

## **Ways & Means Transcript—S3E5—Childbirth, Babies, & Bonuses**

Male Narrator (M): This episode of Ways & Means is supported by the Josiah Charles Trent Memorial Endowment.

Emily Hanford (EH): From the Sanford School of Public Policy, this is Ways & Means – I'm Emily Hanford.

Dr. Sunita Prabhu (SP): I'm doctor Dr. Sunitha Prabhu. I am a gynecologist practicing in Malur.

EH: Malur is a small town outside of Bangalore, India. Dr. Prabhu has been delivering babies in Malur for 15 years. She loves her job.

SP: New life! I just love that. Mother also is happy, family members are happy - there's nothing more joyful than that, delivering a life.

EH: But not every birth ends well, especially in the developing world where more than 800 women die in childbirth every day, according to the World Health Organization. A big part of the problem is that many women don't come to the doctor during their pregnancies – they don't get prenatal care because they can't afford it. Sometimes women just show up at the hospital door when they're ready to give birth.

SP: During my first year, I had a patient, she came in labor, her hemoglobin was 6 grams, normal is 12. So this is just 50%. She was in severe pain, and she was in another one or two hours, it was like she would deliver.

EH: Dr. Prabhu had never met this woman before, knew nothing about her, nothing about her health history.

SP: I had to deliver the baby, so- okay, delivery was normal, fine. She delivered baby, it was fine, but, see, she started bleeding like hell, and bleeding heavily, we had all the chances of losing her.

EH: This bleeding is called postpartum hemorrhage. Women have their babies and then bleed a lot. Sometimes they bleed so much, they die. Postpartum hemorrhage is the largest cause of maternal mortality in the developing world. With all the blood loss- this woman needed a transfusion, but the closest clinic was three hours away. If Dr. Prabhu had seen this woman for prenatal care, she might have known this woman was at risk of hemorrhaging and at least been prepared with the blood this new mom needed. Dr. Prabhu's medical team was doing what it could do save the mother's life- IV fluids, drugs-

SP: But she was almost severely pale, almost unconscious.

EH: The mother was going to die if she didn't get blood. So, Dr. Prabhu rolled up her own sleeve.

SP: I gave blood that night. I gave my blood, one bottle of blood, then it matched everything. Then we transfused the blood at night, and she came back.

EH: Dr. Prabhu is laughing- that such a desperate situation, called for her to give her own blood to her patient.

SP: And she went home fine. And I'm very proud of that because I saved a mother.

EH: But that is not a situation any doctor— or new mother— should be in. On this episode of Ways & Means: tackling the number-one killer of women in childbirth in the developing world— with public policy, behavioral science, and some cold hard cash. As heroic as Dr. Prabhu was that night, more often a very different situation plays out in hospitals and clinics across the developing world. Rather than heroics, patients often face something health experts call the "know/do gap"- their doctors know more than they actually do.

Prof. Manoj Mohanan (MM): We know for a fact doctors don't do as much as they know. The "know/do gap: in healthcare is a well-documented phenomenon now.

EH: This is Duke University Professor Manoj Mohanan.

MM: It exists because there are little incentives in the existing marketplace for them to do everything that they know because effort is costly, doing the right thing, even though we know it needs to be done, can be really costly, and so, eventually as human beings, people start cutting corners.

EH: We have kind of the opposite problem in the United States: doctors are incentivized by the payment system to do lots things- tests and appointments and procedures— that may not actually be necessary. But in India, where the healthcare system is strained in many ways, patients often don't get the care they need because doctors don't have the time or the resources. This "know-do gap: plays out in in all kinds of ways. Take Dr. Prabhu. When she is working a delivery, for example, she often doesn't have skilled nursing help. In India, nurses are called "sisters" and they're in short supply, especially in rural areas and small towns like the one where Dr. Prabhu runs a small hospital. She often has to be both doctor and nurse during a delivery.

SP: Once any patient is there, I stay here, I have to stay here because I personally monitor the patients. I cannot rely on the sisters because the level of experience- like, in this place, we don't get very much experience because they never stay here,. They come here, learn everything, they stay for two or three years, once they pick up everything they leave. That happens.

EH: Sometimes doctors simply can't do everything they could or should during a delivery. Take the example of post-partum hemorrhage. Here's Manoj Mohanan again from Duke.

