

UC San Diego

UC San Diego Previously Published Works

Title

Methodology in the GBD study of China

Permalink

<https://escholarship.org/uc/item/40r2q008>

Journal

The Lancet, 396(10243)

ISSN

0140-6736

Authors

Lin, Ping-I
Glatt, Stephen J
Tsuang, Ming T

Publication Date

2020-07-01

DOI

10.1016/s0140-6736(20)30483-9

Peer reviewed



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

and gender identity minorities, and women who are forced to migrate. Stigma leads to under-reporting across legal contexts, including via medical misclassification. Data on abortion incidence in low-income and middle-income countries are even more scarce than in those populations already mentioned, with the most severe gaps related to unsafe abortion.

By increasing the incidence of unsafe abortion—while simultaneously decreasing discourse, reducing access to sexual and reproductive health care, and disassembling health systems—the Protecting Life in Global Health Assistance policy makes a dire public health situation worse. The public health community should urge the USA to repeal the Global Gag Rule.

I report a grant from the David and Lucile Packard Foundation during the conduct of the department's research on the Global Gag Rule in Madagascar.

Terry McGovern
tm457@cumc.columbia.edu

Heilbrunn Department of Population and Family Health, Columbia University Mailman School of Public Health, Columbia University, New York, NY 10032, USA

- 1 American Public Health Association. Preventing and reducing the harm of the Protecting Life in Global Health Assistance policy in global public health. 2019. <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2020/01/14/preventing-and-reducing-the-harm-of-the-protecting-life-in-global-health-assistance-policy> (accessed Feb 5, 2020).
- 2 Marie Stopes US. A world without choice: the Global Gag Rule's impact in Madagascar, 2018. https://www.mariestopes-us.org/wp-content/uploads/2018/01/MSI_Madagascar_GGR-Fact-Sheet_Jan-2018.pdf (accessed Aug 20, 2019).
- 3 McGovern T. We must repeal the Global Gag Rule to protect girls' and young women's lives. Feb 6, 2020. <https://thehill.com/opinion/international/481881-we-must-repeal-the-global-gag-rule-to-protect-girls-and-womens-lives> (accessed Feb 14, 2020).
- 4 Brooks N, Bendavid E, Miller G. USA aid policy and induced abortion in sub-Saharan Africa: an analysis of the Mexico City Policy. *Lancet Glob Health* 2019; **7**: e1046–53.
- 5 Sedgh G, Singh S, Shah IH, Ahman E, Henshaw SK, Bankole A. Induced abortion: incidence and trends worldwide from 1995 to 2008. *Lancet* 2012; **379**: 625–32.
- 6 WHO. Safe abortion: technical and policy guidance for health systems, 2nd edn. Geneva: World Health Organization, 2012. https://apps.who.int/iris/bitstream/handle/10665/70914/9789241548434_eng.pdf?sequence=1 (accessed Feb 13, 2020).

Methodology in the GBD study of China

We found the Article by Maigeng Zhou and colleagues¹ intriguing. However, we have some concerns. Our major concern arises from mixing data from mainland China and Taiwan. These two regions have distinct health-care and social welfare systems; they also have different time trends of how socioeconomic conditions evolved during the past half century. Therefore, mixing the data from these two regions might lead to biased estimates, especially for the health outcomes shaped by health policies (eg, vaccination programmes as a prevention strategy).

Among all health issues, mental health is a particularly heterogeneous area between Taiwan and China. For example, the increasing suicide rate in Taiwan peaked in 2005,² whereas the suicide rate started to decline in China as early as 1990. Furthermore, the demographic risk factors associated with some mental health issues have been found to differ substantially between China and most developed countries, such as Taiwan. For example, the male-to-female ratio of alcoholism was 33:1 in China,³ whereas the corresponding ratio was 8:5 in Taiwan.⁴ Sex and alcoholism could jointly influence the susceptibility to several health outcomes, and therefore the difference in the sex ratio for alcoholism might lead to different disease burden estimates. Mixing such data from these two regions might therefore cause misinterpretations in associations between risk factors and outcomes due to ecological fallacy. This error might also complicate the assessment of an emerging disease, such as COVID-19. We believe that these concerns are worthy of being addressed.

We declare no competing interests.

*Ping-I Lin, Stephen J Glatt,
Ming T Tsuang
pingi.lin@gmail.com

Department of Health Sciences, Karlstad University, Karlstad 65188, Sweden (P-IL); Department of Psychiatry, University of California San Diego, San Diego, CA, USA (P-IL, MTT); and Department of Psychiatry and Behavioral Sciences, Department of Public Health and Preventive Medicine, Department of Neuroscience and Physiology, SUNY Upstate Medical University, Syracuse, NY, USA (SJG)

- 1 Zhou M, Wang H, Zeng X, et al. Mortality, morbidity, and risk factors in China and its provinces, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2019; **394**: 1145–58.
- 2 Fu TST, Lee CS, Gunnell D, Lee WC, Cheng ATA. Changing trends in the prevalence of common mental disorders in Taiwan: a 20-year repeated cross-sectional survey. *Lancet* 2013; **381**: 235–41.
- 3 Tang YL, Xiang XJ, Wang XY, Cubells JF, Babor TF, Hao W. Alcohol and alcohol-related harm in China: policy changes needed. *Bull World Health Organ* 2013; **91**: 270–76.
- 4 Cheng WJ, Cheng Y, Huang MC, Chen CJ. Alcohol dependence, consumption of alcoholic energy drinks and associated work characteristics in the Taiwan working population. *Alcohol Alcohol* 2012; **47**: 372–79.

Maigeng Zhou and colleagues¹ claimed that they had implemented the same hierarchical model setup as Christopher Murray and colleagues had in their Global Burden of Disease Study (GBD),² in which Taiwan and China were treated at the same level in the hierarchical model. However, according to figures 3 and 4 in the Article,¹ Taiwan was placed at the level under the umbrella of China. The inconsistency between the methodology and results in these figures requires clarification.

The authors stated that, to ensure consistency, province-level estimates for the 32 provinces in mainland China were matched with the mainland's estimates, in which Hong Kong and Macau were not included. As Taiwan is not geographically located inside mainland China and has implemented a different data collection protocol, including Taiwan in the mainland's estimates is misleading.

The authors did not discuss different data collection protocols and procedures implemented in Taiwan and in China, which was discussed in a previous GBD Article by Murray and colleagues.² In addition, there is no acknowledgment for the original contributor of data on mortality and



Chen Gim Tan/Getty Images