MHM for Schoolgirls in India

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On behalf of:

Tata Institute of Social Sciences, Mumbai

UNICEF WASH in Schools Programme, India

Liverpool School of Tropical Medicine and partners

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Researchers and collaborative team

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UNICEF India - Mamita Bora Thakkar, Arun Dobhal, Yusuf Kabir, Pratibha Singh, Aruna Rathnam, Bharathy Tahaliani, Ram Chandra Singh, Sandeep Tendolkar, Suzanne Coates

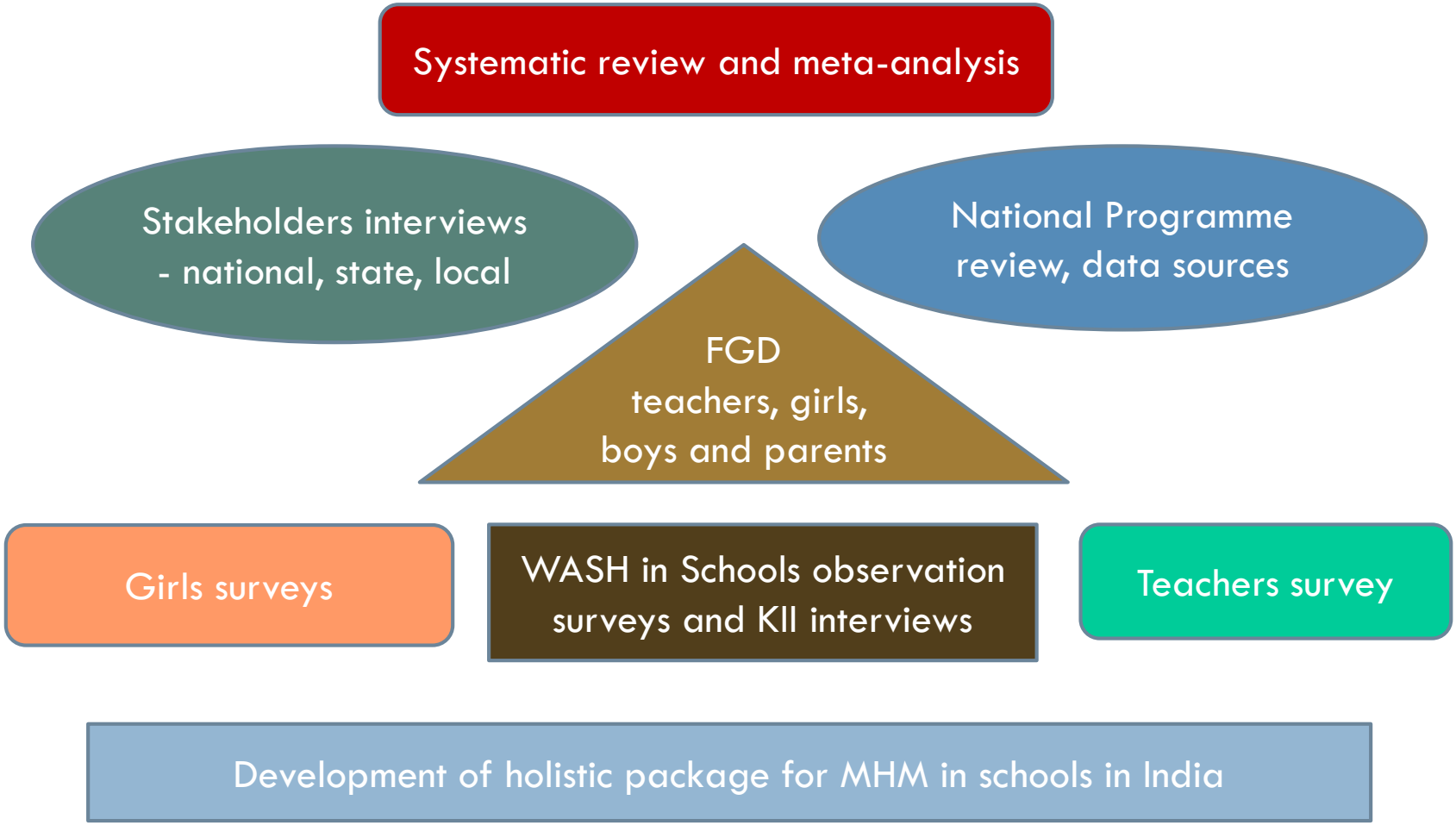
LSTM and partners - Annemieke van Eijk, Kayla Laserson, Kelly Alexander, Ashley Bauman, Linda Mason, Gibby Koshy, Penelope Phillips-Howard

Other stakeholders and partners - National, state and local ministry officials, international and local aid agencies, NGOs, other agencies

MHM for Schoolgirls in India

- Background
  - Range of MHM problems affect girls comfort, safety, dignity
  - Studies report restrictions, absence, use unhygienic cloths
  - Past research – large array, limitation on methods
  - GoI (4 ministries) – toilets in school, knowledge and healthy practices, access to 'absorbents', disposal systems
- Objectives of research project
  - Understand the barriers and challenges of MHM and WASH faced by schoolgirls in India, and
  - Use the generated to develop a holistic package for MHM in schools for scale-up across India

