led to an enthusiastic staff with positive relations with patients and family members. Additionally, the participation of family members and gradual involvement of patients in their own care throughout recovery led to strong rapport as well as voluntary follow-up, a picture unimaginable in contexts where help-seeking remains stigmatized:

> [Patients] almost become friends of the staff. Many of them visit the ward when they come to town just to say hello to us. This relationship gave the patients a positive feeling and helped them to stay in touch and follow clinic regularly.

3.4 Advocacy

Advocacy, in a variety of forms, was discussed as a method for deinstitutionalization by the vast majority of respondents. Respondents perceived advocacy and public education by various actors—service users, family members, healthcare professionals, NGOs, and the government—to be more instrumental to expanding community-based mental health care than for downsizing institution-based care, as per Figures 5a and 5b. In this paper, the *impact* of advocacy and lobbying on the government and policy-makers are discussed in the section on leadership and governance. Here, I focus on the *who* and the *how* of advocacy.

3.4.1 Key stakeholders

Advocacy by NGO's was deployed with mixed results. In some cases, NGO advocacy is regarded as a crucial force (R9, R33, R57, R63): "without NGO's nothing moves – they are the motor of change" (R63). In other cases, its influence is discussed as neutral, modestly effective, or at times unclear (R20, R38, R46, R57, R59, R65, R78, R79). For instance, R46 of Lithuania writes: "Advocacy efforts could be assessed as both successful and not successful. It is difficult to measure the effects."

Some respondents cited the low level of NGO advocacy activity in their country (R50, R53, R65), while others commented on the relatively weak impact of NGO advocacy even when it is present (R17, R65). As R17 from Lithuania writes:

> Among major stakeholders, the forces which advocate for mental health reform according to recommendations of WHO and other international organizations are much weaker (these are some NGOs) than those who support status quo situation… [also, NGO advocacy is of] limited usefulness without the service delivery capacity in place to convincingly address mental disorders.

Advocacy by professionals was cited neutrally or with modest positivity in 10 cases (R4, R8, R13, R15, R65, R67, R77, R78, R79), lacking in one case (R53), and positive in one case (R79). Although discussion was not elaborated in such terms, the tenacious efforts to deinstitutionalize described by survey respondents are in and of themselves evidence for professional advocacy, although plenty of professionals remain resistant to reform (see discussion on professional response). R36 of Ethiopia provides us with an example:

> Advocacy and public education by healthcare professionals: Some healthcare professionals were aware of the need for mental health services and expressed this to government officials while others were not. One healthcare professional (medical director of one of the camp clinics) for example had already collected a folder with over 30 mental health cases who needed treatment and wanted to learn how to treat those cases. Especially healthcare professionals in camps where the other INGO had provided psychosocial support (and had referred mental health cases to healthcare professionals who were unable to provide adequate treatment) were aware and advocated for mental health service needs. In other camps (without previous psychosocial services, no MH referrals and no community awareness), healthcare professionals were often not aware and did not track mental health cases, while those with mental illness did not seek out healthcare facilities. Therefore, mental health problems remained largely invisible.

Many respondents write of advocacy by family members or family organizations positively (R1, R2, R8, R9, R12, R43, R52, R63). As R63 of Georgia writes, "Family members are key—they know what they are talking about, they know change is necessary!" In Jordan, R8 describes the pivotal role of family members (as well as users) as members of the National Steering Committee established for the development of the mental health policy and plan, partaking in decision making processes. Seven respondents cited family advocates more neutrally (R4, R8, R15, R67, R73, R78, R79), one negatively (R72), and one noted the lack thereof (R53). It is worth noting that some respondents (R16, R52, R72, R77) also discussed family advocates with ambivalence. As R16 of Singapore notes, caregivers may have their own agenda. Regarding the Chilean context, R52 writes:

> During the first years in El Peral the creation of a "psychiatric patients' families association" was supported and was important for the deinstitutionalization process (eventually some of these began a career as administrators of sheltered homes, and this had contradictory consequences). Afterwards some family members, of persons who weren't deinstitutionalized in the first stages participated in opposite directions, mostly influenced by unions' resistance movements against psychiatric reform.

R72 of Korea also describes difficulties collaborating with family advocates:

> Korean Family Association for Mentally Ill was established in 1996 from the support of Korean Association for Psychosocial rehabilitation. In the beginning, the family association was very collaborative and clear in financial area. But participation of some new board members changed the policy of the family association… If they could not receive fund as they suggested, they blamed the organization and reluctant to collaborate for other mental health issues.

> Year after year, the family association became uncooperative to mental health professionals and NGOs. Also financial corruption of the board members called sues each other that it is not represent family members of mentally ill people now. Many mental health professionals thought the family association is very important for the advocacy of consumers that tried to collaborate and support it, but that kind of approach did not go well in Korea.

While the citations of positive experiences with family advocates outnumber the negative and the ambivalent, these vignettes demonstrate potential conflicts that may arise between the interests of family organizations and those of advocates focused specifically on deinstitutionalization.

As with family advocates, many positive experiences were also cited with users acting as advocates (R2, R8, R9, R27, R43, R63, R73, R77, R78, R79), as well as neutral or modest experiences (R4, R8, R13, R15, R65, R67, R78, R79). Several respondents cited the lack of user advocates (R20, R26, R53), and one cited their ineffectiveness (R65). R73 of Uganda describes the success of mental health awareness-raising in the community by users:

> Advocacy actually went well this has been possible especially through encouraging the people affected by mental illness themselves to come up openly to talk about mental health/illness, to give testimonies, poems, songs, drama, and participate in mental health rallies in the rural areas, villages. Home visits and school visits were also conducted.

Others also echo the impact of user testimonies in advocacy:

> Testimonials of patients and families are powerful. [This was] also confirmed through qualitative work with community leaders and community. –R2, Ethiopia

> Consumer advocates were often able to speak with a voice of lived experience and tell the story in a way which really facilitated wider within sector and within the community understanding. –R77, New Zealand

> Most effective have been the testimonies of service users. This has been particularly useful, as the positive experience that users and family members have with community-based services have a significant and transformative effect in the community. –R78, Haiti

Beyond sharing their personal experiences, users have also participated in national steering committees (R8), and participated in broader consumer movements that propelled momentum:

> The consumer movement, the Mental Health Users Network of Zambia, have been in the forefront in the expansion of community mental health services, with support from government and non-governmental organisations. This has resulted in the reduction in the number of admissions to psychiatric institutions. –R27

Lastly, fewer mentions of advocacy by the government were discussed as such (R60 positively; R20 and R65 neutrally; R50, R53, R57 as lacking; R18 negatively). Instead, the role

of state actors in the deinstitutionalization process is elaborated upon in the section on leadership and governance.

3.4.2 Methods and tactics

Discussions of methods and tactics (the latter used here to refer particularly to creative responses to challenging contexts) cover a wide array of approaches. Nonetheless, some themes emerge: building alliances and networks, multi-pronged targeting of broad-ranging stakeholders, the significance of community-level advocacy, awareness and strategic targeting of politicized preferences of one's audience, and finally, the need for insistence versus the need for political access.

The role of strategic alliance is relevant across various contingents. With regard to service providers, R1 of Malaysia suggests the benefit of building a "network of like-minded mental health professionals" that together can sustain momentum and collaborate in new programs. Such networks may grow out of training programs:

> The development of a program to train professionals in integrated mental health care for SMI made possible the training of more than 300 professionals from the different regions of the country. These professionals had a key role in the development of innovative projects and form now a national network that contribute to the existence of a critical mass in the area of community based care. –R43, Portugal

In the case of user organizations, R33 of Australia writes:

> A coalition amongst the above groups is best. Keeping the differences between these groups behind closed doors and present a united front to government – makes the advocacy very powerful.

Finally, with reference to general advocacy efforts, R41 of Sri Lanka suggests:

> Consult and negotiate widely and build alliances. Do not criticize existing services and be respectful… Try to avoid 'back door' advice to Ministers (Sri Lanka and Vietnam)! Ask as many people as possible (all groups) to present information to Policy-makers and Ministers.

To ensure the efficaciousness of any particular move to deinstitutionalize, not only must actors work in affiliation and collaboration, but they must target a broad range of stakeholders simultaneously.

> Having policies and legislation is useful however given the fact that often commensurate resources are not provided for implementing the policies and legislations, a combination of methods like Public advocacy and education, targeted advocacy with Legislators, local politicians, policy-makers, philanthropists, involving district health managers to initiate integration of MNH component in PHC. –R47, Pakistan

> The National Steering Committee included a high number of stakeholders, a choice that revealed to be successful. In fact it made the process longer and the mediation and negotiation more difficult, yet it built a very strong and broad consensus and it helped building nationally a momentum for mental health. –R8, Jordan

> The multi-pronged approach proved to be effective because NGO's are pivotal to push for change, while the government is essential as a partner to make the newly established services sustainable. –63, Georgia

> Negotiations with stakeholders resistant to mental hospitals downsizing (i.e. professionals, hospital unions, directors of mental hospitals). –R4, Chile

When such advice was not followed, failure was at times met:

> Initiative to release chained/incarcerated people with mental illness and bring them to mental hospital failed because it did not use system approach. That initiative was done solely by the mental hospital and did not involve health office, PHCs, nor other stakeholders. –R3, Indonesia

Finally, R41 of Sri Lanka provides a reminder that one cannot expect absolute results when targeting a wide range of constituents, and the impact is precisely in the distribution:

> Bell curve – who changes and who doesn't. Know key players and remember most people are scared of change. Do not try and tackle institutional change head-on as problems are rarely solved in institutions which created them. Adopt an approach where you slowly change the service which will change people's thinking and attitudes and ask people to visit and make even better changes in their areas.

