



## PODCAST TRANSCRIPT

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### EPISODE 5 – Professor Paul Glasziou

Ray Moynihan: How was the water this morning?

Chris Del Mar: Oh, the water's beautiful. The water's about 20 degrees, and the waves are small, but very clean and nice. It was really a very nice surf.

Ray Moynihan: The sun has just come up. It's a sparkling blue sky morning in the middle of the Australian winter, and two surfing professors have just come in from catching waves.

Chris Del Mar: [00:00:30] I got a couple, I actually got a couple. Here's Paul, he got more. Paul got lots.

Ray Moynihan: How was it?

Paul Glasziou: It was small but clean.

Ray Moynihan: What a beautiful morning.

Paul Glasziou: It is. Yeah, just perfect. Yeah, cold. It's warmer in there now.

Ray Moynihan: Hello, and welcome to The Recommended Dose, the podcast encouraging a more questioning approach to healthcare. I'm Ray Moynihan, and I have little doubt you'll be asking [00:01:00] a lot more questions of your doctor after you've heard this episode. Today it's a conversation with surfer Paul Glasziou, a family doctor, a one-time professor at Oxford University in the UK, now based at Bond University in Australia, and a global authority on the use of scientific evidence in healthcare. Like many of the best minds in medicine, Paul's becoming convinced that while there's enormous benefits from our medical tests, [00:01:30] treatments and diagnoses, there's a lot that don't work, a lot that cause harm, and a lot that simply aren't needed. And that the medical system itself has become one of the big threats to human health.

Let's dive straight into the stormy waters of one of the most controversial issues of healthcare today. Do we have too much of it? Do we have too much medicine?

Paul Glasziou: Oh, as you know [00:02:00] Ray, we certainly do. And that's been a growing problem maybe over the last 50 years, in fact. But I think the growing recognition in the past 10 years has been the degree to which we're over diagnosing people as well. That also leads to over treatment, but the classifying people as diseased when they don't have anything that would ever cause them a problem is just a growing problem in medicine.

Ray Moynihan: Hearing you say that. Hearing a doctor, [00:02:30] a researcher with a global reputation say that we're treating and diagnosing too many people, is going to be very hard for some people to accept or understand. Why do you say that?

Paul Glasziou: I say it 'cause it's true. And the problem relates to our tests, our technologies largely, have just gotten in a way too good. So we can now detect things that we previously didn't know about. So the classic example that people always talk about is [00:03:00] thyroid cancer, or so called cancer. So, we've had a tripling in Australia, and it's the same in the US and several other countries, of the number of people getting, or being diagnosed with thyroid cancer. Is that caused by radiation, or something? No, it's actually over diagnosis. The numbers of people dying of it have not changed at all, or if anything gone down. So, the excess- there's this excess of people being detected [00:03:30] with it because of how good our imaging is now. We're just finding more cases, and we could be doing even better, or worse depending on which way you frame it. South Korea, for example, has had this 15 fold increase in the incidence of thyroid cancer because of a few enthusiasts who thought it was a good thing to screen people to try and detect more cancer.

And the more tests they did, the more they discovered, so it was a sort of positive feedback loop. [00:04:00] You keep going, "Oh, I'm finding more than I expected, I'd better do more tests."

Ray Moynihan: But does that mean that we're actually calling something a cancer that won't actually harm you?

Paul Glasziou: Yes. So it's not a good- it looks like a cancer under the microscope. And one of the problems we have is differentiating the things that look like a cancer under the microscope, but will never progress, or even regress compared with those that really are a problem. And there are real cancers that are going to harm you, and you need [00:04:30] to find them and get them out. But there are a lot of things that look under the microscope that look like a cancer, but don't behave like one.

Ray Moynihan: And is this just a problem with thyroid cancer?

Paul Glasziou: No, it's a problem with almost every cancer. And the other classics, of course, are prostate cancer and breast cancer, but it even occurs with some odd things like renal cancer, which has doubled through incidentally detected lesions. So people

are often doing a scan for some other purpose, and I've had this with a patient [00:05:00] who was being scanned for another purpose, and I instantly noticed something on the kidney, and went, "Oh, well actually your liver is fine, but we've noticed this thing on your kidney and we better have a look at that." And when they go into it, "Oh, there's this cancer ..." So called, "... there." So as I say, it's our technologies in a way have gotten too good. This occurs not just in cancer, though.

This is occurring in basically every area of medicine. You can think of it in cardiology, and neurology when we scan [00:05:30] the head. Joint problems are another classic one. So, if you scan somebody's knee at my age, nearly 80% of people my age will have some sort of abnormality in their knee, and about 15 to 20% of them will have a meniscus tear, and then the temptation is to treat them.

