



## Original research article

Public funding for abortion where broadly legal<sup>☆,☆☆,★</sup>Daniel Grossman<sup>a,b,\*</sup>, Kate Grindlay<sup>c</sup>, Bridgit Burns<sup>c</sup><sup>a</sup>*Advancing New Standards in Reproductive Health (ANSIRH), Bixby Center for Global Reproductive Health, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California San Francisco, 1330 Broadway, Suite 1100, Oakland, CA, 94612, USA*<sup>b</sup>*Ibis Reproductive Health, 1330 Broadway, Suite 1100, Oakland, CA, 94612, USA*<sup>c</sup>*Ibis Reproductive Health, 17 Dunster Street, Suite 201, Cambridge, MA, 02138, USA*

Received 22 January 2016; revised 24 June 2016; accepted 27 June 2016

## Abstract

**Objective:** The objective was to investigate public funding policies for abortion in countries with liberal or liberally interpreted laws (defined as permitting abortion for economic or social reasons or upon request).**Study design:** In May 2011–February 2012 and June 2013–December 2014, we researched online resources and conducted an email-based survey among reproductive health experts to determine countries' public funding policies for abortion. We categorized countries as follows: full funding for abortion (provided for free at government facilities, covered under state-funded health insurance); partial funding (partially covered by the government, covered for certain populations based on income or nonincome criteria, or less expensive in public facilities); funding for exceptional cases (rape/incest/fetal impairment, health/life of the woman or other limited cases) and no public funding.**Results:** We obtained data for all 80 countries meeting inclusion criteria. Among the world's female population aged 15–49 in countries with liberal/liberally interpreted abortion laws, 46% lived in countries with full funding for abortion (34 countries), 41% lived in countries with partial funding (25 countries), and 13% lived in countries with no funding or funding for exceptional cases only (21 countries). Thirty-one of 40 high-income countries provided full funding for abortion ( $n=20$ ) or partial funding ( $n=11$ ); 28 of 40 low- to middle-income countries provided full ( $n=14$ ) or partial funding for abortion ( $n=14$ ). Of those countries that did not provide public funding for abortion, most provided full coverage of maternity care.**Conclusion:** Nearly half of countries with liberal/liberally interpreted abortion laws had public funding for abortion, including most countries that liberalized their abortion law in the past 20 years. Outliers remain, however, including among developed countries where access to abortion may be limited due to affordability.**Implications:** Since cost of services affects access, country policies regarding public funding for services should be monitored, and advocacy should prioritize ensuring the affordability of care for low-income women.

© 2016 Elsevier Inc. All rights reserved.

**Keywords:** Abortion; Public funding; Cost; Global

## 1. Introduction

Worldwide, unsafe abortion accounts for 8%–18% of maternal mortality,<sup>1</sup> resulting in as many as 44,000 deaths

<sup>☆</sup> Conflicts of interest: none.

<sup>☆☆</sup> Role of the funding source: The study was funded by grants from the William and Flora Hewlett Foundation, the David and Lucile Packard Foundation, and an anonymous foundation.

<sup>★</sup> These funders played no role in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication.

\* Corresponding author. Tel.: +1 510 986 8941; fax: +1 510 986 8960.

E-mail address: [Daniel.Grossman@ucsf.edu](mailto:Daniel.Grossman@ucsf.edu) (D. Grossman).

<sup>1</sup> Up to 42 days after termination of pregnancy.

annually and considerable morbidity that impacts women's well-being, quality of life and productivity, and also has a significant impact on families and communities [1–4]. Between 1995 and 2008, the proportion of abortions that were unsafe increased from 44% to 49%, and the vast majority occurred in developing countries [5]. A recent analysis found that the abortion rate has decreased significantly in developed countries, while it has remained constant in developing countries [6]. Denying women access to safe abortion not only threatens women's and families' health and well-being, it is also increasingly recognized as a violation of women's human rights [7].

Legal restrictions on abortion are associated with increased rates of unsafe abortion, and data from several

countries such as Romania and South Africa indicate that liberalization of the abortion law has been associated with a reduction in maternal mortality [8,9]. In sub-Saharan Africa and Latin America, unsafe abortion constitutes a higher proportion of maternal mortality than other regions with less restrictive laws [2]. However, this correlation is imperfect, and some countries, such as India and South Africa, have high rates of unsafe abortion despite a permissive law [5,10,11]. Although abortion has been legal since 1973 in the United States, unsafe self-induced abortion has also been reported there, especially among immigrant women [12,13].

