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**THE REITH LECTURES 2014: THE FUTURE OF MEDICINE
Reith Lecturer: Atul Gawande
Lecture 1: Why do Doctors Fail?**

SUE LAWLEY: Hello and welcome to the first of the 2014 Reith Lectures. We're at the John F. Kennedy Presidential Library and Museum in Boston - a dramatic concrete and glass building overlooking Massachusetts Bay, the nation's official memorial to its 35th president.

He was a president who inspired a generation with his message of the empowering strength of ideas. "Too often", said Kennedy, "we enjoy the comfort of opinion without the discomfort of thought" – an observation that might have been taken as a text for this year's Reith lecturer who admits that he's in what he calls "the disturbance business".

He's a Harvard professor of medicine, so Boston now is his hometown too, but his abilities as a doctor and surgeon are complemented by his skills as a writer, thinker and political analyst, and he's become one of the world's leading thinkers on public health. His lectures are called *The Future of Medicine*, but his subject matter is as much about attitudes, systems and human behaviour as it is about new frontiers in medical research. Ladies and gentlemen, please welcome the BBC's 2014 Reith lecturer, Atul Gawande.

(AUDIENCE APPLAUSE)

Atul, just before we begin, a few more questions just so we really understand where you're coming from – well a little better anyway. It's obvious looking across your career that politics is in your blood as much as medicine is. You worked for Bill Clinton when you were a very young man, didn't you? Well you're a young man now, but ...

(1.47) **ATUL GAWANDE:** (*laughter*) I wish I was still young. I went to work for him when he ran for President. And at the time, I was just 26 years old, but you had to move to Little Rock and there weren't a lot of people who thought at that time he was even going to make it out of the primaries. So I ended up being his health and social policy adviser, living in Little Rock, and riding it all the way to the White House.

SUE LAWLEY: And so you went to Washington as well, did you?

ATUL GAWANDE: Yes, I ended up on the task force working on (at that time) the failed health reform programme that went up in 1993 and went down the same year.

SUE LAWLEY: But in the end surgery won over politics. Why was that?

ATUL GAWANDE: I wanted to be less dependent on the fortunes of others in making my own career; I wanted to be able to develop and voice my own ideas. And then there was this desire to have some skill besides just being at the abstract level of policy and work at that level. So I returned to medical school instead of taking up the offer to work on welfare reform.

SUE LAWLEY: But it was more than that, wasn't it, because I know you said you were "mesmerised" actually by the operating theatre? That's what gets you...?

ATUL GAWANDE: Yeah, well when I came back to medical school, I thought I will enter into a field that would be compatible with going quickly back into public affairs and public policy - internal medicine, something with a shorter residency - and then in the operating room, I kind of loved the blood and guts of it all. I loved the sense of skill. And it reminded me of politics in some way - that the really good surgeons had to be like really good politicians in being willing to take chances, deal with risk, know that your knowledge and your skills are uncertain.

SUE LAWLEY: (*over*) And have a necessity to act?

ATUL GAWANDE: And have the necessity to act.

SUE LAWLEY: You write for the *New Yorker* as well. You do everything. I mean one's amazed you fit it all in, I have to say.

ATUL GAWANDE: Well I don't know if it's everything, but I get to fit together a lot of things I love. And sometimes you jam too much together, but it's hard for me to want to give up anything from having the chance to take care of people to writing and research.

SUE LAWLEY: But I quoted you as saying that you're in "the disturbance business". Who do you want to disturb with these Reith Lectures?

ATUL GAWANDE: Hmn. I think all of us. I like digging into, and we'll get to talk about it, I like digging into the complexities of reality and what we really face - pulling back the veil, so to speak - and then trying to see if we can find our way through the complexities.

SUE LAWLEY: Well, there are four lectures. This is the first. It's called *Why do Doctors Fail?* Ladies and gentlemen, Atul Gawande.

(AUDIENCE APPLAUSE)

(5.31) **ATUL GAWANDE:** Every family has its pivotal medical moments. Ours is a family ... One of ours was in July 1995 when my son Walker then was just 11 days old. He had difficulty taking his feedings, he couldn't hold anything down, and we took him to the paediatrician. The paediatrician put her stethoscope on his chest, listened for a moment, and then looked at us and said, "There's something wrong with his heart" and we needed to take him to the hospital right away.