Ray Moynihan: And to diagnose them.

Paul Glasziou: Yeah, yeah, diagnose it first and then say, "Oh, you've got a meniscus tear, we need to treat that." But in asymptomatic people, that's what you'll find.

Ray Moynihan: You mean people without [00:06:00] symptoms?

Paul Glasziou: Yeah. Yeah, yeah. So this is across the board, and it's basically our tests over the last century, really, have gotten too good and are detecting all sorts of things. So that's probably the biggest problem, but there are others as well that cause over diagnosis, and one is our shifting definitions of disease. So, go back half a century and what we would call hypertension, or high blood pressure, was usually detected when [00:06:30] someone was symptomatic. And getting headaches and symptoms from it. And so the levels that we'd call hypertension then were extremely high, and over the decades we've gradually moved it down. And in some ways that's been appropriate, because we've recognized the risk that people are at. But the question is how low should we go? And I think with hypertension, we've probably gone too far, and there are other conditions where this is a big problem. A big controversy at the moment is about [00:07:00] diabetes in pregnancy, so called gestational diabetes, where there are several definitions out there, and depending on which one you use, you could have one in 13 women having it, or one in four women having it.

Ray Moynihan: So, in other words, 20, 25% of pregnant women might be labelled because of the change in the way these things are being defined.

Paul Glasziou: Yes, exactly.

Ray Moynihan: So how big is this problem?

Paul Glasziou: We can't say exactly, but we know that it's growing several percentages each year. I think [00:07:30] it's the thing that threatens the sustainability of healthcare most of all. This over diagnosis means many more people being labelled, and as Margaret McCartney describes it, we're now so busy worrying the well we don't

have time to take care of the sick. That's the fundamental problem. We are labeling people with conditions that we've over detected, because we've done the imaging tests, or we've over defined, because we've changed the definitions of diseases. And they're filling [00:08:00] out waiting rooms with people that are worried, and we don't have the means, we don't have the time to take care of the sick people. We know it exists, we know it's a big problem. We don't know exactly how big it is, because it's actually hard to define who have these inconsequential problems.

Ray Moynihan: So, you're saying it's a big threat to the sustainability of health systems. Is it also a threat to the health of individuals?

Paul Glasziou: Oh, yes, [00:08:30] you can easily imagine that you've been over diagnosed with a lesion, let's say it's a thyroid cancer. And that can lead to complications like surgical infections, for example, or you can lose your voice.

Ray Moynihan: So if you have the diagnosis, and then you have the surgery.

Paul Glasziou: Yeah. Yeah, yeah. And with prostate cancer, you get similar problems. Many men get impotence, incontinence, and the occasional person even dies of the surgery, [00:09:00] and that happens. We know, and everyone agrees, that some of those people have been unnecessarily diagnosed. So those complications are occurring in something that never would have disturbed you in your lifetime.

Ray Moynihan: What are people in their ordinary lives supposed to do? We've been told for generations that early detection is the best medicine, and you're really questioning that. You're saying there's downsides there. What are we supposed to do with this evidence that there's [00:09:30] a massive problem with over diagnosis and over treatment?

Paul Glasziou: Well Ray, I wrote a book - I co-authored a book called *Testing Treatments*, and one of the chapter titles is, Earlier is Not Necessarily Better. And I think that encapsulates it. For everyone, it's intuitive that earlier should be better.

Ray Moynihan: Early detection, early diagnosis.

Paul Glasziou: Early detection and diagnosis of any disease, that more information somehow should always be better, but I think the over [00:10:00] diagnosis pattern clearly teaches us that earlier isn't necessarily better.

Ray Moynihan: And so, what you're suggesting is that if you're healthy, if you don't have symptoms, you need to be very sceptical about someone offering you a screening test, a test to see what might be wrong with you that you don't know about?

Paul Glasziou: Yeah, or offering them to someone else. So, I know people who buy their husband or their spouse a CAT scan for their fiftieth birthday. Whole body CAT scan, right. [00:10:30] That's a terrible thing to do. In Gil Welch's book, he talks about the

average number of asymptomatic lesions that you'll detect is something like 2.5. You're just asking for trouble to do that.

Ray Moynihan: You mentioned Gil Welch's book. That's the book by Welch, Schwartz and Woloshin, called *Overdiagnosed*, and I think has affected many of us, that book.

Paul Glasziou: Yes.

Ray Moynihan: And I think we can happily recommend that book to anyone listening.

