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State and local health department activities related to abortion: A website content analysis

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Abstract

Context: Recent legislation in states across the U.S. has required governmental health agencies to take on new and different roles in relation to abortion. While there has been media attention to health department roles in regulating abortion providers, there has been no systematic investigation of the range of activities in which state and local health departments are engaged.

Objective: To systematically investigate health department activities related to abortion.

Methods: We searched state health department websites of the 50 states and D.C. using keywords (e.g., “abortion,” “pregnancy termination”). Two trained coders categorized 6093 documents using the 10 Essential Public Health Services (EPHS) framework. We then applied these methods to 671 local health department documents.

Setting: State and local health department websites.

Participants: N/A

Results: On average, states engaged in 5.1 of 10 Essential Services related to abortion. Most (76%-98%) state health departments engaged in activities to Monitor Health Status (EPHS1), Enforce Laws (EPHS6), and Evaluate Effectiveness, Accessibility and Quality (EPHS9). Many (47%-69%) engaged in activities to Inform and Educate (EPHS3), Develop Policies (EPHS5), and Link to Services (EPHS7). A minority (4%-29%) engaged in activities to Diagnose and Investigate Health Problems (EPHS2), Mobilize Community Partnerships (EPHS4), and Assure Competent Workforce (EPHS8). No state engaged in Innovative Research (EPHS10). Few local health departments engaged in abortion-related activities.

Conclusions: While most state health departments engage in abortion-related activities, they appear to reflect what the law requires rather than the range of core public health activities. Additional research is needed to assess whether these services meet quality standards for public

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health services and determine how best to support governmental health agencies in their growing tasks. These findings raise important questions about the role of public health agencies and professionals in defining how health departments should be engaging with abortion in the 21st century.

Keywords: Abortion, induced; Health policy; Health systems agencies; Government agencies

Implications for Policy & Practice: As state legislatures continue to enact regulations on abortion, governmental health agencies at the state and local level are being tasked with new roles and responsibilities. Through an analysis of health department websites, this study finds that the abortion-related activities of these agencies largely reflect what the law requires, rather than the full range of core public health activities. These findings have important implications for public health agencies and professionals, who need to engage in dialogue about how to define and implement a vision of how health departments should be engaging with abortion, based in evidence and guided by social justice.

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Introduction

Governmental public health agencies at the federal, state and local levels are responsible for protecting and promoting the health of individuals and communities across a wide range of health issues. Historically, health departments in the U.S. have focused on issues related to infectious diseases, maternal and child health, and environmental health.^{1,2} In the 2000s, departments expanded beyond these traditional topic areas and began focusing on chronic diseases, including diabetes, heart disease, stroke and cancer.^{3,4} Now, with what some public health professionals have called Public Health 3.0,⁵ the role of health departments has continued to expand to include a focus on social and structural determinants of health.⁶ This change has also included an expansion of responsibilities in relation to politically controversial topics, such as gun violence and marijuana regulation, which have historically been tracked and regulated through the criminal justice rather than public health system.^{7,8}

As the role of governmental health agencies has shifted and expanded beyond traditional concerns, public health professionals have sought to more clearly define and describe what health departments should be doing about a given health topic. By having a definition or framework in place, health departments can more easily understand and act on their roles and responsibilities. One framework that has been created for this purpose is the 10 Essential Public Health Services,⁹ which was developed in 1994 by a federal working group of agencies within the Department of Health and Human Services in partnership with professional public health associations. The working group expanded on the Institute of Medicine's seminal report *The Future of Public Health* (1988) to delineate the essential services that public health must address. Over the past decades, it has been accepted by health departments at all levels of government.^{7,10-}
¹³ It forms the basis of the National Public Health Performance Standards Program¹⁴ and provides

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structure to the standards and measures used toward national public health department accreditation.^{15,16} It also appears to be a useful tool for both public health practitioners and public health scholars for delineating how health departments should engage with emerging public health topics.^{2,7}

