Hospital birth & health in Uttar Pradesh: Trends, challenges, and possible opportunities

Diane Coffey

UT Austin; ISI, Delhi; r.i.c.e

NIPFP's *New Thinking in Health Policy* conference

October, 2017

thanks to my collaborators

Nikhil Srivastav Payal Hathi
Baby Qureshi Dean Spears
Lovey Pant

early life health has lifelong consequences

early life health in India is worse than what economic indicators predict

country	NNM	fraction poor
India	**32**	**0.213**
Bangladesh	28	0.437
Haiti	27	0.539
Kenya	25	0.336

neonatal mortality and poverty ($1.90/day) in 2011

World Bank data

improving health in Uttar Pradesh is essential to improving health in India

improving health in Uttar Pradesh is essential to improving health in India

Uttar Pradesh accounts for approximately:

- 17 out of every 100 people in India (2011 Census)
- 21 out of every 100 births in India (2015 SRS & 2011 Census)

improving health in Uttar Pradesh is essential to improving health in India

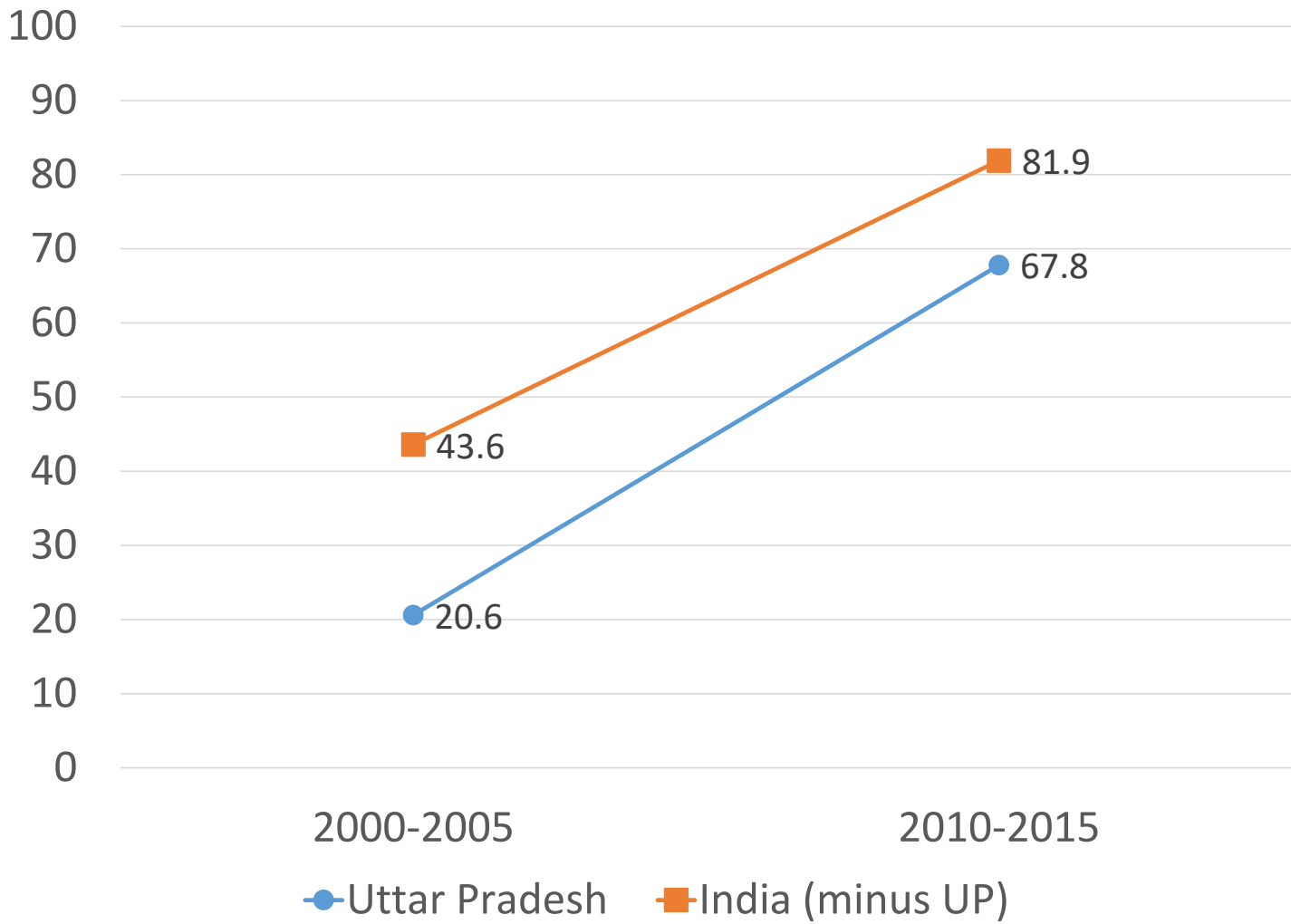
Uttar Pradesh accounts for approximately:

- 17 out of every 100 people in India (2011 Census)
- 21 out of every 100 births in India (2015 SRS & 2011 Census)

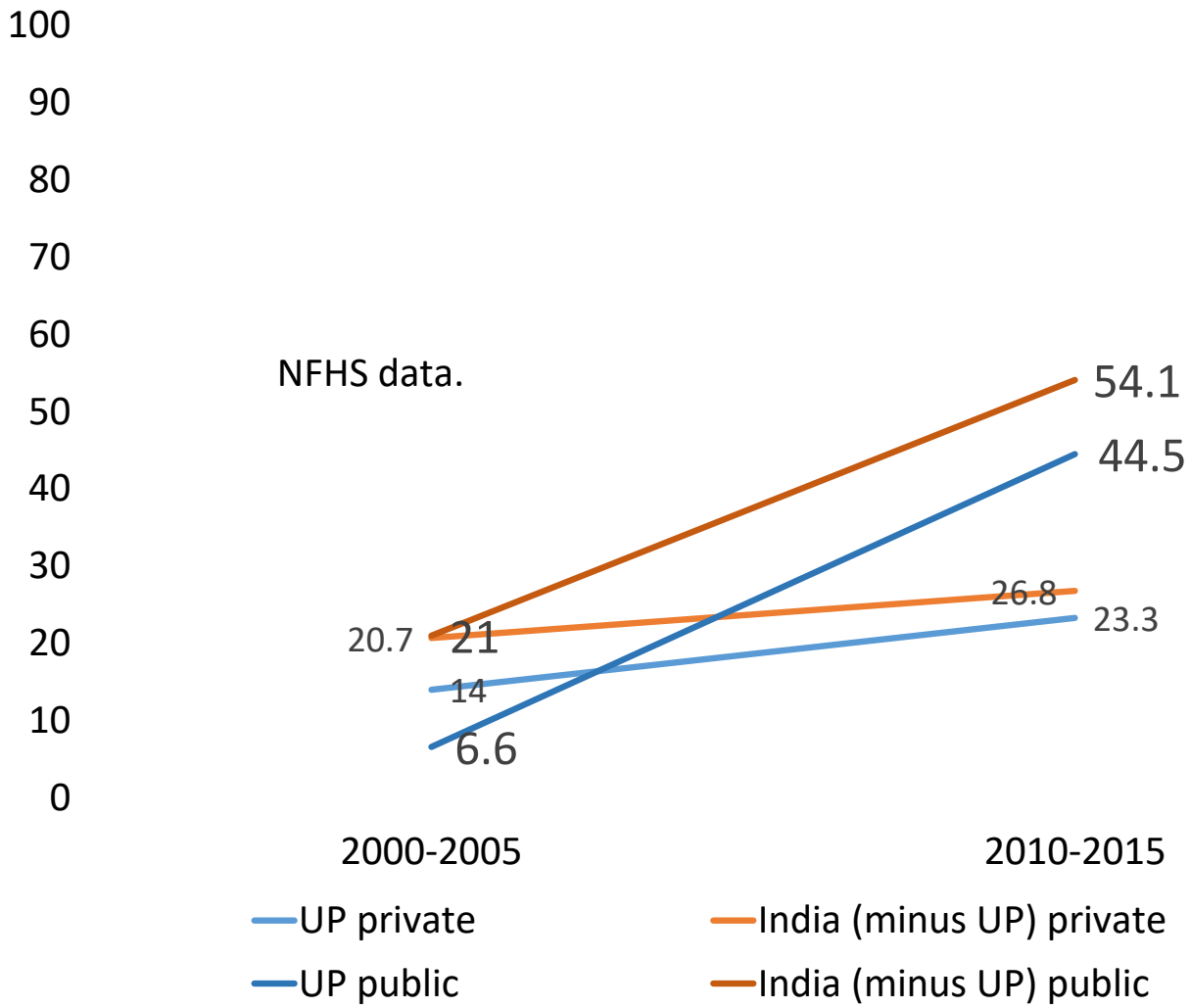
- 32 out of every 100 neonatal deaths in India* (2009-11 AHS, 2011 Census, 2010 SRS)
- 35 out of every 100 maternal deaths in India (2011 Census, 2010-2012 SRS)