Even where abortion is legal, women may face barriers to access to safe abortion, including the high cost of the procedure. An analysis in the United States found that the median cost of a first-trimester abortion was almost twice the typical annual out-of-pocket health care expenses paid by young, uninsured individuals [14]. Women attempting to self-induce abortion in the United States cited the high cost of the procedure in a clinic as one of the motivating factors in their decision [13]. In India, informal payments to hospital staff have been highlighted as an obstacle to safe services, especially for adolescents [15].

Despite the evidence that cost may create a barrier to access, public insurance coverage of abortion, as well as inclusion of the service in health sector reform, has been controversial in some countries, including the United States and Switzerland [14,16]. We aimed to document government policies on public funding for abortion in countries where the procedure is broadly legal and to explore regional and temporal patterns in such coverage.

## 2. Material and methods

We collected data for this analysis in two rounds: May 2011–February 2012 and June 2013–December 2014. All data presented are from the second round except for Bahrain and North Korea, for which the data were collected in the first round and we were unable to update in the second round. We conducted an email survey to determine the public funding policies of countries with liberal or liberally interpreted abortion laws. We included countries if they permitted abortion for economic or social reasons or upon request by law [5,17]. We also included Mexico's Federal District (Mexico City), where the abortion law is liberal and services are available upon request [5]. Additionally, we included countries that liberally interpret physical or mental health indications, including Bangladesh (under menstrual regulation) [18], Ethiopia [5], Ghana [19,20], Hong Kong [5], Israel [5], Mozambique [21], New Zealand [5] and South Korea [5].

We sent a brief email survey with questions about publicly available information to ministries of health, family planning associations, health care centers, physicians, and other reproductive health practitioners with country expertise. The questionnaire asked whether abortion was generally paid for by the government in the country and, if not, how much a woman would typically pay for a first-trimester abortion; if there

was a public health system that paid for most health care in the country; if maternity care, including prenatal care and delivery services, was generally paid for by the government and if there was published information related to public funding for abortion. We gathered additional information related to funding policies from reviews of country abortion legislation, peer-reviewed articles, government documents and other online resources. In cases of data discrepancies between different sources for the same country, we reached out to respondents for clarification and resolution.

We analyzed the survey responses and resources, and categorized countries by the degree to which they used public funding for abortion services, as follows: (a) full funding for abortion (including if abortion was provided for free at government facilities and/or covered under state-funded health insurance); (b) partial funding for abortion (including if the government subsidized part of the cost, the government funded abortion for certain segments of the population only based on income or nonincome criteria (i.e., marital status or age) and/or abortion was less expensive at public compared to private facilities); (c) funding for exceptional cases (including, but not limited to, rape/incest/fetal impairment and for the health/life of the woman, or in very limited cases such as physical or mental disability) and (d) no public funding. We also categorized each country as having full, partial or no public funding for maternity services (including prenatal care and delivery) and for general health care. Because many public insurance programs have income inclusion criteria, such as the Medicaid program for low-income people in the United States, we classified national health insurance programs that covered low-income people without cost as full funding. For example, if a country had a national compulsory private health insurance program or a national health insurance that was paid for through taxation or individual and employer contributions, and the program was free for low-income people, the program would be classified as full funding; if this insurance program covered abortion care and/or maternity care, we classified these services as having full funding. For countries without full funding for abortion, we compared the policy to that of maternity services.

We used 2016 population estimates [22] to calculate the proportion of women aged 15–49 living in countries that had full funding, partial funding and no public funding for abortion among those who lived in countries with liberal or liberally interpreted abortion laws. We also explored the relationship between public funding for abortion and country income status using the 2016 World Bank country classifications of low or middle income, and high income [23].

## 3. Results

We obtained data for all 80 countries that met our inclusion criteria. Among the world's female population aged 15–49 residing in countries with liberal or liberally interpreted abortion laws, 46% lived in countries with full funding for abortion (34 countries), 41% lived in countries

Table 1  
Countries with liberal or liberally interpreted abortion laws,<sup>a</sup> by public funding for abortion.

