Mark Masselli: This is Conversations on Health Care, I'm Mark Masselli.

Margaret Flinter: And I'm Margaret Flinter.

Mark Masselli: Well Margaret a month left ago before 2015 draws to a close and a couple of important topics to note, World AIDS Day. Well treatment have improved where most HIV positives can manage the infection as a chronic disease, still some 38 million people have become infected globally since the year 2000.

Margaret Flinter: 23 million people have died from AIDS related causes. The vast majority of the 37 million people who live with HIV worldwide live in Third World countries almost 3 million of them children.

Mark Masselli: Well the prevalence is far lower than western hemisphere. It's an issue that doesn't get talked about enough in the U.S. there is an estimated 50,000 new infections every year in this country and it's so important to make HIV testing a standard part of health care and keep infections from spreading.

Margaret Flinter: An actor Charlie Sheen's recent disclosure about his HIV positive status is a stark reminder as if we needed one that the infection is still very much a health issue that can impact anyone.

Mark Masselli: Currently about 15 million HIV positive people are receiving the life saving treatment but millions more are still in need.

Margaret Flinter: Another issue that's taking center stage this month is climate change and the Climate Change Summit is happening in Paris with global experts from the front lines gathering to try and reach agreement on solutions to this issue which threatens the health of the entire planet.

Mark Masselli: The experts we have spoken with are in agreement. It's here and it's already having a negative impact on human health from droughts leading to starvation to extreme weather events.

Margaret Flinter: So let's hope we can come to agreement on some strategies to address it.

Mark Masselli: 21st Century health care is also experiencing much change, our guest today Dr. Neel Shah is author of the critically acclaimed Understanding Value Based Care which looks at ways the health care system could be recalibrated to incentivize the quality of care while containing the cost of care.

Margaret Flinter: And Lori Robertson will stop by, she is always on the hunt for misstatements spoken about health policy in the public domain but no matter what the topic you can hear all of our shows by going to chcradio.com.

Mark Masselli: And as always if you have comments please email us at chcradio@chc1.com or find us on Facebook or Twitter we love hearing from you.

Margaret Flinter: We will get to our interview with Dr. Neel Shah in just a moment.

Mark Masselli: But first here is our producer Marianne O'Hare with this week's headline news.

(Music)

Marianne O'Hare: I'm Marianne O'Hare with these health care headlines. Big pharma getting even bigger, the boards of Pfizer and Allergan have agreed to \$160 billion merger in which the Irish-based maker of Botox and the New York-based maker of Viagra agreed to join forces extensively allowing Pfizer to change its home base to Ireland. The move would allow Pfizer to take advantage of Ireland's more favorable corporate tax rate and still conduct business as before.

The move would create the largest pharmaceutical entity in the world and save Pfizer about 7% in tax payouts. Pfizer's officials claim it's not just about the inversion claiming they get Allergan's additional expertise in allergies, obstetrics and dermatology. UnitedHealthcare has unleashed a shot over the bow on the Affordable Care Act saying it was considering pulling out of the federal exchange. UnitedHealth Group laid out a litany of reasons on why it may stop selling individual health insurance to federal and state markets in 2017. The move, some see as an effort to compel The Obama Administration to ease regulations and make good on promised payments, there was problems including low participation by healthy people have led to financial losses according to UnitedHeath. The firm did not say it would definitely hope sales in 2017 but warned it would strongly consider doing so based on what happens in the next few months.

And giving thanks is not just good for the soul, apparently it's good for the heart as well at least a healthy dose of gratitude is good for your heart health. According to research of Paul Mills, a professor of Family Medicine and Public Health, at the University of California San Diego School of Medicine. He did a study recruiting a 186 men and women, average age 66 who already had some damage to the heart they each filled out a standard questionnaire to rate how grateful they felt for the people, places or things in their lives, turned out the more grateful people were, the healthier they were. They had less depressed mood, felt better and had more energy according to Mills. They also followed patients over time and found those who wrote in a journal several times a week

jotting down specific things they were grateful for did even better long term. I am Marianne O'Hare with these health care headlines.

