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

Margaret Flinter: I'm Margaret Flinter.

Mark Masselli: Well, Margaret the president traveled to New Hampshire this week to publicly address the nation's opioid crisis. He outlined a number of recommendations to address this serious public health scourge.

Margaret Flinter: Well the president issued a tough on crime approach to the epidemic even floated the idea of deploying the death penalty for drug dealers. He also proposed issuing more money for treatment for those suffering from substance use disorders, but many observers who are working on the front lines of the opioid crisis said there must be much more financial support to meet the unmet treatment burden.

Mark Masselli: The president issued an order allocation six billion dollars to address the opioid crisis over the next two years. Congress is considering a number of additional bills addressing the crisis as they hammer out agreements on the federal budget.

Margaret Flinter: Among the additional measures that are being considered a bill that would ensure patients being released from the hospital are given appropriate access to addiction services and medication assisted treatment or MAT as it's commonly called, which we know to be very effective in addiction treatment. The most recent overdose count for 2017, 45,000 deaths attributed to opioid overdose truly a continuing devastating public health crisis.

Mark Masselli: It shines a harsh light on a big gap in our health care system treatment is costly access to treatment facilities is challenging, those with limited means have fewer treatment options at their disposal.

Margaret Flinter: Mark we are approaching National Minority Health month, and we thought we would revisit our interview with the renowned Stanford Economist Raj Chetty. The MacArthur Genius Grant winner has been conducting what is considered seminal research in the link between zip code, health outcomes and life expectancy.

Mark Masselli: Margaret I draw everyone's attention to the project that Raj was heading up a project between Harvard and the US Census Bureau a quality on Opportunity Project really lays bare some new findings. We look forward to that interview and we're also looking forward to the conversation with Lori Robertson the managing editor of FactCheck.org.

Margaret Flinter: Remember you can hear all of our shows by going to chcradio.com.

Mark Masselli: 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'll get to our interview with Raj Chetty in just a moment.

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

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Marianne O'Hare: I'm Marianne O'Hare with these health care headlines. Health disparity and race the two are linked. A recently released study reveals even among affluent African-Americans their chances for economic upward mobility are seriously hampered statistically. The study conducted by renowned Stanford Economist Raj Chetty researchers from Harvard and data from the U.S. Census Bureau show that when it comes to economic opportunity and upward mobility African-American men and boys fare poorly. The findings showed that black American men even from wealthy families are much more likely to end up in lower income brackets than white men who grew up poor impacting not only economic status but health status as well.

Americans are not taking care of their cardiovascular health. A longitudinal study covering the period from 1988 to 2014 showed that among adult Americans age 25 and older only about 40% of whites, 25% of Hispanic Americans and 15% African-Americans had control blood pressure within a normal range. Generally speaking the proportion of Americans with healthy eating habits and exercise habits as well has declined over the course of the study. The numbers especially among younger Americans of all races declined over that period.

Talking tough on the war on drugs President Trump use New Hampshire as a backdrop this week to outline his plans for addressing America's opioid crisis. The president promised to offer more resources for treatment to the millions of Americans grappling with substance use disorder, but also leveraging the threat of the death penalty for drug dealers. According to the CDC. 42,000 Americans died from opioid overdose in 2016 the numbers for twenty seventeen well not complete yet stand at about 45,000.

One drug counted among the most difficult to give up is nicotine, the active ingredient in cigarettes that keeps about 15% of the American population hooked and leads to roughly half a million deaths per year in this country FDA Director Scott Gottlieb saying he's seeking to issue guidelines for greatly reducing the amount of nicotine in each cigarette by setting a maximum level allowed. Experts predict that such a move would help five million current adult smokers to quit within a year. The FDAs goal to reduce the current U.S. smoking rate from 15% to as low as 1.4% and prevent some eight million tobacco related deaths by the end of the century. I'm Marianne O'Hare with these health care headlines.

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Mark Masselli: We're speaking today with Raj Chetty PhD Professor of Public Economics at Stanford University where he studies the impact of geography and

policy on health and economic outcomes. Dr. Chetty previously was the Bloomberg Professor of Economics and the Director or Lab for Economic Application and Policy at Harvard University. He's won numerous prestigious awards for his work including the MacArthur Foundation Fellowship in 2012 and the John Bates Clark Award from the American Economic Association. He's also been named by the Economist and The New York Times as one of the most influential economist in the world, he earned his bachelor's and PhD from Harvard. Raj welcome to Conversations on Health Care.