Full funding for abortion		Partial funding for abortion	Funding limited to exceptional cases	None
Australia <sup>f</sup>	Mexico (Mexico City Federal District only) <sup>f</sup>	Armenia <sup>c,i</sup>	Albania	Austria
Azerbaijan <sup>f</sup>		Bangladesh <sup>b,j</sup>	Bahrain	Bosnia and Herzegovina
Barbados <sup>f</sup>	Netherlands <sup>h</sup>	Belize <sup>l</sup>	Belarus	Cyprus
Belgium <sup>h</sup>	New Zealand <sup>b,f</sup>	Bulgaria <sup>c,e</sup>	Croatia	Georgia
Cambodia <sup>h</sup>	North Korea <sup>h</sup>	Cape Verde <sup>l</sup>	Czech Republic	Japan
Canada <sup>h</sup>	Norway <sup>f</sup>	China <sup>i</sup>	Fiji	Nepal
Cuba <sup>h</sup>	Portugal <sup>f</sup>	Estonia <sup>c,l</sup>	Kyrgyzstan	Saint Vincent and the Grenadines
Denmark <sup>f</sup>	Russian Federation <sup>f</sup>	Finland <sup>h,l</sup>	Latvia	Serbia
Ethiopia <sup>b,f</sup>	Slovenia <sup>h</sup>	Germany <sup>e,i</sup>	Macedonia	Taiwan
France <sup>h</sup>	South Africa <sup>f</sup>	Ghana <sup>b,k</sup>	United States of America	Tajikistan
Greece <sup>f</sup>	Spain <sup>h</sup>	Hungary <sup>e,l</sup>		Vietnam
Guyana <sup>f</sup>	Tunisia <sup>f</sup>	Israel <sup>b,c,e</sup>		
Hong Kong <sup>b,h,k</sup>	Ukraine <sup>f</sup>	Lithuania <sup>c,k</sup>		
Iceland <sup>h</sup>	United Kingdom <sup>f</sup>	Moldova <sup>c,e,k</sup>		
India <sup>f</sup>	Uruguay <sup>h</sup>	Mongolia <sup>c,e</sup>		
Italy <sup>f</sup>	Uzbekistan <sup>f</sup>	Montenegro <sup>h,l</sup>		
Kazakhstan <sup>f</sup>	Zambia <sup>f</sup>	Mozambique <sup>b,k</sup>		
Luxembourg <sup>h</sup>		Romania <sup>c,k</sup>		
		Singapore <sup>g,k</sup>		
		Slovakia <sup>e,k</sup>		
		South Korea <sup>b,h,l</sup>		
		Sweden <sup>h,l</sup>		
		Switzerland <sup>d,l</sup>		
		Turkmenistan <sup>h,l</sup>		
		Turkey <sup>e,h,l</sup>		
34 countries		25 countries	10 countries	11 countries

<sup>a</sup> Inclusion criteria: country permits abortion for economic or social reasons or upon request, or liberally interprets physical/mental health exceptions in practice.

<sup>b</sup> Country that liberally interprets physical or mental health indications.

<sup>c</sup> Covered for women in certain age groups.

<sup>d</sup> Covered under compulsory private insurance.

<sup>e</sup> Covered for exceptional medical indications or social circumstances.

<sup>f</sup> Covered at government or authorized facilities.

<sup>g</sup> Covered using individual health savings account.

<sup>h</sup> Covered under national health insurance.

<sup>i</sup> Covered for low-income women.

<sup>j</sup> Covered only for married women.

<sup>k</sup> Less expensive in public facilities than in private facilities.

<sup>l</sup> Government subsidizes part of cost.

with partial funding (25 countries), and 13% lived in countries with no funding or funding for exceptional cases only (21 countries). Of the 25 countries classified as having partial funding, in 18 countries, the government partially covered the cost or services were less expensive in public than private facilities, while in 7 countries, coverage was limited to certain populations, such as low-income women, married women or women of certain ages. Thirty-one of 40 high-income countries provided full ( $n=20$ ) or partial funding for abortion ( $n=11$ ); 28 of 40 low- to middle-income countries provided full ( $n=14$ ) or partial funding for abortion ( $n=14$ ) (Tables 1 and 2). Detailed data on each country are available in the Supplementary Material.

### 3.1. Africa

Seven African countries met our inclusion criteria. Of these, four countries (57%), including Ethiopia, South Africa, Tunisia and Zambia, had full funding for abortion through free care in

public facilities. Three countries (43%) had partial funding for abortion: in Ghana and Mozambique, services were less expensive in public facilities than in private facilities, and in Cape Verde, the cost was partially funded by the government. The policies for maternity care differed from those for abortion in Ghana and Mozambique, with both providing full funding for maternity services; in Cape Verde, maternity care coverage was consistent with that for abortion.