Health departments have been involved with issues related to abortion since the 1970s, particularly with regards to surveillance (e.g., tracking the number and characteristics of women obtaining abortions, types of procedures, and service locations), clinical quality improvement efforts, and conducting research syntheses.¹⁷⁻¹⁹ These roles have expanded over time, most notably in the past decade. Recent legislation has required governmental health agencies to take on new roles in relation to abortion, including developing content for state-mandated counseling requirements and licensing facilities that provide abortions to ensure they are meeting mandated structural standards.²⁰ Despite these changes, there has been minimal research on health department practices with regards to abortion. In this paper, we use the 10 Essential Public Health Services framework to systematically describe state and local health department activities related to abortion.

Methods

To understand how governmental health agencies engage with abortion, we examined health department websites to describe and categorize their abortion-related activities. The content available on health department websites has expanded greatly over the past decades,²¹ as part of a larger trend across areas of government to use the internet to share information, integrate services, and promote public engagement.²²

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We began with websites of the health departments of the 50 states and the District of Columbia; we later expanded the study to include websites of large local health departments. All websites we accessed were in the public domain. Institutional review board approval was not required for this study, as it did not involve human participants.

Data Collection

Between July and December 2015, we searched the websites of all state health departments in the 50 states and the District of Columbia, using the terms “abortion,” “induced termination” and “termination of pregnancy.” We used Google’s site search engine to ensure consistent searching across states. We downloaded and saved all documents identified through our search in their original format (PDF, Excel, Word) or by screenshot (HTML).

Between May and June 2016, we expanded the study to examine the abortion-related activities of local health departments. We focused on large local health departments (those serving populations $\geq 500,000$) because we expected they would be more likely to have well-maintained websites. To identify these departments, we obtained a list from the National Association of City and County Health Officials (NACCHO) 2013 Profile Study.²³ After excluding Washington, D.C. (included in the state-level analysis), we identified 136 large local health departments, of which 117 had websites.

Document Coding

We used both deductive and inductive coding to describe health department activities related to abortion. We categorized each document according to the 10 Essential Public Health Services framework (deductive), described the types of activities that emerged within each of the

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Essential Services categories (inductive), and created codes for additional activities that emerged from the data but did not fit in the existing Essential Services categories (inductive).

Our first step in the coding process was to develop a codebook to guide the deductive coding process. To develop this codebook, the first and senior authors reviewed existing literature on the 10 Essential Public Health Services framework to generate a list of non-abortion-specific example activities that fall under each Essential Service (EPHS) code.⁹ The full research team pilot-tested the codebook on a random sample of 48 documents from four states, resolving questions and disagreements through consensus. Together, we updated the codebook with detailed guidelines about what types of documents should be included versus excluded within each code and provided abortion-specific examples of activities that might fall under each code. As part of this process, we encountered abortion-related documents developed by health departments that did not fall under the 10 Essential Services. Most of these non-EPHS documents reflected a common theme: reduction of abortion as a goal of state family planning and teen pregnancy prevention programs. We added this code to the codebook.

Next, the second and third authors each coded documents from seven states (9% of all documents). Discrepancies in coding were discussed with the first and senior authors and resolved by consensus. We updated the codebook with further guidelines. We then divided the remaining documents between the second and third authors to code separately. The first author resolved questions that emerged during the coding process and reviewed coding of a 10% random selection of documents within each state. No significant problems emerged. We met regularly to discuss and resolve questions throughout the coding process and updated the codebook with clarifications accordingly.

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To apply the codebook, researchers reviewed each document seeking to determine what it indicated about the health department's activities related to abortion. The goal was not to determine the purpose of the document as a whole. For example, a report on school health policies that presented data on adolescent abortion rates would be coded as EPHS1 (Monitor Health Status), rather than EPHS5 (Develop Policies) because the abortion-related content reflected the collection of abortion data. Documents were assigned multiple EPHS codes as appropriate.

The fourth author, following training that included a reliability assessment of her coding against the final codes of three states, applied the EPHS codebook to the local health department documents using this same process. The first author resolved questions and reviewed coding of a 10% random selection of local health department documents.