MM: There are lots of things that doctors could do to make sure that moms don't experience postpartum hemorrhage, and that could range from checking how well the pregnancy is going, making sure it labor doesn't last for too long- the labor, doesn't go into an extended period of labor-, making sure that the placenta comes out, checking the status of the placenta. So, those are things that the doctor is supposed to do and it's a fairly long list.

EH: And when a doctor is tight on time, or just not feeling motivated, they might not do every single step – even though they know they should. Manoj Mohanan knows the realities of the healthcare system in India, and he cares deeply about preventing women in the developing world from dying in childbirth. He grew up in India, went to medical school there. But then he decided not to stay.

MM: I felt like I needed to do something to improve how the system functions, and the choice I faced was to either continue to be part of the system and try to work on it from the inside or leave and try to work on it from a completely different angle.

EH: He became a professor, instead, specializing in the policy and economics of health and development. Manoj has done a number of studies that look at how the healthcare system in India functions- where the sticking points are, and what small tweaks can be made to help the system run better. And this "know-do gap", it's a huge sticking point. So, Manoj and his collaborators from Harvard, Stanford, and University College London, decided to see if certain kinds of incentives could improve performance, specifically when it comes to preventing women from hemorrhaging and dying in childbirth. The incentive? Money.

MM: Money motivates people. At the end of the day, the simplest form of incentive for individuals is money. We all work for something in life, most of us have some higher calling but money helps.

EH: But the purpose of the study was not just to see if financial incentives for doctors could produce better outcomes for new moms and their babies. The purpose was to figure out what kinds of financial incentives work best. Would doctors provide better, more thorough care if they were simply told they'd be paid extra for every healthy mom and baby they cared for? Or should doctors be told exactly what they needed to do to increase the chances of a healthy birth, and then be paid extra if they did all of those things? So that was the central question: should you pay doctors based on outputs? In other words- health outcomes, delivering healthy babies. Or should you pay them based on inputs? In other words, their willingness to adhere to specific guidelines. Which system of pay would work best to narrow the "know/ do gap"? Manoj's team recruited 140 doctors working in private practice in the southern Indian state called Karnataka. This state has a lot of small towns and rural areas, and doctors tend to have a wide range of skills and training. All of the doctors chosen for the study were the main providers of ob-gyn services in their local areas.

MM: So these clinical settings would look like fairly small clinics. Usually they are "mom and pop"-run facilities. So, there'll be a husband, wife- both of them are doctors. One of them could be a surgeon, one could be obstetrician. There'll be 5 to 10 beds, an outpatient clinic in there, and a couple of nurses who are working with the hospital- and that's it. It's a fairly small set-up.

EH: The researchers randomly assigned the 140 doctors in their study to three groups. All groups received the same amount of information- guidelines really, for best practice- and the same baseline amount of money to participate in the study and provide data to the researchers. One was a control group- business as usual. They weren't offered any extra financial incentives to do anything differently. Another group we'll call the "follow-the-rules" group. These doctors got the same "best practice" guidelines, but they were also told that if they did all of the things on the list meant to prevent postpartum hemorrhage, they would be paid more, no matter what happened to the mom or the baby.

MM: The document covers everything that needs to be done for a mother from the time she comes in for her first antenatal care checkup, during her first trimester, all the way until she delivers the baby and goes home. And there's a long list, and the doctor is supposed to do all of these things.

EH: Manoj's team tracked whether or not doctors followed the checklist carefully. They did this by talking to the moms.

MM: We had to rely on the mom's report of what was done. "Did the doctor examine your abdomen while you were in labor? Did someone check the baby's heart rate while the baby was still in the womb?" and so on and so forth.

EH: The third group of doctors got a contract that was set up differently— this was the “we trust you” group. This group got the same checklist, but no marching orders. Instead, doctors were told, "Here is information about best practices that you probably already know. Just use your best judgment, do what you know from your training, but," - and this is huge— these doctors were told they would only be paid if at the end of the study fewer mothers in their practice suffered from negative outcomes such as postpartum hemorrhage. This was the output group- paying doctors based on health outcomes. An outcomes-based contract rewards doctors for using their judgment, for doing what they know, and innovating if they need to. The other experimental group was the “input” group— paying doctors for adhering to a checklist. An input contract puts less responsibility on doctors— they are just doing what they’re told. Presumably, this might help doctors who have less training, or qualifications. Manoj Mohanan sees the difference between input and output contracts like this— imagine you’re hiring people to build a brick wall. You can pay those workers in a couple of different ways.