(Music)

Mark Masselli: We are speaking today with Dr. Neel Shah, Founder and Executive Director of Cost of Care, a global NGO that seeks to help delivery systems provide better care at lower cost. He is the co-author of highly acclaimed Understanding Value Based Healthcare. Dr. Shah is an Assistant Professor of Obstetrics, Gynecology and Reproductive Biology at Harvard Medical School. He is an Associate Professor at the Ariadne Labs for Health Systems Innovation where he leads a 50 hospital consortium linking administrative management to clinical performance. He was named as one of Becker's Hospital Review 40 smartest people in health care. He earned his Masters in Public Policy at the Kennedy School of Government at Harvard and is MD at Brown University. Dr. Shah welcome to Conversations on Health Care.

Dr. Neel Shah: Thanks so much.

Mark Masselli: You learned pretty early in your medical training about the huge variations in health care pricing and how medical training did very little to prepare future clinicians for thinking about delivery from the value perspective. And you and a couple of your partners launched Cost of Care in 2009 with a mission of transforming Americans health care delivery. I wonder if you could share with our listeners more about the goals of the organization and how that mission has evolved.

Dr. Neel Shah: Absolutely. So, generally the way medical school works, you spend about a quarter century in a classroom and then when you are in 25th grade or so, when you are third year medical student they finally let you put on a white coat and touch real patients. And my idea of being a doctor was mostly based on what I had seen on the TV. And during your third year medical school your job is to kind of walk into every door of the hospital and learn what happens there. For the first time I got a sense of our fallibility as well. And in particular I noticed that in Providence Rhode Island where I was in school especially the patients that come to see students and residents they are not the ones with the deep pockets. And I noticed that we are making a lot of decisions in a vacuum without really any sense of how our decisions impact to the patients who are paying.

And the most surprising thing to me was that when you are third year medical student everybody above you seems on mission, even the fourth year medical students (inaudible 6:53). And this was the one thing that even the most esteemed professors didn't really have a lot of insight into.

Margaret Flinter: Well Dr. Shah the notion of value based care I think finally started to really gain some traction in this country and certainly I give some credit of that maybe to the policy initiatives and the Affordable Care Act and changes to the way CMS is paying for the value of care received. But you are an OB/GYN, you practice within a Pioneer ACO so you have had a pretty firsthand look at some of the real challenges in getting organizations and practitioners to think more about value based care. And you say it's not an operational change for practitioners but it's really a huge cultural change. What have been some of the greatest challenges so far in shifting the culture?

Dr. Neel Shah: I mean, I think often when people talk about health care reform they are conflating two things; there is payment reform and then there is delivery reform. And I think the Affordable Care Act, Accountable Care Organizations sort of risk based contracting or value based payments lot of it has to do with sort of top-down incentives to think more about value. In 1994 you are still getting AOL CVs sent to you in the email and that was the state of the Internet. Whereas today the Internet is very, very different and every other purchasing decision we make is based on Yelp and Travelocity and other sites that have transparent quality and pricing information.

And I think in 2015 there is a similar expectation that we should believe [ph] same in health care. At the same time lot of patients are facing very high deductibles. So I think you know where patients are with us both in terms of their exposure to cost and in terms of their expectations around information and transparency is very different. I think in many ways that's what pushing, not just payment reform but like delivery reform and now it's incumbent on us as clinicians to figure out how we fundamentally reengineer the way we deliver care and that takes some heavy lifting for sure.

Mark Masselli: I think you noted in Massachusetts that, which has had almost about a decade of universal coverage health expenders are still a leading cause of personal bankruptcy and financial difficulty for consumers. And so tell our listeners about the solutions that Cost of Care is looking at to incentivize players, and payers, and providers and consumers alike.

Dr. Neel Shah: We are 7-8 years ahead of us in country in terms of covering everyone in Massachusetts but now we are 7 or 8 years ahead in terms of running out of money to pay for it. And because we didn't have – it's not like we had a new pot of money which has sort of spread it around more. So there is more people on the system but those people have less good insurance. The average silver plan has deductible that is \$3,000 or \$4,000 or \$5,000 which is real money for most people. And then when you couple that with all of the, sort of arbitrariness around pricing you know one CT scan will be a big part of that deductible. So in terms of our work and it goes back to the original question around sort of our mission how it's evolved.

