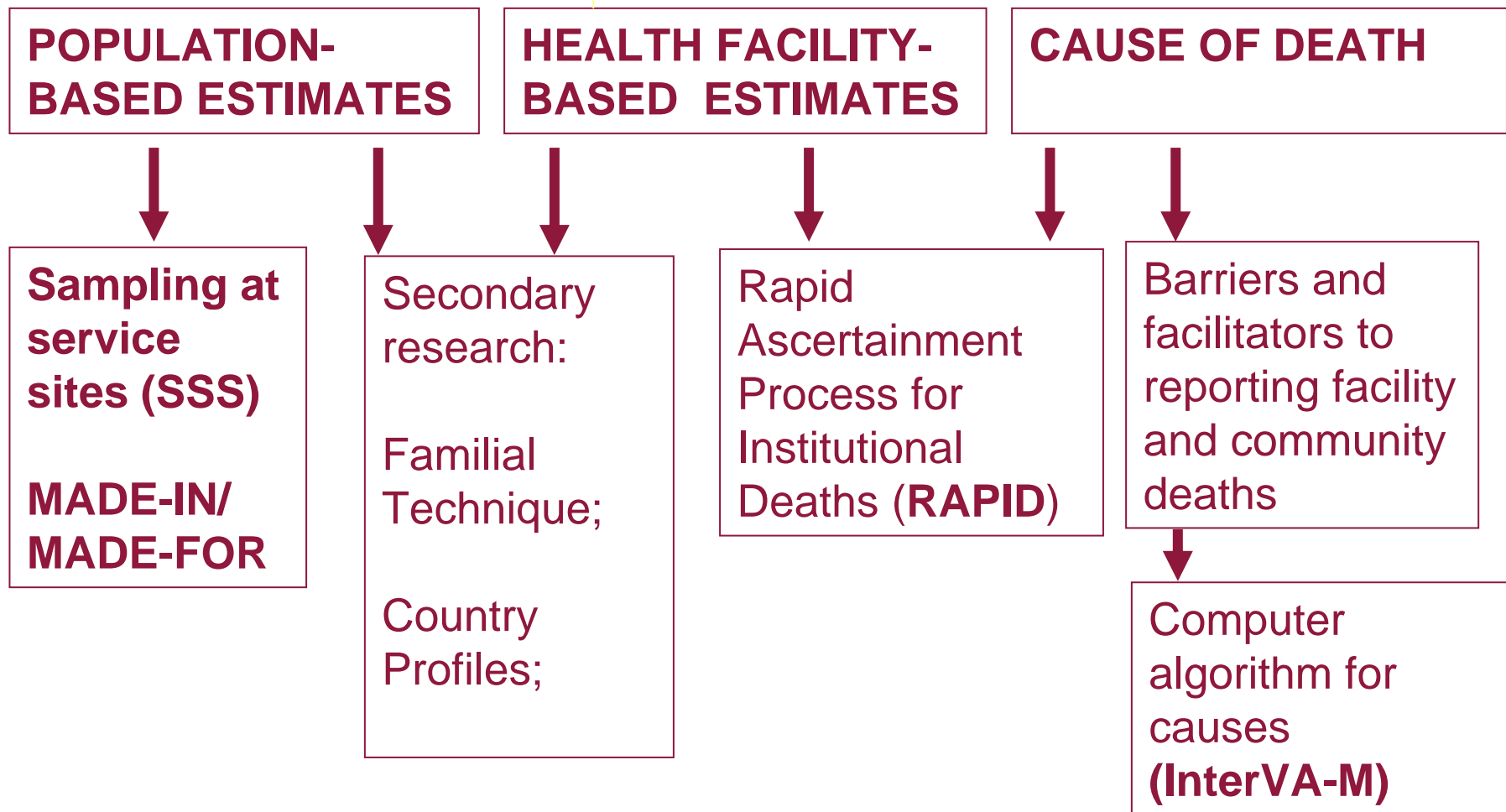


Impact is the
global research
initiative for
maternal mortality
programme
assessment

www.impact-international.org



Impact research on measuring maternal mortality





Monitoring maternal mortality using Sampling at Service Sites

Wendy J Graham
- on behalf of the
Maternal Mortality
team



Why develop a new approach?