Paul Glasziou: Yes.

Ray Moynihan: Because it's an extraordinary introduction to this [00:11:00] problem that you're talking about.

Paul Glasziou: Yeah.

Ray Moynihan: We're about to enter a whole new phase in medicine with the arrival of genetics and genomics. What's that going to do to this problem of over diagnosis and over treatment?

Paul Glasziou: Yeah. You know, Ray, it's just going to make it worse.

Ray Moynihan: Why?

Paul Glasziou: So, I think there are some things where the genetic tests will help. Okay, so the BRCA1 is an example of that, the breast cancer gene. Because it does, it's a very strong [00:11:30] predictor. I think our problem is going to be that we're going to end up with lots of pretty weak predictors. But that means everyone's going to have this slightly elevated risk, and we don't know how to deal with the labelling that that entails, and how to deal with that slightly increased risk in everybody. So, I feel like the world is very unprepared for this at the moment, but it's a looming disaster for medicine if we start doing lots of genetic testing, we [00:12:00] discover that you've got raised risk for 50 out of the 5,000 diseases, and you don't actually know what to do with all that information, except worry about it.

Ray Moynihan: I think it's fair to say that you and many others are starting to try and address this problem. Is that fair to say?

Paul Glasziou: Yeah. I mean, I feel like I came late to this game. The Dartmouth group that we mentioned early of Welch, Woloshin and Schwartz have really been taking a lead on this, but [00:12:30] the awareness around the world on this issue is now much, much greater than it was a decade ago. People from all of the disease areas, at least some of them, recognize that we have to do something about this, so that's great.

Ray Moynihan: And this problem is too much medicine?

Paul Glasziou: The question is what to do about it? And I think there's a series, there's no one magic solution to this. We need to wind back the number of tests we do, when we do these tests, we need to change our definitions of disease. When we have discovered something, we need more shared [00:13:00] decision making. So there's a whole series of phases that we can help to contain the problem. I don't think we can eliminate it completely, because of that problem of there being no clear boundary quite often. But we can contain it much more than we do.

Ray Moynihan: And I think it's fair to say, too, that it's not just the odd researcher, or doctor worried about this. This is now something that a lot of consumer groups, a lot of senior policymakers, a lot of people in government are thinking about.

Paul Glasziou: Yes, the councils [00:13:30] are all aware of it in Australia, for example. Many government bodies, so the Preventing Overdiagnosis Conferences have actually been attended by, and often supported by government bodies as well, that are getting more and more aware of this as a growing problem that we have to wind back.

Ray Moynihan: You're listening to The Recommended Dose. Today with family doctor and surfer, [00:14:00] Professor Paul Glasziou, from Bond University. And maybe now is as good a time as any to mention that he's also my boss. One of the biggest changes in recent decades, of healthcare has been the rise and rise of the evidence based approach, and Paul Glasziou has been a global leader in this. Put simply, the approach is about trying to base our decisions more on good evidence, on summaries of the best evidence, called systematic reviews, [00:14:30] rather than an expert's opinion, or the latest drug company funded study. A key aim of Cochrane, the not for profit which funds this podcast, is to produce those systematic reviews, or Cochrane Reviews, and there are now thousands of them available. And as Paul explains from his time working as a family doctor looking for answers about the best ways to treat patients, while Cochrane Reviews can offer good quality evidence, they're not always available. [00:15:00] And uncertainty about the best course of action is often the uncomfortable reality of medicine.

Paul Glasziou: Yeah, sometimes they'd come up with a Cochrane Review, "Yeah, hit gold." But it was actually not that common to come up with a recent, up to date, systematic review that actually answered all of the questions that I had. And of course there are lots of questions, they're not just treatment questions, though they're the most common ones.

Ray Moynihan: In a sense, part of this [00:15:30] is the need for all of us to generate better, more accessible evidence for people, but isn't the other side of this that we've all got to be more accepting of the uncertainty in medicine, there's often not a good answer?

Paul Glasziou: I learned slowly as a GP that you have to learn to deal with uncertainty, and partly the research work I did taught me that the uncertainty is inevitable. You can't get away from uncertainty. And there are different [00:16:00] degrees of it.

Sometimes, we're not certain what to do, sometimes we think there may be an answer and we need to do research to find out. And sometimes there is no answer.

Ray Moynihan: We're talking about all of us needing to accept more uncertainty and yet, often this is at a time when we're at our most vulnerable. We're sick, we're facing death, we're suffering, we're watching our loved ones suffering. That uncertainty can be devastating.