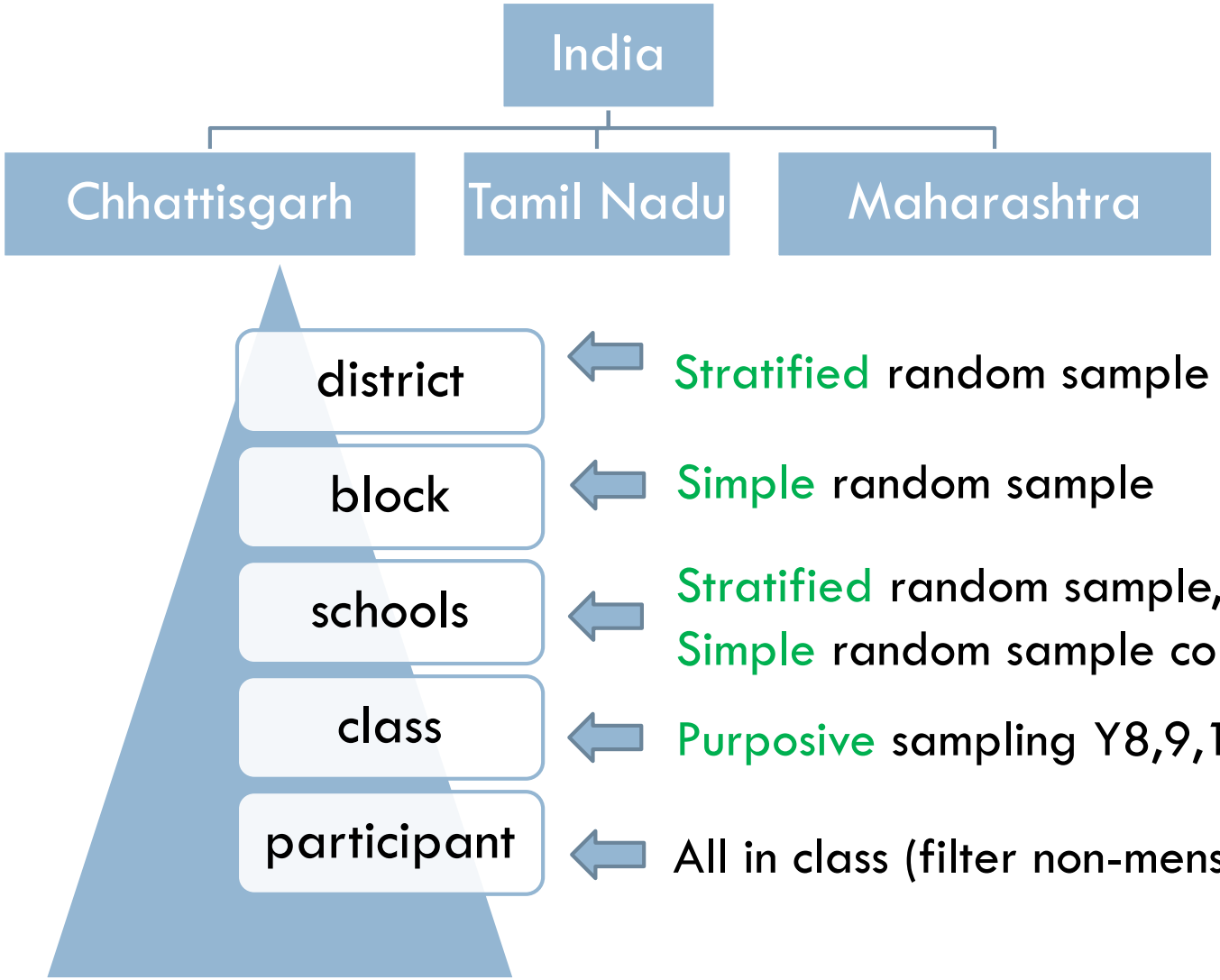
MHM for Schoolgirls in India



Timelines for research to support MHM for Indian schoolgirls: Nov 2014 to Oct 2015

	1	2	3	4	5	6	7	8	9	10	11	12
Contracts, partners, roles	X	X										
Share data, tools, literature	X	X	X	X	X	X						
Protocol, tools, translations	X	X			X		X					
Protocol for ethics reviews		X	X	X	X							
Systematic review, analysis		X	X	X	X	X	X	X			X	X
Inception report					X							
Ethical, field approvals					X	X	X					
Random sampling, schools					X	X	X			X		
Training, field preparations						X	X	X				
Field research								X	X	X	X	X

Random sampling for field surveys, 3 Indian states



Purposive sampling to represent India: geographically, demographically

Stratified random sample - exclude cities

Simple random sample

Stratified random sample, best practice y/n
Simple random sample co-eds, plus all girls

Purposive sampling Y8,9,10

All in class (filter non-menstruating in analysis)

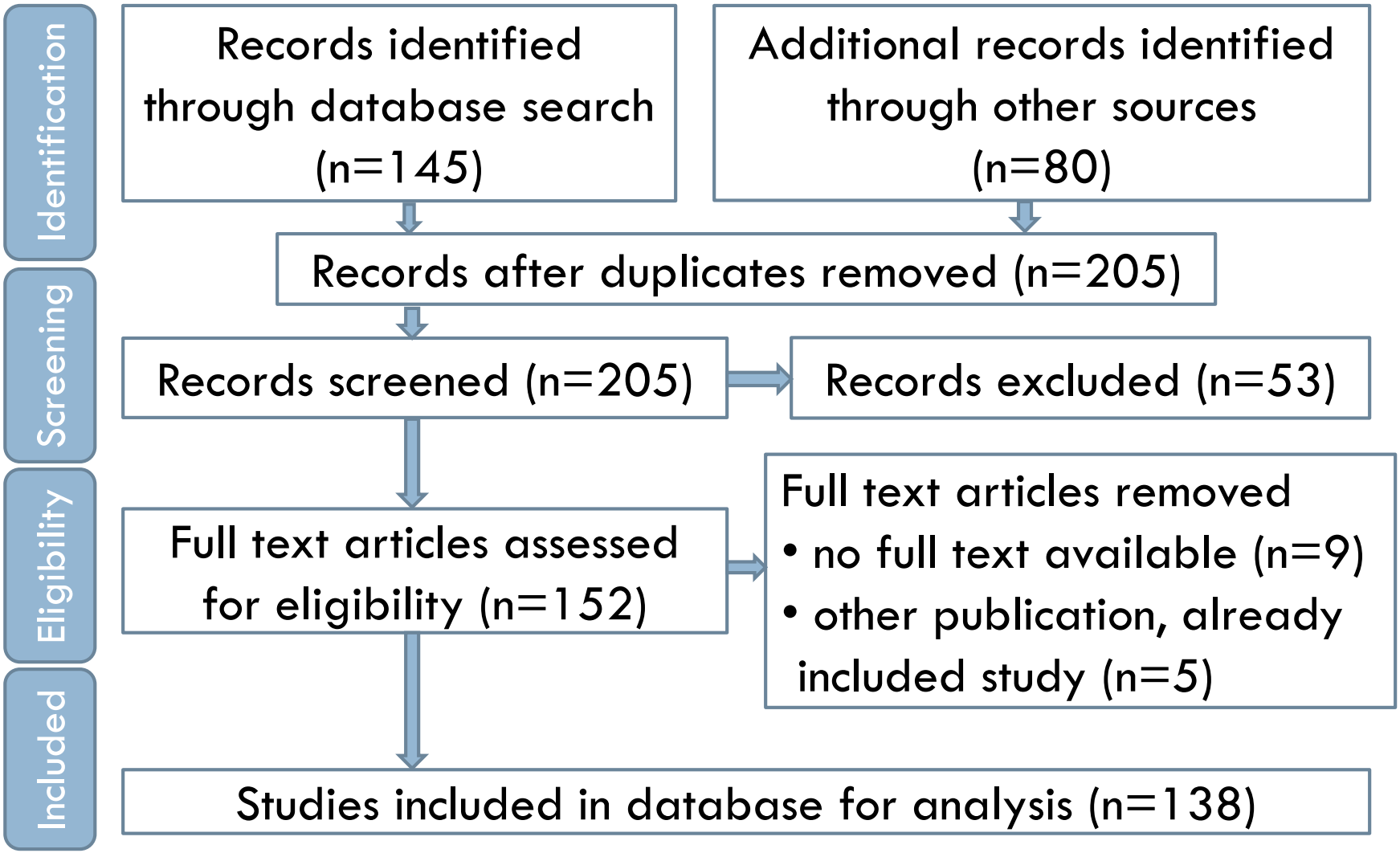
Field data generated to date from 3 Indian states