promoting hospital birth has been UP's main policy tool for addressing poor early life health in recent years

hospital births in UP have increased even faster than in the rest of India



increases have primarily been in public hospitals



Has this rapid increase in birth in public hospitals resulted in better health?

Neonatal mortality (NNM) in UP would be the key measure in which to look for a resulting improvement in health...

NNM would be more useful than IMR for understanding JSY's performance because it is more sensitive to hospital care at birth.

. . . so I wish I could show you data on NNM, but it does not exist.

Nobody knows? That is surprising!

So let's take a detour.

Some organizations make claims about how much NNM there is in UP, but these disagree and do not reflect credible sources

- Two different government data sources make very different claims about levels and trends in NNM in UP.
- One of the most reliable health data sources (NFHS 4) has not published NNM figures for India or for states.

Knowing whether NNM in UP is 40, or 45, or 50, or 55 matters

- If the AHS NNM (49) was right, UP accounted for 1 in 3 neonatal deaths in India in 2010.

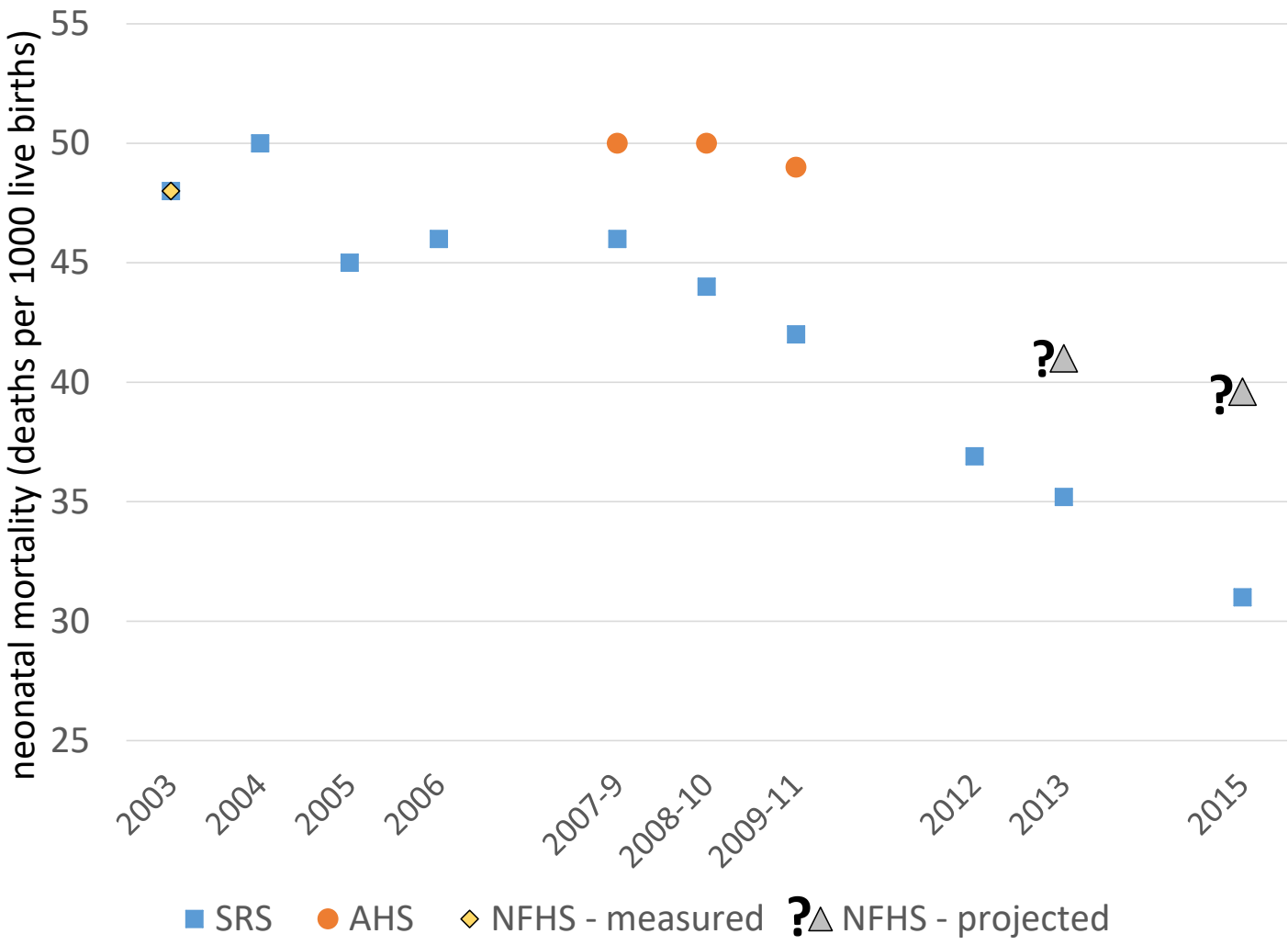
Knowing whether NNM in UP is 40, or 45, or 50, or 55 matters