While the multi-level approach is desirable, respondents also homed in on the community and local government as sites for advocacy (R2, R8, R12, R14, R30, R41, R55, R75). To provide some examples:

> The identification and heavy involvement of few but very motivated and creative local champions was crucial. The same methods, used in other countries were local champions couldn't be identified, were not implemented as successfully. –R8, Jordan

> Advocacy work with community leaders: community leaders have a huge influence with the community. Repeated meetings with the community leaders helped us to gain legitimacy with in the community. –R2, Ethiopia

> Coordinate with the local government specifically through the City Health Department & the local government's Council on Health to be able to implement the program (monthly meetings of community health workers, including lectures on mental health and related topics). –R14, Philippines

> Building social capital of team by involving issues relevant to community- GBV, Child protection, conflict etc. The team has to be involved in matters concerning the

> community. The mentally ill are a small minority and the community at large may not be interested in this. –R30, Sri Lanka

> Understand local hostilities and as an honest broker try to obtain broad consensus (Sri Lanka and West Bank/Gaza)! –R41

Another category of tactics involves being attentive to the interests—political or otherwise—of the parties involved, in order to more strategically advocate for resources via a corresponding framework of action or language through which an appeal is articulated:

> Having mental health services as part of the camp matrix (by UNHCR and Ethiopia government) sent a strong message to donors and INGOs that there was a need for such services and that someone needed to cover and fund them. –R36

At times, political agendas make some programming more enticing for decision makers than others, for better or for worse:

> The key feature of this training was the incorporation of home visits which improved accessibility to mental health care. This had positive political implications and drew support from the district administrations which in turn meant sustainability of the programme. Already many districts are funding this capacity building and operational costs for home visits and no longer relying on International aid agencies. –R5, Indonesia

> They would rather invest in infrastructures than services, where the results are more tangible to people. This is a sure formula that would make them more popular to voters. –R75, Philippines

> Invoking foreign experts was among valuable methods of advocacy. Experts from old EU countries or representatives of international institutions get more attention by governmental bodies in Lithuania usually. –R46

In some instances, policies and plans speak beyond their content, and their utilization as an object of circulation to evidence legitimacy and facilitate communication can prove effectual:

> Having a policy and a plan, offered a 'justification' to undertake several consultations (with international visitors in some cases) at national and regional level, with policy-makers and with professionals from the field, with public and with private sectors, etc., that proved to be extremely useful during the implementation phase. Later on, we would simply recall to a document that had been done involving many actors. –R20, Albania

> This work was based on a planning template that was considered necessary to gain credibility, guide action, and promote effective communication among various actors, given the fact that there has existed in Haiti a major issue with uncoordinated humanitarian action. –R78, Haiti

Lastly, the subtle yet fundamental role of language and communication cannot be overlooked in advocacy efforts:

> The language of quality improvement and decentralization has been useful as a tool to inspire better integration of mental health care into the services offered in the district (and to depoliticize mental health and therefore reduce the subject as a potentially perceived to public security). –R79, Rwanda
>
> IMC hired a trainer who had already been trained as mhGAP master trainer and benefited from having a common language and approach when discussing the project with government officials and other stakeholders. R36, Ethiopia
>
> Build relationships with senior staff and Ministers and this takes time. Be prepared. Presentation of information/evidence should be quickly understood and initially less than a page – Ministers have short attention spans and do not read large documents. Be realistic and do not ask for huge increases in resources. –R41
>
> Good relationship with media, which will facilitate coverage of many initiatives (MH day, but also downsizing the biggest psychiatric hospital, etc). –R20

The last issue regarding advocacy involves the place of insistence and/or access to power. On one hand, respondents suggest the need for tenacity when approaching deinstitutionalization:

> Do not take no for an answer and never give up! Ministers and senior staff rarely agree straight away. –R41, Sri Lanka
>
> I think [the placement of beds outside of psychiatric institutions] is the cornerstone for reducing psychiatric hospitals, and is the most resisted policy. If the psychiatric hospital won't collaborate, do it anyway, it reduces immediately the institutional power. Do it in a centripetal movement. –R52, Chile

However, this does not rule out the acknowledgment that regardless of persistence on the part of a single actor or party, in some instances, access to political power is crucial as the basis for change:

> Nicaragua is a perfect example of the relationship between politics and health and that a stakeholder interested in expanding services and help in a reform must begin by having a strong and proactive action at governmental level, being involved not only as potential consultant, but as active actors in fostering change. –R58
>
> Decisions must be supported at the highest possible level, involving most levels possible, and with the enough political and budgetary support. –R52, Chile

Yet again, this is precisely the space for creative tactics, involving a keen grasp of the stakeholders involved, so as to most strategically maneuver through the slim spaces between available resources and powerful detractors. These may require careful consideration of timing, location, resource allocation, and selection of parties involved. For instance, R52 of

Chile discusses the avoidance of historical catchment areas of existent psychiatric institutions during the creation of community-based services, as there will almost always be resistance. R8 recounts a wise and innovative approach taken in Jordan, involving nuanced consideration of timing, credibility, and alliance-building:

> The reform has started bottom up, with a small project in delimited geographical areas as a pilot/demonstration project to inform policy-makers. The small project was about the development of the first community mental health center, as recommended from a comprehensive needs assessment. Staying initially away from the psychiatric hospitals, and establishing first a successful experience of an alternative model of care such as the community mental health services brought visible and exciting results with a small financial investment. This decision allowed also to not immediately and directly threat the leadership and the exclusive role of the psychiatric hospitals and of the psychiatrists and therefore to not raise their strong resistance at the initial stage of the project. The resistance came up later, when the project was already well established and known and had already gained credibility and trust among donors and policy-makers.

Such accounts offer inspiration for the possibility of change in spite of, and precisely with the acknowledgment of the fraught landscape upon which supporters of deinstitutionalization work to build and re-build a more viable and just mental health system.

DISCUSSION AND CONCLUSION

Deinstitutionalization is, at its core, an innovation that disrupts the existing order of the health system. It aims to introduce seismic changes to the practice of caring for individuals with mental and substance use disorders so that it will eventually take place in the community rather than in an institutional environment. Despite several decades of attempts to make mental health care more widely available in community settings, progress has been uneven and slow. Proponents of deinstitutionalization has replaced the hard line of ending or impeding the growth of inpatient infrastructure to a moderate one of striking a balance in the number and types of facilities (Knapp et al., 2007; Thornicroft & Tansella, 2004). These polarized configurations, or a hybrid of them, have different effects on the individual, the individual's family, the community, and the overall national health care system. A mental health system is in equilibrium if takes into account the complex needs of people with mental and substance use disorders, who are more costly to accommodate in hospitals than in community-settings. Striking the balance between institutional models and community-based mental health services is also highly context-specific. Actors have adopted tailored strategies to overcome formidable barriers such as financial constraints, low political priority accorded to mental health, professional resistance, scarcity of human resources, and difficulties in changing poorly organized services (Eaton et al., 2011; Saraceno et al., 2007). Scant evidence exists on the reform process that is underway in different countries, especially low- and middle-income countries. Building on the literature on the deinstitutionalization movement, I administered a survey on 78 experts to assess the problems they faced and mechanisms of action they exercised in 42 countries. An examination of their written testimonies and anecdotal evidence they provided revealed idiosyncratic boundary conditions that the (re)organization of mental health services

transpired under and the shared features across these countries, which in turn yielded important conceptual and practical insights.

What are the meanings and practices around deinstitutionalization in different countries? Respondents were asked to rate how useful they found 24 different methods to either downsize institution-based services or expand community-based services. The 10 most highly rated methods (in rank order) are displayed in Tables 3 and 4. Respondents were also provided with the opportunity to endorse other important factors in achieving deinstitutionalization. Four additional methods emerged, which were: managing the workforce; financing; rallying political support; and capitalizing on moments of openness to change. Their qualitative responses were complementary to quantitative ratings in that they elaborated on these highly ranked methods and situated them in country contexts. Overall, these country cases demonstrated that a meaningful engagement in moving deinstitutionalization forward requires certain ideas, codifying them in policy, and translating them into feasible modes of health care.

The art and science of delivering health care services have been widely discussed among practitioners, but they are just beginning the receive attention among scholars of global health (Kim et al., 2013; Damschroder et al., 2009; Proctor et al., 2009). The basic methods cited by respondents in this study are not novel, as they utilize assortments of the fundamental building blocks of health systems: health services, pharmaceuticals and technologies, information systems, workforce financing, as well as leadership and governance (Collins et al., 2013). The ingenuity and innovation that I found lies instead in the process of delivering quality interventions to reduce the burden of mental, neurological and substance use disorders in the population.[52] My respondents, who are reformers and observers of the mental health system, enacted three general approaches to deinstitutionalization: de novo; cross-pollination; and bricolage. De novo involves independently conceiving of an innovation, pilot-testing it, and then scaling it up. Imposing a dichotomy on deinstitutionalization, I find that there was much more variety observed in the data for community-based care than for institution-based care. In the "Community-based care" section are rich examples of pilots that would substantiate the notion of de novo innovation. A key umbrella term respondents often used is "community outreach," for instance, but that could mean anything from devising treatment modalities around the use of mobile technology to actually deploying workers in mobile clinics or en mass on motorcycles to interact with people in need of services. There is a salient element of trialability to these examples because adopters all attempted to find a way to test and modify a specific change on a small scale before expanding the intervention. One way to distinguish this type of innovation from the next type is that de novo innovations were developed from scratch while cross-pollination pollinations were first introduced through other programs and possibly in another context.