We started off primarily as an advocacy organization trying to build well within the profession, the clinical professions to consider cost because not only was I not taught very much about cost when I was a medical student but I was actually specifically taught that costs weren't something I should be thinking about. So what we have done over the years is we have collected now over a 500 stories, real stories from patients, clinicians and health care administrators as well from all over the country that illustrate the sort of routine opportunities to make care more affordable for patients. And we have disseminated them to well positioned stakeholders.

And in doing that we have tried to bring attention to all the opportunity there is to improve care around affordability just by making different decisions. And then we realize that you can educate clinicians they can have the will to consider cost but if you embed them in system and set them up for failure you are not doing any good. So we now have an implementation piece of our work too that's trying to think about how you design the system around the clinician to help them make better choices.

Margaret Flinter: Well Dr. Shah when you talk about your book Understanding Value Based Care, Don Berwick called this book an instant classic because it offered front line clinicians a raft of practical ideas to make health care dramatically safer, more patient focused. So what are those actionable strategies for individual clinicians or organizations?

Dr. Neel Shah: The book starts off by just sort of trying to help people understand why we are where we are now including why our health care price is so opaque. As we look at the average American medical bill you are actually staring at a medical bill and you are a physician or a nurse that's probably like the first time you have really scrutinized one. The second problem is that the prices are arbitrarily determined and often inflated but the problem with that issue is that clinicians don't feel ownership over that issue because they don't set prices.

The third problem which is the much bigger problem that clinicians directly own though is there are a lot of line items on the average bill don't need to be there. About a third of the things that we decide to order as clinicians don't measurably improve health care outcomes but we found in our research and our work that there is actually 10 to 20 other distinct reasons why clinicians do this which is a much lower hanging fruit than say tort reform and then we get down to really concrete strategies like how to do high value prescribing all the way to how did it actually design value improvement projects within your delivery system.

Mark Masselli: We are speaking today with Dr. Neel Shah, Founder and Executive Director of Cost of Care and also co-author of Understanding Value Based Healthcare. Dr. Shah is Assistant Professor of Obstetrics, Gynecology and Reproductive Biology at

Harvard Medical School and is a professor at the Ariadne Labs for Health Systems Innovation. Dr. Shah you give a great example of how health care has gone far off-track and that's the dramatic rise in C-sections performed in this country. I am not sure if our listeners know it's currently the most commonly performed surgery in the United States and we have had Leah Binder from Leapfrog Group on the show discussing the transparency campaign recording hospital C-sections. Tell us the kind of strategies you have deployed in your practice that might be an example for others.

Dr. Neel Shah: The 50 year view in health care like in 1955 Dwight Eisenhower has a heart attack and they tell him to sleep if off, he gets like a month of bed rest. In 2015, he would have gotten a beta blocker and an angiogram and a stent and he would have lived 10 years longer. And over the last 20 years The Patient Safety Movement has focused so much on the problem of too little that in many cases we have overcorrected and C-sections is I think the perfect example where it's become 500% more common. And what Leah Binder and others have found actually is that one of your biggest risk factors for getting a C-section isn't your own risks or preferences but it's literally which door you walked, it's like which hospital you go to. And our own work especially thinking about with C-sections a normal delivery first time it can easily take 20 hours from when you go into labor to when the baby gets delivered whereas a C-section takes me 30 minutes, I just did one.

So there is always a sort of implicit incentives to expedite the process emergency medicine physicians face the same sort of thing where you know they have got a complex patient who comes into the ED they can either admit which is the low resistance pathway or they can coordinate care and send them back out into the wild. In many instances in health care we have faced these sorts of choices and the strength of the incentives to take the low resistance pathway depends on a lot of factors in the clinical environment including how the hospital is managed.