Paul Glasziou: It can be. And learning to deal with that, both as the clinician, [00:16:30] and clinician dealing with patient, is difficult but possible. But it's not well taught, I don't think, in medical schools at the moment. I think it's taught better in the general practice programs, by the way. I think it's a natural thing to have to deal with the different types of uncertainty. I can remember my first real encounter with it was when, as a young intern my medical registrar, we'd done [00:17:00] all these investigations on a patient. We hadn't found anything. He sat down on the bed and said, "You know, we haven't worked it out yet, but we can only take you apart so much." And he then had this lovely conversation about the uncertainty. He thought that this was probably nothing serious but we needed to monitor it, etc. and he was sort of role modelling how you might actually deal with that inevitable uncertainty that's going to occur.

But we need to teach that better to both the clinicians, [00:17:30] but also patients need to recognize that often we have to live with a degree of uncertainty, and that it's sometimes better not to know, too. Cause it's that seeking, of trying to resolve all uncertainty that leads us to over testing and the over diagnosis. We feel like we must be able to find an answer if we just image everything, and do all the blood tests possible. And what you'll end up is a lot of false positives that then lead you down the wrong path.

Ray Moynihan: We'll talk a [00:18:00] little bit about Cochrane in a minute, but while we're on the evidence based approach to medicine, from the beginning it was controversial. There were lots of criticisms. In more recent years, those criticisms, I think have become more mature. There was a piece in the British Medical Journal a couple of years ago called something like, Evidence Based Medicine in Crisis.

Paul Glasziou: Mm-hmm (affirmative).

Ray Moynihan: And that piece, that article was informed by a group called the EBM Renaissance group, which I think you were a member of. [00:18:30] Is evidence based medicine in crisis?

Paul Glasziou: No. But evidence based medicine has uncovered all sorts of problems within the structure of the evidence base of medicine. We've discovered the rates of non-publication, the fact that we don't have access to all the information, and the parts that we have access to are biased, that don't really answer the questions properly, etc. So, I'd say it's in evolution, it's like we've [00:19:00] pulled up the rug, we've seen the problems underneath, and we're now trying to fix them. To

me, that's not a crisis, the crisis has been the uncovering, not the fact that it's gone adrift somewhere. And so I think that work needs to continue. So I see it as an evolution, rather than in crisis. Yes, Renaissance is part of the sort of evolution of it, and I would say evidence based medicine has neglected [00:19:30] things as well. I would have said over diagnosis was one of the things that we neglected early on in the whole evidence based medicine world, and it was really that Dartmouth group that we were talking about earlier, I think, that really brought it to our attention. So there was a recognition of it, but not how serious the problem was.

Chris Del Mar: It's worth just keeping your eye on the horizon, because sometimes you see the spout of a whale. [00:20:00] To be able to surf and see whales. Every now and again a dolphin pops up next to you, that's just a lovely way to start the day.

Ray Moynihan: That's Professor Chris Del Mar, Paul Glasziou's surfing buddy and another leading light in the world of evidence. Who has, among other things, been a global leader in advocating winding back the over use of antibiotics.

You two, apart from both being surfing professors are also, I think I'm right in saying, very good friends. [00:20:30] You work together, you've been working together off and on for a very long time.

Paul Glasziou: Yes.

Ray Moynihan: How important is that? How valuable is that to your collective output?

Paul Glasziou: It would be hard to have it without that. I think it's been 25 years, probably.

Chris Del Mar: We complement each other, I think. Paul's got really good ideas and I try and work them up.

Paul Glasziou: No, no, no, it's the other way around.

Ray Moynihan: [00:21:00] I do notice there's a lot of laughter that comes out of the lunchroom whenever you two are around, too.

Paul Glasziou: Oh, yes, it's part of working well together is having fun together too.

Chris Del Mar: Yeah, it's important, you know. Just watch, watch, watch. There, you see it? That's a pod of them. Yeah, that tops off the day.

Ray Moynihan: You're listening to The Recommended Dose, today with Paul Glasziou, who for a long time [00:21:30] has been involved with Cochrane, the organization which takes its name from an extraordinary doctor and public health authority, Archie Cochrane, who served in both the Spanish civil war and then World War II, and then went on to dream of a time when we could base our health decisions on good evidence.



The Cochrane collaboration, you've been a long-time associate, long time engaged in this for many years. What do you think of the [00:22:00] Cochrane collaboration?

Paul Glasziou: It's fantastic. It has its flaws, but I think the fundamental thing that Cochrane does is what we really need to do in medicine. Sort of founded on Archie Cochrane's idea that we needed a summary of all of the randomized trials, that was periodically updated, and was grouped by specialties. That's his sort of famous statement on this. The forerunner of this was [00:22:30] the Oxford database of perinatal trials that Iain Chalmers had produced, which was quite an amazing feat by a small group of dedicated folk, and really managed to cover most of the area of medicine.