Cross-pollination innovations are concepts, designs, and practices created elsewhere, which are spread transnationally and then customized to fit local conditions. Respondents reported four ways in which they actively explored and observed innovations elsewhere, as described in the "Foreign presence" section. Two of those forces—bilateral relations and international experts—deserve emphasis because they have helped spurred practices around

[52] I focus this discussion less so on the cutting-edge products and services (the *what* of deinstitutionalization) and more on the manner in which existing products and services are delivered (the *how* of deinstitutionalization). The former includes organization and managerial innovation, technology-focused innovation, and user-focused innovation. The latter I elaborate on in the main text.

deinstitutionalization. The majority of respondents equated the burden of mental disorders to a risk, perhaps because of similarity in training or professional socialization. The "Research section" contains evidence showing that agents adopted a scientific approach when assessing risk, in the form epidemiological data procurement, before developing risk management and risk communication strategies. Aside from cosmopolitanism and research norms, respondents also iterated the need for cultural sensitivity whenever they alluded maximizing the compatibility between evidence-based practices and their respective contexts. Stakeholders working on projects that took place in a single location or isolated locations can draw on a large reservoir of tacit knowledge, shared context, and trust with one another. These are benefits larger-scale projects lack. While the evidence on implementing something in a specific location may be robust, it takes time to accumulate evidence on replicating and scaling-up the same innovation (Berwick, 2003). Dispersing the same innovation across time zones, cultures, languages and geographic locations requires new goals and technical specifications to be set. An easier alternative is to imitate or blindly adopt deinstitutionalization measures. Actors in the focal country elect this option under the assumption that the contexts said measures originated from have a high degree of homophily to theirs. Another explanation for actors engaging in such purposive action is that they feel pressured to conform to or compete for resources. I did not find blind adoption or imitation in my study. Rather, respondents have a sophisticated understanding of the complexity of deinstitutionalization, perhaps because they are experts in the area of mental health. They emphasized the need for iterative learning for a given product or service to fit local circumstances. To them, the cultivation of knowledge, capabilities, and capital should occur in tandem with the implementation and modification of innovations in deinstitutionalization.

The final type of innovation I drew from my data is bricolage, or taking disparate components and melding them together for the purposes of mental health care. This could be a combination of innovative and traditional elements of health care, but nonetheless retains the essence of constituting components. Deinstitutionalization oftentimes happened under severe resource constraints. Human, material and financial scarcity have pressured respondents to devise ways to maximize the resources available. Task-shifting, described in the "Training" section, is a prime example of bricolage because personnel working in general health and even outside the health sector are actively recruited and trained to deliver mental health care. Novel mechanisms in financing mental health care offer another example of bricolage. Three types of accounting were identified in the "Financing" section, each of which pertains to a specific stage of the maturation process of mental health systems. Conceptually these three types of innovation may seem distinct, but they overlap in practice. The point to underscore is that of equifinality, or the multiple mix of methods that could be employed to achieve the same results. The process of realizing innovation has been documented to follow these steps: generation of ideas, translating them into a prototype, implementing the model within an organization, routinizing them, commercializing inventions, diffuse (passive spread) or disseminate (active spread) across organizations, and make them sustainable until said innovation reaches obsolescence (Omachonu & Einspiruch, 2010; Hwang & Christensen, 2008; Herzlinger, 2006; Lansisalmi et al., 2006; Rogers, 2003; Strang & Soule, 1998). However, the path to achieving deinstitutionalization is far from being a linear one.

The success and failure of mental health care operations depends on the organizational context, as well as the national context they are implemented in. According to survey results, five principles enabled the creation of a deinstitutionalization milieu. First,

community-based services must be in place before and during attempts to deinstitutionalize care. Components of community-based services that facilitated deinstitutionalization the most were mobile clinics/outreach services, integration of mental health care in primary health care, and psychiatric beds in general hospitals. If community-based services are not place, then it is known from developed countries' experience with deinstitutionalization that former residents end up in homelessness, incarceration, or social neglect (Knapp et al., 2007; Glied & Frank, 2006; Olson, 2006). Second, the health workforce must be committed to change. As reported by respondents, the health workforce could either be a great asset or a great liability to deinstitutionalization. As such, health workers and professional associations need to be consulted, motivated, organized, and equipped for change. Third, political support at the highest and broadest levels is crucial. Raising the legitimacy to the issue of deinstitutionalization and establishing alliances from diverse stakeholders helped overcome resistance. In particular, respondents thought it can be challenging to rally support, let alone stewardship, from senior leaders, but the pay-off is ultimately worth the effort. "Soft" political skills such as social astuteness, interpersonal influence, networking ability, and communication of sincerity are arguably vital for deinstitutionalization because of the entrenched positions of many stakeholders in continuing to use institutions as the main setting for mental health service delivery (Ferris et al., 2007; Shortell et al., 2001, 1998). Fourth, timing is key. Advocates must capitalize on moments of openness, such as emergency situations and changes in political administration, because they provide opportunities to leverage support and introduce mental health care reform. Last but not least, financial resources are needed to support deinstitutionalization and foster innovation. Although institutional care is costly and ineffective, the process of deinstitutionalization requires additional funds, at least in the short term, for workforce training, infrastructure development, and double-funding of different services during transitional periods. In the absence of slack resources, it is useful to start work on deinstitutionalization with available funds while strongly advocating for more support.

Respondents offered myriad solutions pursuant to the factors they identified as being impediments to the delivery of mental health care away from institutions. The rate at which countries have implemented deinstitutionalization varies because of the level of financial investment in mental health and the effectiveness of plans, strategies, and legislation. The respondents implicitly recognize that structural changes alone would not fully address the burden of mental, neurological, and substance use disorders, but that it is an important first step. Deinstitutionalization encompasses gradual changes to the tertiary (i.e. reducing beds in hospitals, "humane" acute and long-term facilities), secondary (i.e. staffing mental health specialists in community health settings), and primary (i.e. supervising and supporting general health workers) levels of the health system. The overhaul or expansion of existing care would need to be complemented with workforce development and expanded access to medicines. Existing medical infrastructure should serve as a platform for health service delivery, but also for continuing professional education and supervision, monitoring and evaluation of day-to-day operations, research and development of innovative programs, and other core functions of the mental health system. Countries that are further along in the deinstitutionalization process face a greater imperative to integrate mentally ill people into the community. This entails having to establish linkages between health and other sectors (i.e. housing, employment), involve civil society to combat stigma and discrimination, and empower users and families. The amalgam of solutions observed in each country is a keen reflection of the respondent's perception, as well as mental health's importance to their society.

Although this survey was developed and deployed using rigorous methodology, it has three main limitations. First, potential respondents were identified and invited to participate in the survey by WHO's Director of Mental Health and Substance Abuse. Some of the respondents have close affiliations with WHO, and thus might share the same general vision for mental health service delivery. These respondents might have been biased by the impression that the survey was initiated strictly by WHO. Second, an effort was made to include a wide range of mental health experts. I made a focused effort to enroll service users as part of the overall sample. Nonetheless, several groups were under-represented, including women, service users, and those from the WHO Regions of the Americas and the Eastern Mediterranean. And thus the results might poorly represent the perspectives of these groups. Third, normative definitions of 'deinstitutionalization' and 'innovation' were purposefully not provided in the survey in order to minimize conceptual constraints. It is possible therefore for respondents to different views of these concepts as they answered the survey questions. While the categories I constructed proved useful analytically, many of the responses and quoted passages span more than one code and theme. Readers should be aware that the themes I discussed in this paper are intertwined and, in many cases, interdependent in practice. The current survey, with its broad geographical reach, shows a gap between theory and practice. The extent to which I could make inferences, extrapolations and generalizations has its limitations. Future research on innovation in mental healthcare organizations could look more closely at the types of innovation I have identified and the ways in which they are implemented. Researchers are also encouraged to employ mixed methods to better assess the norms and issues around mental health care and develop a conceptual framework and theory.

Psychiatric institutions are costly, inefficient and often inhumane, and yet they continue to consume the majority of paltry mental health budgets in low- and middle-income countries while managing very few people in need of mental health services. This survey of 78 mental health eminent experts shed light on this vexing issue and provided insights into the innovations used to enact and sustain deinstitutionalization in selected mental health systems around the world. My results indicate that there are several paths to deinstitutionalization. Some deinstitutionalization processes were described as being decisive and immediate, whereas others took longer to come to fruition and were gradually phased into practice over time. 'Top-down' forces such as national-level policies precipitated deinstitutionalization in some countries, whereas 'bottom-up' pilot projects engendered change in other countries. Changing the organization of the mental health system is a nested and multi-layered phenomenon, and my results show that intergovernmental and inter-organizational network relationships contributed to this process. System rate and scale aside, there is no single formula for fostering deinstitutionalization: it was not driven by a single method or a set of methods that can be applied to all situations. Furthermore, the perceived utility of prevalent community-based mental health services varies from country to country. Future studies are encouraged to look more closely at deinstitutionalization breakthroughs and conditions under which they occur.