- 1. Requirements of Impact evaluations:**
 - Sub-national estimates of maternal mortality
 - Logistical and capacity considerations
 - Timely estimates
 - Large number of women years of risk exposure for robust comparisons (over time, between areas)

- 2. Lack of suitable existing source or method to meet these requirements!**

Conventional surveys take the data capture process to the respondents – usually their household.



Innovation – let the respondents come to survey!



Innovation in
sampling,
hence called:

**Sampling at
Service Sites
(SSS)**



Sampling at Service Sites: opportunistic or non-probability sampling

Choice of sampling sites:

- high numbers of potential respondents (women of reproductive age);
- suitable setting for conducting interviews;
- socio-economic profile of respondents similar to community.



Questions asked: characteristics of respondent & deaths to sisters (direct sisterhood method)



Selection bias of respondents can be assessed with data from existing population surveys e.g. DHS

Six field trials

Where		Type of sampling site	No. of respondents
Ghana	6 districts, Central Region	10 MCH clinics*	5993
Indonesia	2 districts, Banten Province	7 MCH clinics	2958
Burkina Faso	Houndé District	7 MCH clinics	2235
Ghana	6 districts, Central Region	9 MCH clinics	5348
Burkina Faso	Houndé District	32 market places	5020
Burkina Faso	Ouargaye District	39 market places	16606