Raj Chetty: Thank you.

Mark Masselli: I think it's axiomatic in the public health circles that zip code is a better predictor of health than genetic code. You've gained quite a reputation in the economic world for conducting some important research on the link between person's economic status, their neighborhood and both their health as well as their economic outcomes. Help our listeners understand the impact on zip code in economic status on health outcomes.

Raj Chetty: We've been interested in our research group in studying determinants of inequality and opportunity in the United States. There are two aspects that have struck me as particularly important and those are inequalities and opportunities for children, and inequalities in health. We had done some earlier work in our group focusing as you noted on economic outcomes and how they vary across neighborhoods. Using big data drawn from de-identified tax and social security records we examined in that work how the neighborhood in which you grew up affects your chances of climbing up the income ladder, and found that neighborhoods played a profound role in children's chances of success. wanted to turn to the second aspect of inequality health aspects, and there we use data from again social security records link to tax records which gave us information on 1.4 billion observations covering the entire US population, again allowing us to look at the link between income and mortality rates and how that varied across counties in the United States. We find that higher income people tend to live longer lives than lower income people in the US as a whole, but importantly we find that there's a great deal of variation across areas. That finding then motivates follow up analysis to ask why is it that there are some places where gaps and life expectancy are much larger and growing over time.

Margaret Flinter: Well, Raj I was particularly struck by your findings that those in low income groups have actually seen their life expectancy decrease since the great recession, while those in upper income brackets saw their life expectancy increase. What are your sort of preliminary thought zeroing in on what are the causes?

Raj Chetty: Right, so there are some alarming trends in terms of inequality in life expectancy in the US. Since 2000 the rich have gained about three years in life expectancy. In contrast the lowest income Americans have gained nothing essentially on average in life expectancy over the past 15 years, and some might actually have seen reductions in life expectancy. There are some places in America where gaps in life expectancy are actually shrinking. Birmingham, Alabama is a place where low income individuals happen to be gaining as much in life expectancy

as the richest Americans. In contrast there are other places like Tampa, Florida where the life expectancy of the lowest income population is actually steadily falling over the past 10 or 15 years. I think it's really to understand what is it that's different in Birmingham route of the Tampa, how can we replicate those successes in places like Tampa.

Mark Masselli: Well, I think we've known for some time that poverty and social determinants are linked to poor health outcomes, unemployment, low wages, immigrant status and the like. I wonder if you could sort of illuminate what kinds of social determinants you looked at while conducting the study and what were the most prevalent factors contributing to mortality divide?

Raj Chetty: Yeah one set of factors is the factors that affect health conditional on income. We see that people have higher life expectancy and better health outcomes in some areas relative to others. You can ask what is correlated with those differences, and what we find there is by far the strongest predictor of the variation is differences in health behaviors, rates of smoking, rates of exercise, rates of obesity. In contrast we find much weaker correlations with measures of health care access, so the number of primary care physician in an area, there are some predictive power for some of those measures but nothing like the predictive power of differences in health behaviors. There are some places that generate economic outcomes that are not as good, and those worst economic outcomes also tend to be worse health outcomes.

This ties back to the earlier body of work where we've also looked at how economic outcomes of children in particular vary across areas. There we find that places that are more segregated or places that have less social capital, these places have worse economic outcomes and those economic outcomes tend to go hand in hand with worse health outcomes. There's one set of factors that we should be thinking about health behaviors in particular that affect health, and then there's another set of factors that affect both economic outcomes and health together. I think both are very important to think about from a policy perspective.

Margaret Flinter: Your research highlighted a few bright spots that low income people tended to do better if they lived in an urban area with a robust health care infrastructure. Can you share your findings with us on health outcomes for the more economically challenged that had the good fortune to live near better health systems, and how does this cater and play out around the country?

Raj Chetty: Yes, so the lowest income individuals tend to have the best health outcomes in cities like New York and San Francisco for example, so urban areas with actually relatively high costs of living, liberal progressive cities that have a lot of spending on public health. One possibility is that these types of cities tend to be exactly the places that have regulations that might improve the health of the entire population. For example, what are the cities where smoking bans and work place those are bans on trans fats, and those types of legislative changes would affect not only the health of the wretch but also the help of the poor. Another possibility is that if you live in an area with a lot of affluent people, maybe you yourself change your health behaviors or there's a greater availability of healthy foods, exercise options

and so forth.