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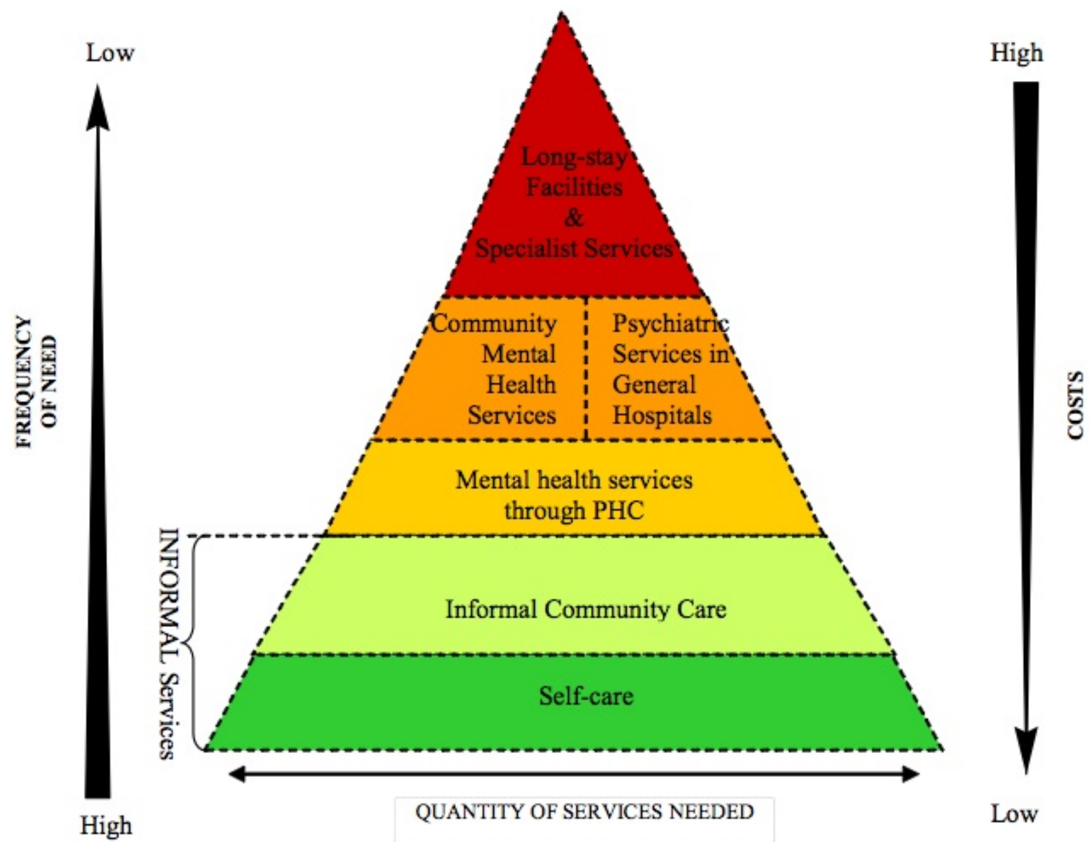
TECHNICAL APPENDIX

Appendix A. Study recruitment letter templates

Appendix B. Copy of survey

Figure 1. WHO Optimal Mix of Services Pyramid Framework



Source: WHO, 200

Table 1. Demographic Characteristics of Survey Respondents

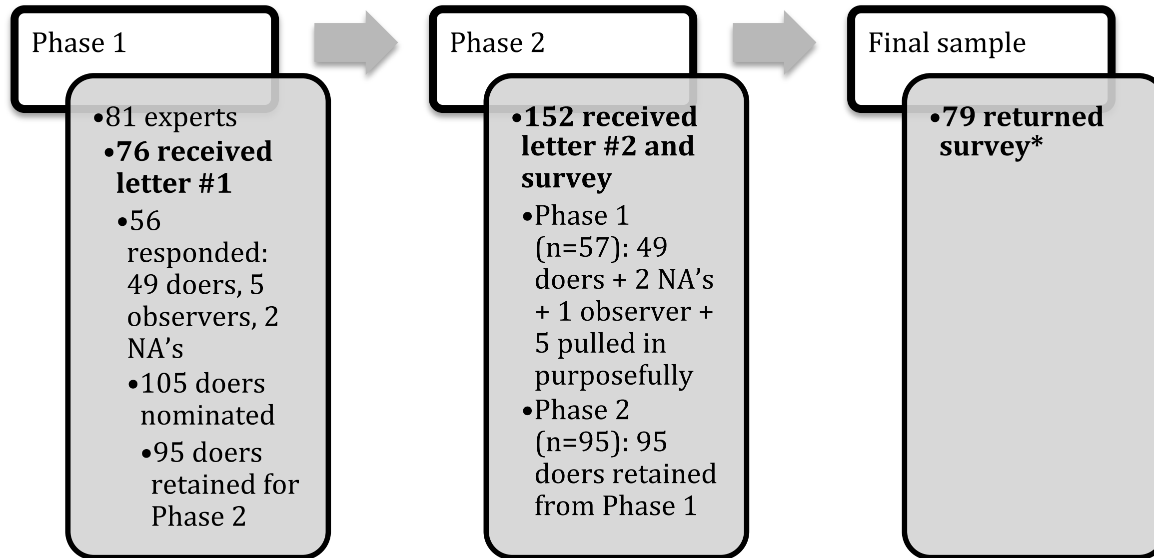
		N (% rounded)
Country income group (World Bank)		
	Low	18 (23%)
	Lower middle	28 (35%)
	Upper middle	13 (16%)
	High	20 (25%)
Geographic region (World Bank)		
	East Asia & Pacific	16 (20%)
	Europe & Central Asia	20 (25%)
	Latin America & Caribbean	7 (9%)
	Middle East & North Africa	4 (5%)
	North America	1 (1%)
	South Asia	11 (14%)
	Sub-Saharan Africa	20 (25%)
Geographic region (World Health Organization)		
	African (AFRO)	20 (25%)
	Eastern Mediterranean (EMTRO)	6 (8%)
	European (EURO)	19 (24%)
	Americas (PAHO)	8 (10%)
	South-East Asia (SEARO)	12 (15%)
	Western Pacific (WPRO)	14 (18%)
Gender		
	Male	57 (72%)
	Female	20 (25%)
Highest degree obtained		
	Bachelors	6 (8%)
	Masters	13 (16%)
	Medical doctor	25 (32%)

	Doctorate	11 (14%)		
	Others	9 (11%)		
Current affiliation*				
	Government	29 (37%)	Full-time	18 (62%)
			Part-time	9 (31%)
	International NGO	16 (20%)	Full-time	6 (38%)
			Part-time	8 (10%)
	National/local NGO	31 (39%)	Full-time	12 (39%)
			Part-time	17 (55%)
	Academia	34 (43%)	Full-time	16 (47%)
			Part-time	17 (50%)
	International organization	8 (10%)	Full-time	3 (38%)
			Part-time	4 (50%)
	User or family association	6 (8%)	Full-time	4 (67%)
			Part-time	2 (40%)
	Other	12 (15%)	Full-time	1 (8%)
			Part-time	11 (92%)
Other (in years)	Mean	Standard deviation		
Age	52.7	±10.3; n=77		
Tenure	24.3	±11.4; n=76		

*More than one affiliation might apply

Figure 2. Countries Represented in the Survey

Figure 3. Study Recruitment Flowchart*



*Response #14 was actually provided by two people who completed the survey together for the same country, while responses #78 and #79 were provided by the same person who mistakenly completed the survey for two countries he has worked in. The surveys were accepted as is.

Table 2. Code List

Theme	Code	Definition	Examples
Context	Foreign presence	Captures the influence of foreign governments, organizations, or individuals on the focal country.	Pressure, consultations, and/or materials (e.g., mhGAP) from expat psychiatrists; international experts; donors; international organizations (e.g., WHO--HQ & regional, INGOs, UN); academic institutions; regional blocks; visit other countries' systems.
	Funding	Refers to issues involving both the supply side (source and availability, appeal and application) and the demand side (allocation of funds, financial integrity) of financing for mental health.	Budget cycles; donors; "double funding" (for community-based and institutions, particularly during de-I transitioning process).
	Impetus	Refers to forces exogenous to the health sector, thus leading to changes in the provision of mental health services.	Impetus to De-I, e.g., natural disaster, genocide, war, regime change, research, disparities (gender, rural-urban, age).
	Insurance	Describes the role of public and private insurance in provision of and access to mental health services.	Health insurance coverage as facilitator or barrier to De-I.
	Legal	Encompasses the passage, revision, and role of policies and laws. It also describes whether plans and strategies are implemented in a standalone manner or in conjunction with policies and laws.	Legislation; policy; plans; law; legal framework; revision; part of general health.
	Medication	Accounts for any discussion of pharmaceutical drugs, including their availability, cost, and usage in treatment.	Psychotropic drug availability. Essential drugs: anti-psychotic, anti-depressant, etc. on national authorized medicines list; procurement; cost (to provider and to user); as treatment modality.
	Organizational relationships	Describes relationships formed across organizations and across sectors.	WHO country presence; inter-ministry working groups, technical teams, dedicated agencies, steering committees; academic/interdisciplinary working groups;

			consultative process; multi-agency/ministry; alliance of actors that are formalized by partnerships and MoU's; cooperate with non-MH NGOs; including inter-organizational resistance.
	Political strategy	Captures instances of lobbying for changes in the focal country's government.	Strategic means to ends: rhetoric, negotiation, and other tactics to push forth desired changes and plans in the government.
	Political will	Focuses on the support or resistance from particular politicians or the government administration from central to local levels.	Ranges from resistance, reluctance, red tape, inertia, support, to eager support and decisive action. E.g., of MoH, national or community leadership, professional leadership, or other stakeholders; regulations; establishing mental health unit in the MoH; working group of various ministries.
	Professionals' response	Describes the knowledge, attitude, and behavior of mental health professionals and staff, professional associations, and hospital unions toward various deinstitutionalization measures.	Responses to De-I from health professionals; attitude; lack of forum for grand rounds; team care; unions; biomedical model dominated; difference in organization by type of personnel. Including responses to community-based care and government lobbying.
Research	Epidemiology	Included any mention of estimation of catchment area, and its use in developing service plans.	Catchment area research and plans.
	Evaluation	Involves any assessment undertaken before, during, or after the implementation of a program or treatment plan.	Survey (needs assessment); situational analysis; outcome study; annual planning and assessment; cost-benefit or cost-effectiveness analysis; situation appraisal report; human rights monitoring; audit;

