

Vaccines and Global Health: The Week in Review 17 January 2015 Center for Vaccine Ethics & Policy (CVEP)

This weekly summary targets news, events, announcements, articles and research in the vaccine and global health ethics and policy space and is aggregated from key governmental, NGO, international organization and industry sources, key peer-reviewed journals, and other media channels. This summary proceeds from the broad base of themes and issues monitored by the Center for Vaccine Ethics & Policy in its work: it is not intended to be exhaustive in its coverage.

Vaccines and Global Health: The Week in Review is also **posted in pdf form** and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-text searching of over 6,500 entries.

Comments and suggestions should be directed to
David R. Curry, MS
Editor and
Executive Director
Center for Vaccine Ethics & Policy
david.r.curry@centerforvaccineethicsandpolicy.org

Request an email version: Vaccines and Global Health: The Week in Review is published as a single email summary, scheduled for release each Saturday evening before midnight (EDT in the U.S.). If you would like to receive the email version, please send your request to david.r.curry@centerforvaccineethicsandpolicy.org.

POLIO [to 17 January 2015]

Public Health Emergency of International Concern (PHEIC)

GPEI Update: Polio this week - As of 14 January 2014

Global Polio Eradication Initiative [Editor's Excerpt and text bolding]

Full report: http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx

:: More than 6 months have passed since the most recent case of wild poliovirus in central Africa was detected in Cameroon on the 9 July 2014. This indicates that progress towards stopping the outbreak in this region is being made. However, outbreak response activities must continue and subnational surveillance systems strengthened to ensure the rapid detection of any residual transmission.

- :: More than a year has passed since the last case of wild poliovirus in Ethiopia. With the most recent wild poliovirus case in the Horn of Africa detected in August 2014 in Somalia, outbreak response across the region is continuing.
- :: No new cases of wild poliovirus have been reported anywhere in the world this week.

Selected country report content:

West Africa

- :: The Ebola crisis in western Africa continues to have an impact on the implementation of polio eradication activities in Liberia, Guinea and Sierra Leone. Supplementary immunization activities (SIAs) in these countries have been postponed and the quality of acute flaccid paralysis surveillance has markedly decreased throughout 2014. National Immunization Days (NIDs) have been rescheduled for Guinea, Liberia and Sierra Leone from the 27 to 31 March. The programme continues to monitor the situation with concern.
- :: Even as polio programme staff across West Africa support efforts to control the Ebola outbreak affecting the region, efforts are being made in those countries not affected by Ebola to vaccinate children against polio to create a buffer zone surrounding the Ebola-affected countries.
- :: NIDs are planned using bivalent oral polio vaccine (OPV) in Niger and Benin on 27 February to 2 March, and Subnational Immunization Days (SNIDs) tentatively in Mali in February with dates to be confirmed. From the 27 to 31 March, NIDs will take place in Benin, Burkina Faso, Cote d'Ivoire, Mali, Niger and Senegal using trivalent OPV.

::::::

EBOLA/EVD [to 17 January 2015]

Public Health Emergency of International Concern (PHEIC); "Threat to international peace and security" (UN Security Council)

Editor's Note:

Our extensive coverage of Ebola/EVD activity continues — including detailed coverage of UNMEER now available at the end of this digest and other INGO/agency activity reported in the relevant sections below. Please also note that many of the journals we cover continue to publish important EVD content which is threaded throughout this edition.

We note that the WHO will hold a "Special Session of the Executive Board on the Ebola Emergency" with supporting documentation jst below, including an important call a resolution to clarify and affirm a WHO role in large-scale health emergencies overall.

:: 136th WHO Executive Board session

26 January–3 February 2015 –

- Main Documents: http://apps.who.int/gb/e/e eb136.html
Selected documents of interest to Ebola:

EB136/49 - Ensuring WHO's capacity to prepare for and respond to future largescale and sustained outbreaks and emergencies [Excerpt]

...4. As the number of emergencies with public health implications is rising, the need for effective, efficient and well-designed global response capacities has never been clearer. Though WHO has often been called on to support Member States as they respond to crises, the

unprecedented complexity and scale of the current Ebola outbreak demonstrates that the Organization's capacities, methods and approaches are not necessarily scalable or adaptable to novel or larger challenges. Further, WHO's focus on technical support and normative guidance has left a gap in institutional capacity for and appreciation of the importance of operations.