Margaret Flinter: Another big opportunity I guess is at the level of the practice to make the decisions about ordering tests and prescribing medications and we have followed with such interest the Choosing Wisely campaign and their goal is to get providers to think very carefully about the evidence and the need for ordering a test versus the habit. Talk about how programs like Choosing Wisely tie into your view of how we can make a difference.

Dr. Neel Shah: Absolutely. Choosing Wisely has been tremendous. It's become an international movement now with several countries, in the U.S. I think there is more than 80 specialties now that all have this list of the five things within their clinical purview that we do routinely but maybe don't have to the clinical specialties for taking ownership including like radiologists and cardiologists and oncologists other folks who use a lot of expensive health care resources. And then the other thing what they do is they take the

existing evidence for what we should do and they reframe it in terms of the evidence for what we shouldn't do and I think that's really powerful too.

The challenge though is that there are many things in medicine for which we have excellent evidence but it doesn't really change practice. And I think that's sort of where we are with Choosing Wisely now, we've sort of gotten to a point where we have raised great awareness of these issues. But then there is that second step of closing the gap between what we know we should do and what we actually do. And one of the best examples of this gap I think is hand washing. You know, as obstetrician a 150 years ago figured out, before we knew anything about bacteria that if you wash your hands you cut mortality in half.

Margaret Flinter: Right.

Dr. Neel Shah: And as we learned during the Ebola outbreak in Texas people are still working on hand washing. The hand washing example was a great clue into how to close the gap although we are still imperfect at hand washing we have improved a lot and we have improved relatively recently by thinking about the barriers to hand washing. The fact that, there is a day actually when I was a medical student where you walk in and suddenly hand sanitizer became a thing and washing your hand went from a couple of minute operation to being less than a minute. We have started to institute 360 degree feedbacks and then we have started to flag hospital acquired infections so if you are the one spreading MRSA from room to room it would get really awkward for you very quickly. And then you know lo and behold hand washing got better and I think with value there is lot of really similar thing.

It occurred to me when I was a resident, academic medical centers are rampantly over utilizing care, the most expensive places to get care in the country yet the residents are not really motivated by fee-for-service because they are basically indentured servants. And they are not motivated by medical malpractice because they are relatively protected and yet they still over order. And often it has to do with other things that can similarly be systematically solved for has to do with trying to preempt your future work. So if you can order five tests to not think about it again or you can order one test and then wait three hours and occupy a structure that's less good. And so that suggests a very different kind of solution.

Mark Masselli: Dr. Shah you have a busy and productive life in addition to your practice and the organization Cost of Care and your book, you are also Associate Professor at the Ariadne Labs based in Boston, and it's a Harvard based research lab linking hospitals to best practices that can improve childbirth and maternity experience. Could you talk about the research you are doing there and what you are learning from this consortium?

Dr. Neel Shah: So Ariadne labs is a institute that was founded by Atul Gawande and it came out of the work that they did with the surgical safety checklist which you know the same way that a pilot has to run a checklist before hitting with throttle, now surgeons have to do the same before picking up the scalpel. And this intervention reduces mortality in half from all surgeries on every content basically. So there is some thinking about what else and what are the lessons especially around not even creating the checklist but getting to this implementation problem, we are just talking about. How you actually get people to follow it?

Quality improvement traditionally is very local and there is this sense that quality improvement projects don't scale, but the surgical safety checklist sort of proved to that many other things, medical reconciliation, lot of these things were truly scalable in ways that made people better. So this is basically a shop that's run by a surgeon but it's an intervention shop where the idea is to do this in a variety of health care domains and as an obstetrician I am thinking hard about childbirth and the fact that the hospital you go to is your number one risk factor for having major surgery. And so as part of our work we created a consortium of 50 hospitals across the country to help us think about what was different from the hospitals that had, you know, they were high performing and low performing and what are the lessons that we can extract and scale.

Margaret Flinter: We have been speaking today with Dr. Neel Shah, Founder of Cost of Care and co-author of Understanding Value Based Care. You can learn more about his work by going to costsofcare.org or find them on Twitter @CostsofCare. Dr. Shah thank you so much for joining us on Conversations on Health Care today.

Dr. Neel Shah: Thanks so much for having me.