- If the AHS NNM (49) was right, UP accounted for 1 in 3 neonatal deaths in India in 2010.
- If UP had been its own country in 2010, it would have had the 3rd highest NNM in the world – only Angola (53) and Pakistan (50) had higher NNM.

Knowing whether NNM in UP is 40, or 45, or 50, or 55 matters

- If the AHS NNM (49) was right, UP accounted for 1 in 3 neonatal deaths in India in 2010.
- If UP had been its own country in 2010, it would have had the 3rd highest NNM in the world – only Angola (53) and Pakistan (50) had higher NNM.
- The government is devoting a large share of NHM resources (5% of the NHM budget in 2016-17 is JSY) presumably to reduce NNM, but without measuring this outcome.

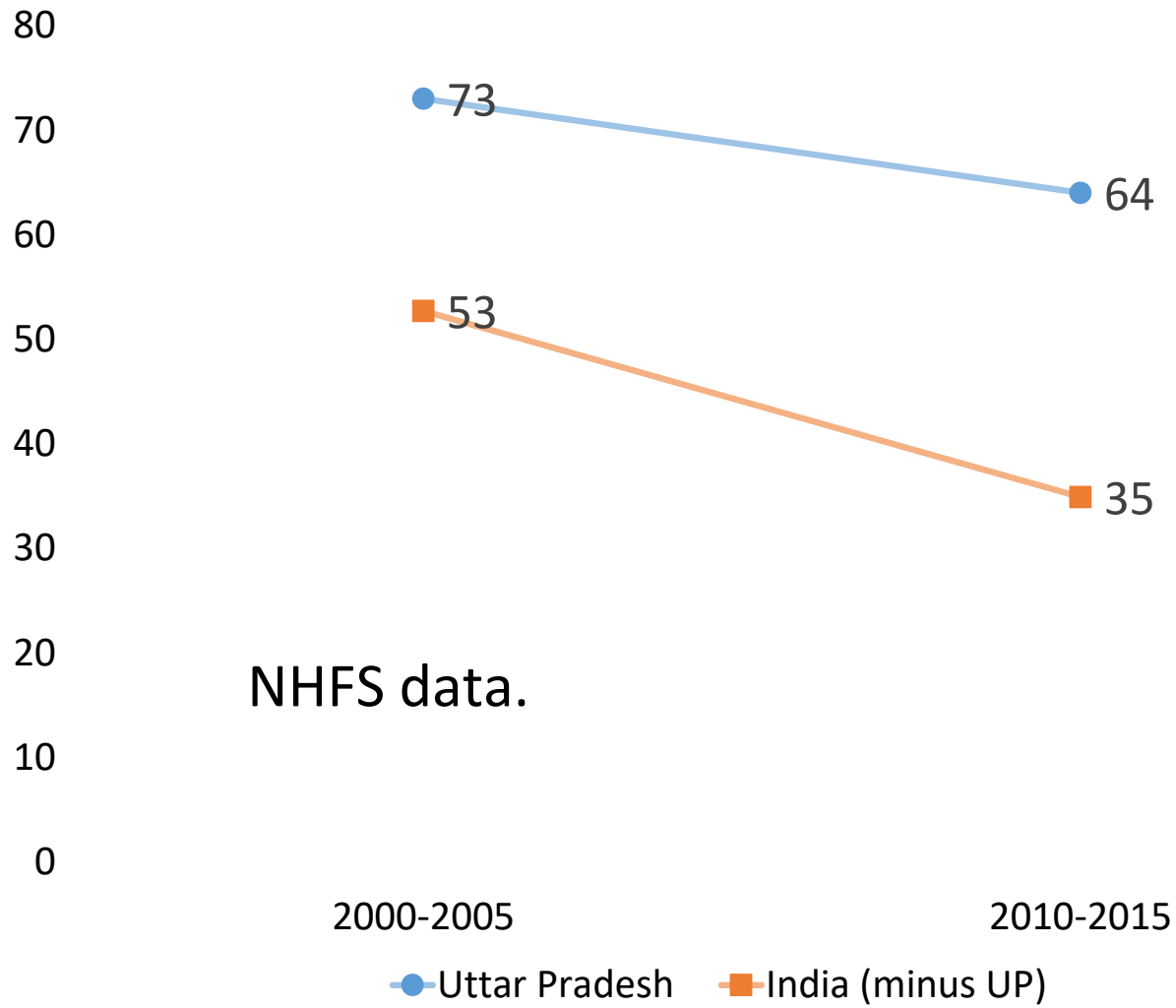
available data & a projection of NNM in Uttar Pradesh