5. The international community expects WHO to be able to mount a comprehensive and rapid response, whenever and wherever an emergency that impacts public health arises that outstrips national capacity. To meet this expectation, the Organization's emergency management capacity must be ready to address the public health impact of emergencies of any category, irrespective of hazard, across the full emergency risk management spectrum. Today, WHO has the essential institutional experience and country presence needed, but is not designed or capacitated to fulfil this function. To rectify this, WHO must substantially strengthen and modernize its emergency management capacity.

In moving this forward, it is necessary that:

- (a) there is a recognition and clear delineation of WHO's mandate and role in emergency response;
- (b) effective crisis management mechanisms systems and structures exist to enable WHO to fulfil that role;
 - (c) adequate capacities exists to predictably apply these crisis management mechanisms;
 - (d) appropriate and dedicated funding is in place; and
- (e) a robust performance management and accountability framework is in place to provide timely, systematic and comprehensive evaluation of the Organization's emergency response, and recalibration as required.
- 6. As such, a package of five proposals for adapting, modernizing and reforming WHO are presented here. If implemented, these changes could capacitate the Organization to successfully lead in protecting the most vulnerable populations from the devastating public health impacts of emergencies...
- <u>EB136/26</u> [Ebola] Current context and challenges; stopping the epidemic; and preparedness in non-affected countries and regions
- EB136/INF./4 Fast-tracking the development and prospective roll-out of vaccines, therapies and diagnostics in response to Ebola virus disease Special Session of the Executive Board on the Ebola Emergency
- <u>EB136/IN</u>F./5

Building resilient health systems in Ebola-affected countries Special Session of the Executive Board on the Ebola Emergency

- EB136/INF./6

Highlight of efforts made to date towards preparing non-affected countries and regions to respond to potential importation of EVD Special Session of the Executive Board on the Ebola Emergency

- EB136/INF./7

IHR and Ebola

WHO: Ebola response roadmap - Situation report 14 January 2015

[Excerpt]

<u>Summary</u>

:: Guinea reported its lowest weekly total of new confirmed Ebola virus disease (EVD) cases since the week ending 17 August 2014. Case numbers remain low in Liberia, with no confirmed

cases nationally for the final 2 days of the week ending 11 January, and the lowest weekly total of confirmed cases since the first week of June 2014. Sierra Leone has now reported a decline in case incidence for the second week running, and recorded its lowest weekly total of new confirmed cases since the week ending 31 August 2014.

- :: Each of the intense-transmission countries has sufficient capacity to isolate and treat patients, with more than 2 treatment beds per reported confirmed and probable case. However, the uneven geographical distribution of beds and cases, and the under-reporting of cases, means that not all EVD cases are isolated in several areas.
- :: Similarly, each country has sufficient capacity to bury all people known to have died from EVD. However, the under-reporting of deaths means that not all burials are done safely.
- :: Guinea, Liberia and Sierra Leone report that between 84% and 99% of registered contacts are monitored, though the number of contacts traced per EVD case remains lower than expected in many districts. In areas where transmission has been driven down to low levels, rigorous contact tracing will be essential to break chains of transmission. In the week to January 11, 15% of new confirmed cases in Guinea arose from known contacts (equivalent information is not yet available for Liberia and Sierra Leone).
- :: There are currently 27 laboratories providing case-confirmation services in the 3 intense-transmission countries. Four more laboratories are planned in order to meet demand.
- :: Case fatality among hospitalized patients (calculated from all hospitalized patients with a reported definitive outcome) is between 57% and 60% in the 3 intense-transmission countries. A total of 825 health-care worker infections have been reported in the 3 intense-transmission countries; there have been 493 reported deaths.
- :: Many elements of the response to the Ebola outbreak, from safe burials to contact tracing, rely on actively engaging affected communities to take ownership of the response. At present, 33 of 38 (87%) of districts in Guinea, 100% of districts in Liberia, and 57% (8 of 14) of districts in Sierra Leone have systems in place to monitor community engagement activities....
- ...There have been in excess of 21,000 reported confirmed, probable, and suspected cases of EVD in Guinea, Liberia and Sierra Leone (table 1), with more than 8,300 deaths (outcomes are under-reported)...