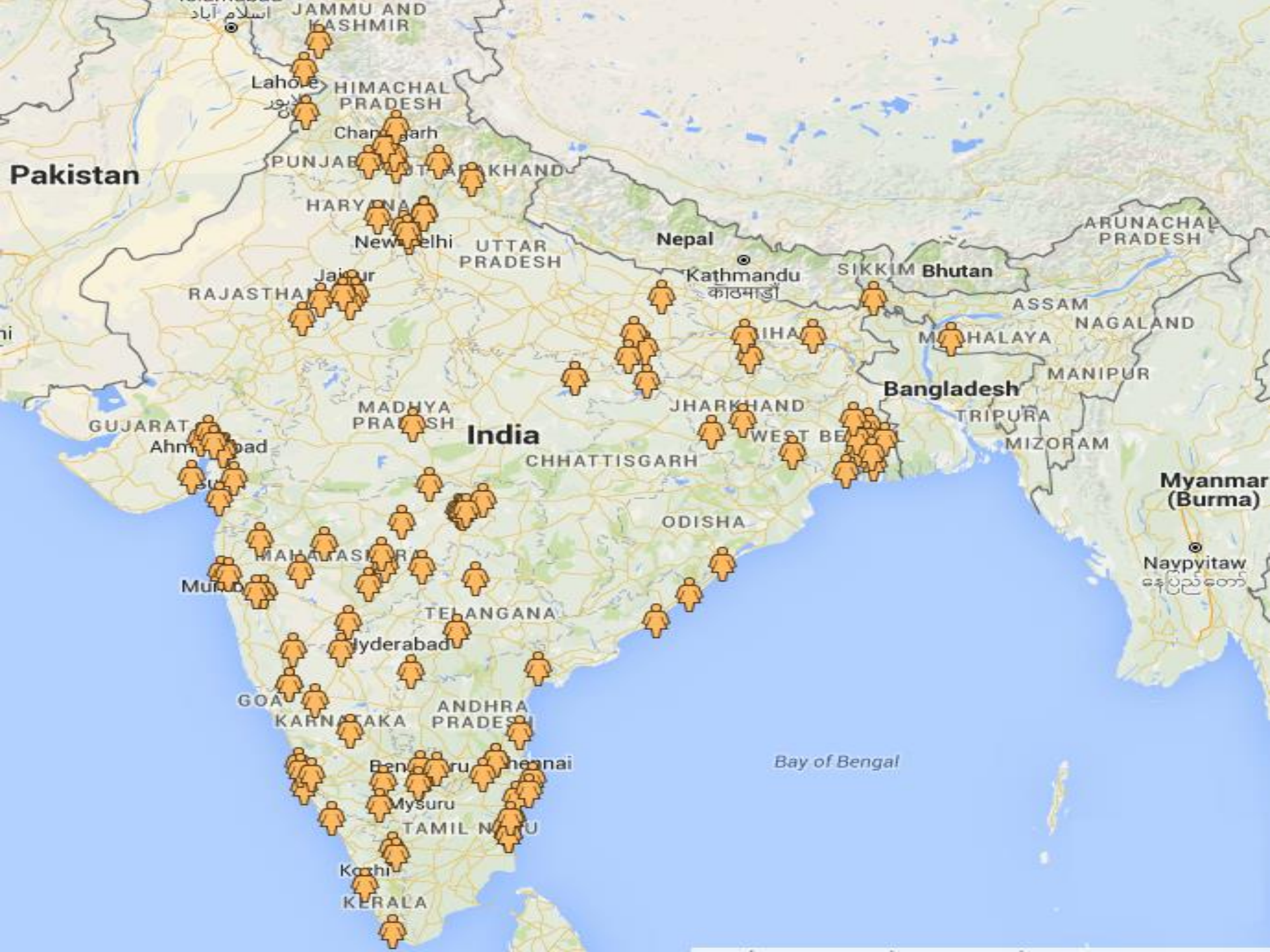
	3 States	B Practice	Total	Planned
Questionnaires girls	2884	717	3601	2000
Teachers surveys	242	43	285	200
WinS observations	50	10	60	27
KII WinS/MHM	50	10	60	27
FGD girls	10	6	16	19
FGD teachers	7	4	11	10
FGD boys	6	1	7	10
FGD parents	5	3	8	10
Stakeholders	34	8	42+12	50