### 3.2. Asia

Twenty-five Asian countries met our inclusion criteria. Public funding for abortion was mixed, with seven countries (28%) providing full funding for abortion, nine (36%) providing partial funding, two (8%) covering abortion in exceptional cases and seven (28%) providing no funding.

In just over half of countries classified as having full funding for abortion, this coverage was provided through free care at public facilities (Azerbaijan, India, Kazakhstan

Table 2  
Countries with liberal or liberally interpreted abortion laws,<sup>a</sup> health system summary.

Coding key:					
◆: full funding, ◊: partial funding, ◇: funding only in exceptional cases, ◊: no funding					
Region and country	Abortion coverage	Maternity Coverage	Public health system	# Females aged 15–49, 2016, in thousands	Country income level
<b>Africa</b>					
Cape Verde	◊	◊	◊	147	Middle
Ethiopia <sup>b</sup>	◆	◆	◊	24,951	Low
Ghana <sup>b</sup>	◊	◆	◆	7089	Middle
Mozambique <sup>b</sup>	◊	◆	◆	6637	Low
South Africa	◆	◆	◆	14,792	Middle
Tunisia	◆	◆	◆	3075	Middle
Zambia	◆	◆	◆	3871	Middle
<b>Asia</b>					
Armenia	◊	◊	◊	803	Middle
Azerbaijan	◆	◆	◆	2661	Middle
Bahrain	◇	◆	◆	311	High
Bangladesh <sup>b</sup>	◊	◆	◆	45,601	Middle
Cambodia	◆	◆	◆	4327	Low
China	◊	◊	◊	357,959	Middle
Cyprus	◊	◆	◆	297	High
Georgia	◊	◆	◆	978	Middle
Hong Kong <sup>b</sup>	◆	◆	◆	1920	High
India	◆	◆	◆	341,401	Middle
Israel <sup>b</sup>	◊	◆	◆	1906	High
Japan	◊	◊	◊	25,840	High
Kazakhstan	◆	◆	◆	4567	Middle
Kyrgyzstan	◇	◆	◊	1557	Middle
Mongolia	◊	◆	◆	833	Middle
Nepal	◊	◊	◊	8027	Low
North Korea	◆	◆	◆	6672	Low
Singapore	◊	◊	◊	1443	High
South Korea <sup>b</sup>	◊	◊	◊	12,538	High
Taiwan	◊	◆	◆	6231	High
Tajikistan	◊	◊	◊	2248	Middle
Turkey	◊	◆	◆	21,206	Middle
Turkmenistan	◊	◊	◊	1520	Middle
Uzbekistan	◆	◆	◊	8353	Middle
Vietnam	◊	◆	◆	25,926	Middle
<b>Europe</b>					
Albania	◇	◆	◆	729	Middle
Austria	◊	◆	◆	1957	High
Belarus	◇	◆	◆	2245	Middle
Belgium	◆	◆	◆	2501	High
Bosnia and Herzegovina	◊	◆	◊	891	Middle
Bulgaria	◊	◆	◆	1546	Middle
Croatia	◇	◆	◆	926	High
Czech Republic	◇	◆	◆	2411	High
Denmark	◆	◆	◆	1267	High
Estonia	◊	◆	◊	285	High
Finland	◊	◊	◊	1150	High
France	◆	◆	◊	13,941	High
Germany	◊	◆	◊	17,039	High
Greece	◆	◊	◆	2401	High
Hungary	◊	◆	◆	2310	High
Iceland	◆	◆	◆	78	High
Italy	◆	◆	◆	12,548	High
Latvia	◇	◆	◆	429	High
Lithuania	◊	◆	◆	633	High
Luxembourg	◆	◆	◆	141	High
Macedonia	◇	◊	◊	518	Middle
Moldova	◊	◆	◆	1069	Middle
Montenegro	◊	◆	◆	147	Middle

Table 2 (continued)

Coding key:

◆: full funding, ◊: partial funding, ◆: funding only in exceptional cases, ◊: no funding