* Clinics at District hospitals & health centres

Full field trial in Ouargaye District, Burkina Faso: June 2006

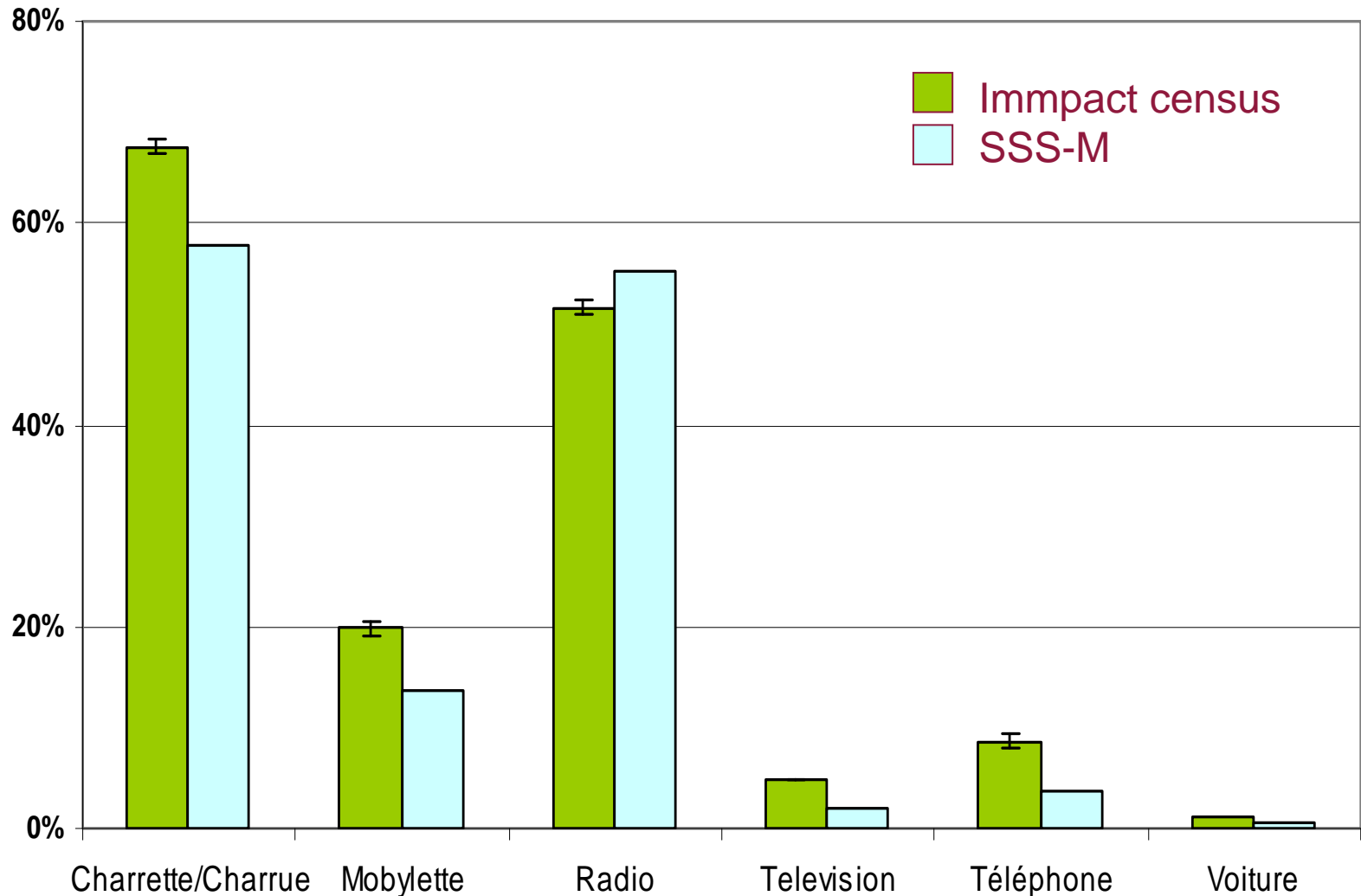


Validation opportunity:
compare SSS-markets
(SSS-M) with full
enumeration (census) by
Impact – asking about
deaths in household &
sisters deaths

- Five weeks, 39 markets in Ouargaye, 20 data collectors & 4 supervisors, 31 days, using PDAs
- 16,606 female respondents aged 15-49 years, reporting 24,350 adult sisters

Asset ownership in SSS-M population compared to Immpact census data

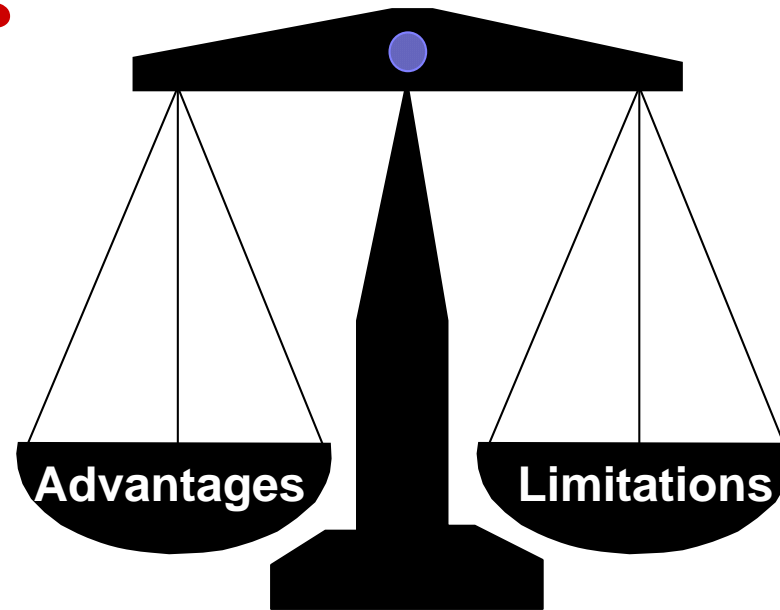
% respondents with assets



Comparison of Burkina Faso results

	Maternal Mortality Ratio (maternal deaths per 100,00 live birth)	% maternal deaths among all deaths to women of reproductive age
SSS-M (Ouargaye; 2003/04)	397 (254 - 540)	23.0%
Impact census: maternal deaths in household (Ouargaye; 2003/04)	353 (295-411)	24.1%
DHS (National; 1999)	484	22.3%

