Interview

Dr Rifat Atun, Professor of Global Health Systems
at Harvard University, USA

Mark Lodge, Commissioning Editor of the *Cancer Control* Series, conducts this wide ranging and thoughtful interview with Dr Atun on the role that health systems play in global health and the complex challenges they face.

Mark Lodge
I am going to begin with some general introductory questions: Who are you? What do you do? Where do you work and how did you get there?

Professor Atun
Thank you, Mark, for this opportunity to contribute to *Cancer Control 2022*. I am Rifat Atun. I am a Professor of Global Health Systems at Harvard University and also the Director of the Health Systems Innovations Lab at Harvard.

Mark Lodge
And what was your path to Harvard?

Professor Atun
Prior to Harvard, I was at Imperial College, where I was a Professor of International Health Management, and worked at the Business School, as well as the Faculty of Medicine. I was Head of the Health Management Group and Director of the Centre for Health Management. While at Imperial College I had the opportunity to have extended leave to join the executive management team of the Global Fund in Geneva for three and a half years as Director of Strategy, Performance and Evaluation, where I was responsible for overseeing investments in around 140 countries. That was a remarkable experience, and enabled me to really see global health activities in real time.

Mark Lodge
What currently concerns you about the global response to cancer?

Professor Atun
What I was able to see and experience at the Global Fund was the strong need to strengthen health systems. Even when funds, diagnostic tools and treatments were available it was challenging, in most countries, to scale up diagnosis, treatment and care. That was because the health systems did not have the absorptive capacity to rapidly adopt and scale up for new innovations or new technologies and interventions. And of course, training human resources took quite a long time in many settings. Flexible arrangements could not be put in place rapidly enough to absorb the available technologies. So, for me, that is the most important constraint in improving cancer control, as it has been for other conditions. Namely: ensuring that health systems are strong enough to diagnose cancer at an early stage, ensure earlier and appropriate referral, ensure appropriate and early treatment, with follow up to ensure survivorship is managed in a proactive manner. And of course, for those who are not able to receive treatment, and when it is not possible to treat cancer, palliative care is critically important. Systems are not able to do this in an integrated way. And that's the biggest challenge.

Mark Lodge
It was very interesting for me two years ago to read an article which said, "We need to talk about the big C – I mean, COVID," and I suddenly realized that cancer had been replaced; which was of concern, I think, to many people in our community. COVID-19 held up a mirror to all our health systems, and no one looked too clever. It also showed how the health system impacts on other things and how other things impact on the health system. So, the relationship between health with a capital H and the economy, suddenly was shown in sharp relief.

Professor Atun
Absolutely. What COVID-19 has done, and not to use a pun, it has really unmasked the weaknesses in our health systems. Health systems were not able to respond to COVID-19 and they've not been resilient. We've seen first, second, third waves, with many countries not being able to cope with the increasing number of infections. And the consequences of this inability to respond and our inability to demonstrate resilience has been terrible, in terms of the number of deaths, as well as the impact on the economies and our societies. So, health systems are really critical. They're critical, not just for good health, which is important in and of itself, but also for the economy and for

societal wellbeing. The numbers… we don't need to repeat the numbers; the losses run to trillions.

Mark Lodge

For at least 50 years now the argument has been that in order to have a good, productive or effective health system, you first of all have to have a good economy. In other words, the Economy come first, and then you can afford the health system. Are we in a position that we now have to rethink this and say: "Actually, no, it's health that comes first"?

Professor Atun

It's both ways, and there's evidence for that. The effects are not unidirectional: that stronger economies will lead to more investment in health systems and improve health. Actually, the reverse is also true. Improving individual as well as population-level health reduces direct costs on the health system and also improves the productivity of individuals, so that they're able to contribute to the economy and economic growth. It also reduces the loss of very important human capital, as people are not dying prematurely. And again, these individuals are able to contribute to the economy.