Region and country	Abortion coverage	Maternity Coverage	Public health system	# Females aged 15–49, 2016, in thousands	Country income level
Netherlands	◆	◆	◆	3686	High
Norway	◆	◆	◆	1214	High
Portugal	◆	◆	◆	2353	High
Romania	◊	◆	◆	4479	Middle
Russian Federation	◆	◆	◆	34,258	High
Serbia	◊	◆	◊	2022	Middle
Slovakia	◊	◆	◆	1342	High
Slovenia	◆	◆	◆	446	High
Spain	◆	◆	◆	10,402	High
Sweden	◊	◊	◊	2150	High
Switzerland	◊	◊	◊	1927	High
Ukraine	◆	◆	◆	10,623	Middle
United Kingdom <sup>c</sup>	◆	◆	◆	14,770	High
<b>Latin America and Caribbean</b>					
Barbados	◆	◆	◆	67	High
Belize	◊	◆	◊	101	Middle
Cuba	◆	◆	◆	2706	Middle
Guyana	◆	◆	◆	194	Middle
Mexico (Mexico City Federal District only)	◆	◆	◆	2496	Middle
Saint Vincent and the Grenadines	◊	◊	◆	28	Middle
Uruguay	◆	◆	◆	827	High
<b>Northern America</b>					
Canada	◆	◆	◆	8317	High
United States of America	◆	◆	◊	73,553	High
<b>Australia and Oceania</b>					
Australia	◆	◆	◆	5749	High
Fiji	◊	◆	◆	225	Middle
New Zealand <sup>b</sup>	◆	◆	◊	1065	High

<sup>a</sup> Inclusion criteria: country permits abortion for economic or social reasons or upon request, or liberally interprets physical/mental health exceptions in practice.

<sup>b</sup> Country that liberally interprets physical or mental health indications.

<sup>c</sup> Population data include England, Scotland, Wales and Northern Ireland; note: abortion is not legal in Northern Ireland.

and Uzbekistan). However, despite abortion being officially free of charge in public facilities, in Azerbaijan, India and Kazakhstan, informal payments were reportedly common. In North Korea, abortion was reported to be covered under national health insurance coverage in 2012. In Cambodia and Hong Kong, abortion was covered under national health insurance programs for low-income people. In Hong Kong, abortion was also reported to be less expensive in public facilities than private facilities, and in Cambodia, respondents noted that abortion was often not listed as a covered service at facilities and patients had to request coverage.

In South Korea and Turkmenistan, abortion was partially covered by public funds, and these policies were consistent with those for maternity services. In Armenia, abortion was partially covered via a state program to provide abortion services free of charge for certain populations (low-income women, adolescents and other select populations); however, few were reportedly able to access the program due to complex bureaucratic procedures. In Armenia, there was also partial coverage for maternity services via a program that

covered part of maternity hospital costs. In Singapore, abortion was partially covered by public funds as it was reported to be less expensive in public facilities; abortion was fully covered with private compulsory health savings accounts. There was also partial funding for maternity services in Singapore, with public assistance for low-income women. Bangladesh and China had partial coverage for abortion wherein only married women had coverage at public facilities; informal fees were commonly reported in Bangladesh. Abortion policies in Bangladesh and China differed from those for maternity care. In Bangladesh, maternity services were free in public facilities, and China's health system was largely privatized but included a partially government-funded health care program for poor people living in rural areas that included maternity care. In Israel and Mongolia, abortion was covered for women in certain age groups; otherwise, there was coverage in exceptional circumstances. In both countries, abortion was treated differently from maternity services, which were fully covered. In Turkey, abortion was partially covered under national health insurance and totally covered in exceptional

cases; this was inconsistent with maternity care, which was totally covered under national health insurance.

Bahrain and Kyrgyzstan covered abortion only for medical indications. In both countries, the public health system fully covered maternity services.

Among countries with no funding for abortion, most provided coverage for maternity care. Half (Cyprus, Georgia, Taiwan and Vietnam) fully covered maternity care, and Japan, Nepal and Tajikistan covered maternity costs in part.

### 3.3. *Australia and Oceania*

Three countries met our inclusion criteria for Australia and Oceania. Two of these (67%), Australia and New Zealand, provided full funding for abortion through free care in public facilities. In Australia, while services were free in public facilities, abortion was typically provided in the private sector, where it was partially subsidized by Medicare. In Fiji, abortion care was covered in public facilities in cases of rape, incest or maternal health complications. Maternity care in Fiji was available at no cost through public health care facilities.

### 3.4. *Europe*

Thirty-six European countries met our inclusion criteria. Most countries provided some level of public funding for abortion, with 15 (42%) providing full funding, 12 (33%) providing partial funding, 6 (17%) providing funding in only exceptional cases and 3 (8%) providing no funding.