I think there are millions of moments like this one that occur every day: a human being coming to another human being with their body or their mind's troubles and looking for their assistance. And that is the central act of medicine – that moment when another human being turns to another human being for help.

(6.35) And it always struck me how small and limited and improbable that moment is. We have 13 different organ systems and at the latest count we've identified more than 60,000 ways that they can go awry. The body is scarily intricate, unfathomable, hard to read. We are these hidden beings inside this fleshy sack of skin and we've spent thousands of years trying to understand what's been going on inside. So the story of medicine to me is the story of how we deal with the incompleteness of our knowledge and the fallibility of our skills.

There was an essay that I read two decades ago that I think has influenced almost every bit of writing and research I've done ever since, and it was by two philosophers – Samuel Gorovitz and Alasdair MacIntyre. They wrote an essay in 1976 on the nature of human fallibility. What they wondered was why do human beings fail at anything that we set out to do. Why, for example, would a meteorologist fail to correctly predict where a hurricane was going to make landfall or why might a doctor fail to figure out what was going on inside my son and fix it? They said there are two primary reasons why we might fail. Number one is ignorance: we have only a limited understanding of all of the relevant physical laws and conditions that apply to any given problem or circumstance. The second reason, however, they called “ineptitude”, meaning that the knowledge exists but an individual or a group of individuals fail to apply that knowledge correctly.

Now we've relied on science to overcome ignorance and the course of that work has itself been incredibly fascinating. That paediatrician visit we made and everything that she did to sort out what was happening in my son could be traced back to 1628 and William Harvey when, after millennia of pondering, he finally was the one who sorted out that the heart is a pump moving blood in a circular course through the body. That was when he figured it out and, therefore, we figured it out.

And then another critical step came not for three more centuries, not until 1929, when a surgical intern in Eberswalde, Germany, made an observation. His name was Werner Forssmann. And he was just reading some medical journals - an obscure one actually, it had animal studies - and it had the picture of a horse where they'd threaded a tube up the leg of the horse all the way into the heart and then described what was going on from taking blood from there. And he said, “Well if we could do that to a horse, what if we did that to a human being?” And he went to his superiors, to his bosses, and said, “How about we take a tube and thread it into a human being's heart?” And they said, “You're crazy. You can't do that. We know whenever you touch the heart, when people have attempted it in surgery, it goes into fibrillation and the patient dies. You cannot do this.” And he said, “Well what about in an animal?” “There's no point and you're just an intern anyway. Who says you should even deserve to get to ask these questions? Go back to work.”

Well he just had to know. And so what he did was he stole into the x-ray room, took a urinary catheter, made a slit in his own arm, threaded it up the vein and into his own heart and convinced a nurse to help him take a series of nine x-rays showing the tube inside his own heart.

He was fired. And then in 1956, he was awarded the Nobel Prize with Andre Cournand who took his findings some twenty years later at Columbia University and then recognised that you could not only put the catheter into a person's heart but shoot dye into the heart and that would let you take pictures and you could see the living heart and how it actually worked from the inside. What they'd done was they had founded the field of cardiology and then in the 1960s and 1970s and 1980s, one by one we began devising techniques and ways to actually fix what was going on inside the heart.

Science is concerned with universalities, universal truths, laws of how the body or the world behaves. Application, however, is concerned with the particularities, and the test is how the universalities apply to the particularities. Do the general ideas about the sounds the paediatrician heard in my son's chest, do those general ideas correspond with the unique particularities of Walker?

And here Gorovitz and MacIntyre saw a third possible kind of failure. Besides ignorance, besides ineptitude, they said that there is *necessary* fallibility, some knowledge science can never deliver on. They went back to the example of how a given hurricane will behave when it will make landfall, how fast it will be going when it does, and what they said is that we're asking science to do more than it can when we ask it to tell us just what exactly is going on. All hurricanes are ones that follow predictable laws of behaviour but no hurricane is like any other hurricane. Each one is unique. We therefore cannot have perfect knowledge of a hurricane short of having a complete understanding of all the laws that describe natural processes and a complete state description of the world, they said. It required, in other words, omniscience, and we can't have that.

So then the interesting question is how do we cope? Now it's not that it's impossible to predict anything. Some things are completely predictable and they gave the example of a random ice cube in a fire. An ice cube is so simple and so like all the other ice cubes that you can have complete assurance that you put it in the fire, it will melt. The everyday question for us, however, is are human beings more like hurricanes or are we more like ice cubes?