back to the main road...

We'll have to learn what we can from IMR.

reduction in infant mortality has not been as fast in UP as the rest of India



reduction in infant mortality has been slower than in other "high-focus" states

	NFHS 3 2000-2005	NFHS 4 2010-2015	pp decline in IMR
Uttar Pradesh	**73**	**64**	**9**
Chattisgarh	71	54	17
Madhya Pradesh	69	51	18
Jharkhand	69	44	25
Assam	66	48	18
Rajasthan	65	41	24
Orissa	65	40	15
Bihar	61	48	13
Uttarkhand	42	40	2

This trend (and other studies) suggest that increasing hospital births in UP may not be doing as much as we would like to improve health.

This trend (and other studies) suggest that increasing hospital births in UP may not be doing as much as we would like to improve health.

This presentation draws on several years of qualitative and quantitative research in public maternity hospitals in UP to provide some ideas about why not.

Research questions:

Research questions:

What happens in public maternity hospitals in UP?

Research questions:

What happens in public maternity hospitals in UP?

Why hasn't the rapid increase in hospital births delivered rapid improvements in maternal and infant health?

Research questions:

What happens in public maternity hospitals in UP?

Why hasn't the rapid increase in hospital births delivered rapid improvements in maternal and infant health?

Between 2012 and 2017, we collected qualitative and quantitative data on birth in public hospitals, primarily in Sitapur and Lucknow, but also in Ambedkar Nagar, Faizabad, and Barabanki.