WHO: Video, audio and transcripts from the briefings

9 January 2015: Virtual press conference following the second high-level meeting on ebola vaccines access and financing. Discussion included the status of candidate vaccine clinical trials and scenarios about trial results and deployment recommendations.

- Audio of the press briefing
 47 Mb, 50 minutes
- Transcript of the press briefing pdf, 436kb

WHO: One year into the Ebola epidemic: a deadly, tenacious and unforgiving virus

15 January 2015 -- Series of 14 papers that take an in-depth look at West Africa's first epidemic of Ebola virus disease

One year after the first Ebola cases started to surface in Guinea, WHO is publishing this series of 14 papers that take an in-depth look at West Africa's first epidemic of Ebola virus disease.

Introduction - This assessment looks at how West Africa's epidemic of Ebola virus disease has evolved over the past year, giving special attention to the situation in Guinea, Liberia, and Sierra Leone. The success stories in Senegal, Nigeria, and likely Mali are also described to show what has worked best to limit onward transmission of Ebola following an imported case and bring the outbreak to a rapid end. The fact that a densely populated city like Lagos was successful in containing Ebola offers encouragement that other developing countries can do the same.

An overview of how the outbreak in the Democratic Republic of Congo evolved and was brought under control underscores the many differences between the outbreaks in West Africa and in equatorial Africa, where all previous outbreaks since the first two in 1976 have occurred.

Key events in the WHO response are outlined to show how initial control efforts were eventually overwhelmed by the wide geographical dispersion of transmission, the unprecedented operational complexity of the outbreaks, and the many factors that undermined the power of traditional containment measures to disrupt transmission chains. These factors are also described.

In efforts coordinated by WHO, scientists and the pharmaceutical industry have geared up to develop, test, license, and introduce the first Ebola vaccines, therapies, and point-of-care diagnostic tests. As a strong expression of solidarity with the people of West Africa, these groups are attempting to compress work that normally takes two to four years into a matter of months.

Finally, the assessment takes a look at the potential future evolution of the Ebola epidemic. Based on what has been learned during this first year, what critical strategies and interventions will give countries and their partners the best chance of bringing the outbreaks under control? *Contents*

- 1. Introduction
- 2. Origins of the Ebola epidemic
- 3. Factors that contributed to undetected spread
- 4. Guinea: The virus shows its tenacity
- 5. Liberia: A country and its capital are overwhelmed
- 6. Sierra Leone: A slow start to an outbreak that eventually outpaced all others
- 7. Key events in the WHO response
- 8. WHO technical support a lasting impact?
- 9. Modernizing the arsenal of control tools: Ebola vaccines
- 10. Classical Ebola virus disease in DRC
- 11. Successful Ebola responses in Nigeria, Senegal, Mali
- 12. The importance of preparedness everywhere
- 13. The warnings the world did not heed

[Excerpt]

... What needs to change

On 25 January 2015, the WHO Executive Board will hold a special session to discuss the Ebola epidemic and what needs to be done to bring it under control. To guide these discussions, WHO staff prepared six background papers, including proposals for changing the systems and structures used by WHO when it responds to emergencies.

In connection with a reform process currently under way at WHO, Executive Board members will consider the extent to which WHO is expected to be operational in the field during extended emergencies, with its staff directly coordinating or supervising the response, or whether the WHO role should be confined to technical guidance and advice. Both functions – providing technical assistance and direct aid are constitutionally mandated. The Board will also consider administrative and managerial arrangements between WHO headquarters and its six regional offices.

14. What needs to happen in 2015

UNMEER Watch [to 17 January 2015]

:: <u>UN envoy describes 'sense of self-confidence' among those battling Ebola outbreak</u>

15 Jan 2015

The United Nations Special Envoy on Ebola today described a growing feeling of confidence among those responding to the outbreak in West Africa, but he warned that there is an absolute need to maintain focus, vigilance and discipline to ensure that the disease is wiped out.