We have been able to show these health and economic benefits in a number of studies in relation to cancer. For example, expanding radiotherapy to address the gaps around the world: every dollar of investment in the expansion of radiotherapy for the commonest types of cancer will lead to returns of US$ 3 to US$ 6. Similarly, for childhood cancers, scaling up diagnosis, treatment and care for childhood cancers around the world, including treatment and management of those cases that are currently missed – one in two cases each year – would yield US$ 3 for every dollar invested, and the returns for other cancers are even larger. Our recent study published in *Lancet Oncology* as part of the Lancet Oncology Commission on Medical Imaging and Nuclear Medicine reveals that every dollar invested in scaling up imaging diagnostics, treatment (that is surgery, chemotherapy and radiation therapy), as well as high-quality care, yields massive returns. For every dollar invested, the returns range from US$ 12, up to US$ 60, across the world.

Mark Lodge

You're referring that to research that has been done. Do you think sufficient research is being done on the health economics of cancer? I'm thinking about the point that HRH Princess Dina Mired made at the 2018 UN High Level Meeting on NCDs. She said: "Look, we've made the economic case for investment…. what more do you want us to do?" Because it is useful to have that information, but it doesn't seem to be persuasive. And I'm baffled why that should be, because it's illogical when the evidence is so strong?

Professor Atun

Yes, well, researchers will always say, "We need more research", absolutely, but we need the right kind of research. We need more refined knowledge to influence policy. The studies undertaken by my group and others have demonstrated the health and economic burden of cancer, as well as the health and economic benefits of scaling up cancer prevention, diagnosis treatment and care. So, there is an investment case, because in addition to large health gains there are also very large economic returns.

What concerns me in terms of finance is: "what is the budget impact of investing more in health systems, or in cancer?" And that relates to a slightly different question, because there may be economic benefits further down the road but ministers of finance are concerned with managing the fiscal envelope that they have. They have to choose whether to invest in health, whether to invest in education, in transport or other sectors. So, we need to be able to show them that the increases required in the budget for health are manageable and then, importantly, we need to demonstrate that it is feasible and possible to realize these health and economic benefits in different settings. Having demonstrated an investment case economically, the next generation of research needs to show how this can be done in different settings; to show that this is feasible, it is possible, and it can be implemented in different countries. That is the research we are lacking.

I remember in one meeting – I think was one of the World Oncology Forum meetings – I said that there was huge amount of research in relation to new diagnostics and treatments, and massive investments in relation to the genomics or genetics of cancer, which, of course, is very encouraging. But in relation to health system design, we really have very little evidence on what works – there's a complete asymmetry between the evidence that is needed, and what is invested for research. And health system design is the part where efficiency gains and improvements in effectiveness can be harnessed in very large terms, yet the research in this area is lacking.

Mark Lodge

I'm glad you said that. I've recently been looking at a systematic review, Availability, affordability, access and pricing of anti-cancer medicines in low- and middle-income countries. It's a small systematic review. They ended up looking at 13 papers in detail, and they found that there was no one paper that looked at availability, affordability, access and pricing altogether.

Professor Atun

This is critical because we know that health systems, as we've discussed, have not been able to effectively respond or be resilient to new health threats, or existing health threats, such

as chronic illnesses. So, we really need to undertake meaningful research to demonstrate what works and what's going to work in the future.

Mark Lodge

I wonder whether, after we've done all that research, whether we can still persuade the people who aren't in the health sector, who work for the Treasury, or are in overall, command of the economy. Do we need to do something different to land the arguments that have been made already about health being an investment, not a cost? I mean, there is a suspicion that, actually, we're not very good at that. And when I say "we", I mean people in the cancer community, and the other parts of the health-care community. We're not good at going that last mile and making the point of investment rather than cost. Would you agree or not?

Professor Atun

I would agree, because that narrative has been developed, certainly in my experience, over the last 30 years. Initially, the narrative was around the health burden. You know, "Cancer is a big problem", or "tuberculosis or HIV is a major burden"; that was the message. For conditions that are new to global health, there are many published papers about the burden. Which is important, of course; we need to quantify what the health and disease burden is. Then the narrative shifted to health and economic burden. We were able to demonstrate the economic cost of inaction; the economic burden of not addressing a condition. And then the narrative further evolved to societal costs, beyond just economic costs. Then a number of us have been working on demonstrating the potential benefits. Because, having demonstrated that cancer is a big problem, we have to generate evidence on what we can do about it and what the benefits are. So, the narrative for the current generation of research is around the benefits of investing; both the health benefits and the economic benefits.