why hospitals aren't working: an overview

1. Perhaps most critically, promoting hospital birth does not prevent the most important cause of neonatal death.

why hospitals aren't working: an overview

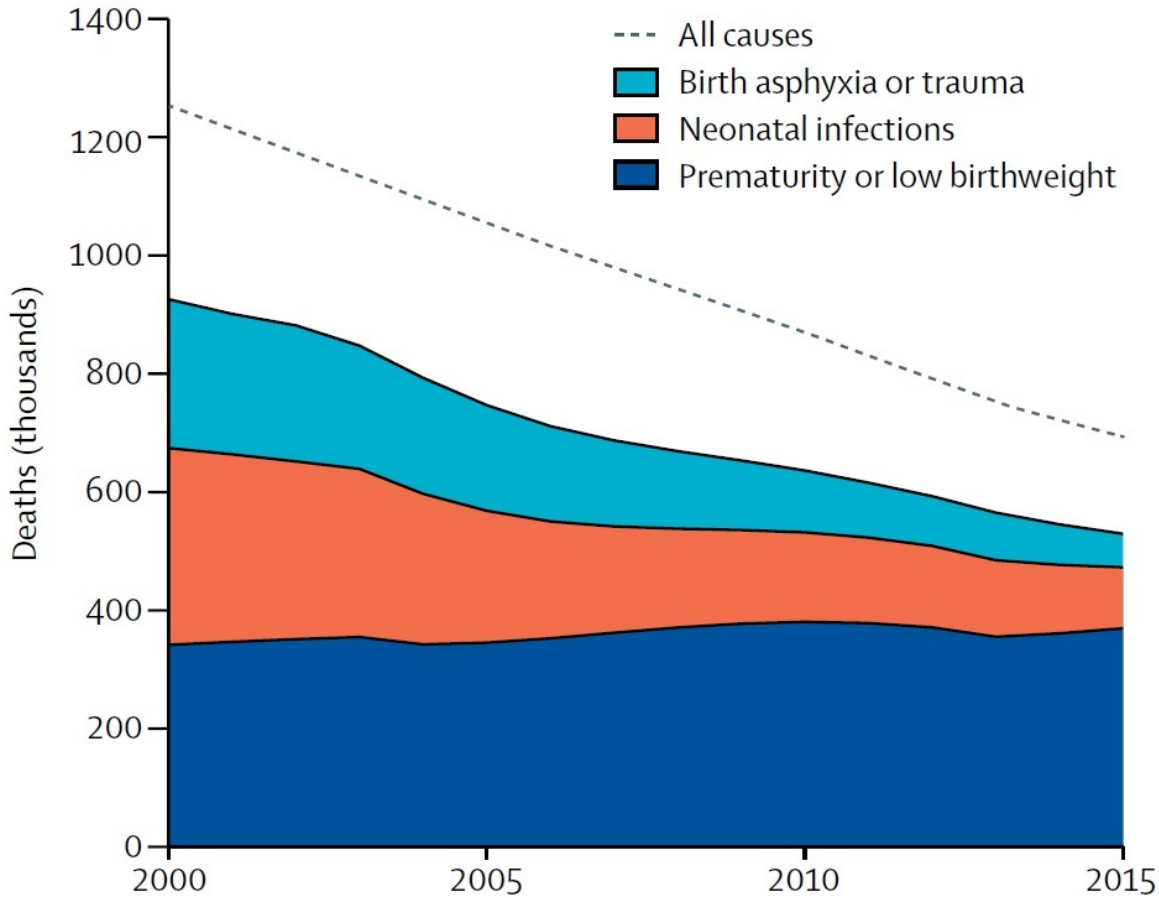
1. Perhaps most critically, promoting hospital birth does not prevent the most important cause of neonatal death.
2. Hospitals provide extremely poor quality delivery and postpartum care.

why hospitals aren't working: an overview

1. Perhaps most critically, promoting hospital birth does not prevent the most important cause of neonatal death.
2. Hospitals provide extremely poor quality delivery and postpartum care.
3. Hospitals provide little to no care for vulnerable (esp. LBW) newborns, and no counseling to improve home-based care.