So we take Walker to the emergency room here in town, in Boston. It's a Sunday morning. A nurse takes an oxygen monitor, one of those finger probes with the red light, and puts it on the finger of his right hand. And the oxygen level is 98 per cent, virtually perfect. They get a chest x-ray and the chest x-ray shows that the lungs are both whited out. They read it. They said, "This is pneumonia." They did a spinal tap to make sure that it wasn't signs of infection that had spread from meningitis. They started him on antibiotics and they called the paediatrician to let her know the diagnosis they'd ... they'd found. It wasn't the heart, they said. It was the lungs and pneumonia. And she said, "No, that can't be true." And so she came into the Emergency Room and she took one look at him and he was having trouble breathing, he was not doing great, and she saw that the finger probe with the oxygen monitor was on the wrong finger.

Now it turns out there are certain conditions where the aorta can be interrupted. You can be born with an incomplete aorta and so the blood flow can come out of the heart and go to the right side of the body, into the hand that had that probe, but it may not go to the left side of the body or anywhere else in the body. And that turned out to be what was going on. She switched the probe over to the left hand and he had an unreadable oxygen level. He was in fact going into kidney and liver failure. He was in serious trouble and she had caught a failure to apply the knowledge we had to this given situation.

And then the team made a prediction that in this situation we do have a drug – only invented, it turned out, only discovered in about a decade before my son was born: Prostaglandin E2, a little molecule that can reopen the foetal circulation. When you're a foetus in the womb, you have a bypass system that sends a separate set of blood supply that can stay open for a couple of weeks after birth. It had shut down and that's why he went into failure. But this molecule can reopen that pathway and the prediction was that this child was like every other child – that you could know what had happened to other children and could apply it here and that it would open up that foetal circulation, this bypass system. And it did. That gave him time to recover, to let his kidney and his liver recover, to let his gut start working again, and then to undergo, a few days later after he'd recovered in the intensive care unit, undergo cardiac surgery to replace his malformed aorta and to fix the holes that were present in his heart as well. They saved him. They saved him.

There's I think in more and more ways signs that we are as knowable as ice cubes. We understand with great precision how mothers can die in childbirth, how certain tumours behave, how the Ebola virus spreads, how the heart can go wrong and be fixed. We have many, many areas of continuing ignorance – Alzheimer's disease and what we can do about it, metastatic cancers, how we might make a vaccine against this virus we're dealing with now.

But the story of our time, I think, has now become in a unique way as much a story about struggling with ineptitude as struggling with ignorance. You go back a hundred years, and we lived in a world where our futures were governed largely by ignorance. But in this last century, we've come through an extraordinary explosion of discovery and then the puzzle has become not only how we close the continuing gaps of ignorance open to us but also how we ensure that the knowledge gets there, that the finger probe is on the right finger.

In the ICU next to him was a child from Maine, about two hundred miles away, who had virtually the same diagnosis that Walker had. And when he was diagnosed, it was too long before the problem was recognised, transportation could be arranged and he could get that drug to give him back that open circulation, and the result was that poor child with the same condition my son had in that very next bed to us had gone into complete liver and kidney failure, and his only chance while we were waiting there was that he was waiting for an organ transplant to give him some chance at a future that was going to be very different from what my son had gotten to have.

And then I think back on my family. My father comes from a rural village in India, my mother from a big city in the north of India, and if Walker had been anything like my 37 nieces and nephews in the rural village where my family still has our farm, we're still farmers raising wheat ... a kind of wheat and sugarcane and cotton, and if he'd been there, there'd have been no chance at all.

There's a misconception I think about global health. We think global health is about care in just the poorest parts of the world. But the way I think about global health, it's about the idea of making care better everywhere – the idea that we are trying to deploy the capabilities that we have discovered over the last century, town by town, to every person alive. We've had an extraordinary transformation around the world. Economically, even with the last recession, we've had the rising of the global economies on every continent and the result has been a dramatic change in the length of lives all across the world. We've shifted to a world where we've gone from respiratory illness and malnutrition being the biggest killers in the world to one where it's now cardiovascular disease, to where road traffic accidents are a top five killer and cancers are in the top ten, and that with that economic progress has come the knowledge that solutions exist.

My family in our village in India know, they know that solutions exist to the problems that we have, and so the puzzle is how we deploy that capability everywhere – in India, in Maine, across the UK, Europe, Latin America, the world – and we're only just discovering the patterns of how we might begin to do that.