Systematic Review and Meta-analysis: Literature search methods

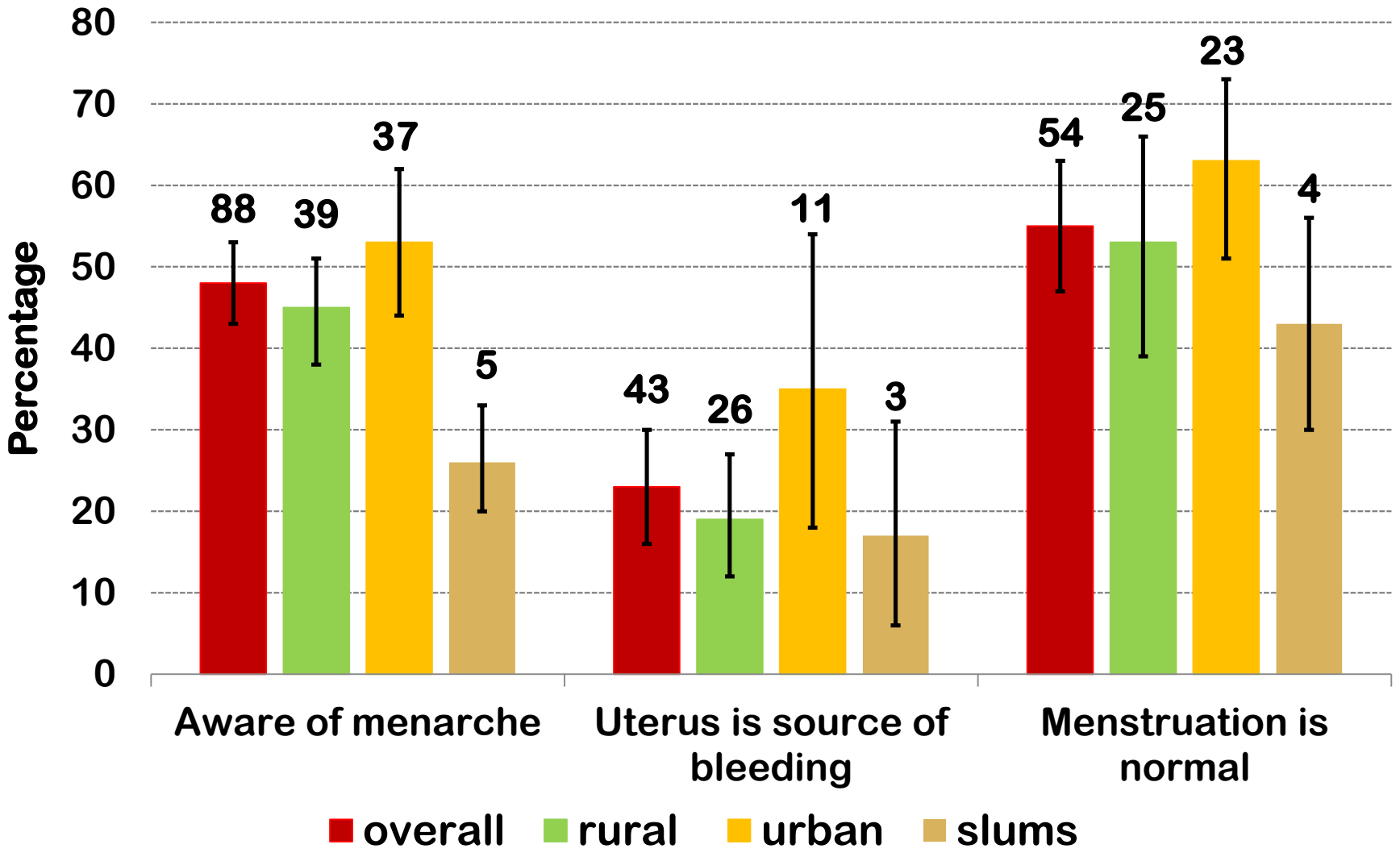
	Framework PUBMED	Search terms	Number of articles
P	Population	(adolescent OR adolescence OR puberty OR peer OR school)	P: 3,922,974
I	Intervention or condition	AND (Menstruation OR menstrual OR menses)	I: 20,899 P+I: 16382
C	Control	-	
O	Outcome	AND (hygiene OR hygienically OR sanitation OR sanitary)	O: 112,907 P+I+O: 397
T	Timing	AND ("2000/01/01"[PDat] : "2015/01/31"[PDat])	P+I+O+T: 32
S	Setting	AND India	S: 252,289 P+I+O+T+S: 24

Flow chart: Systematic review of MHM studies in India, published between 2000- 2015




JAMMU AND KASHMIR
HIMACHAL PRADESH
Pakistan
PUNJAB
HARYANA
UTTAR PRADESH
Nepal
Kathmandu
काठमाडौं
SIKKIM
Bhutan
ARUNACHAL PRADESH
ASSAM
NAGALAND
MANIPUR
Bangladesh
TRIPURA
MIZORAM
RAJASTHAN
MADHYA PRADESH
India
JHARKHAND
GUJARAT
CHHATTISGARH
ODISHA
Myanmar (Burma)
Naypyitaw
TELANGANA
GOA
ANDHRA PRADESH
Bay of Bengal
Mysuru
TAMIL NADU
KERALA

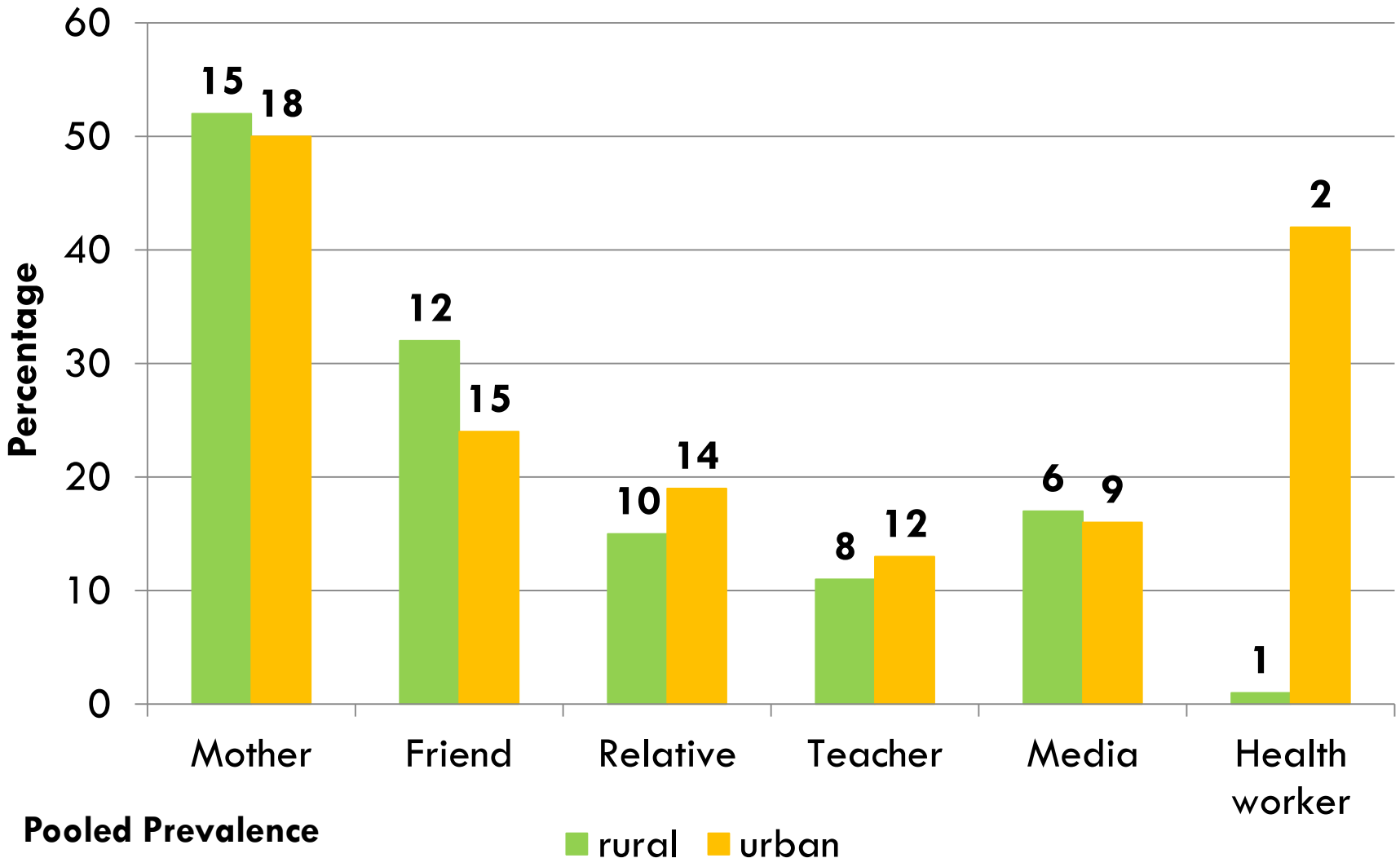
Girls menstrual awareness and knowledge in India