			monitoring and evaluation; data and statistics; systematic review.
	Local expertise	Describes the procurement of evidence by researchers, technical groups, or academic institutions in focal country.	Technical teams; stakeholders; principal investigators; experts.
Health system	Hospital management/ administration	Discusses hospital leaders and the way in which they administer and organize health facilities that affect the deinstitutionalization process.	Program manager; service managers; hospital service and management; new admissions procedures; transformational plan of psychiatric hospital; cost-effectiveness; discharge planning/hospital-to-community transfer programs; scheduling; quality improvement.
	Infrastructure	Involves the founding, change in scale, or disbanding of services, beds, units or departments, or the facility altogether. The issue of geographic location of facilities was also coded for here.	Beds and psychiatry units in general hospitals; outpatient clinics in health centers and general hospitals; downsize facilities; "medium stay" facilities; community mental health centers; upgrading general hospitals; distance from community; placement within existing institutions; location; newly-built vs. transformation.
	Network/linkage of facilities	Encompasses configurations that direct clients to seek mental health care in health facilities.	From general hospitals or primary care to neuropsychiatric hospitals; transfer (+/-); referrals; community-oriented service networks; community health teams; consultant liaison; case worker; traditional healers; transinstitutionalization; continuum of care.
	System rate	Describes the history, stage, and rate of deinstitutionalization in the focal country.	Temporal issues at the systemic/inter-program level: speed up; delay; momentum.
	System scale	Characterizes the mental health system, including the distribution of facilities in administrative areas.	Issues at systemic level, including condition of entire mental health system; "bottom-up"

			and "top-down" approaches; "few" programs overall; de-I processes/issues involving transition across facilities/programs; expansion or downsizing system-wide.
	Technology	Largely pertains to either information systems or telemedicine.	E-health/e-mental health; mobile phones; information systems; case registries; online treatment (tag modalities too); telemedicine; communication devices used for training purposes.
Human resources	Hiring	Relays staff recruitment and selection issues.	Issues related to hiring process, e.g., job descriptions.
	Staffing	Refers to placement and composition of staff in facilities.	Specialist presence, shortage, and ratios; psychiatrist and nurse in general hospitals; consultation.
	Tenure/turnover & performance	Describes social psychological and financial incentives to motivate and retain staff.	Payment incentives, attrition, motivation.
	Training	Includes academic coursework, degree programs, clinical supervision, and other more informal training processes.	Clinical competence; training of trainers; task-shifting; task-sharing; certification and degree programs; supervision.
Care	Community-based care	Entails extending mental health care where there was a previous lack in the community.	Health workers/nurses/teams; ambulatory psychiatric teams; assertive outreach/assertive community treatment; mobile clinics; mobile clinic; home visits; Community Support Officers (CSO) --> follow-up, medical adherence, social support; psychoeducation; recruitment; closer to homes; case finding/detection; telephone hotline.
	Program rate	Describes the history, stage, and rate of implementation of a particular program.	Temporal issues related to particular method/program implementation:

			sustainability; continuity; speed up; delay; momentum.
	Program scale	Characterizes the piloting of programs, and efforts to scale up and replicate them in successful cases.	Issues of implementation at program level: pilot/demonstration projects; replicate; scale-up.
	Treatment modalities/ practices	Involve approaches to healing and therapy, including and beyond biomedical models.	Approaches to patient care, e.g., evidence-based interventions; home treatment; guidelines; holistic care; sub-threshold diagnostic treatment; family caregiving; peer-support; psychosocial counseling; traditional healers and religious leaders; intensive case management; develop locally-validated, culturally-sensitive screening tools, exams, tests; psychopharmacology; develop relationships with clients/patients; guidelines; addressing co-morbidities; stepped care.
	Wraparound services	Captures aspects of clients' wellbeing beyond treatment, particularly in social and economic functioning, and community integration.	Partnerships; education, social welfare; agricultural psychiatric rehabilitation villages; social safety. Social assurance: housing, food; community-based rehabilitation; rehabilitation; community integration; supported employment, vocational, occupational rehabilitation; family support/counseling; day care services; residential care.
Public	Advocacy	Provides a picture of who the advocates for deinstitutionalization are in the focal country.	Local champions; lobbying.
	Human rights	Encapsulates documentation of and awareness-raising surrounding human rights violations.	Ensuring it in psychiatric hospitals; violations (physical restraint, isolated incarceration against patient's

		will/compulsory admission); UN Convention on the Rights of Persons with Disabilities (CRPD); human rights monitoring.
Promotion	Includes awareness-raising campaigns and mental health education in sectors other than health.	Mass desensitization campaigns; (psycho)education—adult, children, leaders; public education; increase visibility of services; information; media; translating materials; combat stigma; attracted attention; community backlash/"not in my backyard"/abuse by neighbors; culturally-(in)appropriate.
Stigma	Includes negative effects of stigma on users, families, and providers, as well as efforts to reduce stigma.	De-stigmatization efforts; stigma as barrier to programming or staffing.
Users & families	Refers to the involvement of users and families in care, promotion, and advocacy.	Survivor/consumer/user; families; testimonies; support groups; self-help; user groups; NGOs; empowerment; "word of mouth."

Table 3. Percentage of Respondents Rating the Method as *'quite useful'* or *'very useful'* in Downsizing Institution-Based Services

Rank Order	Percentage of respondents	Method
1	67.4%	Mobile clinics/outreach services
2	64.3%	Psychiatric beds outside mental hospitals (e.g. in general hospitals)
3	58.3%	Discharge planning/hospital to community residence transfer programmes
4	57.7%	Residential care in the community
5	56.5%	Stopping new admissions in institutions or 'closing the front door'
6/7/8	55.8%	Reducing admissions through new admissions procedures
6/7/8	55.8%	Local catchment area or hospital-level plans
6/7/8	55.8%	Supported employment
9	54.2%	National or regional mental health policy, strategies, plans
10	51.0%	Self-help and user groups

*The denominator is the number of respondents who ranked the specific method rather than the total sample.

Table 4. Percentage of Respondents Rating the Method as *'quite useful'* or *'very useful'* in Expanding Community-Based Services*

Rank Order	Percentage of respondents	Method
1	74.5%	Mobile clinics/outreach services
2	71.0%	Community-mental health centers
3	69.0%	Integration of mental health care in primary health care
4	68.1%	National or regional mental health policy, strategies, plans
5	67.7%	Psychiatric beds outside mental hospitals
6/7/8	65.3%	Supported employment
6/7/8	65.0%	Self-help/user groups
6/7/8	62.3%	Vocational training
9 (tied)	60.0%	Local catchment area of hospital-level plans & Advocacy and public education by healthcare professionals
10	58.0%	Outpatient care at general hospitals

*The denominator is the number of respondents who ranked the specific method rather than the total sample.

Table 5. Average Ratings and Paired t-test Results for 24 Pre-Defined Methods to Expand Community-Based Services and Downsize Institution-Based Care. Scale: 1= *not useful* to 5=*very useful*. p< .01

	n	Mean (Standard deviation) Expanding community-based services	Mean (Standard deviation) Downsizing institution-based care	Mean (Standard deviation) Difference in responses	t-statistic	Two-tailed p-value
Legislation, policy and plans						
Mental health legislation	49	3.39 (1.34)	3.24 (1.39)	0.14 (0.61)	1.63	0.109
National or regional mental health policy, strategies, plans	59	3.97 (1.26)	3.66 (1.28)	0.31 (0.73)	3.23*	0.002
Local catchment area or hospital-level plans	52	3.71 (1.21)	3.44 (1.39)	0.27 (0.12)	2.19	0.033
Advocacy and public education						
Advocacy and public education by government	49	3.14 (1.26)	3.04 (1.35)	0.10 (0.82)	0.87	0.390
Advocacy and public education by NGOs	56	3.38 (1.20)	3.11 (1.25)	0.28 (0.87)	2.37	0.021
Advocacy and public education by health-care professionals	56	3.64 (1.12)	3.25 (1.30)	0.39 (1.02)	2.88*	0.006
Advocacy and public education by family members	51	3.33 (1.31)	2.86 (1.37)	0.47 (0.83)	4.03*	0.0002
Advocacy and public education by service users	49	3.47 (1.37)	3.12 (1.49)	0.35 (0.90)	2.69*	0.010
Outpatient clinics						
Outpatient care at general hospitals	58	3.47 (1.40)	3.07 (1.40)	0.40 (1.06)	2.85*	0.0060
Community mental health centres	53	4 (1.09)	3.34 (1.36)	0.66 (0.98)	4.91*	0.0000

Integration of mental health care in primary health care	59	3.88 (1.20)	3.24 (1.33)	0.64 (1.05)	4.73*	0.0000
Mental hospitals and asylums						
Stopping new admissions in institutions, or ‘closing the front door’	43	3.21 (1.34)	3.49 (1.47)	-0.28 (0.98)	-1.86	0.0699
Reducing admissions through new admissions procedures	40	3.38 (1.23)	3.53 (1.20)	-0.15 (0.77)	-1.23	0.2251
Physically removing unused beds / reducing the number of psychiatric beds	38	3.03 (1.44)	3.24 (1.40)	-0.21 (0.96)	-1.35	0.1860
Discharge planning / Hospital-to-community residence transfer programs	45	3.6 (1.32)	3.71 (1.29)	-0.11 (1.19)	-0.63	0.5348
Improving mental hospital information systems	44	3.11 (1.38)	2.95 (1.26)	0.16 (0.68)	1.55	0.1280
Employment, vocational and occupational rehabilitation						
Vocational training	47	3.68 (1.30)	3.23 (1.43)	0.45 (0.95)	3.22*	0.0024
Supported employment	41	4 (1.18)	3.54 (1.42)	0.46 (1.05)	2.82*	0.0074
Other						
Psychiatric beds outside mental hospitals (e.g. in general hospitals)	54	3.89 (1.21)	3.94 (1.16)	-0.06 (0.71)	-0.57	0.5686
Day care services	45	3.38 (1.30)	3.27 (1.37)	0.11 (0.91)	0.82	0.4172
Residential care in the community	44	3.59 (1.37)	3.61 (1.37)	-0.02 (0.88)	-0.17	0.8641
Mobile clinics/outreach services	42	4.12 (1.23)	3.83 (1.29)	0.29 (0.92)	2.02	0.0503
Self-help and user groups	48	3.92 (1.18)	3.40 (1.41)	0.52 (0.95)	3.82*	0.0004
E-mental health	27	2.81 (1.62)	2.63 (1.62)		1.99	0.0571

