

## **Introduction**

Globally, 90 million unintended pregnancies occur each year, half of which end in abortion (1). The majority of all abortions in developing countries are performed in unsafe or illegal settings (1), the consequences of which can be severe—including infection, infertility, and death (2). The World Health Organization estimates that one in seven maternal deaths worldwide is due to unsafe abortion (3). While the abortion law in Indonesia lacks clarity with regard to the criminalization of the procedure, in practice, abortions are permitted only to save a woman's life or to preserve a woman's health in emergency situations (4). In order to avoid shame or persecution, women in Indonesia, like their counterparts in much of the developing world often attempt to induce abortion without assistance, while others seek the help of clandestine providers working in unhygienic environments (5). Traditional methods used to induce abortion can include a wide variety of techniques: insertion of foreign objects into the vagina, cervix, and uterus; introducing caustic liquids, ingesting dangerous fluids or pharmaceutical products, engaging in traumatic or injurious physical activity, manipulating the abdomen, and other regionally specific practices (2). The risk of death following an unsafe abortion performed under such conditions may be hundreds if not thousands of times higher than the risk of death from safe abortion (2). While data are scarce and likely unreliable (4), existing estimates from Indonesia suggest that over two million abortions may occur in Indonesia each year, nearly all of them performed outside of the legal system (4, 6).

Increased use of medical abortion—safe, effective and inexpensive abortifacient drugs, namely misoprostol—in settings where abortion is legally restricted has been shown to significantly decrease the negative consequences of unsafe abortion by enabling women to safely self-induce abortion using medications (approved by the WHO for induced abortion) as opposed to traditional methods (7). Unfortunately, misinformation about correct routes of administration, dosage, and timing of medical

abortion is widespread, drug quality in unregulated environments is often questionable, and knowledge about how and when to seek medical care is lacking (7). Evidence from Latin America suggests that in contexts where abortion is illegal or access is heavily restricted, but where illegal use of medical abortion is widespread, complications from unsafe abortion remain among the leading causes of gynecological admissions in health facilities in the region (8). Harm reduction approaches—strategies for combatting mortality and morbidity from unsafe abortion by providing women with reliable information about the correct dosage and protocol for medical abortion— are gaining traction around the world in the form of hotlines and websites (9). Data from Latin America have shown that women who have access to the internet are increasingly accessing information about medical abortion on-line (10). Studies conducted with the organization Women on Web— a digital community that provides women from all around the world with on-line information and access about abortion—indicate that women who access medical abortion through telemedicine can safely terminate their own pregnancies (11). Though few harm reduction programs have been evaluated for unsafe abortion, one study in Uruguay found that women who have both access to evidence-based information about misoprostol for safe abortion and access to established links to health care services can be empowered to self-induce abortion with very low rates of complication (10). The persistently high rates of maternal mortality and morbidity due to unsafe abortion in Indonesia indicate a pressing need for harm reduction approaches to help women terminate unwanted pregnancies without endangering their own lives.

## **Methods**

Samsara; a non-profit organization that has been operating in Indonesia since 2007, is dedicated to providing reliable information and support for women with unplanned pregnancies and women who have had or are currently undergoing abortions. Women from anywhere in the world can call a series of local Indonesian phone numbers and access the Samsara hotline—the only existing Bahasa Indonesia abortion hotline—24 hours a day. Women can also send an email to a dedicated hotline email address. In order to collect information for service provision, women consent to the anonymous collection of relevant data.

These data offer a unique window into the needs of women seeking information about abortion in Indonesia. In addition to anonymous data collected by the hotline, in-depth interviews were conducted between October 2013 and September 2014 among 15 women ages 18-49 recruited through the Samsara hotline who had successfully self-induced abortion using medications. Interviews explored themes of abortion decision making, abortion experiences, the role of partners/husbands, social networks and abortion information transmission, and information needs about abortion and other sexual and reproductive health topics. Verbal informed consent was obtained from all in-depth interview participants, and consent to record the interview was obtained before audio recording began. Participants were reimbursed the equivalent of \$10 USD for participation in the in-depth interview. IRB approval for this study was granted by the UCSF Committee on Human Subjects Research.

## **Results**

### **Quantitative Data**

Between May 8, 2012-September 30, 2013, Samsara received 3,462 unique contacts. For the purposes of these analyses, data were restricted to the 1,214 “initial” or first-time contacts. The 2,248 contacts which were coded as “follow-up encounters” were excluded as fewer variables and no identifying information was collected, making it impossible to link follow-up to the initial contact. Sixty percent of the encounters were via cell phone calls (n=732), and 37% via email (n=455).

Over 90 percent of contacts came from within Indonesia, with 9.4% identifying Jakarta as their residence. Individuals reported calling from 25 other countries, including 10 callers from Malaysia, and 5 from the United States, all seeking information about abortion in the Indonesian language. Nearly one third of women calling were between the ages of 18-24 years (32.6%), followed by 24-28 years (17.2%). Most women calling reported being unmarried (55.4%), though 24% were married, and 20% did not report their marital status. The vast majority of initial callers who reported a gestational age reported that age to be between 6 -9 weeks (49.7%, n=603), 7% reported between 10-15 weeks, and 5.7% at 15 weeks or greater.

A majority of the callers reported their reason for calling Samsara as “not being ready to have children” (73%)(Table 2). Two thirds of women called requesting information about safe abortion (61%, n=741), half requested medication abortion information (50.8%), and nearly one third wanted information about unwanted pregnancies and choices (31.4%). Other information regarding their current pregnancy (“Am I pregnant”, 4.3%) or post-abortion care (5.3%) was requested less often, but general information about reproductive health was requested more (7.7%)(Table 2).