After categorizing each document from the state health department websites into the 10 EPHS codes, we created subcodes to describe the primary types of documents within each EPHS code that covered distinct issues. Within each code, the first and second authors reviewed the documents and generated a list of common subcodes, developing examples and revising the list iteratively. The second author categorized the documents into designated subcodes, and the first author resolved questions and reviewed coding of a 10% random selection. Documents could fall under more than one subcode. Subcodes were not created for EPHS1 or EPHS6, as there was limited variation in the documents.

Analysis

After coding documents, we summarized the EPHS codes and non-EPHS code within each state and locality. Health departments that had at least one document under a particular

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EPHS code were considered to be engaging in that Essential Service in relation to abortion. We did not focus on the number of documents per code, as there was considerable variation in document format. For example, some states presented all annual abortion data in a single long report, whereas others presented the same content across multiple documents.

We then summarized each EPHS code and subcode across states and localities. We assessed differences by region using U.S. Census Bureau regional divisions (Northeast, Midwest, South, West) through Analysis of Variance and chi-square tests. As a sensitivity analysis, we assessed differences by governance structure (centralized, decentralized, shared, mixed)²⁴ to examine whether any regional differences may be due to governance structure rather than regional abortion policies. Statistical significance was set at $p < .05$ level. Stata, version 14 (College Station, TX) was used to conduct the analysis.

Results

State Health Department Documents

We identified 6,093 documents that referenced abortion on state health department websites. We downloaded a mean of 76 documents per state, ranging from 4 (Colorado) to 579 (New York). During the coding process, we determined that 1,145 documents (19%) were not relevant (e.g., documents related to spontaneous abortion or medical history forms). We excluded these documents, for a total of 4,948 relevant documents.

Essential Public Health Services by Code

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Across all states, we found at least one health department engaging in EPHS1 through EPHS9 activities; we did not find any state health department engaging in EPHS10 (Innovative Research). [See Figure 1 and Table 1.]

The most common Essential Services related to abortion were Monitor Health Status (EPHS1), Enforce Laws (EPHS6), and Evaluate Effectiveness, Accessibility and Quality (EPHS9). EPHS1 documents (Monitor Health Status, 98% of states) related to abortion surveillance. The level of detail of reporting varied across states, but typically included abortion data by demographic characteristics, county, procedural type and gestational age. Documents were primarily surveillance reports, as well as the presentation of data in other health department materials. EPHS6 documents (Enforce Laws, 92%) commonly presented as the full-text of state laws pertaining to abortion regulation, as well other materials that cited those laws as the reason for their creation. These documents reflected the range of abortion laws that the health department must enforce, including requirements for data collection, state-mandated informed consent and counseling, parental involvement for minor's access, facility licensing, and prohibitions of abortion referrals. EPHS9 documents (Evaluate Effectiveness, 76%) primarily reported numbers of procedural complications, types of abortion procedures used, and cost of services. Few described quality improvement activities.

A second group of less widespread, but still common, Essential Services included Develop Policies (EPHS5), Link to Services (EPHS7), and Inform and Educate (EPHS3). EPHS5 documents (Develop Policies, 69%) commonly described policies related to the regulation of abortion facilities, including licensing and inspection. Other documents reflected policies restricting or allowing state funding for abortion, complying with federal restrictions on funding for abortion, requiring that counseling for pregnant women include referrals to abortion

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(if not provided), detailing eligibility for services for pregnant women, and other policies. There were no documents including abortion within state health improvement plans. EPHS7 documents (Link to Services, 65%) typically presented as resource directories, often required as part of state-mandated informed consent and counseling (“Women’s Right to Know”) legislation. These included contact information for clinics providing abortion, organizations promoting alternatives to abortion (i.e., crisis pregnancy centers), or – most commonly – both. All EPHS3 documents (Inform and Educate, 47%) implement state-mandated informed consent and counseling legislation.