Valuing Sampling at Service Sites: the trade-offs



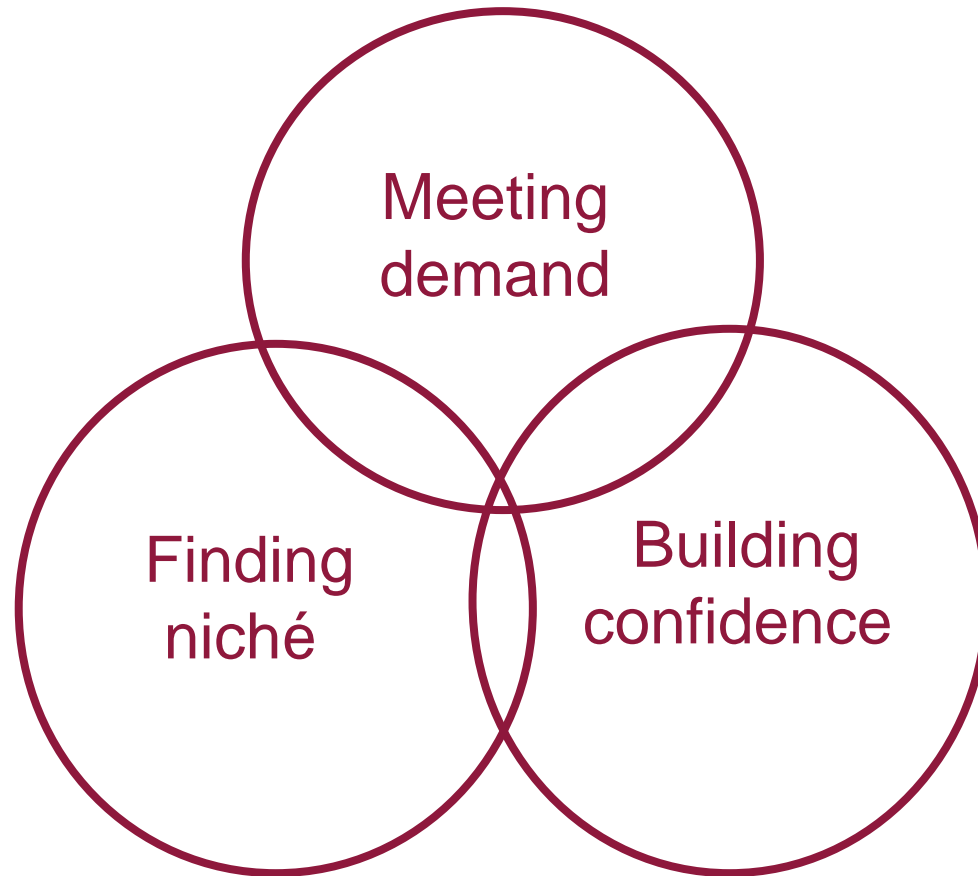
- Enables large samples
- Ease of field logistics
- Local level application
- Choose sampling sites
- Low-ish cost \$3-4/respondent

- Potential bias
- Needs dedicated activity
- Limited questions
- Sisterhood method drawbacks (e.g. migration)

Comparative efficiency of methods

	Community -based informants: Indonesia	SSS Ghana: Health Facilities	SSS Burkina Faso: Markets
Survey effort (interviewer-weeks)	830	170	130
Women covered	758,000	21,500	24,900
Deaths detected	474	93	99
Deaths per survey effort	0.57	0.55	0.76

Where next for SSS?



Call for collaboration

Immpect would like to form a collaborative network to further develop SSS.

Possible developments include:

- “Validating” MM estimates
- Applying SSS to other outcomes
- Testing other sampling sites
- Evaluating field efficiencies
- Asking additional questions
- Institutionalising SSS in HMIS



For further information or discussion, please contact: **Jacqueline Bell**, Immpect, University of Aberdeen (j.bell@abdn.ac.uk)



With thanks to Maternal Mortality team
& collaborating countries

www.maternal-mortality-measurement.org

www.impact-international.org