In 8 of the 15 countries with full funding of abortion (53%), this coverage was provided through free care at government health facilities. Seven countries (47%) offered abortion coverage through national health insurance programs. In three of these (France, Iceland and Spain), the national health insurance program provided universal health care coverage funded through general taxation. In Luxembourg and Slovenia, the national health insurance program was funded partially through compulsory employee/employer contributions with coverage for low-income or unemployed people subsidized by the government. Similarly, in Belgium and the Netherlands, abortion was covered by a private, compulsory health insurance program, and the government covered premiums for low-income people.

In four countries (Lithuania, Moldova, Romania and Slovakia), abortion care was less expensive in public facilities; all of these countries except Romania also provided funding for abortion in the case of medical indications. Moldova also provided coverage for adolescents and social indications, and Romania provided coverage for students or women with more than four children. In Finland, Montenegro and Sweden, the cost of abortion was mostly covered by the national health insurance. Estonia and Hungary were reported to partially subsidize the cost of abortion while also providing full coverage in the event of medical indications. In Switzerland, abortion was covered by compulsory private health insurance; insurance premiums were partially subsidized for low-income people. In Bulgaria, abortion was covered for women of certain ages, as well as

for medical indications. In Germany, abortion was covered for low-income women, as well as for medical indications or in case of rape. Of these 12 countries providing partial funding for abortion, three (Finland, Sweden and Switzerland) had a consistent policy in that they also provided partial funding for maternity care; the remaining nine countries provided full funding for maternity care.

Six countries provided public funding of abortion only for certain exceptional circumstances: medical indications in the Czech Republic, Latvia and Macedonia; medical indications or rape in Croatia; medical or social indications in Belarus; and physical or mental disabilities in Albania. Five of these countries provided full coverage of maternity services; Macedonia provided partial coverage for maternity care services.

Three countries (Austria, Bosnia and Herzegovina, and Serbia) had no public funding for abortion; in Vienna, Austria, however, poor women were eligible for one fully covered abortion in their lifetime. All three countries provided full coverage of maternity services.

### 3.5. *Latin America and Caribbean*

Seven Latin American and Caribbean countries met our inclusion criteria. Of these, five countries (71%) provided full coverage for abortion. Barbados, Guyana and Mexico (Mexico City Federal District only) were reported to provide full funding for abortion through free care in public hospitals. In Cuba and Uruguay, abortion was fully covered under national health insurance.

In Belize, there was partial funding for abortion with the government covering part of the cost in public hospitals, and in Saint Vincent and the Grenadines, there was no funding. Both of these countries had inconsistent policies relative to funding for maternity services. In Belize, there was full coverage for maternity care wherein prenatal visits were fully covered and there could be a small fee for delivery, depending on the facility; in Saint Vincent and the Grenadines, there was partial coverage for maternity care, with free prenatal visits but fees for delivery.

### 3.6. *North America*

Two countries in North America met our inclusion criteria. In Canada, there was full funding for abortion through national health insurance. In the United States, coverage of abortion was limited to certain exceptional circumstances; however, some states used their own funds to cover abortions more broadly for low-income women. There was full coverage for maternity care under Medicaid in the United States; income eligibility criteria varied by state. In addition, under the Affordable Care Act, most US private insurances were required to cover maternity and newborn care as 1 of 10 categories of essential health benefits.

## 4. Discussion

The majority (59 out of 80) of countries with liberal or liberally interpreted laws provided either full or partial

funding for abortion care. Of those countries that did not provide public funding for abortion ( $n=21$ ), most ( $n=16$ ) provided full coverage of maternity care, highlighting an inconsistency in funding policies related to pregnancy care.

We observed several patterns in these policies. First, more high-income countries provided at least partial funding for abortion compared to low- to middle-income countries. However, there were some notable exceptions, including Austria, Japan and the United States. Austria is particularly remarkable since contraceptives were not covered under its public health insurance scheme [24]. In the United States, low-income women are at significantly higher risk of unintended pregnancy [25], yet abortion is covered by Medicaid only in exceptional cases, and abortion coverage was restricted under the recent health reform law [26]. This contrasts with Singapore, where health reform in the 1980s led to the creation of mandatory health savings accounts, which may be used to pay for abortion care. Additional research is needed to explore the relationship between public funding for abortion and funding for contraception, abortion incidence and perhaps other national or governmental characteristics.