The remaining Essential Services were less common. EPHS2 documents (Diagnose and Investigate, 29%) suggested abortion as a risk factor for various outcomes, including infections, low birthweight, and maternal mortality. A few documents proposed abortion clinics as useful monitoring sites for other health issues (e.g., intimate partner violence). EPHS8 documents (Assure Competent Workforce, 29%) included descriptions of trainings for health care providers to understand state abortion laws, trainings for abortion providers about non-abortion health issues (e.g., intimate partner violence screening), and licensure and certification of individual clinicians providing abortion. The few EPHS4 documents (Mobilize Community Partnerships, 4%) described one health department’s facilitation of an abortion access workgroup, as well as another’s effort to engage a broad range of stakeholders to develop reasonable abortion facility regulations. As noted above, there were no state documents reflecting EPHS10 (Innovative Research, 0%).

The additional non-EPHS code was identified in 19 states (37%). These documents included reports and materials that described the prevention of abortion as an explicit goal of state family planning or teen pregnancy prevention programs.

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Essential Services by State and Region

On average, individual states had documents reflecting activities across 5.1 Essential Services, with a range from one (Colorado) to eight (Texas). There were regional trends in the number of Essential Services performed. There was a marginally significant effect of region on total number of Essential Services ($p=0.07$), with a greater average number of Essential Services in the Midwest (5.67) and South (5.53) as compared to the Northeast (4.22) and West (4.62). Region was a significant predictor of EPHS3 (Inform and Educate, $p<.01$) and EPHS7 (Link to Services, $p<.01$) activities. For each, states in the Midwest and South regions were more likely to engage in these activities than states in the Northeast and West. Region and governance structure were correlated ($p=.005$), as expected; however, the association between the number of Essential Services in a state and its governance structure was not statistically significant.

Local Health Department Results

The majority of large local health departments either did not have websites or did not have documents related to abortion on their websites. We found websites for 117 (of 136) large local health departments and identified 671 documents that referenced abortion on the websites of 73 departments. During the coding process, we determined that 217 documents (32%) were not relevant. We excluded these documents, for a total of 454 relevant documents from 63 local health departments in 24 states.

We found at least one local health department engaging in each of the Essential Services, with the exception of EPHS4 (Mobilize Community Partnerships). About one-quarter of the local health departments engaged in EPHS1 (Monitor Health Status, 27% of 117) and EPHS6 (Enforce

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Laws, 24%), and about one-fifth engaged in EPHS7 (Link to Services, 18%). Fewer engaged in EPHS2 (Diagnose and Investigate, 12%), EPHS5 (Develop Policies, 12%), EPHS9 (Evaluate Effectiveness, 8%), EPHS8 (Assure Competent Workforce, 5%), EPHS 10 (Innovative Research, 3%), EPHS3 (Inform and Educate, 2%). [See Figure 2.] Additionally, the non-EPHS code – indicating that abortion prevention was an explicit goal of family planning or teen pregnancy prevention programs – was identified in 15 local health departments (13%).

Many local health department documents were similar to those presented by states, including vital statistics reports (EPHS1), county codes for abortion facilities (EPHS6), and trainings for providers (EPHS8). In contrast to the state analysis, local health department documents showed evidence of activities that were not mandated by law. For example, EPHS3 and EPHS7 documents were developed for health promotion rather than informed consent purposes, listing abortion among other local reproductive health and social services and offering targeted information to subgroups of women. Evidence of research activities (EPHS10) included a qualitative study of women’s experiences with abortion, as well as coordination with academic researchers.

Regional differences in the number of Essential Services were noted. Local health departments in the West averaged more EPHS activities (1.80) compared to those in the Northeast (1.10), Midwest (0.87), and South (0.75). Local health departments in the West were more likely than departments in other regions to engage in EPHS7 (Link to Services, $p < .001$) – that is, the opposite trend of the state results – and EPHS8 (Competent Workforce, $p < .01$) activities.