(Music)

Mark Masselli: At Conversations on Health Care we want our audience to be truly in the know when it comes to the facts about health care reform and policy. Lori Robertson is an award-winning journalist and Managing Editor of FactCheck.org a nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in U.S. politics. Lori what have you got for us this week?

Lori Robertson: Hillary Clinton said at the democratic presidential debate in November that literally 3,000 people had been killed by guns including 200 children since the democrats had last debated about a month before. Comprehensive data on that specific timeframe isn't available instead Clinton extrapolated the numbers based on figures on gun deaths from past years.

In 2013, there were 33,636 gun deaths according to the Centers for Disease Control and Prevention that averages to about 2,800 gun deaths or nearly 3,000 as Clinton said

each month of the year. They include suicide which made up 63% of gun deaths that year, homicides 33% of gun deaths and unintentional discharges, legal interventions or war and undetermined causes. As for fire on deaths children the Clinton campaign relied on figures from 2010.

The 2013 CDC figures for children 19 and younger back her up those gun deaths average 205 per month but if we look only at those age 17 and under the average killed by month was 105. We won't know the number of gun deaths for 2015 for another year or so and even then we won't be able to look at the number for a specific time period as Clinton cited.

A group called the Gun Violence Archive it counts 11,633 gun deaths through November 18 for 2015 but that number doesn't yet include suicides. The Group's Executive Director told us Clinton's 3,000 figure would likely be right at least based on a monthly average for the year once suicides are included and that's my fact check for this week. I am Lori Robertson Managing Editor of FactCheck.org.

Margaret Flinter: FactCheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact, that you would like checked, email us at www.chcradio.com. We will have FactCheck.org's Lori Robertson check it out for you here on Conversations on Health Care.

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Mark Masselli: Each week Conversations highlights a bright idea about how to make wellness a part of our communities in everyday lives. Clubfoot is one of the most common childhood deformities in the world. A condition that in the past was not correctable without the intervention of expensive and invasive surgeries in low resource parts of the world access was nearly impossible and as a result ---

Chesca Colloredo-Mansfeld: The effects on the child are devastating. It also has an incredible impact on the mom. These kids have to be taken care of because they are disabled and often the mother is blamed for having a child with any kind of a problem as well as having a child with a disability.

Mark Masselli: But a breakthrough treatment called the Ponseti method has changed all of that. Chesca Colloredo-Mansfeld was an employee at the University of Iowa where this new non-invasive inexpensive intervention was developed which corrected the problem in a series of months often before a child even begins to walk.

Chesca Colloredo-Mansfeld: The health care provider gently manipulates the tendons and ligaments in the foot and move the foot about 10 to 15 degrees and then places the

feet in a long leg plaster of Paris cast, that cast is on for one week and then they repeat the process and they just gradually move the feet.

Mark Masselli: She and her colleagues founded miraclefeet, a non-profit organization that identifies children throughout the world who can be treated for about \$250 per child, a tiny fraction of what the surgery would cost and just as effective in treatment of the condition. Today miraclefeet supports over a hundred clinics through partnerships with 25 different partners in 12 different countries. Already having given thousands of children in the developing world the chance to walk, run, play and to grow into productive adults. miraclefeet has earned numerous awards for its innovative treatment design.

Chesca Colloredo-Mansfeld: They have to sleep in a brace at night the one that we have made, the one that's winning the awards is made out of plastic. We came up with a brace that the shoes clip on and off, it's adjustable, the angles are fixed, so there is no problem with the medical efficacy of it, and we can produce it for \$20. So, we have essentially come up with a design that enables us to do everything the U.S. brace does but for a fraction of the cost.

Mark Masselli: miraclefeet providing a low cost treatment for children born with clubfoot around the world giving them a chance to live active and fully productive lives, now that's a bright idea.

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Margaret Flinter: This is Conversations on Health Care, I am Margaret Flinter.

Mark Masselli: And I am Mark Masselli, peace and health.

Conversations on Health Care, broadcast from the campus of WESU at Wesleyan University, streaming live at www.wesufm.org and brought to you by the Community Health Center.