A third possibility is that the low income people who live in New York and San Francisco are just different from the low income people who live in cities where we find much lower life expectancies like Detroit or Tulsa, Oklahoma. Life expectancy for the poor is higher in urban affluent educated areas. Urban areas tend to have better outcomes than rural areas. Often we find in other studies that the south tends to exhibit worse outcomes, in this case we find that the south actually doesn't look like it has worse health outcomes than the rest of the country. However, because incomes are on average lower in the south health outcomes in the south look worse, but we think that's because the economic outcomes in the south are worse on average. Again, getting back to be the issue that the economic and health outcomes are really intertwined here.

Mark Masselli: We're speaking today with Raj Chetty PhD Professor of Public Economics at Stanford University where he studies the impact of geography and policy on health and economic outcomes. Raj you've been examining disparities in income and housing education for a number of years, and I know one of the studies gained a great deal of attention and showed that children born in poverty who are still living in high poverty communities by their early teens are unlikely to ever elevate themselves out of that poverty to achieve the so-called American dream. I know as an organization that provides primary care which is about to go into the city of Hartford and take on a pediatric practice of 15,000 children, really concerned about all the work that we might be able to do might not change their trajectory. I'm wondering if you could share some details of your study on childhood poverty.

Raj Chetty: What we did in the study that you're referring to is we examined children who moved to lower poverty or higher opportunity areas and examined how their outcomes changed. We focused on a well known experiment called the Moving to Opportunity experiment which involved about 5000 families. Some of them were randomly assigned a housing voucher that gave them access to move to a lower poverty area while other families that were in the control group ended up continuing to live and quite high poverty public housing projects. We've tracked the children in this experiment over about a 20 or 25 year period, and what we find is that the children who were given the opportunity to move to a lower poverty area at a young age end up having dramatically better outcomes. They're 30% more as adults, they're significantly more likely to go to college, they're significantly less likely to have a teenage pregnancy.

In contrast, children who moved at older ages exhibit much, much smaller gains from moving to these lower poverty areas. What these data show is that neighborhoods matter through a mechanism of childhood exposure, every extra year that you spend growing up in a better area appears to improve your long term outcomes. When one looks at health outcomes again you see significant improvements when people move to higher opportunity areas. Here interestingly we find significant gains even for people who moved at older ages, even for adults there are significant improvements in terms of mental health, reduced rates of diabetes and so forth. Neighborhoods really seem to play a very important role in both economic and health outcomes. Let me reiterate that study does not show by any means that other interventions like

primary care interventions or improvements in schools in a given area and so forth, do not matter. The lesson is simply that neighborhoods are one powerful determinant of economic and health outcomes.

Margaret Flinter: Raj the work you do at Stanford along with your colleagues around the country would seem has accelerated in recent years partly because of the advances in having big data. How much has that impacted the kind of research that you're able to conduct and how are you able to translate that data to inform policymakers that will directly affect a quality of opportunity in the country?

Raj Chetty: There's really been a transformation in social science in recent years as the field has shifted from using data from small surveys where you really have limited samples, and particular difficulty in tracking people over time to the use of what is colloquially called big data, large data sets that are created to our interactions with various systems like the tax system or the social security system or here in Silicon Valley things like Facebook and Google. The vision of our research group is basically that we can harness these data not just to improve the products that the private sector offers, our vision is we can use these data to tackle important social and economic policy questions. It's critical for the United States to continue to provide researchers access to these sorts of data. Much of my interaction with policymakers in DC and other levels of government is around showing that the very valuable lessons that you can get from these data which translate directly into policy.

For instance the Housing and Urban Development Agency is thinking about changing the way in which the 45 billion dollars a year we spend on affordable housing programs is structured in light of the evidence that I've been describing. Seeing that very tangible in fact on policy I think motivates policymakers to recognize the value of these data, and creating an infrastructure where researchers can access these data and deliver lessons that can help public policy more broadly.

Mark Masselli: You know as you were talking about better outcomes in urban affluent educated areas and that neighborhoods matter i0t had me reflect on a couple of people we've talked with in the past Robert Putnam and his work at Bowling Alone, and Nick Christakis who's been working on social networking, and really both of them coming out with little variation of the thing. What's your recommendation for people who are frustrated with all of this data in terms of the work that they can do?