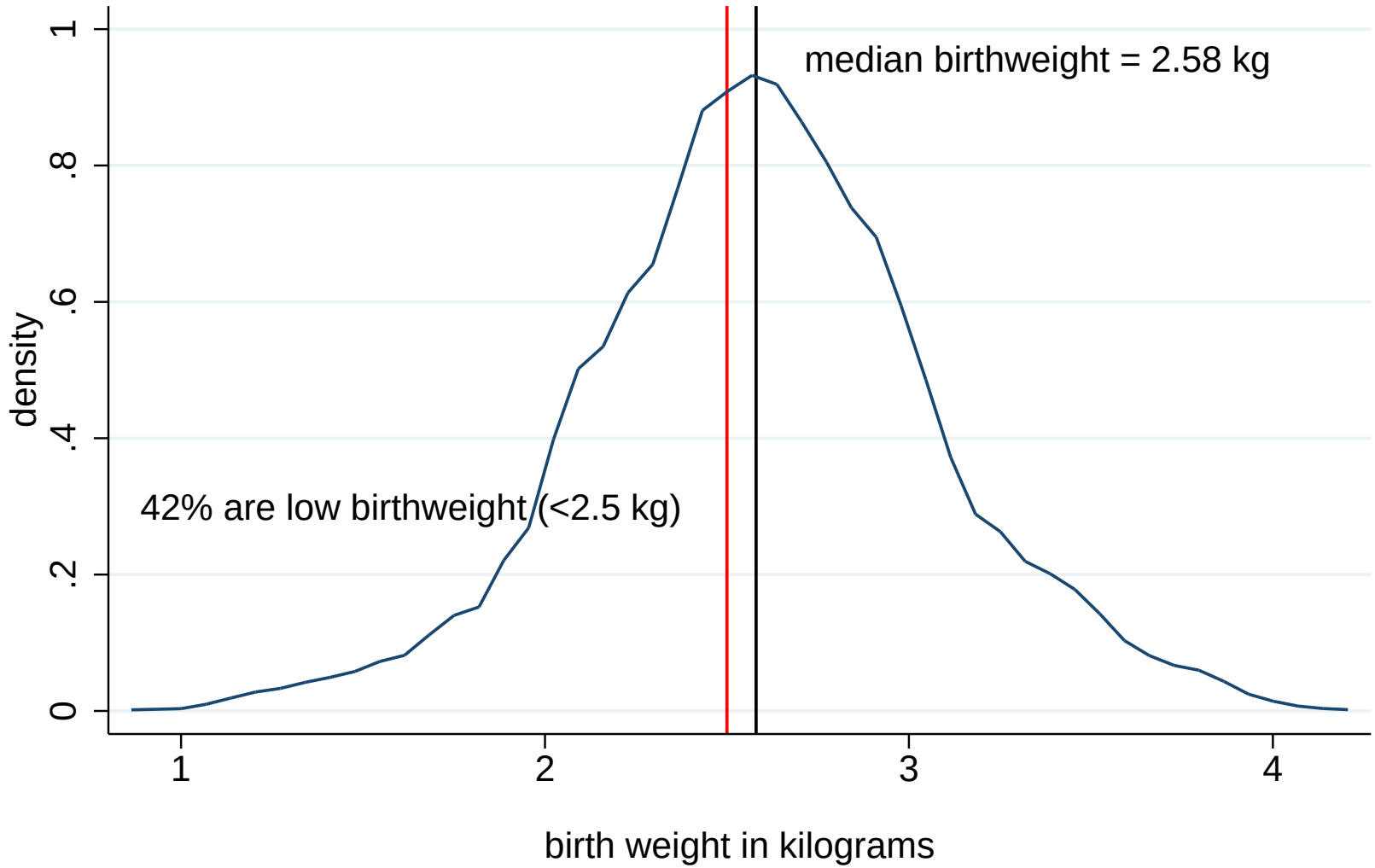
1. hospital birth does not prevent the most important cause of NNM

causes of neonatal death between 2000 and 2015 in the Million Deaths Study



The chart is Figure 2A of "Million Death Study Collaborators. (2017). 'Changes in cause-specific neonatal and 159-month child mortality in India from 2000 to 2015: a nationally representative survey.' *The Lancet*."

distribution of birthweights in the Sitapur district hospital (normal deliveries)



comparison of Sitapur birthweights and Indians in the UK

	% $<$ 2.5 kg	mean birthweight
Sitapur district hospital	42%	2597 g
Indians in the UK	11%	3082 g

Sources: Moser, 2005 "Birthweight and gestational age by ethnic group, England and Whales 2005'; Coffey (2015) "Sitapur hospital data, 2013-15"

comparison of Sitapur birthweights and Indians in the UK

	% $<$ 2.5 kg	mean birthweight
Sitapur district hospital	42%	2597 g
Indians in the UK	11%	3082 g
Vellore, TN rural hospital	12%	

