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Global Health: Recent Progress & Future Challenges

[1]M Peterson, [2]J Gao
[1]MPH Student, Centre for Population Health Sciences, University of Edinburgh, Edinburgh, UK; [2]Medical Student, University of Edinburgh, Edinburgh, UK

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Correspondence to M Peterson
Centre for Population Health Sciences
University of Edinburgh
Medical School
Teviot Place
Edinburgh EH8 9AG
UK

e-mail s1563502@sms.ed.ac.uk

INTRODUCTION

The field of global health is facing many changes and challenges. This symposium focused on what we can learn from the Ebola outbreak, progress that was made during the era of the Millennium Development Goals and their transition to the Sustainable Development Goals, and exciting advances in improving population health. The symposium was well attended by a diverse audience of students, policy makers, researchers and clinicians. Over two dozen sites across the world participated via live-stream, allowing it to be a truly global event.

SESSION 1 – LESSONS FROM THE EBOLA OUTBREAK

The Global response to Ebola

As Professor David Heymann (Head and Senior Fellow of the Centre for Global Health Security, Chatham House) outlined the timeline of the Ebola virus, from the Democratic Republic of Congo in 1976 to the West African epidemic in 2013, it became obvious that Ebola should not have been unexpected. Nosocomial transmission between healthcare workers, in an already weak healthcare system, played a significant role in the 28,637 Ebola cases.[1] After the SARS outbreak the importance of data sharing and real-time networks between global sectors worked successfully to control the outbreak, however such lessons have not been systematically implemented since, contributing to the slow and disjointed response to the most recent Ebola epidemic.

After Ebola, what next?

Inevitably, infectious epidemics will become not only more prevalent but there will also be an increased number of novel pathogens at work. How then should communities be better prepared for the unknown? Professor Mark Woolhouse (University of Edinburgh) argued that the answer may lie in the need for a greater understanding of the exact movements of viral organisms from the mammalian to the human sphere. This can only be achieved through a global surveillance network targeted towards emerging infections, one which can be implemented in low-resource settings and which can provide meaningful data regarding transmission patterns. He ended the talk with a warning for the future, 'We have known the right thing to do for many years now…We don't implement them.'

Effect of Ebola on broader health systems

Dr Tim O'Dempsey (Liverpool School of Tropical Medicine) spent 18 months working in Sierra Leone at the height of the Ebola epidemic. His lessons focused on the effects of the paralysed health services in the country. A lack of health service utilisation during the outbreak increased 'collateral' mortality across multiple health domains, including an increase of 20% in under-five mortality and a 19% increase in maternal mortality.[2] Nevertheless, post-Ebola, there is now the chance to rebuild trust and confidence among service users in order to 'build back better' as part of a recovery for the country's damaged health system.

What support is needed globally for health?

The reality of improving global health involves mobilisation over a range of health determinants. Dr

Bernadette O'Hare (University of Malawi and the University of St Andrews) turned the questioning towards how countries should better allocate health resources between domains, such as education and female empowerment, and what factors influence such decisions on a national level, including the importance of policy and its implementation. Dr O'Hare gave examples highlighting the hidden complexity and problems of taxation, as well as questioning the sustainability and engagement of donor aid for countries which are heavily dependent on it.[3]

SESSION 2 – ROUNDTABLE: LESSONS FROM EBOLA FOR FUTURE OUTBREAKS

The speakers and the symposium attendees were in agreement that the international community should prioritise the need to develop earlier surveillance systems for emerging infections, as well as the creation of generic outbreak rapid response teams for future outbreaks. It was highlighted that more should have been done sooner: by the time the epidemic had spread and received international attention, the transmission within Western Africa was already high. The slow response by countries towards the public health emergency should make the World Health Organization accountable, the panel reasoned. When asked about how the international system could be reformed, the answer instead focused on supporting and developing local capacity and infrastructure, emphasising a move away from paternalistic practices of aid and emergency humanitarian response.