Discussion

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Through this website content analysis, we found that most state health departments engage in activities related to abortion, but conclude that this involvement largely reflects what the departments are legally required to do. This is evidenced by: 1) the commonness of mandated EPHS6 (Enforce Laws) and EPHS1 (Monitor Health Status) activities across states; 2) the bulk of EPHS3 (Inform and Educate) and EPHS7 (Link to Services) documents being developed for “Woman’s Right to Know” legislation rather than broader health promotion efforts; and 3) the fact that states that are known to more heavily regulate abortion (i.e., the South and Midwest²⁰) engage in more EPHS activities, particularly those specifically required by law. Our sensitivity analysis lends further support to this last point, indicating that state differences are not due to the governance structure of health departments, but rather the greater regulation of abortion in some regions of the country. We found little evidence of innovation in either research or practice at state health departments. One notable exception was an example from Maryland, where the health department brought together a broad coalition to create reasonable abortion facility standards; this example was unique enough to have been written up in the *New York Times*.²⁵ We found that few local health departments engage in activities related to abortion, but those that do appeared to have unique approaches. Some large local health departments – particularly in the West – are involved with a range of abortion-related activities.

Despite these examples, the vast majority of health department activities related to abortion appear almost entirely to reflect what is legally required, and not a comprehensive set of activities undertaken by governmental public health agencies meeting the Essential Public Health Services framework. Our non-EPHS code provides an additional example of this point. Health departments make large and diverse investments in reproductive health for women, men and adolescents. It is telling that, in 19 states, we identified documents that emphasized the

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prevention of abortion as a goal of family planning and teen pregnancy prevention programs, rather than the inclusion of abortion within the broader context of preventive health services that aim to reduce unintended pregnancy and improve birth outcomes.

We made the analytic decision to assess the breadth of abortion-related activities using the 10 Essential Public Health Services framework, but not evaluate whether a given activity reflected a quality public health approach. That is, we did not assess whether a state's approach was based in the best available evidence, protected public health, or facilitated care for the most vulnerable members of communities. The results of this decision are likely apparent in a range of codes, especially EPHS3, EPHS6, and EPHS7. Certainly, the provision of information (EPHS3) that contradicts the best available evidence²⁶ does not conform to professional values related to health education. Enforcing laws (EPHS6) that have a good likelihood of harming rather than helping women's health^{27,28} does not conform to the standards of use of evidence in public health decision-making. Providing referral information (EPHS7) to crisis pregnancy centers with misleading or false information about abortion²⁹ or that do not provide prenatal care to women who want to continue their pregnancies contradicts basic public health values related to facilitating use of health services. Our decision to sidestep these questions and instead code according to the 10 Essential Public Health Services framework was a deliberate one, as the results reflect the full range of abortion-related activities that health departments are conducting using the public health infrastructure. Efforts to describe whether these activities conform to high quality public health practices are needed.

This study has limitations worth noting. First, we are unaware of research assessing health department websites as an indicator of practice. In particular, we may have missed abortion-related activities that health departments do not publicize on their websites or use non-

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standardized language to describe. In states where abortion is more controversial, this could have biased our findings towards documents that reflected the political climate in the state. To examine the extent to which our data source may have affected our findings, we conducted two validity checks using external resources. States with EPHS1 (Monitor Health Status) codes were checked against known abortion surveillance reporting to the CDC.³⁰ States with EPHS3 (Inform and Educate) codes were checked against known mandatory counseling legislation, tracked by the Guttmacher Institute.³¹ Together, these checks suggested that abortion-related activities appear to be represented on state health department websites. We note, though, that we are unlikely to have false positives, that is, activities that are reflected in documents on the health department websites that have not actually occurred. The use of websites as our data source may be a particular limitation for the local health department analysis. Many do not maintain websites, and we were unaware of external sources to use for validity checks. This decision may affect our understanding of the role of local health departments in providing or linking to health services, which may vary by the size of the population served.³²

Second, we did not examine the timing of the activities. It is possible that some states have not removed old documents from their websites and thus we characterize health departments as engaging in an activity in which they no longer engage. This could have led us to suggest that health departments are currently conducting more abortion-related activities than they actually are. Third, the 10 Essential Services framework was not developed as a research tool, and there is no gold standard that guides how to apply the framework for research purposes. This study also has strengths. First, following in the footsteps of public health colleagues,^{2,7} we apply an accepted public health framework to a controversial topic. This allows for a non-controversial approach, so that ideological disagreements and discussion can focus on the

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content of the results, rather than the framework. Second, we used systematic methods that included reviewing all relevant documents from health department websites, as well as multiple steps and quality controls to ensure inter-rater reliability and validity of the codebook.