Pooled Prevalence and 95% CI

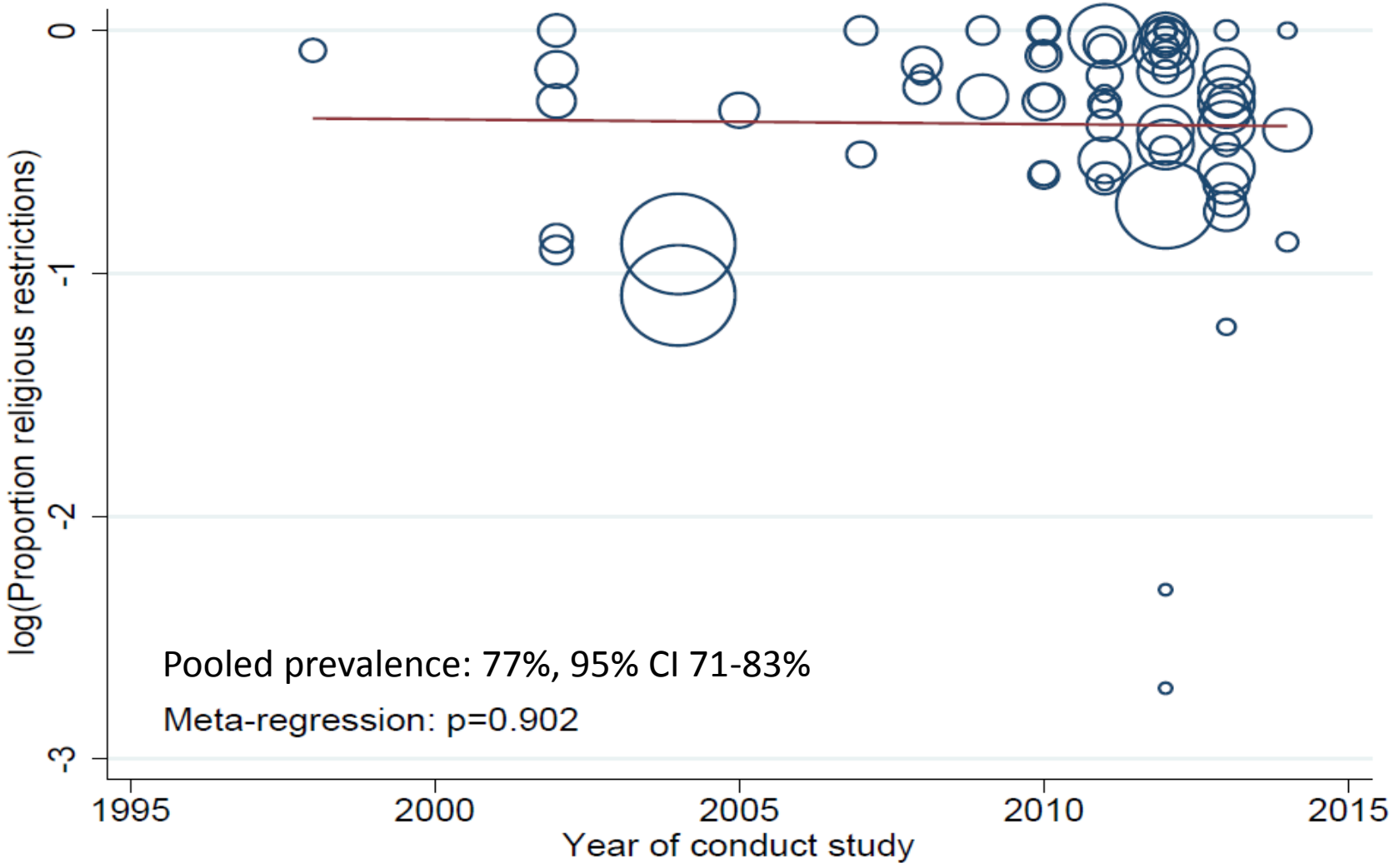
Number of studies contributing to the pooled estimate are above bars