We also found that a higher proportion of countries that recently reformed their abortion law fully covered abortion care compared to the global proportion. In the past 20 years, 12 countries and 1 state have amended their abortion law and are now considered to have a liberal or liberally interpreted law [Albania, Cambodia, Ethiopia, Fiji, Guyana, Luxembourg, Mexico (Mexico City Federal District only), Nepal, Portugal, Spain, Switzerland, South Africa and Uruguay] [27]. All but four of these provided full public funding for abortion, and in one of these four (Switzerland), abortion was covered by compulsory private insurance; Albania and Fiji provided funding in exceptional cases only, and there was no public funding for abortion in Nepal in 2014. However, in 2009, the Supreme Court of Nepal ruled in the case of *Lakshmi Dhikta v. Nepal* that the government must guarantee women's access to safe and affordable abortion services and create a mechanism to provide care for those unable to pay [28], although this has not yet been implemented. Colombia also liberalized its law in 2006 to allow abortion for several indications, including for fetal malformations, health risks to the pregnant woman and pregnancy resulting from sexual abuse [27], and these legal procedures are covered under compulsory health insurance (personal communication, C. Villarreal). More in-depth study of these country cases is needed to understand the factors that contributed to the policy of public funding to inform advocacy efforts elsewhere.

This study has several limitations. Although we noted countries where informal fees were reported or where coverage was limited for medical abortion, we classified countries according to their official policies for any abortion care. It is possible that low-income women still face barriers accessing their preferred abortion method even in countries noted to have full funding. In addition, policies may change

over time, and this information may become outdated. For example, news reports in late 2015 indicated that North Korea had prohibited physicians from performing abortion [29]. Finally, the category of partial coverage for abortion includes countries with a wide range of funding policies.

In order for safe abortion to be truly accessible, there must be a permissive law, high-quality services must be accessible, and women must be able to obtain care regardless of their ability to pay. There is a trend toward public funding in countries with recently liberalized laws, but important outliers persist — including among high-income countries. In countries without public funding for abortion, cost of services may be an important barrier to access for low-income women. Advocacy is necessary to address those outliers and ensure that future changes in abortion law include provisions to guarantee access for low-income women. As the global movement toward universal health coverage progresses [30], it is critical that comprehensive sexual and reproductive health services, including abortion care, be included as essential services.

### Acknowledgments

We are grateful for the research support from Bhargavi Sampath, Marga Kempner and Megan Scannel.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.contraception.2016.06.019>.

### References

- [1] Grimes DA, Benson J, Singh S, Romero M, Ganatra B, Okonofua FE, et al. Unsafe abortion: the preventable pandemic. *Lancet* 2006;368:1908–19.
- [2] Say L, Chou D, Gemmill A, Tunçalp O, Moller AB, Daniels J, et al. Global causes of maternal death: a WHO systematic analysis. *Glob Health* 2014;2:e323–33.
- [3] Kassebaum NJ, Bertozzi-Villa A, Coggeshall MS, Shackelford KA, Steiner C, Heuton KR, et al. Global, regional, and national levels and causes of maternal mortality during 1990–2013: a systematic analysis for the global burden of disease study 2013. *Lancet* 2014;384:980–004.
- [4] Singh S, Maddow-Zimet I. Facility-based treatment for medical complications resulting from unsafe pregnancy termination in the developing world, 2012: a review of evidence from 26 countries. *BJOG* 2015, <http://dx.doi.org/10.1111/1471-0528.13552>.
- [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] Sedgh G, Bearak J, Singh S, Bankole A, Popinchalk A, Ganatra B, et al. Abortion incidence between 1990 and 2014: global, regional, and subregional levels and trends. *Lancet* 2016, [http://dx.doi.org/10.1016/S0140-6736\(16\)30380-4](http://dx.doi.org/10.1016/S0140-6736(16)30380-4).
- [7] Sippel S. ICPD beyond 2014: moving beyond missed opportunities and compromises in the fulfilment of sexual and reproductive health and rights. *Glob Public Health* 2014;9:620–30.