In the coming lectures, I'm hoping to be able to unpack three ideas. First is what we're learning from opening the door, from seeing behind the curtains of medicine and health and discovering how much can be done that saves lives and reduces suffering. Number two is having a chance to look at the reality of our necessary fallibility and how we cope effectively with the fact that our knowledge is always limited. And then number three is the chance to look at the implications of both of these – what we're learning about our ineptitude and our about our necessary fallibility and what they mean for the global future of medicine.

Now it is uncomfortable looking inside our fallibility. We have a fear of looking. The place we've come to is that we're like the doctors who dug up the bodies in the 19th century in order to dissect them, in order to know what was really happening inside. When we look inside the bodies, we look inside our systems and how they really work, they're messier than we knew and sometimes messier than we might have wanted to know.

In some ways I think you know turning on the cameras inside our world is more treacherous at times. There's a reason that Gorovitz and MacIntyre labelled the kind of failures we have "ineptitude". There's a sense that there's some shame or guilt to the fact that we don't get it right all the time. And exposing it can make people more angry than exposing the fact that we're simply ignorant about certain ideas and, therefore, we've blocked many of these efforts to try to provide some transparency to what's going on. The audiotapes are often not allowed, the video recorders are turned off. We have no black box for what happens in our operating rooms or in our clinics. The data when we have it is often locked up. You can't know, even though we have the information, which hospitals have a better complication rate in certain kinds of operations than others. There's a fear of misuse, a fear of injustice in doing it, in exposing it.

But arguably there are lives at stake from not opening up the doors and I think we also will miss out on the chance that what we get to find can often be miraculous. Walker, they told us when he went home, Walker was going to need a second operation. The repair that he'd had was one that replaced the tube, the aorta, the tube coming out of his heart to carry blood supply throughout the

rest of the body, and that tube had been replaced but in an 11-day-old child. It was almost like a straw. Now they had put it in in such a way that it could grow a little bit, it could expand as he grew, but it was not going to accommodate an adult-sized body, and so they told us he would have to, when he became a teenager, you know get a new replacement aorta and that it would be a risky thing he would have to undergo. And being a surgery resident, I knew what that entailed. It was a 5 per cent chance of death and a 25 per cent chance of paralysis and we lived in some fear about when that moment would come.

But when it came, when he was 14 years old, the world had changed and by then technology had developed to allow the aorta to be expanded with a simple catheter. We found the expert who had learned and even devised some of the methods for being able to do that right here in Boston. He explained to me, you know cardiologist to surgeon, just how it's done and sometimes you learn stuff you don't necessarily want to know. He talked about the idea that you know you have to apply pressure to a balloon that would be threaded up into the aorta. And you know what, he can really feel the vessel tearing and that the trick is to tear it just enough that it can expand but not so much that it ruptures.

There was a necessary fallibility to what he was going to do, but he knew how to do it. He knew what the feel was. And Walker ended up getting through that procedure just fine. The extraordinary thing was the very next day he ... he went home, and the day after that he was well enough to play sports and injure his ankle on the playing field. This June he graduated from high school and this fall he entered college. He's going to live a long and normal life, which is amazing. And the key question we have to ask ourselves is how are we going to make it possible for others to have that, how do we fulfil our duty to make it possible for others? And the only way I can see is by removing the veil around what happens in that procedure room, in that clinic, in that office or that hospital. Only by making what has been invisible visible. This is why I write, this is why we do the science we do – because this is how we understand - and that to me is the key to the future of medicine. Thank you.

(AUDIENCE APPLAUSE)

SUE LAWLEY: Atul Gawande, thank you very much indeed for that thought provoking lecture. Now let me open up the subject of why doctors fail to our audience here in the JFK Presidential Library in Boston. Who's going to give me my first question?

EDITH RICHMAN: As a patient ...

SUE LAWLEY: Could you tell us your name?

EDITH RICHMAN: My name is Edith Richman and I'm originally from New York and have had very similar experiences that you've talked about. How do I know when I go to a doctor that he has good diagnostic skills to determine what I need in medicine?

ATUL GAWANDE: You can't right now. Even when we needed to find doctors for my own son, for my wife, for other people in our family, you ask around co... to colleagues, you find out about reputation. You very rarely have much data to go on. Now it's starting to change. You can

go online these days and look up whether your doctor has been arrested under any kind of criminal prosecution and whether they have an active licence. Alright, it's a useful bar. You know you can go also now and find out if there are any kind of patient complaints, but I never know what to make of people who are simply cranky and any more than I know what to do with all the people complaining about the hotels that I look at online. And so you know we're kind of in between those worlds without a real adequate window in.