:: Making a difference: Global Ebola Response Outlook Report 2015'

"A product of the Global Ebola Response Information Centre"
January 2015 :: 36 pages *Posted on UNMEER website*Contents

- FOREWORD BY SECRETARY-GENERAL BAN KI-MOON
- INTRODUCTION BY THE SECRETARY-GENERAL'S SPECIAL ENVOY ON EBOLA DR. DAVID NABARRO

[Excerpt]

...Ebola has presented the world with an unprecedented challenge, and a unique opportunity. It has revealed flaws in our international and regional public health mechanisms, and the limited capacities within nations to deal with shocks. It has also drawn together an unprecedented coalition that, if it stays focused and committed, will help the Ebola-affected countries to tackle the outbreak and build back better health systems. It will contribute to systems that enable us to be safer and better off in the face of disease threats.

It is never easy to appreciate where we have come from and where we are headed when we are in the midst of a long and uncertain journey. This is especially the case when matters are as challenging and difficult as this Ebola outbreak. The following sections of this Outlook take us back to the beginning of the outbreak and provide perspectives from partners in the Global Ebola Response Coalition on their role, both now and going forward. I am grateful for their contributions and hope all readers will find the Outlook a useful resource as we work together on the 2015 phase of the response.

- PART ONE FACING THE CRISIS
- PART TWO BENDING THE CURVE
- PART THREE THE ROAD TO ZERO

"The statements in this publication are the views of the authors and do not necessarily reflect the policies or the views of the United Nations or partners."

European Union [to 17 January 2015]

The EU's IMI (Innovative Medicines Initiative) announced a series of major grants totaling €200 million supporting its Ebola+ programme

15 January 2015

Summary

The IMI Ebola+ programme was launched in response to the Ebola virus disease (EVD) outbreak that started in western Africa in 2014. The comprehensive programme contributes to efforts to tackle a wide range of challenges in Ebola research, including vaccines development, clinical trials, storage and transport, as well as diagnostics and treatments. It is hoped that the programme, which complements work being carried out with the support of other funding bodies, will help to make a difference in the current and future outbreaks. In addition to Ebola, the programme will also address related diseases, such as Marburg.

Eight projects, with a total budget of over €200 million, have been selected for funding under the first Ebola+ Call for proposals:

:: VSV-EBOVAC

VSV-EBOVAC will build on existing work to advance the development of the Ebola vaccine candidate VSV-ZEBOV ('vesicular stomatitis virus-vectored Zaire Ebola vaccine'). The World Health Organization (WHO) has identified VSV-ZEBOV as one of the most promising Ebola vaccine candidates, and clinical trials are already underway in Europe and Africa. The VSV-EBOVAC project will use cutting-edge technologies to carry out in-depth analyses of samples taken from clinical trial participants before and after vaccination. This will allow them to gather vital information on both the strength of the immune responses triggered by the vaccine and vaccine safety.

:: EBOVAC 1 and 2

Between them, the two EBOVAC projects will assess, through clinical trials in Europe and Africa, the safety and tolerability of the 'prime-boost' Ebola vaccine regimen (Ad26.ZEBOV and MVA-BN-Filo) in development at the Janssen Pharmaceutical Companies of Johnson & Johnson. In a prime-boost vaccine regimen, patients are first given a dose to prime the immune system, and then a boost dose which is intended to enhance the immune response over time. Phase I trials will be carried out by the EBOVAC1 project. These trials will gather preliminary information on the safety and tolerability of the vaccine regimen. The immune response generated by the regimen will also be evaluated longer term.

Subject to review of the preliminary Phase I data, the Phase II and III trials, will be carried out in parallel by the EBOVAC2 and EBOVAC1 projects respectively to speed up the clinical development of the vaccine regimen. In these trials, larger groups of people will receive the vaccine regimen, allowing the projects to gather further information on the regimen's safety and immunogenicity, including in specific groups such as children and the elderly, and to assess its efficacy against Ebola virus.

:: Vaccine manufacture capability

Ebola vaccines can only be manufactured in facilities with an appropriate biosafety rating. Relatively few manufacturers have the biosafety rating required for the manufacture of Ebola vaccines, and this is slowing down the production of vaccine candidates.

