Using confidants to learn about abortion

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Aknowledgements

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Rationale and origin of the confidants' method

- Abortions are underreported in surveys, especially in contexts where access to abortion services is restricted
- Rossier et al (2006): ethnographic observations in Burkina Faso: women share information about their clandestine abortion

- to close relations trusted to keep a secret
- to people who share the same secret: recent abortion seekers and providers

⇒Why? In order to be locate and access underground abortion services

- Idea: ask survey respondents about the abortions of their close female relations to collect quantitative data on abortion

⇒Confidants' method also called the Anonymous Third Party Reporting (ATPR) method

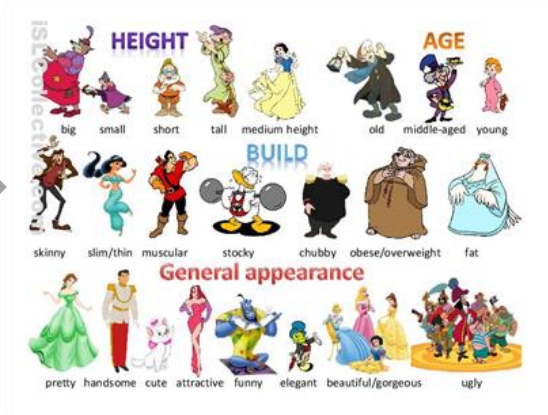
Rossier C., G. Guiella, A. Ouédraogo, B. Thiéba. 2006. « Estimating clandestine abortion with the confidants' method. Results from Ouagadougou, Burkina Faso », *Social Science and Medicine*, 62(1):254-266

How does it work?

Women 15-49

Intimate female relations

Sisters
Cousins
Nieces
Daughters
Neighbors
Friends
Colleagues
Aunts
Mothers
Sisters-in-law
Other



Abortions in the past 3 years

Circumstances under which they occurred

Network generator: women you share secrets with?

Another version (2011) for women 15-24, Malawi: "best friend", limited to one

Yeatman, S., & Trinitapoli, J. (2011). Best-friend reports: a tool for measuring the prevalence of sensitive behaviors. American journal of public health, 101(9), 1666-1667.

A paradigm shift in abortion safety

- Over the three last decades, abortion methods have changed dramatically with the diffusion of medical abortion even in countries where abortion is illegal
- Decrease in abortion mortality and in severe complications
- Shift in the thinking about safety: some abortion in restrictive countries are now safe (Ganatra et al. 2014)

⇒need to document the continuum of safety in each country

⇒need to have detailed information on abortion at the population-level (not only those who arrive as complications in hospitals)

Ganatra, B., Tuncalp, O., Johnston, H. B., Johnson Jr, B. R., Gulmezoglu, A. M., & Temmerman, M. (2014). From concept to measurement: operationalizing WHO's definition of unsafe abortion.

The confidants method becomes popular

- Application in one study by the Guttmacher Institute in seven countries

Not published yet; Ghana, Indonesia, Uganda, Ethiopia, Nigeria, Cote d'Ivoire and Rajasthan (India)

- Application in one study by John Hopkins in three countries

Bell et al. "Methodological Advances in Survey-Based Abortion Incidence Estimation: Promising: Findings from Nigeria, India, and Cote d'Ivoire", paper presented at the Population Association of America Annual Meetin, April 11th, 2019, Austin, Texas

Bell et al., "Inequities in the incidence and safety of abortion in Nigeria" , paper presented at the UAPS African Population Conference, November 2019, Entebbe Uganda

- Application in another study by Guttmacher Institute in Ethiopia and Uganda

Sully et al. "Social Network-Based Methods for Measuring Abortion Incidence in Ethiopia and Uganda", paper presented at the African Population Conference, Entebbe, Novembre 18-22 2019

Four major problems with the confidants /ATPR

Problem 1: CONTEXT. Are the ATPR suited to collect data on abortion in all contexts? Where do people talk to their friends about abortion? An early ATPR experiment failed in India…

Problem 2. TIE DEFINITION. "Person you share secrets with", "Best friend"? 1, 2.. More? Early ATPR experiments show: small samples of ties, many women do not have intimate female relations, not always representative (Helleringer et al. 2019) + The "secret sharing" Q may be biased towards abortion seekers.

Problem 3. BIASES. Potential "barrier" and "transmission" biases: if their size is non-negligible, how can we measure them? Correct for them?

=> Problem 4. GOLD STANDARD. To answer these three questions

Helleringer, S., Yeatman, S., & Mkandawire, J. (2019). Evaluating sampling biases from third-party reporting as a method for improving survey measures of sensitive behaviors. *Social networks*, *59*, 134-140

Study objectives

- Study initiated by the WHO
- Provide a validated ATPR toolkit containing:

- a procedure to decide whether a context is appropriate (problem 1)
- a validated network generating question (problem 2)
- an estimate of the two biases that can be adjusted to each context

+ a method to apply these corrections to ATPR estimates (problem 3)

Study design

- Two Health and Demographic Surveillances Systems

⇒Kaya in Burkina Faso (rural)

⇒Nairobi in Kenya (urban)

- Gold standard: Respondent Driven Sampling (RDS) to obtain a representative sample of abortion seekers in the sites through chain referral

- Random survey, 2000 women, improved ATPR module

Norris, A., Harrington, B. J., Grossman, D., Hemed, M., & Hindin, M. J. (2016). Abortion experiences among Zanzibari women: a chain-referral sampling study. *Reproductive health*, *13*(1), 23

Solution 1: An qualitative pilot

- A qualitative study before implementing the ATPR / confidants to assess:

⇒Can abortion services be accessed anonymously?