Girls' sources of information on menarche in India



Number of studies contributing to pooled estimate above bars

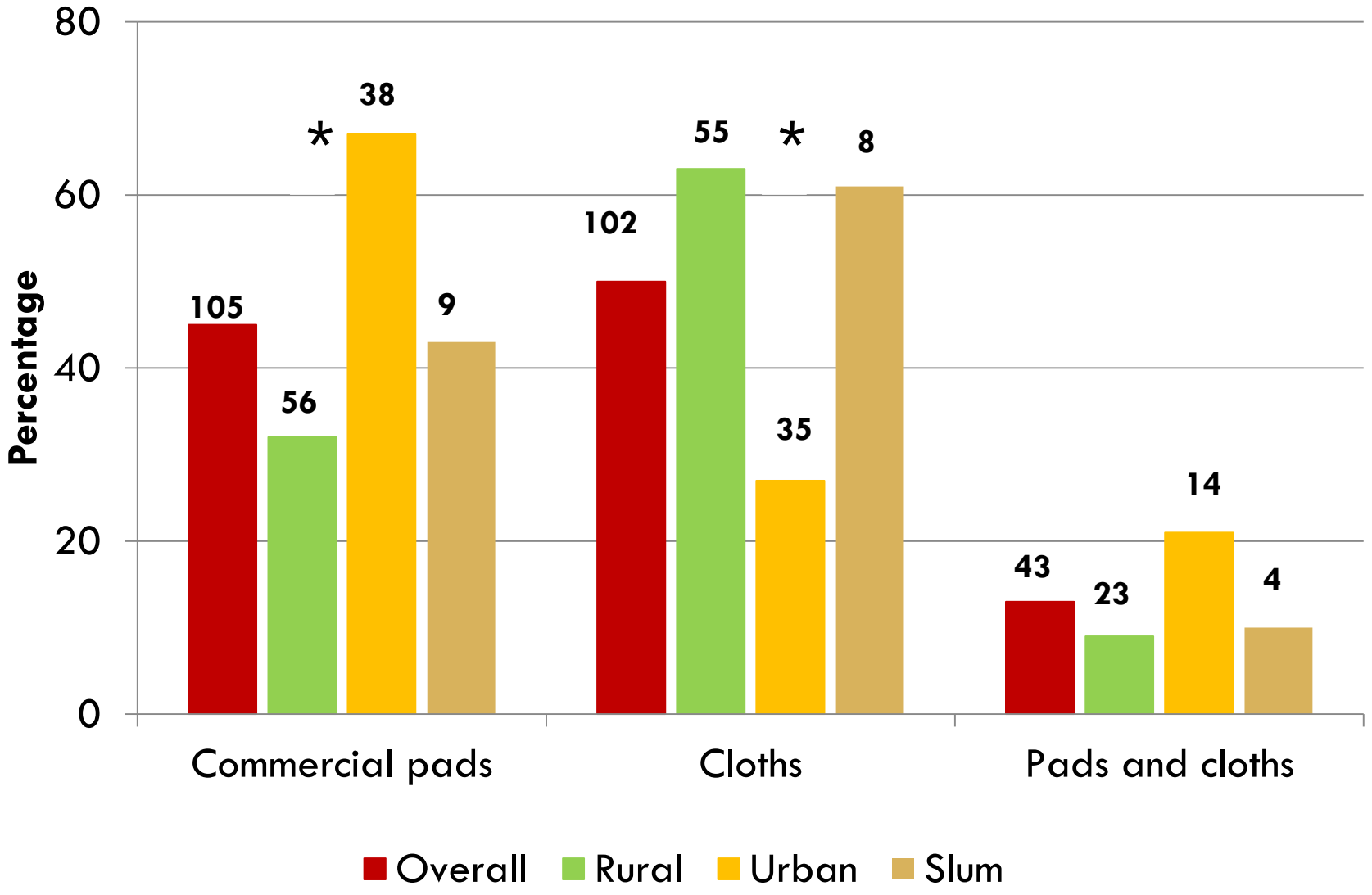
Meta-regression: Proportion of girls reporting religious menstrual restrictions over time in India



Source: Van Eijk AM, Sivakami M, Thakkar MB et al

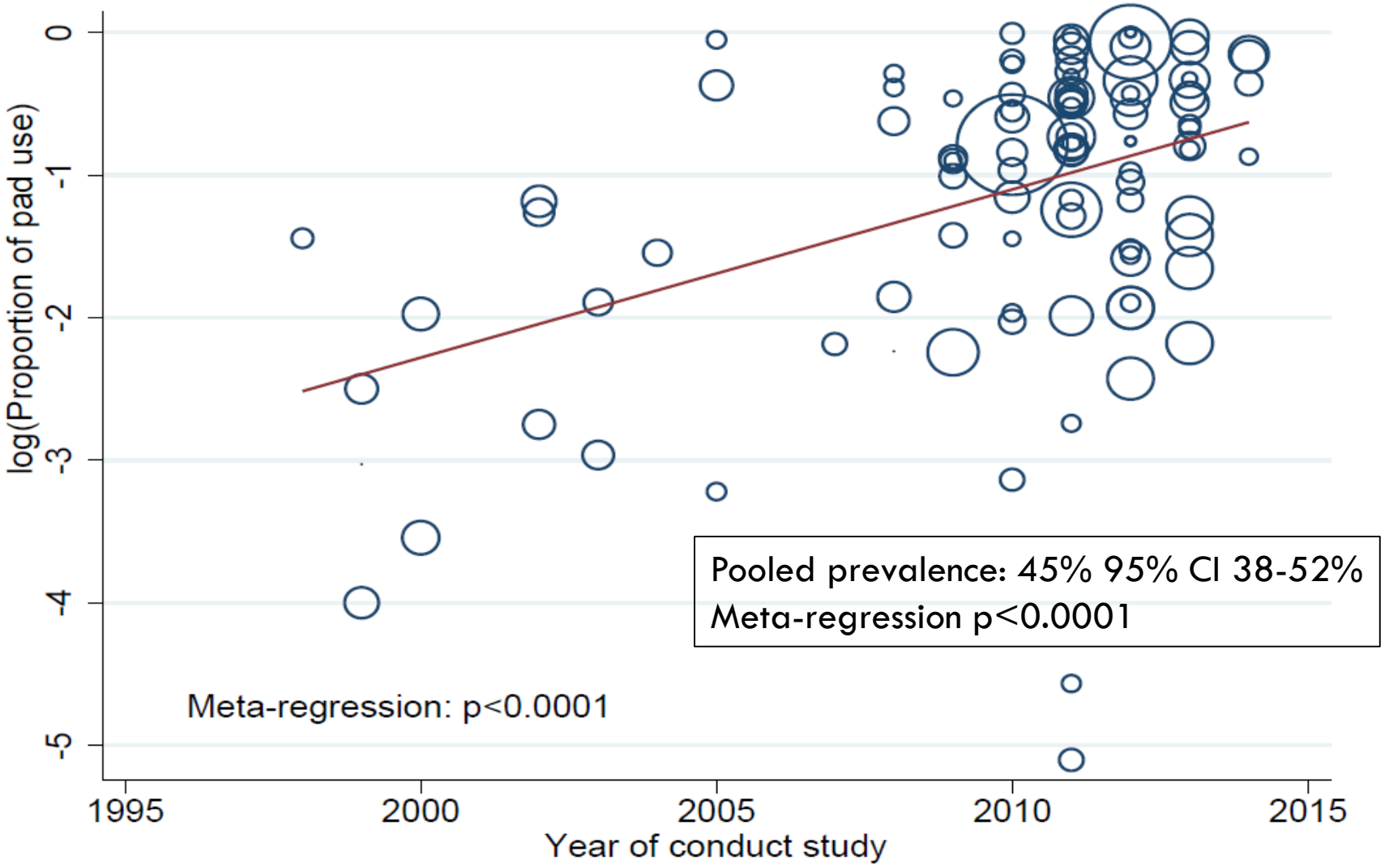
67 studies

Type of absorbents used by Indian adolescent girls



Number of studies contributing to pooled estimate above bar; *significance urban v rural area