:: EBOMAN

The focus of the EBOMAN project is on accelerating the development and manufacturing of a 'prime-boost' Ebola vaccine regimen (Ad26.ZEBOV and MVA-BN-Filo) in development at the Janssen Pharmaceutical Companies of Johnson & Johnson. In the short term, this will ensure the delivery of sufficient quantities of the Ad26.ZEBOV and MVA-BN-Filo vaccine regimen to support the EBOVAC projects to perform the clinical trials. In parallel, this project will create

additional vaccine production capacity to allow for the rapid preparation of large quantities of vaccines.

:: Deployment of and compliance with vaccination regimens

For a vaccine to have a real impact on an outbreak, high levels of vaccination coverage are essential. In addition, for lasting protection, two doses of the vaccine may be needed. However, the stigma surrounding Ebola, coupled with a suspicion of vaccines in general, could deter many people from getting vaccinated. Strong communication campaigns are therefore needed to address these challenges.

:: EBODAC

The EBODAC project will develop a communication strategy and tools to promote the acceptance and uptake of new Ebola vaccines. One of the project's most important products will be a platform, based on mobile technology, dedicated to Ebola vaccines. As well as providing local communities with information on Ebola and vaccines, the platform will send reminders to people receiving the 'prime boost' vaccine to return to get their second 'booster' dose and facilitate the tracking of vaccination coverage. EBODAC will also set up local training programmes to make sure the communication strategy, and its tools, will be ready for deployment in the local setting.

:: Rapid diagnostic tests

There is an urgent need for fast, reliable tests to determine if someone is infected with Ebola or not. Three projects will pave the way for rapid diagnostic tests capable of delivering reliable results at the point of care in as little as 15 minutes.

Mofina

The Mofina project will develop a new diagnostic test that will deliver results in under 45 minutes on whether the patient has Ebola or a related disease such as Marburg virus. Crucially, the device is designed to work well in sites where high-end laboratory infrastructures are simply not available, while also protecting users from infection. The project will draw on two existing technologies: a conventional Ebola virus test, and a point-of-care molecular diagnostics platform. After testing a prototype of the system, the project partners will validate it in the field. :: FILODIAG

The FILODIAG project aims to deliver an ultra-fast, accurate diagnostic instrument that will test for Ebola in under 15 minutes. Such a system could be used in both healthcare settings and at critical infrastructures like airports. Current tests for Ebola virus take a long time because samples must be heated and then cooled in each of the many processing cycles. This project will replace the heating/cooling steps with a technology based on laser-heated nanoparticles. Early tests of this technology have worked well. The project will add a step to concentrate the virus and refine and test the system before evaluating it in the field.

:: EbolaMoDRAD

The EbolaMoDRAD project aims to develop and validate in the field a rapid diagnostic tool that will be both simple and safe to use in low resource settings by people who may not have specialist training. At the same time, the project will implement a large-scale capacity building programme in West Africa with a strong focus on diagnostics, biosafety, and outbreak management. Finally, it will ensure its results are communicated widely, especially to public health bodies, charities, outbreak management teams, and local hospitals.

Note: The Grant Agreements for some projects are still being finalised. Final information on all selected projects, including full budget details, will be published here once the Grant

:: Future plans

Agreements have been signed.

Further Calls for proposals under the Ebola+ programme are planned. These could address issues such as the development of a vaccine that offers broad protection against both Ebola and other, related viruses such as Marburg; the development of new treatments for Ebola; new vaccines that do not require extreme temperatures; and the generation of new diagnostic tests.

<u>Johnson & Johnson Announces Formation of Ebola Vaccine Development Consortia,</u> Gains Funding from Innovative Medicines Initiative

- Consortia funded through the IMI Ebola+ Programme Supported by the European Commission
- Brings together London School of Hygiene and Tropical Medicine, INSERM, University of Oxford University, La Centre Muraz, Bavarian Nordic A/S, Vibalogics, the Grameen Foundation and World Vision of Ireland with Janssen Pharmaceutical Companies to help accelerate Ad26 - MVA Ebola vaccine development and patient education

NEW BRUNSWICK, N.J., Jan. 16, 2015 /PRNewswire/ -- Johnson & Johnson is pleased to announce the formation of consortia with leading global research institutions and non-government organizations to work in conjunction with Janssen Pharmaceutical Companies to accelerate the development of its Ebola vaccine regimen. The Innovative Medicines Initiative (IMI) plans to award these consortia grants totaling more than €100 million from the Ebola+programme to support the development, manufacturing and patient education for the vaccine regimen.