EDITH RICHMAN: Well I have rejected a lot of what doctors have told me and, you know what, I was right.

SUE LAWLEY: I mean this is the depressing message that's coming across here really. We've been taught not to trust our politicians and our bankers, and now you're saying we can't trust our doctors.

ATUL GAWANDE: Here's the reality. You are far better off putting yourselves in the hands of a medical profession than not. You know we've had a century of incredible progress; we've added many years to people's lives and even more quality and productivity to people's lives. And yet there is a wide variation in the results that people get. It's not that that kid in Maine couldn't trust their doctor; it's they didn't have a system that could assure that that child in Maine had the same chances that my son had.

SUE LAWLEY: Okay.

TOM PUTNAM: I'm Tom Putnam, the Director of the Kennedy Library, and again it's our great honour to host this evening's lecture and I want to thank Dr Gawande for that fascinating talk. I imagine one of the greatest frustrations of a doctor is that when you see someone who is ill and offer a prescription, they sometimes don't follow it. So in your experience, are doctors more or less likely to follow your suggested remedies as your patients?

ATUL GAWANDE: My bottom line is that I think that we are capable of sometimes simplifying and making solutions that allow us to be more effective along the way while recognising that sometimes it really is just motivation and people just don't want to do it; and that we have to also think about ways we capture the intrinsic motivations people have and sometimes the extrinsic ones, which can be the way we pay people, the way we reward them and so on. All of that is part of what we have to unpack: the barriers and the motivations.

SUE LAWLEY: But you said during the course of your lecture you know we can't see inside our clinics, we can't see inside our Emergency Rooms. Did you mean that literally we should be able to – that you should be able to have cameras on the walls, so that you can see exactly what goes on and see where things go wrong?

ATUL GAWANDE: Yeah it depends on the ... you know, one of the things that happens is how we use the cameras, right? What we've seen is that when we provide information about what is really happening, it's far less likely when we open the door, show the video, show the data of what's really going on in the clinics, it's far less likely that the world runs screaming in terror and much more likely that they actually use that information to improve.

SUE LAWLEY: I'm going to go to a question now we had standing by at the back there.

DAN TARZAM: ((name??)) I very much appreciated your talk. My name is Dan Tarzam. I am actually a Professor of Neurology at Harvard Medical School. I wanted to go back ... You want a quick allusion to what's going on currently in this country regarding the Ebola scare and the Texas Hospital, which was allegedly, a very fine institution, made some mistakes. We don't yet know the details of that, but there's a sense that things didn't go well. To what extent is there an egocentricity about physicians caring for patients, especially specialists, who feel they're at the state of the art, they know what there is to know, but possibly don't know what they don't know? To what extent did that hospital and its staff not know what they didn't know?

ATUL GAWANDE: The unknown knows?

SUE LAWLEY: As you say, there's a shadow of Rumsfeld around in this room somewhere.

ATUL GAWANDE: Here's the thing that has struck me about the difficulty in being able to get all the steps right with containing an Ebola virus. The steps have been standard public health infection control measures that have been around for a very long time. They mostly involve knowing how to isolate people effectively. The isolation doesn't require fancy rooms; it just requires a room with a closed door, it requires wearing some gloves and gowns and a mask. But the fundamental breakdowns and the really basic things like how you take a gown off without contaminating yourself is knowledge that we haven't had. Two million people a year pick up infections in our hospitals in this country, and many more in the world over, mostly because of our inability to follow those basic infection control practices. And the SARS virus, when that outbreak happened half a decade ago, 10,000 people were killed within weeks and it was almost entirely passed by healthcare workers. I think this is less about the unknowns and much more about that sense of you know we are resistant to the detail. Ironically, when I go into an operating room, we know exactly these details. You know in many ways I almost think that these are patients we should put into our operating rooms because those are places where we're used to following all of the sterile protocols.

SUE LAWLEY: Okay another question.

GRACE MCGATHEY: My name is Grace McGathey. I'm a clinical social worker. At the beginning of your talk, you mentioned very briefly patients come to doctors both for physical ailments as well as ailments of the mind, and you also talked about our poor understanding of some physical ailments like Alzheimer's or metastatic cancer. How do we disrupt aspects of medicine that are so poorly understood that they are not treated well in general?