### **In Depth Interviews**

Analysis of in-depth interviews is ongoing. Preliminary results suggest that most women had knowledge of misoprostol before calling the hotline but were unaware of how to use it for safe termination of pregnancy. In our sample, most women had informed or involved partners/husbands of their decision to abort, and in some cases partners/husbands placed the call to the hotline itself. Many women in our sample discovered Samsara by searching for abortion on the internet in Bhasa Indonesia, although others were referred to the hotline by friends. In the transcripts analyzed so far, all women had spoken to friends about abortion, all women knew at least two friends who had illegally induced abortion, and many women spoke of wishing that more women have access to the hotline and the information provided.

### **Discussion**

The descriptive data collected by the Samsara hotline help to shed light on who is seeking information about misoprostol use for safe abortion in Indonesia, but more and better information is needed. Current methods for measuring the prevalence, safety and efficacy of self-induced abortions, especially in contexts where abortion is illegal or highly stigmatized, are limited by lack of access to women who are able to safely self-induce abortion, and by reporting bias among traditional facility-based samples of women who may have self-induced but who are unlikely to reveal experiences with abortion in illegal settings. As global use of misoprostol for self-induced abortion increases, there is a pressing need for new and innovative research methods to improve understanding of the magnitude of misoprostol use, and

the health impact outside of formal health systems. Partnering with organizations that employ harm reduction approaches presents a unique opportunity for the improvement of existing methodologies for the measurement of self-induced abortion and increasing understanding of women's experiences with such abortions. Better data has the potential to influence policies and programs that ensure provision of safe abortion care, and access to the full range of reproductive choices and services for all women.

**Table 1: Type of call and location of all callers to a safe abortion hotline in Indonesia**

	n	%
<b>Type of Call</b>		
<i>Initial</i>	1,214	35.1
<i>Follow-Up</i>	1,281	37.0
<i>Second</i>	685	19.8
<i>Other</i>	282	8.1
<b>Province of Residence in Indonesia (N=3462)</b>		
<i>Jawa Timur</i>	82	2.4
<i>Jawa Barat</i>	269	7.8
<i>DKI Jakarta</i>	326	9.4
<i>Daerah Istimewa Yogyakarta</i>	214	6.2
<i>Jawa Tengah</i>	98	2.8
<i>Sulawesi Selatan</i>	17	0.5
<i>Bali</i>	52	1.5
<i>Kalimantan Timur</i>	6	0.2
<i>Sulawesi Utara</i>	3	0.1
<i>Sumatera Utara</i>	22	0.6
<i>Sumatera Barat</i>	16	0.5
<i>Not Reported</i>	2,357	68.1
<b>Country of Residence outside of Indonesia (N=3462)</b>		
<i>Malaysia</i>	10	6.3
<i>Philippines</i>	9	5.7
<i>USA</i>	5	3.2
<i>Australia</i>	3	1.9
<i>Brazil</i>	3	1.9
<i>India</i>	3	1.9
<i>Netherlands</i>	3	1.9
<i>Nigeria</i>	3	1.9
<i>Thailand</i>	3	1.9
<i>Others</i>	3	1.9
<i>Korea</i>	2	1.3
<i>Namibia</i>	2	1.3
<i>Poland</i>	2	1.3
<i>Timor Leste</i>	2	1.3
<i>Bahrain</i>	1	0.6
<i>Bangladesh</i>	1	0.6
<i>Canada</i>	1	0.6
<i>Czech Republic</i>	1	0.6
<i>Chile</i>	1	0.6
<i>Madagascar</i>	1	0.6
<i>Mexico</i>	1	0.6
<i>Saudi Arabia</i>	1	0.6
<i>Singapore</i>	2	1.3
<i>Spain</i>	1	0.6
<i>Sri Lankan</i>	1	0.6
<i>West Africa</i>	1	0.6

**Table 2: Characteristics of first-time callers to a safe abortion hotline in Indonesia (N=1214)**

\*Percentages add up to &gt; 100% because callers may have reported more than one category.

	n	%
<b>Age (years)</b>		
16 - 18	28	2.3
18 - 24	396	32.6
24 - 28	209	17.2
28 - 35	186	15.3
35 - 40	44	3.6
Not Reported	351	28.9
<b>Sex of Caller</b>		
Male	265	21.8
Female	893	73.5
Not Reported	56	4.6
<b>Type of Communication</b>		
Call, cell phone	732	60
Email	455	37.5
Face to face (in person)	27	2.2
<b>Marital Status</b>		
Married	291	24
Unmarried	672	55.4
Not Reported	251	20.7
<b>Occupation</b>		
Employed	347	28.6
Student	357	29.4
Housewife	68	5.6
Not Reported	442	36.4
<b>Received ultrasound prior to call</b>		
Yes	420	34.6
No	458	37.7
Not Reported	336	27.7
<b>Gestational age (in weeks)</b>		
< 5 weeks	40	3.3
6-9 weeks	603	49.7
10-12 weeks	46	3.8
12-15 weeks	40	3.3
>or =15 weeks	69	5.7
Not Reported	416	34.3
<b>Reason for Call*</b>		
Not ready for children	749	73.0
Had enough children	35	3.0
Choose not to have children	100	10.0
Employment contract constraints	121	12.0
Rape	20	2.0
Incomplete abortion	36	3.0
Not Reported	264	21.0
<b>Information requested*</b>		
Information about medication abortion (protocol, access, availability)	617	50.8
Information about safe abortion	741	61.0
Am I pregnant	53	4.3
Post-abortion care	64	5.3
Information about Reproductive health	94	7.7
Unwanted pregnancy and choices	382	31.4
Not Reported	39	3.0

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