SESSION 3 – VACCINATION IN THE POST-2015 AGENDA

Burden of disease from RSV and prospects for prevention through vaccination

Approximately 33.8 million new cases of respiratory syncytial virus (RSV)-associated acute lower respiratory infections occur each year in young children[4] representing a great RSV burden; but, as Dr Harish Nair (Centre for Population Health Sciences, University of Edinburgh) explained, this burden could be even higher due to a potential link between post-RSV recurrent wheezing and asthma. The RSV burden in the elderly is also greatly underappreciated. Thankfully, with 15 candidate vaccines currently in clinical trials, it seems this much-needed vaccine is just around the corner. Many promising efforts are being made to fast-track these potential vaccines and make them available to low- and middle-income countries (LMICs) at an affordable price.

Introduction of the meningitis B vaccine in the UK

Professor Andrew Pollard's (University of Oxford and Chair, Joint Committee on Vaccinations and Immunisations) talk concerning the introduction of the meningitis B vaccine to the UK infant vaccination schedule was especially relevant given the recent petition to the UK Parliament, which had over 700,000 signatures. He expanded on the specific difficulties with group B vaccine development and implementation. 4CMenB, the only vaccine of its kind licensed in Europe, is estimated to target 73% of strains in England and Wales,[5] but the benefits of herd immunity and duration of protection remain unknown. More research must be done to understand if the vaccine can be used in teenagers and how to utilise the vaccine effectively in the future.

SESSION 4 – DR JAMES LIND LECTURE

Global newborn and child health challenges and opportunities

Professor Zulfiqar Bhutta (Centre for Global Child Health, The Hospital for Sick Children, Toronto) recounted the progress made during the Millennium Development Goals era but reminded the audience that this progress was incomplete, especially concerning neonatal mortality and stillbirths. The idea that fatalism encourages continued inequalities was discussed, and Professor Bhutta encouraged breaking social and cultural barriers to increase care-seeking behaviours. Often global successes can mask continued inequalities, such as stagnant neonatal mortality rates being overshadowed by under-five mortality rates successes. Overcoming these difficulties takes innovations and new ways of thinking. Business as usual will not help us meet the Sustainable Development Goals, and progress must be accelerated.

SESSION 5 – CURRENT PRIORITIES

Advancing the Sustainable Development Goal (SDG) agenda

The new SDGs have come under criticism for their great variation and ambition. Professor Mickey Chopra (Nutrition and Population Global Practice, The World Bank) took this opportunity to highlight one of their benefits: a holistic viewpoint to address change. All challenges involve many sectors, and failing to take this into account results in the changes not being as effective as possible. There is a great need to make

health systems more efficient and to utilise funds from multiple sources well. Innovation will be key to overcoming the challenges of finances, human resources and care delivery in order to make the entire system more sustainable.

Addressing non-communicable diseases (NCDs) through primary care

The diabetes epidemic presents many challenges, especially for LMICs. The pattern of disease is no longer limited to the urban and the rich, and populations with a recent history of under-nutrition have different risk factor thresholds. Lifestyle interventions can be beneficial for those with diabetes, but many question whether these interventions are applicable in LMICs. Professor KM Venkat Narayan (Emory University, Atlanta) demonstrated that 'barriers' of illiteracy and low-income can be overcome through structured and well-designed interventions. His work gives hope for the feasibility of primary care interventions helping to curb the rising non-communicable disease burden in LMICs.

Overcoming roadblocks to universal health coverage

A key aim in the Sustainable Development Goal for health is the achievement of universal health coverage (UHC). However, as Dr Rob Yates (Centre on Global Health Security, Chatham House) explained, there are many challenges to overcome for this goal to be met. The success of achieving UHC hinges with the backing of politicians. He argued that if politicians understood the political opportunities that championing UHC would open for them, more would be willing to fight for its success. Previous leaders that have achieved UHC for their citizens have often been heralded as heroes, and more politicians should aspire for this. This idea could be a new avenue of cooperation between the political and health sectors for which many have been searching.

TAKE HOME MESSAGE

This symposium included talks which both challenged and inspired the attendees. Critically thinking about prior events and what we can learn from them was a pervasive theme. The health sector continues to grow increasingly complex, and we need to be innovative in seeking ways of overcoming both old and new problems. Professor Zulfiqar Bhutta summed it up when he said, 'Business as usual will not get the job done.' This should be a challenge to us all.

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