Implications for Policy & Practice

In this study, we examined how state and local health departments are currently engaged in activities related to abortion. In a recent commentary (citation omitted for blinding), we describe a vision of how health departments might engage with abortion, if abortion were treated like other health issues and guided by core principles of public health. Relying again on the 10 Essential Public Health Services framework, we argue that it is the role and responsibility of governmental public health agencies to facilitate women's ability to obtain abortion services, research barriers to abortion care, and promote the use of scientific evidence in policymaking and law enforcement about abortion. This positive vision – a vision that requires assuring the availability and accessibility of abortion care, as well as the quality and safety of these services – differs greatly from what health departments appear to be currently doing about abortion.

Yet, we believe strongly that this vision is not out-of-touch. It fits soundly within the public health accreditation efforts that have operationalized the Essential Public Health Services into standards for state and local health departments to assess their capacity to improve public health across varied areas of health care.^{15,16} It also brings to the forefront the work that local health departments, such as the New York City Department of Health and Mental Hygiene and the federal government (through the CDC's Joint Program for the Safety of Abortion), were doing for decades from the 1970s through the 1990s, of which some local health departments engage today.^{17,19} It does, however, involve reframing our work. It reflects a view of

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governmental public health agencies as institutions that work for social justice, rather than solely as technical experts serving as defenders of the state and public health bureaucracies.³³ It is time for the public health community to embark on a dialogue about how health departments should be engaging with abortion and take the next steps to realize this vision.

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TABLE 1. Summary of Essential Public Health Services codes and subcodes for state health departments (N=51)

	Number of states
EPHS1 - Monitor health status to identify and solve community health problems	50
EPHS2 - Diagnose and investigate health problems and health hazards in the community	15
Abortion as risk factor for infection (e.g., toxic shock, BV, tetanus)	9
Abortion as risk factor for low birthweight, miscarriage, breast cancer	4
Abortion as cause of maternal mortality	4
Abortion clinics as site to identify fetal anomalies, West Nile Virus exposure, etc.	4
EPHS3 - Inform, educate and empower people about health issues	24
State-mandated abortion information ("Women's Right to Know")	24
EPHS4 - Mobilize community partnerships to identify and solve health problems	2
Coalition building to create facility regulations	1
Workgroup to facilitate abortion access	1
EPHS5 - Develop policies and plans that support individual and community health efforts	35
Facility standards, licensing and inspection	32
Restrictions to or allowances of funding through state insurance (Medicaid, employee plan)	8
Restrictions related to federal programs (Medicaid, Title X)	9
Policies requiring abortion referral (if not provided)	6
Policies regarding handling and accessing abortion data	2
Other policies (access for state wards and students, hospital funding, HIV/sex education)	7
EPHS6 - Enforce laws and regulations that protect health and ensure safety	47
EPHS7 - Link people to personal health services and assure the provision of health care when otherwise unavailable (<i>mutually exclusive</i>)	33
Resources linking to abortion only	4
Resources linking to abortion alternatives only	9
Resources linking to both abortion and alternatives to abortion	20
EPHS8 - Assure a competent public and personal healthcare workforce	15
Training about abortion-related laws	12
Clinical training on pregnancy that mentions abortion, including referral	8
Training about other issues (e.g., violence screening) for abortion providers	4
Licensing/regulation of providers	2
EPHS9 - Evaluate effectiveness, accessibility and quality of personal and population-based health services	39
Data on pregnancy complications, procedure type, and cost of services	35