Raj Chetty: Yeah I mean Mark you're absolutely right that there's a connection to the work of Bob Putnam and Nick Christakis here, as an example we find that Salt Lake City with the Mormon Church thought to be a place with a great deal of social capital is one of the best places in the US to realize the American dream, it has some of the highest rates of social mobility. When you see those very positive economic outcomes as I've been emphasizing they tend to go hand in hand with better health outcomes as well. Economists tend to gravitate towards solutions like investing in better schools or trying to change zoning laws and affordable housing policies. We have less of a sense of how to change those from a policy perspective particularly in a scalable way, but when you're thinking about policy and how you might change things on the scale you tend to gravitate more naturally towards things

that we're able to control through funding for public schools or the way teachers are hired or things like that. I think we need to think creatively about how we might be able to set up systems that will change social capital and change networks more systematically.

Margaret Flinter: We've been speaking today with Dr Raj Chetty MacArthur Foundation fellow and Professor of Public Economics at Stanford University. You can learn more about his work by going to Inequality.Stanford.edu/users/Raj-Chetty. You can also find links to his work on Twitter. Dr. Chetty thank you so much for joining us today on Conversations on Health Care for this very important conversation.

Raj Chetty: Thank you.

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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 non-partisan, 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: In the wake of the Florida school shooting in February, politicians have raised concern over the influence of violent video games and films on young people. The president claimed that violence in video games is quote, "Shaping young people's thoughts." Scientists still debated but the majority of studies show that extensive exposure to media violence is a risk factor for aggressive thoughts, feelings and behaviors. There's less consensus on whether media violence is a risk factor for criminal violence in which the perpetrator is subject to arrest and incarceration. The link between media violence and mass shooting is yet more tenuous. The 2015 review of the scientific literature on video game violence by the American Psychological Association cautioned that the nuance of this research is often left out in news coverage. It's found that quote. "Violent video game use has an effect on aggression." This effect manifests as an increase in aggressive behaviors, thoughts and feelings and a decrease in helping others empathy and sensitivity to aggression.

Some researchers however have found that experimental evidence backing a causal relationship between video games and aggression may not be that solid. One study in the journal Psychological Bulletin last year found experimental studies may be subject to publication bias. As for a link between a violent video game use and criminal violence scientist disagree about how much evidence is enough to sufficiently support a causal link between media violence and real world violence. Trump and other politicians concern aren't unfounded, and that's my fact check for this week. I'm 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'd like checked, email us at

CHCradio.com we'll have FactCheck.org's, Lori Robertson check it out for you, here on Conversations on Healthcare.

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Mark Masselli: Each week conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. Fitness trackers have become all the rage especially among upwardly mobile fitness conscious people seeking to monitor their own health and fitness goals. Another trend has emerged in the age of wearable devices. After a few months about a third of users simply stop using them leaving a lot of costly devices sitting on the shelf and not in use. The reality captured the imagination of Tufts University School of Medicine professor Dr Lisa Gualtieri.

Dr. Lisa Gualtieri: I had read about the abandonment rage and I thought what if you could take all of these abandoned trackers and give them to the people who could benefit most from them.

Mark Masselli: She thought what if we could get disinterested owners to donate their used fitness trackers to be repurposed and donated to under-served populations.

Dr. Lisa Gualtieri: For a lot of people they're quite interested in owning one of these devices to help them increase their fitness and cost is precipitate, so I think that that's a barrier for a lot of people.

Mark Masselli: In 2015 she launched her nonprofit enterprise Recycle Health an online social media campaign to raise awareness for her program which seeks donated wearable devices no longer in use to provide these expensive devices for free to those in need. She partner with organizations working with low income adults in wellness programs and those with mental health issues. Her goal is to start collecting vital data on the deployment of these devices and the impact they may be having on behavior change in vulnerable populations.

Dr. Lisa Gualtieri: We talk to people about how sedentary they are, and coming up with a reasonable and achievable where they might start off with 2000, 3000 steps but they know how to make that higher.

Mark Masselli: Recycle Health a simple repurposing of personalized wearables providing these tools for free to vulnerable populations empowering them to engage in activities that can improve their own health, now that's a bright idea.

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Margaret Flinter: This is Conversations on Health Care I'm Margaret Flinter.

Mark Masselli: I'm Mark Masselli, peace and health.

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