The Oxford Health Alliance (OxHA): prevention is the name of the game

As chronic disease morbidity multiplies J. Taylor discusses strategies to tackle the global problem with Professor Sir John Bell, FRS PMedSci, President of the Academy of Medical Sciences, Regius Professor of Medicine, University of Oxford, Chair, Oxford Health Alliance

Many cardiologists today are interested in preventing cardiovascular disease, which shares risk factors with the other three big chronic diseases: diabetes, lung disease, and cancer. The crucial question in terms of prevention and clinical care for these chronic conditions is what can be done in the community, says Professor Sir John Bell, FRS PMedSci, President of the Academy of Medical Sciences and Regius Professor of Medicine at the University of Oxford.

‘You can't have a separate stream for cardiovascular prevention that's different to cancer prevention in the community, it's got to all
be hooked up somehow. You're just not going to be able to run public health programmes and do one and not the other.’

Sir John's answer to the question is the Oxford Health Alliance (OxHA), http://www.oxha.org/, which he chairs, and is aimed at tackling chronic diseases.

The seed for OxHA was planted while Sir John was working with Novo Nordisk, a Danish pharmaceutical company interested in diabetes, two other pharmaceutical companies, the NHS and Oxford University, to set up a new institute for diabetes in Oxford.

He says: ‘We got to the end of the project and sat down to think about the sort of things that we could do using that as a platform. We were going to do all the obvious things – clinical research, metabolic research, molecular biology, beta cell physiology.’

He then adds: ‘But it seemed to me and indeed to the others that the space which nobody was occupying was the issue about how you deal with this looming epidemic of obesity, diabetes and vascular disease internationally.’

They decided to put together a structure that would develop research programmes, raise money for research, provide advocacy, and bring a wider stakeholder group into play to consider what to do about these chronic diseases.

Oxford summit meeting.

The inaugural meeting in Oxford hosted an international gathering
of people who had been thinking about the chronic disease problem. ‘It would be fair to say that none of us were very clear what we were going to get out of the meeting,’ admits Sir John, and there was some disagreement about whether it was just a diabetes problem or whether it was a chronic disease problem. ‘In the end we agreed that one of the problems with these sorts of structures is, if you just choose your disease and promote it exclusively, it's not necessarily in everybody's favour. So we decided to do the chronic disease initiative at that meeting, and that's really where it took off.’

Chronic disease meant the big four, as defined by the World Health Organization, and led to OxHA's logo 3FOUR50.

http://www.3four50.com/. It stands for the three environmental factors—smoking, diet, and exercise—which contribute to the four major chronic diseases—diabetes, cardiovascular disease, cancer, and lung disease, which account for 50% of premature deaths on the planet.

OxHA has multiple aims, the first being to highlight the problem of chronic disease on a global basis and encourage more people at all levels to think about what can be done. Secondly, to generate evidence through research activities that will help people intervene. And thirdly, to engage the academic and public health communities, plus the commercial sector, in trying to reduce the problem. ‘It became pretty clear to most of us that you're not going to fix this problem unless industry gets committed to fixing it with us,’ explains Sir John.

He adds: ‘The big theme here is prevention, if one can get there, and with a pretty neutral view about what the best route to prevention might be. Anything from a polypill all the way through to managing the three big environmental causes.’

The membership of OxHA includes the academic world, non-governmental organizations, the public sector, and private sector,
with participants in Canada, the USA, Australia, Asia, India, China, the Middle East, and Europe. ‘We've tried to keep it global to avoid a purely Western focus because some of the problems in the developing world are profound,’ says Sir John.

Sir John's biggest worry is the impending problem in low middle income countries, which he believes are on the brink of an explosion of more health problems. It's because of the fact that as countries develop, they go through a period, where for a whole variety of reasons, they smoke more, they are affluent enough to change their diet but develop bad eating habits, and they don't get any exercise. ‘They get themselves into this real high risk period ... and a very large part of the world is about to go through that at the moment,’ he says.

‘If you look at the incidence rates for glucose intolerance and diabetes in Asian countries that have adopted Western diets in recent years, the numbers are astronomical. And if only a percentage of those go on to get vascular disease, its still going to be a huge epidemic. So there is a real crisis brewing. And if you put that together with the problems of childhood obesity in Western countries, which are now profound, this probably is the number one health threat over the course of the next 20 years.’

One solution is to re-invigorate the public health specialty but with a different remit, so that public health doctors are focused on the prevention of chronic diseases. With all the emphasis on treatment, public health has fallen down the food chain of late and almost ceased to exist as a specialty, and Sir John says this kind of specialization in public health is needed to make prevention work.

Cardiologists, he says, ‘have done the acute clinical management of people with vascular diseases very well with a remarkable patient benefit’, but now they need to focus on two major issues, the prevention and management of people with the chronic illness over time—because the numbers will be going up.

It's not a space that the cardiology community has occupied to date, and it might change the types of people who choose the specialty. ‘Prevention is a very different type of activity than rushing around doing angioplasties in the middle of the night. And I suspect some people are suited for one and others for the other. So it will be quite interesting to see what happens to cardiology over time.’
The commercial sector also has an important role to play, says Sir John. ‘If you want to change people's behaviour, nobody is better at it than companies. Their marketing departments are spectacularly good at getting people to do things.’

While food companies could be accused of being part of the problem, Sir John says they should be treated differently to tobacco companies. ‘The tobacco companies have behaved very, very badly over a long period of time, while you see significant efforts in the food industry to try and think about this problem and adapt and develop their products.’

In addition to bringing the key players together to tackle the chronic disease problem, Sir John sees OxHA's contribution as providing the evidence for what needs to be done. In 2007 they published a paper in Nature that laid out the grand challenges in chronic diseases, which included policy objectives and research objectives.1

Generating evidence around interventions that can be done at a community level to produce a change in risk factors and a change in risk has been difficult to do because it's not a popular activity with funding agencies, and as a result the evidence base is poor.

OxHA has created a generous handful of projects internationally that they call community interventions for health (CIH). They were chosen after an application process, then helped to develop proposals and methodology that would work in each cultural setting.

The studies are funded by a variety of sources, including PepsiCo Foundation, Ovations, which is a subsidiary of UnitedHealth Group in the USA, and some national governments.

The idea has really taken off, says Sir John. ‘In Obama's new stimulus package, he has set aside $1bn I think, for community interventions for health, which is our terminology and is our methodology, so we're pretty pleased about that.’

Most of the studies are looking at cardiovascular disease, obesity, and diabetes, but some are studying cancer. Different protocols are being used and different questions asked, but each one will explore approaches to prevention, such as education, changing things in the workplace, and encouraging better diet.
'There's going to be a string of this data emerging now and over the next ten years, of how best to do this,' says Sir John. ‘I think that will provide the guiding principles for public health intervention.’

Jennifer Taylor, freelance journalist

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