Ray Moynihan: So, in other words I think what they did then, they took everything that was done to pregnant women and they looked for the evidence behind it.

Paul Glasziou: Yep.

Ray Moynihan: They come up with a list and they said, "This is what works, and this is what doesn't work." And they changed the world as they did that.

Paul Glasziou: Yes, that's right. And their methods would probably now [00:23:00] be considered primitive by Cochrane's standards, but it was the first big attempt to do it at that sort of scale. I mean, when you look back, it was just amazing what they did, and it's been scaled up across a whole range of disciplines in medicine. It doesn't have complete coverage and some areas are well covered, and some areas are not so well covered, so we still haven't quite achieved Archie Cochrane's dream, and there are a number of things we need to do in order to get there, [00:23:30] but it has to be the premiere organization in the world that is trying to do exactly what Archie Cochrane's dream suggested.

Ray Moynihan: Do you ever use Cochrane's Reviews when you or one of your loved ones has got a health issue?

Paul Glasziou: Yes, yes, I would look for the Cochrane Review. Because there hasn't been an explicit area of primary care, with the coverage of all the common problems, it was less useful to me as a GP. When I found a Cochrane Review [00:24:00] of course that was gold, but it didn't cover the majority of problems that I had to deal with on a day to day basis. So, yeah, it's fantastic when you can find the up to date review. You won't find anything better, but it doesn't currently have the complete coverage.

Ray Moynihan: And would you encourage everyone listening, who hasn't ever looked at a Cochrane Review, or hasn't ever used one to become more familiar with them, if they could?

Paul Glasziou: Oh, yeah, but I'd point [00:24:30] them to two specific things. One is, you should look at the consumer summaries, because they're very nicely written and

everyone can understand them. And the other is a thing called a summary of findings table. So you remember Cochrane's original statement was that he wanted a summary of the evidence. Not 100 pages, he wants a summary, and those summary of findings tables actually lay that out more clearly than anything else you'll find.

Ray Moynihan: You know, given everything [00:25:00] you've said, how can people deal with the lottery of where they find their healthcare? It's a bit potluck isn't it, whether you end up with a GP like yourself, who's going to be very aware of the evidence, who's not going to prescribe an antibiotic unnecessarily, or whether you end up somewhere else and you get every test and antibiotic that the doctor can think of?

Paul Glasziou: That's a very good question, Ray. So, I'll answer it for myself personally first of all. So, if I'm going [00:25:30] to see somebody about a problem, I always look up the evidence myself. Now that's hard for a patient, as we discussed earlier, but it's possible for a patient to go and look at evidence resources and do a little bit of digging themselves, and I think that's one way of cross checking their doctor. But that's a very interesting question, so I can imagine answers to it, but I haven't know of any systematic research on this, but the sorts of things I'd [00:26:00] be looking for in a doctor is one who is more of a therapeutic dove than a therapeutic hawk. Somebody that wants to do every test on me, and wants to give me every possible treatment I would worry about. Someone who looks things up though, someone who uses the College of GP Guidelines I would feel more comfortable with, but I suppose if I could interview them, like you're doing with me, I would want to ask them about how they keep up to date and what they're knowledge of evidence based medicine was. But I imagine that might put a few [00:26:30] GPs off. So I don't have a magic answer to that, I'm sorry but it's a very interesting question.

Ray Moynihan: I do remember once having a skin cancer issue, which we tend to get in this country, in Australia, and taking a Cochrane Review in with me to see a skin cancer doctor. And I think it was the first Cochrane Review he had ever seen, but he was very interested to know more about it.

Paul Glasziou: Yeah, well I've done exactly the same, Ray. And in a way, the response to that information is an interesting indicator. [00:27:00] If the doctor can reasonably discuss that information with me, and doesn't just reject it out of hand, I feel like this is a person I can trust. Who's interested and open minded. Whereas someone who just dismisses it, "Oh, you can find anything on the internet." and then just wants to have their opinion, that's not the doctor for me.

Ray Moynihan: Paul Glasziou, thank you very much.

Paul Glasziou: My pleasure, Ray.

Ray Moynihan: You've been listening today to a conversation with Paul Glasziou, on The Recommended Dose, with me, Ray Moynihan, funded [00:27:30] by Cochrane

Australia. With recording from Ben Griggs, and editing from Jan Muths.  
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- END -

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