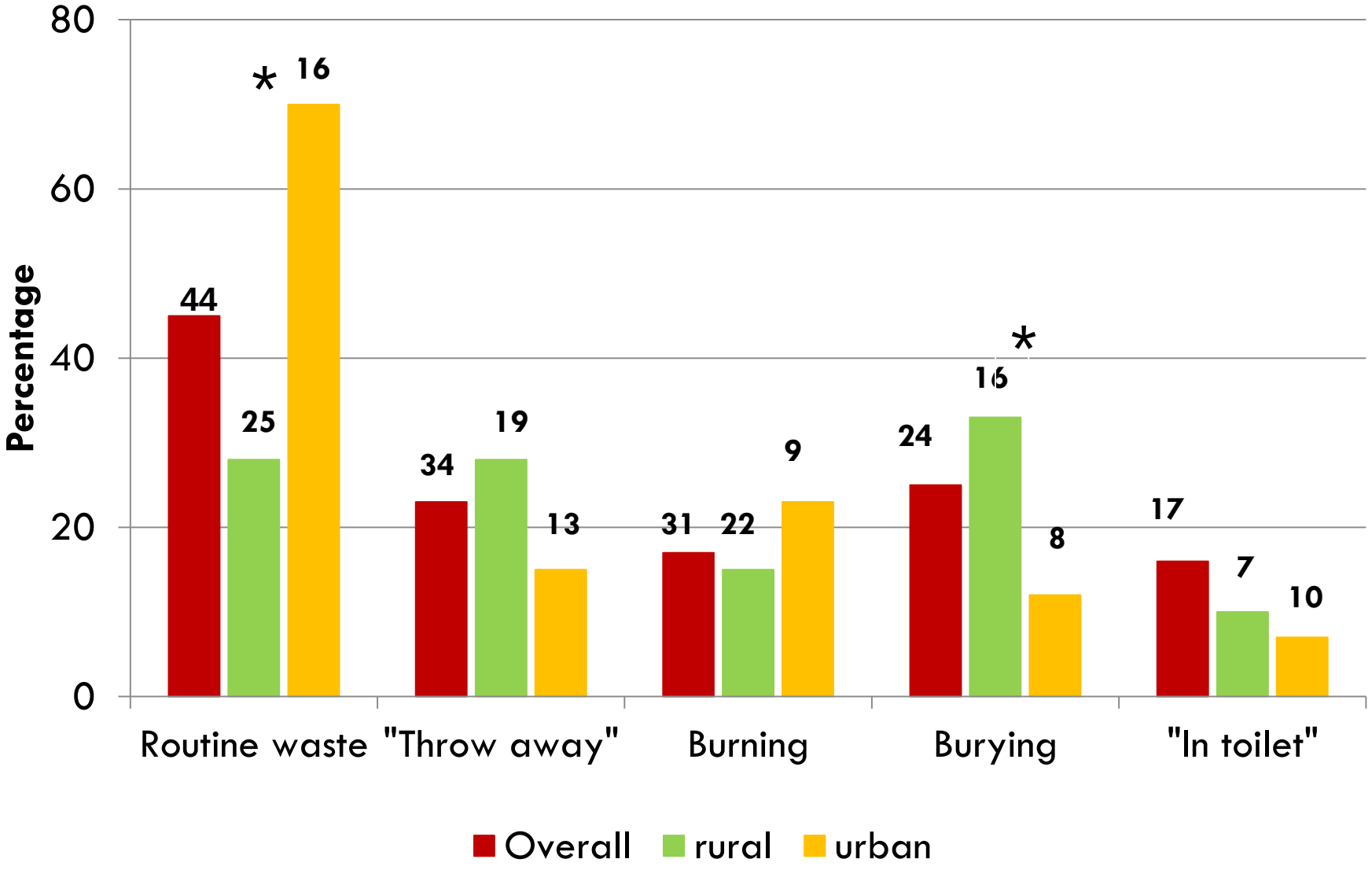
Meta-regression: use of sanitary napkins by adolescent girls in India over time



Source: Van Eijk AM, Sivakami M, Thakkar MB et al

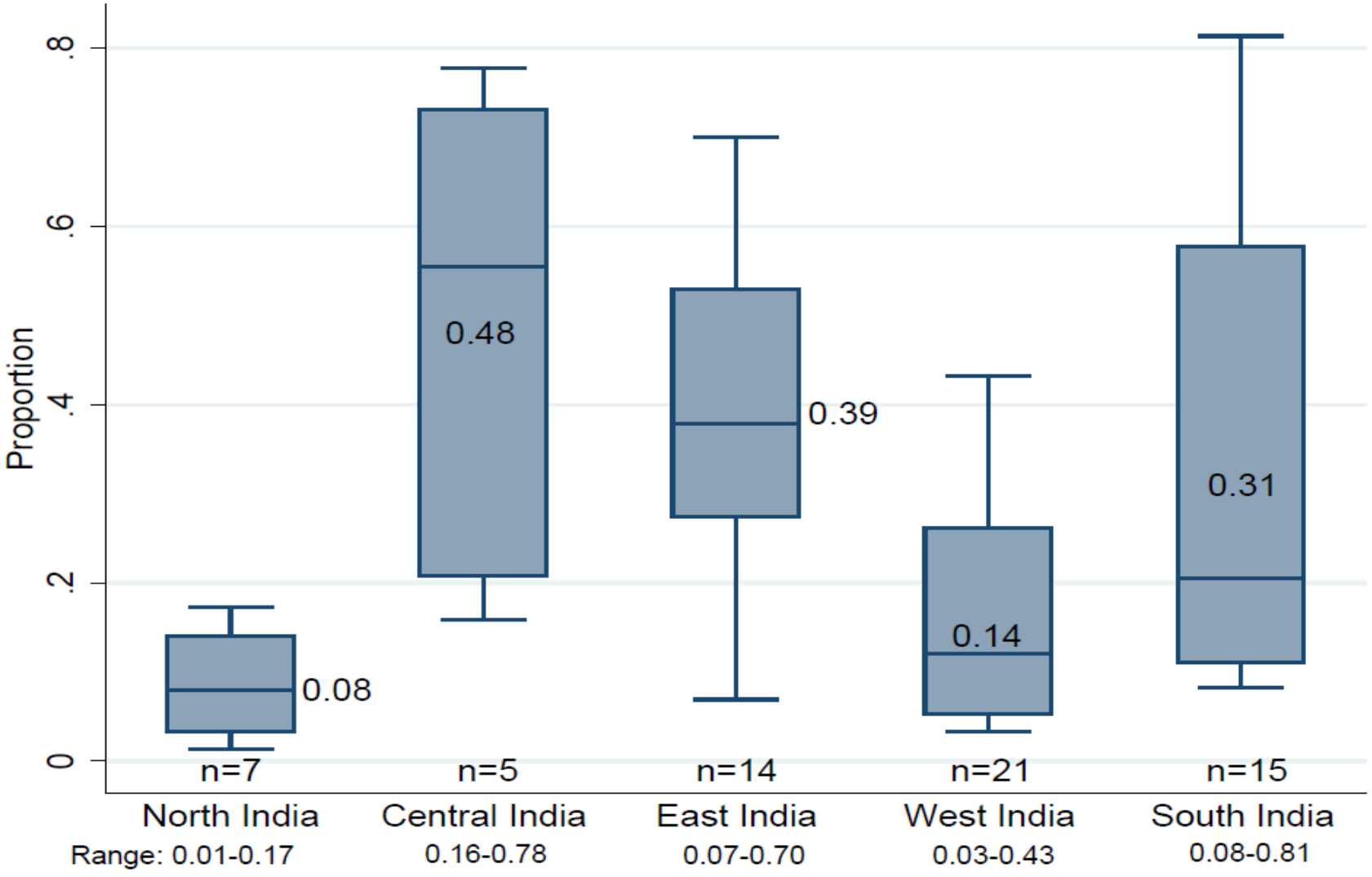
104 studies

Disposal of menstrual absorbents by girls in India



Number of studies contributing to pooled estimate above bar; *significance urban v rural area