Table 6. Code and Valence Frequency

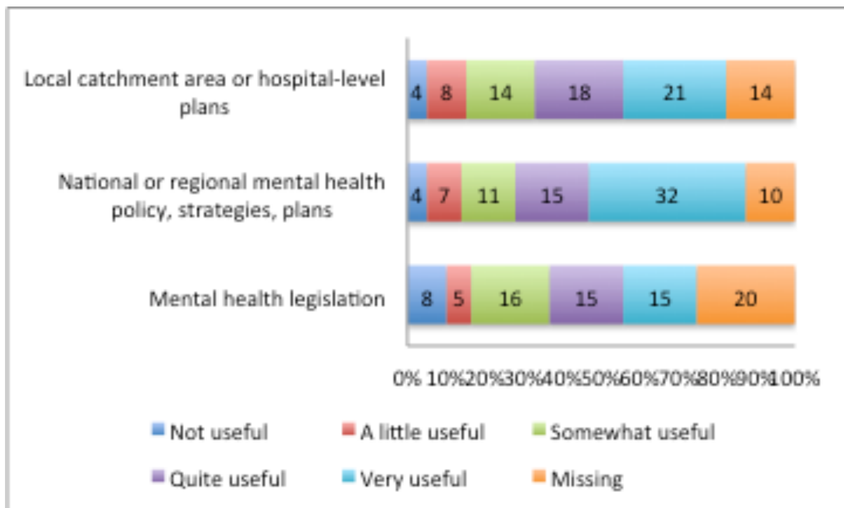
Code	Total	Min	Max	Mean	Std Dev	
Advocacy	58	0	3	0.734	0.812	††††††††††††††
Advocacy Neg	10	0	4	0.127	0.54	††
Advocacy Pos	12	0	2	0.152	0.483	†††
Comm based care	134	0	9	1.696	1.682	†††††††††††††††††††††††††††††††††
Comm based care Neg	16	0	2	0.203	0.464	††††
Comm based care Pos	11	0	2	0.139	0.416	†††
Epidemiology	17	0	2	0.215	0.472	††††
Epidemiology Neg	2	0	1	0.025	0.158	†
Evaluation	66	0	7	0.835	1.192	††††††††††††††††
Evaluation Neg	14	0	2	0.177	0.446	†††
Evaluation Pos	8	0	2	0.101	0.343	††
Foreign presence	75	0	10	0.949	1.663	›››››››››››››››››››
Foreign presence Neg	5	0	4	0.063	0.462	†
Foreign presence Pos	2	0	1	0.025	0.158	†
Funding	69	0	5	0.873	1.148	†††††††††††††††††
Funding Neg	32	0	3	0.405	0.631	††††††††
Funding Pos	8	0	3	0.101	0.411	††
Hiring	12	0	2	0.152	0.455	†††
Hiring Neg	3	0	2	0.038	0.25	†
Hosp mgmt admin	35	0	2	0.443	0.712	†††††††††
Hosp mgmt admin Neg	13	0	2	0.165	0.406	†††
Hosp mgmt admin Pos	7	0	2	0.089	0.328	††
Human rights	26	0	2	0.329	0.593	††††††
Human rights Neg	9	0	3	0.114	0.453	††

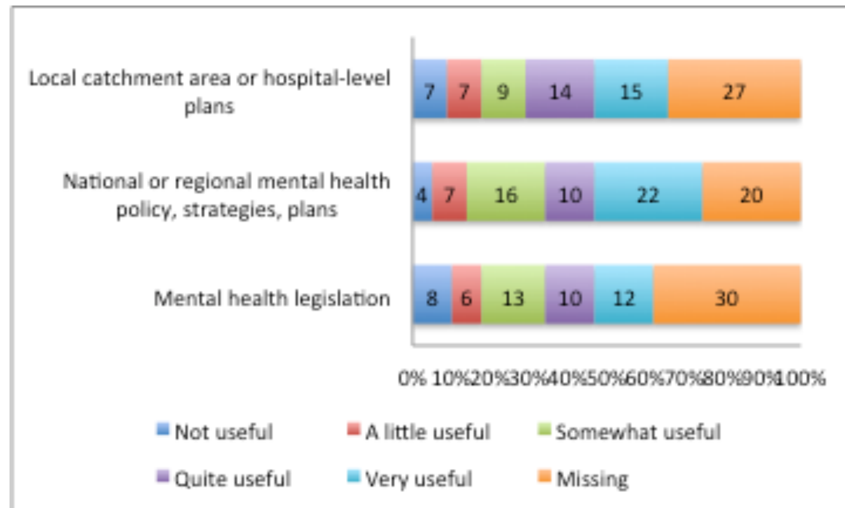
Human rights Pos	2	0	1	0.025	0.158	†
Impetus	22	0	3	0.278	0.576	†††††
Impetus Neg	8	0	1	0.101	0.304	††
Impetus Pos	3	0	1	0.038	0.192	†
Infrastructure	105	0	9	1.329	1.693	††††††††††††††††††††††††††
Infrastructure Neg	19	0	2	0.241	0.512	†††††
Infrastructure Pos	5	0	2	0.063	0.293	†
Insurance	4	0	2	0.051	0.273	†
Insurance Neg	2	0	1	0.025	0.158	†
Insurance Pos	1	0	1	0.013	0.113	†
Legal	98	0	6	1.241	1.253	††††††††††††††††††††††††
Legal Neg	28	0	2	0.354	0.556	†††††††
Legal Pos	8	0	1	0.101	0.304	††
Local expertise	22	0	4	0.278	0.733	†††††
Local expertise Neg	1	0	1	0.013	0.113	†
Local expertise Pos	3	0	1	0.038	0.192	†
Medication	25	0	3	0.316	0.631	††††††
Medication Neg	5	0	1	0.063	0.245	†
Medication Pos	5	0	3	0.063	0.37	†
Network	93	0	9	1.177	1.517	†††††††††††††††††††††††
Network Neg	22	0	2	0.278	0.598	†††††
Network Pos	11	0	2	0.139	0.383	†††
Org relations	90	0	6	1.139	1.356	††††††††††††††††††††††
Org relations Neg	10	0	2	0.127	0.371	††
Org relations Pos	15	0	2	0.19	0.455	††††
Polit strategy	40	0	7	0.506	1.096	††††††††††

Polit strategy Neg	3	0	1	0.038	0.192	†
Polit strategy Pos	3	0	1	0.038	0.192	†
Polit will	41	0	3	0.519	0.814	††††††††††
Polit will Neg	24	0	3	0.304	0.585	††††††
Polit will Pos	26	0	2	0.329	0.548	††††††
Prof response	22	0	2	0.278	0.479	†††††
Prof response Neg	42	0	5	0.532	0.86	††††††††††
Prof response Pos	15	0	2	0.19	0.455	††††
Program rate	28	0	3	0.354	0.717	†††††††
Program rate Neg	7	0	2	0.089	0.328	††
Program rate Pos	2	0	1	0.025	0.158	†
Program scale	56	0	5	0.709	1.262	††††††††††††††
Program scale Neg	9	0	2	0.114	0.358	††
Program scale Pos	6	0	2	0.076	0.311	†
Promotion	91	0	9	1.152	1.369	†††††††††††††††††††††††
Promotion Neg	12	0	2	0.152	0.395	†††
Promotion Pos	10	0	2	0.127	0.371	††
Staffing	48	0	6	0.608	1.103	††††††††††††
Staffing Neg	18	0	2	0.228	0.451	††††
Staffing Pos	6	0	1	0.076	0.267	†
Stigma	29	0	2	0.367	0.624	†††††††
Stigma Neg	10	0	2	0.127	0.404	††
Stigma Pos	4	0	2	0.051	0.273	†
System rate	39	0	7	0.494	1.036	††††††††††
System rate Neg	6	0	1	0.076	0.267	†
System rate Pos	7	0	2	0.089	0.365	††

System scale	51	0	4	0.646	0.801	†††††††††††††
System scale Neg	12	0	2	0.152	0.395	†††
System scale Pos	1	0	1	0.013	0.113	†
Technology	27	0	2	0.342	0.552	†††††††
Technology Neg	6	0	1	0.076	0.267	†
Technology Pos	6	0	2	0.076	0.311	†
Tenure trnvr prfrm	17	0	2	0.215	0.443	††††
Tenure trnvr prfrm Neg	23	0	3	0.291	0.581	††††††
Tenure trnvr prfrm Pos	5	0	2	0.063	0.293	†
Training	114	0	9	1.443	1.583	††††††††††††††††††††††††††††
Training Neg	23	0	3	0.291	0.558	††††††
Training Pos	14	0	6	0.177	0.747	†††
Tx modes practices	50	0	8	0.633	1.273	
Tx modes practices Neg	12	0	2	0.152	0.426	†††
Tx modes practices Pos	4	0	2	0.051	0.273	†
Users and families	102	0	6	1.291	1.451	†††††††††††††††††††††††††
Users and families Neg	17	0	2	0.215	0.498	††††
Users and families Pos	18	0	4	0.228	0.619	††††
Wraparound	65	0	5	0.823	1.152	††††††††††††††††
Wraparound Neg	9	0	2	0.114	0.358	††
Wraparound Pos	4	0	2	0.051	0.273	†

Figures 4a and 4b. Perception of Legislation, Policy and Plans as Means to Expand Community-Based Mental Health Care (left) and Downsize Institution-Based Care (right)





APPENDIX

Appendix A. Study recruitment letter templates

Recruitment letter #1

Subject line: Message from Dr Saxena, WHO Director of Mental Health and Substance Abuse (respond by 3 January 2013).