Now, that narrative needs to be supplanted by new research evidence showing that it is feasible to use these investments in an effective and efficient way to demonstrate results in the short, medium and long term. This is the research that needs to underpin the new narrative. It's all about the feasibility, the possibility, and the opportunity, to harness these health and economic benefits.

Mark Lodge

So this is implementation research?

Professor Atun

Well, implementation research along with health systems research.

Mark Lodge

Okay.

Professor Atun

Because we have lots of evidence of clinic A doing this or hospital B doing that. What we need is evidence of large-scale programmes and how systems work beyond one or two institutional examples; because we tend to use the same institutional examples. We need to show that scaling up interventions at national level or at large scale is feasible and yield desired benefits. And I think generating this type of evidence requires – beyond the classic implementation research – what I would call "health systems research".

We need to change the organization of health systems, the governance and financing. We need to improve the way we use resources, both physical and human resources, but also very importantly, technological and knowledge resources, to produce the right kind of outputs – namely public health and health services for individuals and populations – to realize improvements at population level in relation to health, financial protection and user satisfaction.

So, we need to go from micro to macro. This is where the gap is. It is important to show improvement at micro level, at an institutional level, but we really need to be able to replicate and scale up successful models at the systems level to really demonstrate large scale benefits for populations.

Mark Lodge

And does that only work for liberal democratic society societies? It is interesting what is happening in Ukraine, because it has helped us, again, to look in the mirror and to realize that not everyone thinks like us or acts like us, and that the more affluent societies, which are having this sort of conversation are actually in the minority. I wonder whether, even if we achieved everything you are looking for, it would only deal with that part of the world that is already doing pretty well, thank you; compared to those countries where one wouldn't be given an audience by policy-makers.

Professor Atun

No, I'm not sure…

Mark Lodge

I might be wrong. So, tell me I'm wrong.

Professor Atun

I'm not sure that one can divide countries in such a binary way, one way or the other,

Mark Lodge

I'm deliberately trying not the name countries…

Professor Atun

Yes of course. This is why in health systems governance is very important, as well as organizational design. Governance will influence priority setting and investment decisions. And countries with different governance systems, have to prioritize health, because it's not just a health issue, this is an issue for the economy, and for many countries, it's an issue for security. So, it's not an option. All countries need to invest in health. The question is, how to invest right? Where to invest?

Mark Lodge

Thank you, that's a thoughtful answer. One of the weaknesses about living in a liberal democratic system is that our politicians have, at most, an attention span of five years, whereas…

Professor Atun

I think that you are being extremely generous – I would say their attention span is probably in minutes. This is the problem, because politicians are ultimately interested in being re-elected and they will look for populist policies for short-term gains, ignoring long-term more-strategic investments.

Mark Lodge

Let's take an example of cervical cancer prevention. You do the vaccination at, say 12–13, and later you do the screening as well because you don't want women to develop cervical cancer when they're 30 or 40 or 50. And it's difficult to tell some politicians: "Oh, don't worry, by 2070 this is really going to benefit the population."

Professor Atun

Absolutely and that's one of the challenges in politics. As they say, "In politics, one week is a long time", as we're seeing now in the United Kingdom. This is reality. We have to learn to live with it. What's important is to ensure that there are enough checks and balances in the system in democratic societies that we live in to ensure we're able to argue for the right kinds of priorities and investments. That we're able to demonstrate the evidence, and we're able to show what works in practice. And this has to be done on an ongoing basis because governments will change, and the parties in power will change, and their views will be different over time. But that is that is the way our countries function. That is fine. We have to ensure that we sustain and maintain momentum, and engage with all the parties, not just the party in power.

Mark Lodge

So ideally, beyond party differences, ideological differences, there would be a consensus across the political spectrum, that this is, one of the things that have to be done? Like, the defence of one's country, for example, it is totally primal?