Girls reported school absence by region in India

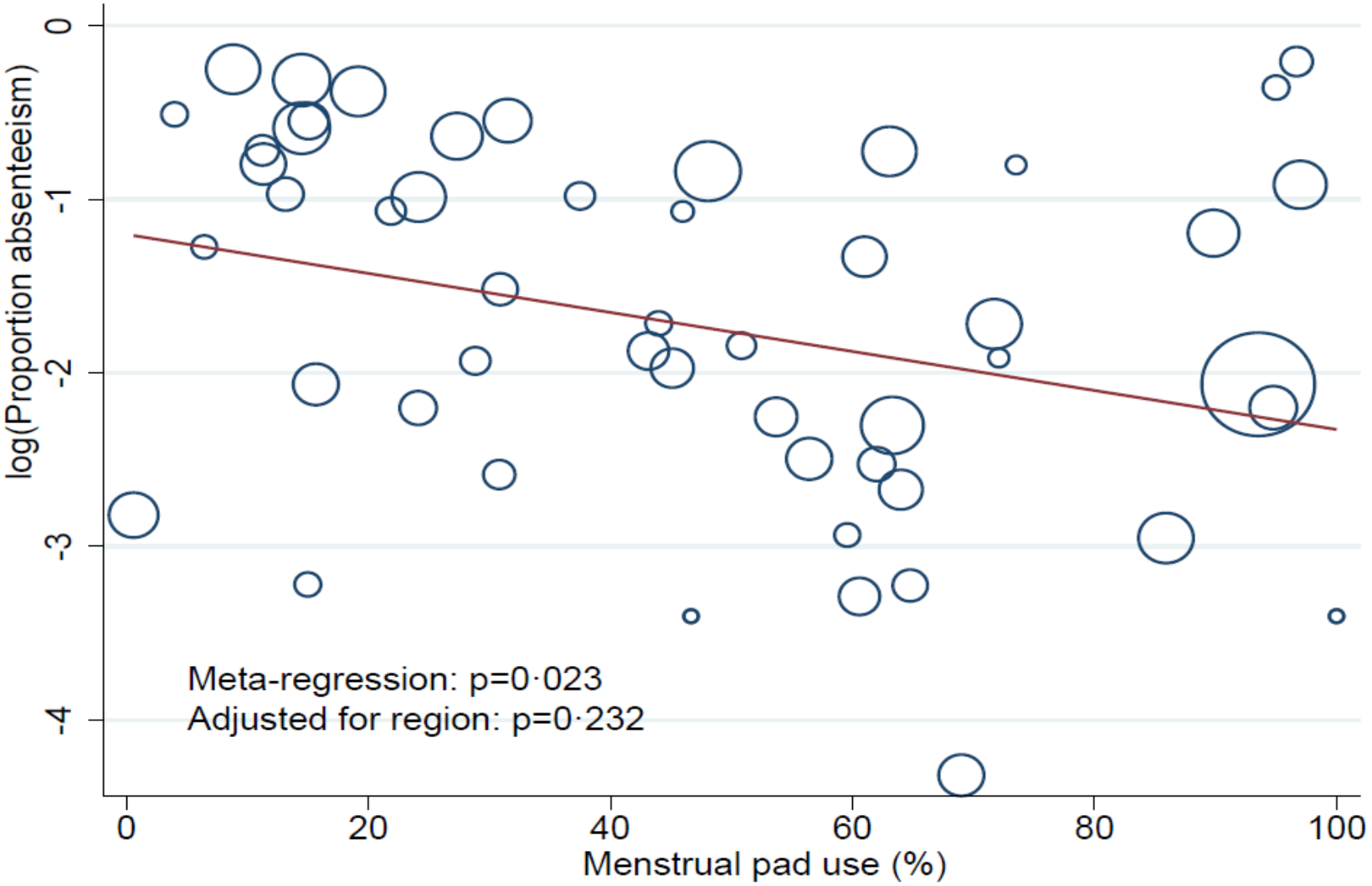


Pooled prevalence: 24%, 95% CI 19-30%

Source: Van Eijk AM, Sivakami M, Thakkar MB et al

64 studies

Meta-regression: Percent girls' school absence and menstrual pad/napkin use in India



Source: Van Eijk AM, Sivakami M, Thakkar MB et al

Importance of WinS – Proportion of girls who change menstrual items in school

	Number of studies	Proportion of girls	95% CI
TOTAL	**17**	**37%**	**29%-46%**
RURAL	**12**	**39%**	**30%-48%**
URBAN	**5**	**34%**	**15%-57%**

Relevance: (three international, one Indian study)

Two studies found direct association between absence and very dirty toilets - one showed separate girls toilets reduced absence, another showed better WASH in school reduced girls absence

Systematic review conclusions

- Half of girls unaware of menarche; restrictions still debilitating
- Mothers main source of information, rarely health workers
- One third of girls change in school- need to strengthen WinS
- Absence – pads association; likely other cofactors (WinS, SES)
- Need for hygienic absorbents - hygienic cloth not precluded
- Girls not aware of other options (i.e. tampons, menstrual cups)
- Disposal options for pads/ lacking but increasingly important
- Current programmes are very promising but studies show there is room for improvement, lack of convergence, gaps
- Field data required to fill gaps, inform holistic package

Opportunities and challenges to date

- Three partners – contribute knowledge and skillsets, each develop further expertise
- Differing commitments, priorities and expectations between collaborators need early clarity to minimise delays, inputs
- Unrealistic timeframe adds pressure – best not under-estimate requirement of different languages, ethical approval, clearance procedures, school timetables have on timelines
- True random selection results in representative samples but add to logistics – remote areas have safety and travel issues
- Adequate sampling affected by age of menarche – needed to double sample to ensure representation of menstruating girls