Dear{name}:

I am writing you to give us advice for our expert Consultation on Expanding And Reorganizing Mental health Care for people with severe mental disorders.

The World Health Organization (WHO) continues to be concerned that despite several decades of attempts to make mental health care more widely available in community settings, progress has been uneven and slow. WHO has described state-of-the-art approaches for planning and delivery of modern, effective and humane mental health care through its Mental Health Policy and Services Guidance Package. The principles outlined in this package allow for flexible, innovative implementation.

Currently, there are too few descriptions of methods used to achieve service re-organization and expansion. To inform a report on this topic, we are conducting an expert consultation on innovative methods to expand care for people with severe mental disorders.

I am asking for your agreement to be involved in this consultation that will collect and analyze advice on *perceived usefulness* of different methods to expand community-based mental health services and/or downsize long-term institution-based care.

This consultation is made possible with the support of the Calouste Gulbenkian Foundation and is done in collaboration with colleagues from CBM International and the University of California, Berkeley.

We are looking for the advice of 2 types of respondents:

A. "*Doers"*. Those who themselves have been substantially involved in the strategic work or management of expanding community based-mental services and/or downsizing hospital-based care. These efforts may involve service users or family members actively involved in advocacy.

B. "*Observers"*. Those who have studied or commented on expanding community based-mental services and/or downsizing institution-based care.

These are our questions to you for now, which may take you 5 minutes to complete:

1. Do you consider yourself more of a "do-er" or more of an "observer"?

2. Could you give us the names and emails of two people who have been "do-ers" who you think will be able to give valuable advice to WHO and who we should approach as well? We are looking for names of people who we have not yet been in contact with.

3. If you consider yourself a "do-er," may we send you by email specific written questions about your experiences and perceptions? We expect it would take about 60 minutes to complete. In addition, we may approach you for a follow-up phone interview in case you are interested.

Of note, in case our list of potential respondents would be very large than, we would draw a random sample from our list to not have more respondents than necessary.

4. Whether you are a "do-er" or an "observer", may we send you a draft report on this topic for your comments? You would receive this draft report in the Spring of 2013.

Of note, we will pose our questions in English, but welcome responses in any language.

We look forward to hearing from you. Please kindly send the names of "do-ers" to by 3 January 2013. If you have questions about this exercise, please contact us by writing to Dr. Mark van Ommeren (vanommerenm@who.int) with cc to Gordon Shen (Gordon_shen@berkeley.edu)

Kind regards

Shekhar Saxena
Director,
Department of Mental Health and Substance Abuse,
WHO

Recruitment letter #2

Subject line: Consultation on Expanding and Reorganizing Mental health Care (please respond by 28 February 2013).

Dear{name}:

I invite you to complete a questionnaire on mental health care delivery and services as part of our Consultation on Expanding and Reorganizing Mental health Care. The World Health Organization (WHO) continues to be concerned that, despite several decades of attempts to make mental health care more widely available in community settings, the progress has been uneven and slow. WHO has described state-of-the-art approaches for planning and delivery of modern, effective and humane mental health care through its Mental Health Policy and Services Guidance package. The principles outlined in this package allow for flexible, innovative implementation.

Currently, there are too few descriptions of methods used to achieve service re-organization and expansion. To inform a report on this topic, we are conducting an expert consultation on innovative methods to expand care for people with severe mental disorders.

I am asking for your agreement to be involved in this consultation that will collect and analyze advice on *perceived usefulness* of different methods to expand community based-mental services and/or downsize long-term institution-based care. This project is made possible with the support of the Calouste Gulbenkian Foundation and is done in collaboration with colleagues from CBM International and the University of California, Berkeley.

In order to ensure your anonymity and confidentiality, please do not write your name on the questionnaire itself as you will be assigned a unique respondent code. Information reported in the last section on demographics will be aggregated and reported as summary statistics only. In the same section you will also be asked to give your consent for statements to be quoted in resulting publications. If you choose not to give consent to be quoted, your responses will be used as part of a general analysis of themes and patterns in the responses. Finally, you will be asked to give permission for a potential follow-up interview.

This is expected to take around 60 minutes of your time. Your participation is of course voluntary; at any time you may choose to skip a specific question or stop being part of this consultation altogether. Please kindly send responses to Gordon Shen (Gordon_shen@berkeley.edu), with Mark van Ommeren (vanommerenM@who.int) cc'ed.

Of note, we pose our questions in English, but welcome responses in any language.

We are looking for your response by 28 February 2013. Thank you in advance for your valuable input.

Dr. Shekhar Saxena
Director, Department of Mental Health and Substance Abuse, WHO

Appendix B. Copy of survey

Consultation on Expanding and Reorganizing Mental health Care

General instructions: Please read the entire questionnaire before answering the questions. We are interested in obtaining narrative responses on perceived utility of selected methods (questions 3 and 4) and we are also interested in your systematic consideration of a range of methods, covered in question 5.

1. List up to five countries where you have worked on expanding community-based mental health care and/or downsizing institution-based mental health services.

2. If you have the pertinent knowledge and experience for more than one country, choose one country to answer the remaining questions for. Which country are you answering the remaining questions for?

3a. Reflecting on your experiences, could you please share with us methods[53] to expanding community-based mental health care and/or downsizing institution-based services that you believe have been effective?

3b. Please tell us what went well during the work on reorganizing and/or developing mental health services described in 3a.
Instructions: please describe in some detail (e.g., 200 words). If possible, please add references or attach any documents that describe any of your experiences relevant to the above.

4a. Reflecting on your experiences, please share with us methods to expanding community-based mental health care and/or downsizing institution-based services that you believe have failed?

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[53] For examples of methods, please see question 5.

4b Please tell us what did not go well during the work on reorganizing and/or developing mental health services described in 4a.
Instructions: please describe in some detail (e.g. 200 words). If possible, please add references or attach any documents that describe any of your experiences relevant to the above.

5. How useful have you found the methods listed below to reach the objectives of expanding community-based mental health care and downsizing institution-based services in this country?
Instructions: Please answer this question only for the methods that have ever been implemented -by you or by colleagues- in this country.

Methods	How useful have you found this method to expand community-based mental health care? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	How useful have you found this method to downsize institution-based services? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	Please comment on any innovative ways used to develop or implement these in the elected country (if applicable)
Legislation, policy and plans			
Mental health legislation[54]			
National or regional mental health policy, strategies, plans			
Local catchment area or hospital-level plans			

[54] Mental health legislation refers to legal provisions related to mental health. These provisions typically focus on issues such as civil and human rights protection of people with mental disorders, treatment facilities, personnel, professional training and service structure.

Methods	How useful have you found this method to expand <u>community-based mental health care</u>? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	How useful have you found this method to downsize <u>institution-based services</u>? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	Please comment on any innovative ways used to develop or implement these in the elected country (if applicable)
Advocacy and public education			
Advocacy and public education by government			
Advocacy and public education by NGOs			
Advocacy and public education by healthcare professionals			
Advocacy and public education by family members			
Advocacy by and public education by service users			
Outpatient clinics[55]			
Outpatient care at general hospitals			

[55] Outpatient clinics are facilities that focus on the management of mental disorder and the clinical and social problems related to it on an outpatient basis.

Methods	How useful have you found this method to expand community-based mental health care? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	How useful have you found this method to downsize institution-based services? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	Please comment on any innovative ways used to develop or implement these in the elected country (if applicable)
Community mental health centers			
Integration of mental health care in primary health care[56]			
Mental hospitals and asylums[57]			
Stopping new admissions in institutions, or 'closing the front door'			
Reducing admissions through new admissions procedures			

[56] Primary health care refers to clinics that are often the first point of entry into the healthcare system. Primary health care clinics usually provide initial assessment for common health conditions and refer those requiring more specialized diagnosis and treatment to the facilities with staff with a higher level of training.

[57] Mental hospitals, or asylums, are specialized hospital-based facilities that provide inpatient care and long-stay residential services for persons with mental disorders. Usually these facilities are independent and stand-alone, although they may have some links with the rest of the healthcare system. The level of specialization varies considerably: in some cases only long-stay custodial services are offered, in others specialized and short-term services are also available (rehabilitation services, specialist units for children and elderly, etc.).

Methods	How useful have you found this method to expand <u>community-based mental health care</u>? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	How useful have you found this method to downsize <u>institution-based services</u>? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	Please comment on any innovative ways used to develop or implement these in the elected country (if applicable)
Physically removing unused beds / reducing the number of psychiatric beds			
Discharge planning / Hospital-to-community residence transfer programs			
Improving mental hospital information systems			
Employment, vocational and occupational rehabilitation			
Vocational training			
Supported employment			
Other			
Psychiatric beds outside mental hospitals (e.g. in general hospitals)			

Methods	How useful have you found this method to expand community-based mental health care? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	How useful have you found this method to downsize institution-based services? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	Please comment on any innovative ways used to develop or implement these in the elected country (if applicable)
Day care services[58]			
Residential care in the community[59]			
Mobile clinics/ outreach services			
Self-help and user groups			
E-mental health [60]			

[58] Day care services are care typically provide for service users during the day. They are provided in facilities that are generally (1) available to groups of users at the same time (rather than delivering services to individuals one at a time, (2) expect users to stay at the facilities beyond the periods during which they have face-to-face contact with staff (i.e. the service is not simply based on users coming for appointments with staff and then leaving immediately after the appointment and (3) involve attendances that last half or one full day.

[59] Non-hospital, community-based mental health facilities provide residential care, or overnight residence, for people with mental disorders. Usually these facilities serve users with relatively stable mental disorders not requiring intensive medical interventions.