Professor Atun

Absolutely, and we've seen this with COVID-19. It didn't matter what party was in power; everyone had to fight COVID-19. All countries, with different political orientations, struggled to cope with, with COVID-19, with terrible health, economic and societal consequences, but everyone has realized that health is a major priority. Now this is the moment to really rebuild the narrative, but not just saying that "there is a problem" or an "issue". We need to show what works; what is feasible; and what is possible. Generate the evidence or ways to improve and strengthen health systems. So that we can use investments in a wise way, because there are some studies suggesting that 20% to 40% of health expenditures are not used optimally, and I think I'm being generous to call it that. We can say that 20% to 40% are wasted each year and that's not acceptable. While there's a shortage of funding, we're not even using available funding in an optimal way. We need to look at new ways of using available funds, but also to argue for greater investment to improve health and wellbeing of our societies and our economies.

Mark Lodge

I agree completely, and yet, we both know that once you start talking about "the waste in our health service", it's a dog whistle to people who want to reduce taxation and reduce expenditure. The way around that is not to cut the funding, but to find a smarter way of working.

Professor Atun

Yes, reducing waste does not mean cutting back. What we need is actually to reduce waste and to reinvest in health; and to invest more. To get more health for the money but also get more money for health, and do it simultaneously to achieve value for money and value for many.

Mark Lodge

Let me just speak up for waste for a moment, because I think waste is actually part of human endeavour. It's something that happens, and then we realise, "Oh, that's wasteful", and do something about it. But if you start off from position of "there must be no waste!"… Do you see what I'm saying, philosophically?

Professor Atun

Yes, but I think we're taking the argument to extremes. We're not talking about 1% or 2% waste, that's fine. We're talking about 20% to 40%, that's very high. The systems haven't changed for decades, if not for centuries. And what we've seen is that more of the same is just not going to deliver the results

that citizens expect or deserve.

Mark Lodge
So, you're battling the professions as well as…

Professor Atun
Absolutely. Innovation requires doing things in new ways. That is going to unsettle the status quo, by definition. But if we want to progress, we have to leave the past behind. We have to learn from the past, but invest in the future.

Mark Lodge
Is there anything else that you would like to add?

Professor Atun
My last comment would be that we need to position cancer as a societal challenge. We need to move cancer beyond health professionals and really make this a societal challenge that we are solving, by demonstrating that most of the unnecessary deaths can be prevented. Most households will know someone, or will have a family member, that has suffered from cancer or died from cancer. So we need to really take it back to people and make it a societal challenge that we are solving. And that requires an inclusive coalition to make a case for investing in cancer.

Mark Lodge
I realise there was one question I should have asked – and you can plead the Fifth Amendment on this, you really can… Do you think there should be a Global Fund for cancer?

Professor Atun
Yes. I do, and there will be many people saying No. But I think a Global Fund for Cancer would help reduce the fragmentation that currently exists. Again, it's all about the efficient and effective use of the available funds. A Global Fund for Cancer would ensure channelling of funds through a single entity to reduce fragmentation, to reduce waste, to reduce transaction costs; for the funders and countries, as well as for implementers.

And again, this Fund should not be seen as a way of creating yet another vertical funding stream; not at all. It's all about unifying the existing and highly fragmented funding for cancer and bringing together, around the table, all the stakeholders to invest available resources in the most efficient, effective and equitable way but, in the process, also strengthening health systems and working with other entities. Low-income countries cannot cope with 100 funders, there is just not enough capacity. The transaction costs of managing multiple donors is very, very high. So channelling funds through a Global Fund for Cancer would overcome these very high transactional costs, and ensure that the funds that are available are used in a more efficient, effective, equitable and responsive way.

Mark Lodge
And you say that while recognizing one of the great Laws of Life, which is: "You start off as a facilitator and you ended up a bottleneck"? It's one of those dreadful things that happens. So, it needs people need to keep an eye on how the Fund is operating, as well.

Professor Atun
Absolutely, and maybe once the Fund is established and becomes mature and a well-functioning entity, one could engage in the strategic discussions with the Global Fund for AIDS, Tuberculosis and Malaria or other Funds to ensure collaborative investments and joint working. A Global Fund for Cancer does not preclude any of that.

Mark Lodge
Professor Atun, thank you very much.