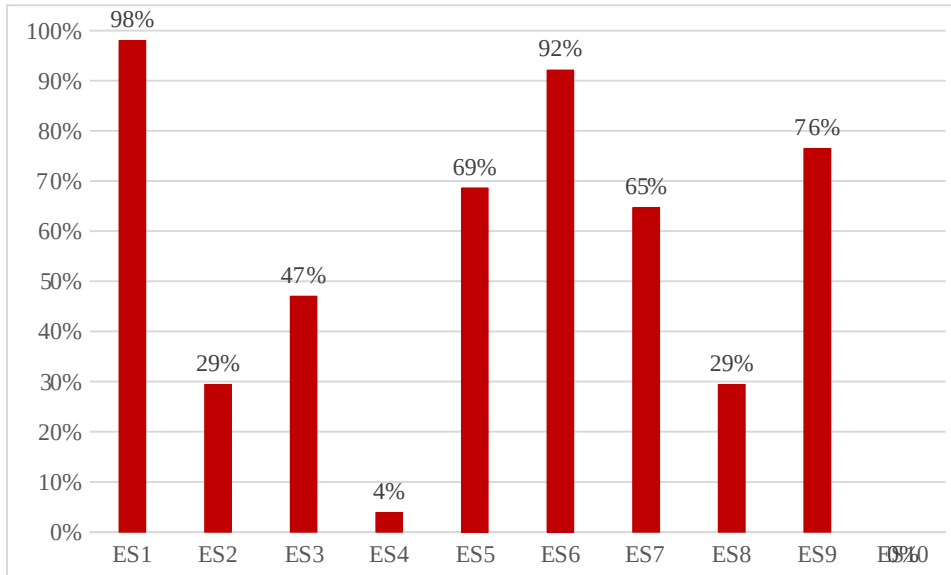
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Quality improvement and assurance activities	6
Complaint procedures against abortion clinics	4
Prosecution of abortion clinics	2
EPHS10 - Research for new insights and innovative solutions to health problems	0
Non-EPHS - Abortion reduction as a goal of family planning programs	19

Note: Subcodes are not mutually exclusive, unless otherwise indicated

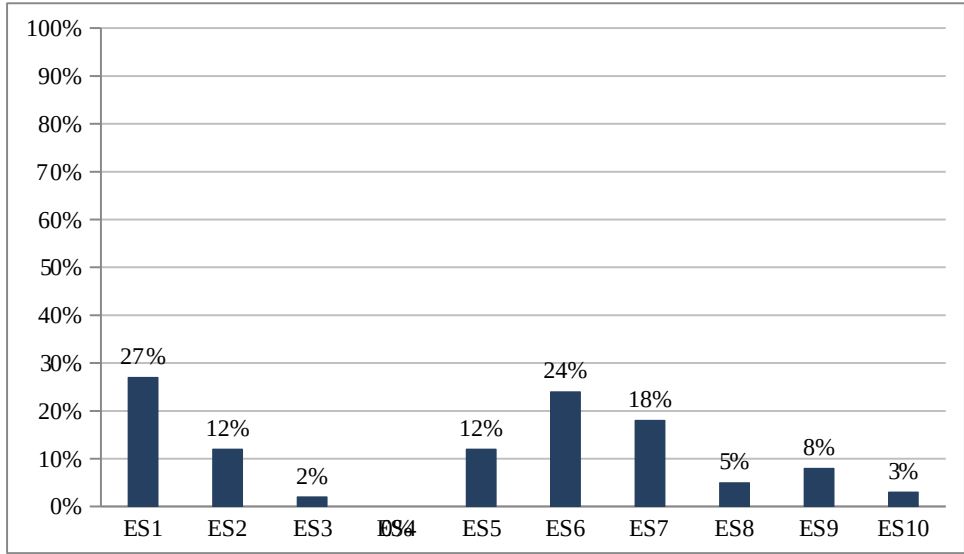
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FIGURE 1. Percent of state health departments engaging in each essential public health service, by code (N=51)



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FIGURE 2. Percent of large local health departments engaging in each essential public health service, by code, among departments with websites (N=117)



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