MM: On one group, we ask them to lay the bricks in a certain manner and use a certain amount of cement and a certain ratio of cement to bricks and this is how we want you to do it.

EH: That’s the input style— we are paying you to do exactly what we tell you to do.

MM: The other one we say we don’t care how you work, how many hours you put in, how many workers you’ll bring in. We want the wall, and we want it to be nice and strong.

EH: That’s the output style: we are paying you to build a great wall— no matter how you do it. Both groups of workers in this example will build a wall, but will one group build a better wall than the other team? Will one style of contract result in fewer women bleeding and dying in childbirth? That’s what the researchers wanted to find out. For the study to be accurate— researchers needed to be sure there was no cheating, that none of the doctors gamed the system by only seeing the healthiest patients.

MM: So this issue of selecting healthy patients was a first order of concern for us. We tried to address it in two ways. First is that the contracts were very clear that if we found even a single instance of someone being sent away simply because then their outcomes might look worse, we told them that the contract would be null and void. And how we checked that was, in addition to other data that we collected from the doctors, we collected data from about 75 women who lived in areas surrounding the clinic and we tried to ask, "Was there any instance where you were—" These are 75 women who had babies in the last year and a half. And so what we tried to ask was, "If you ever tried to go to this clinic, and were you ever sent away?" And, fortunately that didn't seem to be an issue.

EH: The researchers collected data from each ob-gyn’s office for two years. Then the researchers calculated how many women suffered from postpartum hemorrhage for each group, and then they compared those results with the control group. And as it turns out, both groups— the "checklist-input" group and the "we-trust-you:" outputs group- had similar results. Nearly 20 percent fewer women hemorrhaged or died than in the control group. In other words, both approaches to building the wall— if we can go back to that metaphor— both approaches worked, according to this study. And remember— we’re not actually talking about building walls here— we’re talking about 20 percent fewer moms hemorrhaging in childbirth. And when researchers dug into the data, they found this interesting piece of information. Doctors with advanced qualifications performed better and used new health delivery

strategies under the "output incentives" contract, the one that said, "We trust you to do what's best." In the other condition, where doctors were told exactly what to do, both providers- with and without advanced qualifications- performed equally well. Manoj Mohanan's study is the first to empirically compare the performance of doctors under input and output contracts. Manoj says the results- the strategies they tested- can be applied immediately. For example, there are already projects underway in Karnataka and other states in India, where the government is paying private doctors to deliver babies for poor women. Manoj has begun to talk to government officials there about his study. He hopes they will pay attention to the study results, and not simply pay doctors to deliver babies, but to begin to design contracts that will incentivize doctors to get better outcomes.

Rukmini (R): Chinnu!! Chinnu!!

Rukmini's Translator (RT): My name is Rukmini – my baby is 2 ½ months old, and she's a little girl.

EH: Rukmini's healthy baby girl was delivered by cesarean section.

RT: For now we are calling the baby "Chinnu." But we haven't done the naming ceremony yet- we'll do that after 9 months, so we might change the baby's name then.

EH: The doctor who performed the delivery was Sunitha Prabhu, the physician we met at the beginning of the podcast. Dr. Prabhu says every time she delivers a healthy baby, she feels good. She's happy to do her work, and hopes she'll be delivering the babies of Malur for a long time.

SP: My plans are to work 'til I'm 60. I'm 44 – another 15 years more. I'm very passionate about my practice, I love what I'm doing, that's all.

EH: This episode is part of a series we're calling New Ideas for Policy in the Developing World. The series is supported by the Josiah Charles Trent Memorial Foundation Endowment Fund. We will have links to all three episodes from the series on our website, [waysandmeansshow.org](http://waysandmeansshow.org). Thanks to Sambodhi Research and Communications for their help. Anil Lobo served as our fixer and interpreter in Malur. Mary-Rose Abraham recorded our interviews there. We'll have a link to the study we referred to in this episode- that's at our website, [waysandmeansshow.org](http://waysandmeansshow.org). Manoj's co-authors include Grant Miller, Katherine Donato, Yulya Truskinovsky and Marcos Vera-Hernández. Ways & Means is produced by Carol Jackson, Alison Jones and Karen Kemp. Our assistant producers are Thamina Stoll and Cristina García Ayala. Jackie Park was the voice you heard giving Rukmini's answers in English. Johnny Vince Evans is our engineer. Until next time, I'm Emily Hanford.