- [8] Johnson BR, Horga M, Fajans P. A strategic assessment of abortion and contraception in Romania. *Reprod Health Matters* 2004;12:184–94.
- [9] Jewkes R, Rees H, Dickson K, Brown H, Levin J. The impact of age on the epidemiology of incomplete abortions in South Africa after legislative change. *BJOG* 2005;112:355–9.
- [10] Varkey P, Balakrishna PP, Prasad JH, Abraham S, Joseph A. The reality of unsafe abortion in a rural community in South India. *Reprod Health Matters* 2000;8:83–91.
- [11] Constant D, Grossman D, Lince N, Harries J. Self-induction of abortion among women accessing second-trimester abortion services in the public sector, western Cape Province, South Africa: an exploratory study. *S Afr Med J* 2014;104:302–5.
- [12] Jones RK. How commonly do US abortion patients report attempts to self-induce? *Obstet Gynecol* 2011;204:23.e1–4.
- [13] Grossman D, Holt K, Pena M, Lara D, Veatch M, Cordova D, et al. Self-induction of abortion among women in the United States. *Reprod Health Matters* 2010;18:136–46.
- [14] Phillips KA, Grossman D, Weitz TA, Trussell J. Bringing evidence to the debate on abortion coverage in health reform legislation: findings from a national survey in the United States. *Contraception* 2010;82:129–30.
- [15] Dalvie SS. Second trimester abortions in India. *Reprod Health Matters* 2008;16:37–45.
- [16] Misicka S. Abortions to remain covered by health insurance. 2014 Available from: <http://www.swissinfo.ch/eng/abortions-to-remain-covered-by-health-insurance/37889424> [cited 2016 January 19].
- [17] United Nations Population Division Department of Economic and Social Affairs. Abortion policies: a global review. United Nations. Available from: <http://www.un.org/esa/population/publications/abortion/> [cited 2015 April 29].
- [18] Chowdhury SN, Moni D. A situation analysis of the menstrual regulation programme in Bangladesh. *Reprod Health Matters* 2004;12:95–04.
- [19] Morhee R, Morhee E. Overview of the law and availability of abortion services in Ghana. *Ghana Med J* 2006;40:80–6.
- [20] Aniteye P, Mayhew S. Attitudes and experiences of women admitted to hospital with abortion complications in Ghana. *Reprod Health* 2011;15:47–55.
- [21] Ustá M, Mitchell E, Gebreselassie H, Brookman-Amisshah E, Kwizera A. Who is excluded when abortion access is restricted to twelve weeks? Evidence from Maputo, Mozambique. *Reprod Health Matters* 2008;16:14–7.
- [22] United Nations Population Division Department of Economic and Social Affairs. World population prospects: the 2015 revision. 2016 Available from: <http://esa.un.org/unpd/wpp/DataQuery/> [cited 2016 June 8].
- [23] World Bank. Country and lending groups. 2016 Available from: [http://data.worldbank.org/about/country-classifications/country-and-lending-groups#Low\\_income](http://data.worldbank.org/about/country-classifications/country-and-lending-groups#Low_income) [cited 2016 January 19].
- [24] Larcher D, Wolinska A. European pricing and reimbursement handbook 1st ed. ; 2011 [cited 2016 January 19]; Available from: <http://www.bakermckenzie.com/files/Uploads/Documents/Germany/LifeSciences/EuropeanPricingReimbursement.pdf>.
- [25] Finer LB, Zolna MR. Unintended pregnancy in the United States: incidence and disparities, 2006. *Contraception* 2011;84:478–85.
- [26] Salganicoff A, Beamesderfer A, Kurani N, Sobel L. Coverage for abortion services and the ACA. 2014 Available from: <http://kff.org/womens-health-policy/issue-brief/coverage-for-abortion-services-and-the-aca/> [cited 2015 April 29].
- [27] Center for reproductive rights. Abortion worldwide: 20 years of reform. 2014 Available from: [http://reproductiverights.org/sites/crr.civicactions.net/files/documents/20Years\\_Reform\\_Report.pdf](http://reproductiverights.org/sites/crr.civicactions.net/files/documents/20Years_Reform_Report.pdf) [cited 2016 January 19].
- [28] Lakshmi Dhikta v. Government of Nepal, writ no. 0757, Jestha, 2066 (supreme court of Nepal), 0757; 2009.
- [29] Women in the world staff. North Korea reportedly bans IUD implantation and abortion. *Women in the World*; 2015 [cited 2016 January 21]; Available from: <http://nytlive.nytimes.com/womenintheworld/2015/10/16/north-korea-reportedly-bans-iud-implantation-and-abortion/>.
- [30] World Health Organization. Universal health coverage; 2014 [(cited 2015 April 29); Available from: <http://www.who.int/mediacentre/factsheets/fs395/en/>].