ATUL GAWANDE: Yeah there are a couple of things. I actually think there's a lot more known in mental health than we execute on. Some of our poorest performances in mental healthcare, we have known approaches – for example depression, manic depression, bipolar disease – and we're talking about the vast majority in our communities not receiving the basic guidelines that we have established. In many ways it's a crisis of low expectations. It's also that people are unlikely to come forward with their illnesses because of stigma attached to it. But then even within our

profession, when we have people who are recognised with major conditions in our emergency rooms, in our clinics, if they're not in the mental health part of the system they fall between the cracks; that basic skills haven't carried over. We have ways to begin to change that.

SUE LAWLEY: There was a gentleman on the back row. I thought we ought to have somebody from the back row.

RICK POLLACK: I'm Rick Pollack. I'm a family doctor and I tend to think of my patients and my work much more in the hurricane realm than I do in the ice cube realm. And one of the concerns that I have is that both the research and (even more importantly) the application of the research by bureaucrats, regulators, insurers, tends to interpret the information as an ice cube and not as a hurricane; and I find as a family doctor on the frontlines that in some ways it disempowers my patients from helping to determine what kind of care they wish to receive because not only am I measured as a good or a bad clinician by following guidelines, but in... in... indeed I'm paid more to convince my patients to do something that they may not wish to do based on a really good values clarification discussion that I'm now disincentivised to have with them. I'm curious about how we guard against unintended consequences of the measurable displacing the important, especially where I live in the primary care world.

ATUL GAWANDE: To me, this is a cost of our invisibility. We have very little window into how hard your job is. I'll give you an example. We did a recent study where we took one medical clinic here in Boston by Fenway Park and we found that in a year they had 6,000 diagnoses come in the door; that the average family physician or internist ended up seeing 400 new diagnoses in a year; that in fact the job that the person has who sits in your role is one of dealing with immense variety most of the time. I think in many ways that if we're able to shine more of a light and let people get more of a feel for how complex that job is, that we would begin to reinvent that job – how do we use the computers and the information technology capabilities much more effectively, treat people who need much more time and complexity in ways that are very different from the people who just need a quick, routine kind of entry or even connection by email or other needs/means? And the lack of visibility into what is that hurricane of patients coming through the door – how various and unmanageable some components are and how manageable others are - I think would increase sympathy rather than decrease it for what happens in our jobs. What we see from what little glimpses we have, for example, is an inordinate amount of time is spent on the computer and on the paperwork. You know we've become data entry clerks. We can spend as much time in front of that screen as we do in front of the patient.

SUE LAWLEY: Your doctor spends as much staring at the screen while you're sitting next to him and not at you?

ATUL GAWANDE: Yeah. Yeah part of the way we then steal the time from you to start doing the data entry even as you're there.

SUE LAWLEY: Exactly.

ATUL GAWANDE: You know I think that we are only beginning to even design our systems. You know it's like we're 20 years behind. Everybody else has graduated to, you know, much more user friendly approaches because we daily see the ways we can use our phones and our technologies but we have not done that at all in medicine.

SUE LAWLEY: Okay I'm going to take a last quick ... quick question.

DR JAMES BAKER: My name is Dr James Baker and I'm a hospice physician here in Boston. All of my patients are terminally ill, but they don't fear death. Most do not. What they fear most is going back to the hospital for any reason because of the onslaught of what will happen to them. What do you think will be the pivotal moment to cause us to listen to them and give them what they want instead of what we know how to do?

ATUL GAWANDE: Well a couple of things. I hope one moment might be my lecture on this subject - the Reith Lecture which will be coming up as one of them. But I think the pivotal moment – and it's a point that I'll get to elaborate on – is I think that the data that we're having is showing that the most important thing we fail to understand is that people have priorities besides just living longer. The second thing is that the most powerful way to learn about what those priorities are that people have is to ask them, and we don't. That's the reason they have to fear what might happen.

SUE LAWLEY: And there we have to end it. Next week we'll be in Central London at the Wellcome Collection set up to explore the connections between medicine, life and art. In his second lecture, Atul will be exploring how better systems can transform global healthcare. Until then, our thanks to our hosts here at the JFK Library in Boston and to this year's Reith Lecturer, Atul Gawande.

(AUDIENCE APPLAUSE)