Sources: Moser (2005) "Birthweight and gestational age by ethnic group, England and Whales 2005"; Coffey (2015) "Sitapur hospital data, 2013-15"; Balaji et al. (2010) "Low Birth Weight of Newborns: Magnitude of the Problem Seen in a 100 Bed Hospital of a Rural Area in Vellore District, Tamil Nadu (India)"

poor maternal nutrition is a widespread problem in UP & in India

2. poor quality care: negligent and dangerous practices

- newborns often left unattended in delivery pans; breathing rarely checked; suction rarely used
- no skin-to-skin contact with mother
- newborn's weight and temperature not taken

poor quality care: poor initation of breastfeeding

- breastfeeding "counseling," if it occurs, involves yelling at patients from the doorway
- wards often have many visitors and lack privacy for breastfeeding
- babies breastfed little in the first days of life, sometimes given *ghutti* (syrups/tonics) or goat/cow milk

poor quality care: abuse of patients

- women with multiple children are routinely harassed
- women in labour are physically abused, especially if they cry out or are slow to follow instructions
- patients are coerced to have c-sections they don't need so doctors can charge for the surgery

poor quality care: systemic corruption

- family members harassed for payment (about 1000 rupees for a normal delivery)
- ASHAs enforce illegal payments
- some people who work at the hospital are not formally employed; they are compensated through illegal payments
- families provide most drugs/consumables for delivery that are supposed to be free

poor quality care: abysmal hygiene

- sheets not changed between patients
- blood, feces, trash, rats, and dogs are common in wards and delivery rooms
- strict caste-based hierarchy dictates who does what cleaning work
- pervasive casteism and abuse against sweepers

3. little attention to LBW newborns: medicine vs. care

- LBW newborns are more likely to survive if they receive special care – especially hypothermia and weight gain monitoring
- Special Neonatal Care Units, introduced outside Lucknow in recent years, are not run according to guidelines
- too much focus on medicine and machines (baby warmer, drugs, possibly oxygen) rather than on care (KMC, hygiene, breastmilk)

little attention to LBW newborns: no couseling of parents

- mothers of LBW newborns very often do not know how to breastfeed, spoon feed, or hygienically bottle feed them
- parents are almost entirely unaware that hypothermia is a special risk for LBW newborns

what might help hospitals perform better? why is this so hard?

what might help hospitals perform better? why is this so hard?

- Reliable administrative data on health outcomes in hospitals.

what might help hospitals perform better? why is this so hard?

- Reliable administrative data on health outcomes in hospitals. But given constraints, independent survey data is a better option.

what might help hospitals perform better? why is this so hard?

- Reliable administrative data on health outcomes in hospitals. But given constraints, independent survey data is a better option.
- Make unannounced hygiene monitoring visits. Address caste-based discrimination against cleaners.

what might help hospitals perform better? why is this so hard?

- Reliable administrative data on health outcomes in hospitals. But given constraints, independent survey data is a better option.
- Make unannounced hygiene monitoring visits. Address caste-based discrimination against cleaners. Who would implement these things?

what might help hospitals perform better? why is this so hard?

- Reliable administrative data on health outcomes in hospitals. But given constraints, independent survey data is a better option.
- Make unannounced hygiene monitoring visits. Address caste-based discrimination against cleaners. Who would implement these things?
- Hire counselors to teach parents how to care for low birth weight infants and to promote early breastfeeding.

what might help hospitals perform better? why is this so hard?

- Reliable administrative data on health outcomes in hospitals. But given constraints, independent survey data is a better option.
- Make unannounced hygiene monitoring visits. Address caste-based discrimination against cleaners. Who would implement these things?
- Hire counselors to teach parents how to care for low birth weight infants and to promote early breastfeeding.Why would they do their job when other hospital staff do not?

what might reduce NNM in UP? why would it be so hard?

Focus on improving maternal nutrition and health during pregnancy.

what might reduce NNM in UP? why would it be so hard?

Focus on improving maternal nutrition and health during pregnancy.

ICDS in UP is unlikely to help: what little supplementary food there is rarely distributed to pregnant women.

Maternity entitlements are a missed opportunity: the government plans to give cash only for a woman's first birth.

Intrahousehold discrimination would reduce the impact of increasing public awareness about maternal nutrition or distributing food/cash.

what might reduce NNM in UP? why would it be so hard?

- Focus on improving maternal nutrition and health during pregnancy.

what might reduce NNM in UP? why would it be so hard?

- Focus on improving maternal nutrition and health during pregnancy.
- Invest in high quality surveys to measure NNM, PNM, IMR, stillbirth, and causes of death in UP on a regular basis.

questions & comments