⇒Is stigma so strong that abortion seekers cannot confide to close network members?

⇒Do abortion seekers rely on their social network to locate providers and methods?

Solution 2: Test another network generator

- Burt's (1984) first proposed a one-item name generator instrument for the General Social Survey to capture close ties (" people you discuss personal matters with")
- The GSS shifted to " important matters" to have more diverse ties

"From time to time, most people discuss important matters with other people. Looking back over the last six months – who are the people with whom you discussed matters important to you? Just tell me their first names or initials..." (GSS 2004).

- Validated internationally but interviewer effects (quality monitoring!)
- Number of ties collected: only a matter of budget constraints => test the implication on estimates

Solution 3: Generalized NSUM

- A Respondent Driven Sampling to measure directly the biases **once,** research how to adapt them to different contexts
- We use the fact the ATPR = NSUM (with different tie definition)
- The generalized NSUM approach allows us to correct the transmission and barrier biases

$$N_H = \underbrace{\left(\frac{y_{F,H}}{\bar{d}_{U,F}}\right)}_{\substack{\text{basic}\\ \text{scale-up}}} \times \underbrace{\underbrace{\frac{1}{\bar{d}_{F,F}/\bar{d}_{U,F}}}_{\substack{\text{frame ratio}\\ \phi_F}} \times \underbrace{\frac{1}{\bar{d}_{H,F}/\bar{d}_{F,F}}}_{\substack{\text{degree ratio}\\ \delta_F}} \times \underbrace{\frac{1}{\bar{v}_{H,F}/\bar{d}_{H,F}}}_{\substack{\text{true positive rate}\\ \tau_F}}}_{\text{adjustment factors}} = \underbrace{\left(\frac{y_{F,H}}{\bar{v}_{H,F}}\right)}_{\substack{\text{generalized}\\ \text{scale-up}}}. \qquad (15)$$

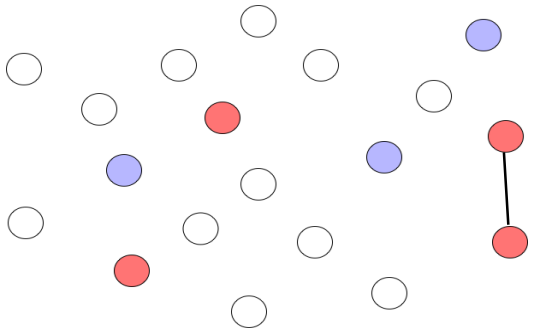
Feehan, D. M., & Salganik, M. J. (2016). Generalizing the network scale-up method : A new estimator for the size of hidden populations. *Sociological methodology*, *46*(1), 153–186.

Solution 4. Using the RDS for abortion? Challenges

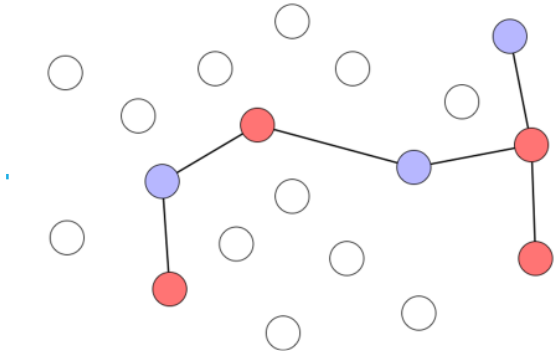
- Several assumptions for RDS (Heckathorn 1997)
- BUT Abortion seekers do not seem to necessarily have *direct* "common practice" connections to other women who experienced that event
- Rather, abortion seekers seem to talk to their friends to find a knowledgeable person (i.e often another abortion seeker) who can direct them to a person or a provider

Exploratory statistical work to assess alternative RDS sampling strategy for abortion

We explored a variations in how the RDS sampling is done by asking some hidden population members to refer others who are not in the hidden population, but who are in a group that is highly connected to the hidden population (social referent), thus stepping beyond and then back into the hidden population.



Conventional RDS



Multiplex RDS

Simulation study
done in R
200 simulated
networks

=> Multiplex not worse than classic RDS

Feehan Dennis and Casey Been (2019), "A multiplex RDS for abortion? Assessing the potential of the Respondent-Driven Sampling to study abortion safety in restrictive contexts using statistical modelling and simulation studies", UC Berkeley / WHO: research report, January 15th, 2019

Next steps

- Fieldwork starts in February 2020
- Stay tuned!