[60] Use of IT for self-help, for strengthening of mental health care delivery or for support of caregivers

6. Provide any other additional methods used in the country not listed in the last question, then indicate how use useful you think they are in reaching the objective(s) of downsizing institution-based services and/or expanding community-based services? Additional methods may possibly include those that you have mentioned in questions 3 and 4.

Methods	How useful have you found this method to expand community-based mental health care? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	How useful have you found this method to downsize institution-based services? 5 = Very Useful 4 = Quite Useful 3 = Somewhat Useful 2 = A Little Useful 1 = Not Useful NA = Not applicable/Do not know/Not used in this country	Please comment on any innovative ways used to develop or implement these (if applicable)

7. The funding of the work on expanding community-based mental health care and/or downsizing institution-based services in the country came from:

	Yes/No
Routine government (national/regional/local) budget	
Additional government (national/regional/local) budget	
Foreign aid (bilateral, multilateral), INGOs)	
Foreign aid (INGOs)	
Research funds	
Other (describe):	

DEMOGRAPHICS

1. What is your age?

2. What is your gender? Male☐ Female☐

3. List any health-, policy , and/or administration-related degree program(s) you have completed (your qualifications):

4. How long have you worked in health services?

5. Regarding the country work you are reflecting on above, what was your employment position in the country at the time? Please name the organization and your position in it.

6. For the organization(s) you are currently affiliated with, please provide us with your job title(s).

Type of organization	Job title(s)	Part-time or full time?
Government		
International non-governmental organization (INGO)		
National/local non-governmental organization (NGO)		
Academia (e.g. college, university)		
International organization (e.g. WHO, other UN)		
User association or family association		
Other:		

7a. There is a chance that we would want to ask additional questions based on your responses to this survey. If that is the case, may we contact you with additional questions?

☐ Yes
☐ No

7b. Would you be interested in being interviewed separately for a case study of your experience? If so, may we contact you?

☐ Yes
☐ No

8. There is a chance that we would want to quote from some of your answers in resulting publications. Choose one of the two options below:

☐ I would prefer not to be quoted at all.
☐ It is okay to quote me.

9. You have the option of remaining anonymous. If you choose to do so neither your name nor any identifying information will be published in the acknowledgement section in resulting publications. Do you wish to remain anonymous?

☐ Yes
☐ No
☐ I would like to decide this when I see the pre-final report

Thank you for your time and effort!

Please return the completed questionnaire to Gordon Shen (Gordon_shen@berkeley.edu) with Mark van Ommeren (vanommerenm@who.int) cc-ed.

Conclusion

A significant 'mental health gap' exists globally between the major burden of mental, neurological, and substance use disorders and the provision of services to address them. The research evidence base on this subject from low- and middle-income countries pales in comparison to research from high-income countries. This gap has been explored by researchers from a wide range of academic disciplines—epidemiology, clinical medicine, economics, and anthropology—but not in depth by sociologists and political scientists. Diffusion and institutionalization are prime theoretical interests of mine, as expressed in this dissertation. Both sociological processes unfold at the intersection of governmental relationships and structures. I explored the two-stage process of diffusion of mental health policy across countries and institutionalization of a specific policy component, deinstitutionalization, within countries. Even though I speak of mental health policy adoption and implementation as a linear process, it would ideally be an iterative cycle through which policy and practice are interfaced. My dissertation is unprecedented in that I have placed equal emphasis on countries belonging to all the cells of a 2x2 table, with degree of institutionalization as the columns and degree of diffusion as the rows (Colyvas & Jonsson, 2011 Clemens & Cook, 1999; Aldrich & Fiol, 1994). The diffusion and institutionalization processes also shed light on inertia and its flip side, innovation, in the mental health care sector—the latter of which is elaborated on in the third study. Deinstitutionalization concerns the development of research areas, new therapies, and care settings, but also the constitution of legal frameworks and institutional organization, which is the focus of my dissertation.

Mental health emerged as a global field of action in the aftermath of World War II such that transnational organizations and national agencies coordinate and initiate activities that are guided by common standards and norms. I found that the successive adoption of mental health policy across time and countries was best represented by a sigmoidal curve, is a telltale indicator of contagion or communication (Rogers, 2003; Strang & Soule, 1998). Historically, a few countries in the world society started to develop mandates to care for their citizens diagnosed with mental, neurological, and substance use disorders. Diffusion across geopolitical borders then occurred when other countries began to emulate these innovators' policies and practices (Rogers, 1983; Gray, 1973; Walker, 1969). Policy diffusion is particularly prevalent given pre-existing symbolic or artifactual linkage of decision making entities, and by channels of communication within a common, sociocultural system (Savage, 1985; Meyer, 1980). Trade and foreign direct investment have made it much easier for newly emerging economies—namely BRICS (Brazil, Russia, Indian, China, South Africa) and their next generation, or MIC (Mexico, Indonesia, Chile)—to adopt best-practices, technology, and managerial know-how invented in more advanced economies. The information revolution has also allowed easier access to knowledge. I accounted for this increasing interconnectivity among countries by statistically testing the proximity to prior adopters in the same region, susceptibility to the mandates of international organizations and aid donors, and influence due to demographic similarity to other countries. Indeed, I find that the authority of the World Health Organization and countries in the same region have a statistically significant effect on the national development of mental health care and efforts to make it sustainable. The ubiquity of mental health policy may suggest that it has become

widely accepted, but in-country activities promoting deinstitutionalization may have never developed a foundation that would enable improvements to mental health care to persist.

The extent to which mental health policy is enacted and degree to which radical changes to mental health system infrastructure have been institutionalized vary from country to country. There are clinical practices, management procedures, and organizational structures that are institutionalized—upheld by either policy or other isomorphic forces—but are not widely used or pursued. Deinstitutionalization is one example. It is defined as shifting services away from psychiatric hospitals, developing special community-based programs, combining psychiatric and support services, and caring for non-institutionalized patients. Directing the flow of patients back into the community requires the adoption of a mental health policy and reduction of inpatient psychiatric beds, which I respectively treated as the predictor and outcome of the second study. Mental health policy adoption is a signal of later-adopting governments' desire for legitimacy on the world stage or technical efficiency in tackling the national burden of mental, neurological, and substance use disorders (Tolbert & Zucker, 1983). Policy adoption is a way for governments to build a national identity around shared values. I find mixed evidence of the association between policy adoption phase and psychiatric bed rate change. The efficiency hypothesis is confirmed for the difference in the rate of psychiatric bed reduction in psychiatric hospitals and overall medical settings for late adopter countries versus early adopter countries. The legitimacy hypothesis is confirmed for the difference in rates of psychiatric bed reduction in general hospitals for late adopters relative to non-adopter countries. Complementary qualitative data of different perspectives on deinstitutionalization would shed more light on the factors which influence mental well-being and its relationship with physical well-being, empowerment of service users and their family, their livelihood and security in the community, workplace and school productivity, and the development of national human, social and economic capital.

What would be a renewed approach to mental health? The most common concern of deinstitutionalization is its failure to meet the needs of people with severe and persistent mental illness and people with high rates of co-morbidity. The older generation of patients who have been hospitalized for extended periods of time requires wrap-around services upon being discharged from psychiatric institutions. If their discharge is not handled properly, they risk becoming homeless, incarcerated, or abandoned in the community. The challenge is to prevent this vulnerable group from being transferred from one institution to another default institution under the same mechanisms of social control, detention, internment, and segregation. The younger generations of patients have difficulty being admitted to acute care facilities, and even greater difficulty receiving sufficient medical and social care. The key challenge for this second group is to take precaution against ending up in emergency rooms and community hospital beds. The implementation of mental health system reform is complex, and updated research is needed to iteratively improve health service modalities, and to rally support from donors, professionals, policy-makers and stakeholders alike (Yasamy et al., 2011; Saxena et al., 2004). The outcomes of deinstitutionalization can depend on a constellation of factors, but most notably national tradition, availability of financial resources and political leadership, and features of health care and social welfare systems.

To make sense of the history and current predicament of deinstitutionalization, my collaborators at the World Health Organization and CBM-International and I endeavored to systematically compare forms of care in institutions and in the community, identify generalizable patterns, and report specific factors that drove such changes in different

national contexts. The resulting accounts were extremely poignant and evocative of the paths countries embarked on to transform their mental health care systems. It was invaluable to hear from experts who carry rich experiences, connections, and expertise on the subject matter. We find that, in general, the deinstitutionalization process is advancing at a different pace in every country sampled. Deinstitutionalization often connotes the downsizing or closure of former mental hospitals and asylums. And this connotation holds true for national contexts where acute and long-stay psychiatric facilities are still the dominant loci of care. A new definition, however, is needed for countries with a dwindling number of patients long-term hospitalized patients, and where biomedical settings no longer resemble their original form. In these contexts, it is more appropriate to cast the spotlight on community-based institutions, or even recast it on service user and family empowerment, self-help alternatives, employment, housing, and community support. Reformers aim to modernize mental health care so that it is not purely centered around psychiatry (Goffman, 1974; Foucault, 1965; Szasz, 1961). They have become critical of the psychiatric diagnostic system (e.g. ICD, DSM), ingrained organizational and administrative mechanisms, and therapeutic specializations. A major problem with "advanced deinstitutionalization," though, is that innovative *modus operandi* of community integration do not neatly fall under the same broad conceptual framework.

Deinstitutionalization has been in effect for over 50 years. In this time, mental health care has undergone several paradigmatic shifts, leading to discursive norms and practices internationally. The results of statistical and survey analyses show a historical shift in the theme of mental health care away from charity work toward professional undertaking, and later transformed into a human rights concern and ulterior goal of economic development (Inoue & Drori, 2006). Identifying changes in mental health policy across decades and conceptualizing them in a unifying conceptual framework are important ways in which this dissertation has contributed to the public health, sociology, and political science literature.

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