The IMI is Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients. Funding for the IMI Ebola+ programme comes in part from Horizon 2020, the European Union's research and innovation programme, and in part in the form of in-kind contributions from the European Federation of Pharmaceutical Industries and Associations (EFPIA) partners in the projects.

"In the face of the global challenge of Ebola, bringing together the expertise and capabilities of the pharmaceutical industry, academic centers and NGOs will be critical to help solve this crisis," said Paul Stoffels, M.D., Chief Scientific Officer and Worldwide Chairman, Pharmaceuticals, Johnson & Johnson. "The European Commission's support through IMI bolsters collaboration that should significantly accelerate efforts to help address this humanitarian crisis."

"It is great to see the multiple partners come together to accelerate the development of an effective vaccine both for the current epidemic and future outbreaks," said Professor Peter Piot, M.D., director of the London School of Hygiene & Tropical Medicine, one of the consortia partners. "This is an opportunity to make sure that this is the last Ebola epidemic in which our only tools to control it are isolation and quarantine."

The funds were announced to support several consortia working together on a total of four projects. Three of the projects are designed to address the need to accelerate Phase I, II and III trials and scale up production of the prime-boost vaccine regimen. A Phase I trial led by Oxford Vaccines Group is currently underway with trials in Africa being planned. The Phase II and III trials in Europe and Africa, subject to review of the preliminary Phase I data, will be carried out in parallel. A fourth project will investigate innovative ways and technology to raise awareness and acceptance of vaccination campaigns. A total of eight projects are being funded under this round of the IMI's Ebola+ programme.

"With people still contracting this disease, there is still a risk that Ebola will continue to spread and that we could have another major outbreak in the future," said Johan Van Hoof, M.D., Global Head of Infectious Diseases and Vaccines, Janssen. "We highly appreciate the European

Commission's support and are pleased to be joined by them and our distinguished partners in further accelerating our goal of bringing this vaccine, if approved, to families and frontline health care professionals as fast as possible."

Professor Andrew Pollard and Dr Matthew Snape, who are leading the Phase I and II Ebola vaccine trials at the University of Oxford for IMI, said "the initial testing of vaccines for Ebola is already underway at the University with an astonishing response from the public to volunteer for the trials, to provide the earliest possible information to guide further studies of a prime boost vaccine, that if approved, may help control the Ebola outbreak in West Africa."

Organizations joining Janssen include the London School of Hygiene & Tropical Medicine, University of Oxford, Institut National de la Sante et de la Recherche Medicale (INSERM), La Centre Muraz, Bavarian Nordic A/S, Vibalogics, Grameen Foundation and World Vision of Ireland...

PLOS Biology

http://journals.plos.org/plosbiology/

Research Article

Ebola Cases and Health System Demand in Liberia

John M. Drake, RajReni B. Kaul, Laura W. Alexander, Suzanne M. O'Regan, Andrew M. Kramer, J. Tomlin Pulliam, Matthew J. Ferrari, Andrew W. Park

Affiliation: Odum School of Ecology, University of Georgia, Athens, Georgia, United States of America, College of Veterinary Medicine, University of Georgia, Athens, Georgia, United States of America

Published: January 13, 2015

DOI: 10.1371/journal.pbio.1002056

Abstract

In 2014, a major epidemic of human Ebola virus disease emerged in West Africa, where human-to-human transmission has now been sustained for greater than 12 months. In the summer of 2014, there was great uncertainty about the answers to several key policy questions concerning the path to containment. What is the relative importance of nosocomial transmission compared with community-acquired infection? How much must hospital capacity increase to provide care for the anticipated patient burden? To which interventions will Ebola transmission be most responsive? What must be done to achieve containment?

In recent years, epidemic models have been used to guide public health interventions. But, model-based policy relies on high quality causal understanding of transmission, including the availability of appropriate dynamic transmission models and reliable reporting about the sequence of case incidence for model fitting, which were lacking for this epidemic.

To investigate the range of potential transmission scenarios, we developed a multi-type branching process model that incorporates key heterogeneities and time-varying parameters to reflect changing human behavior and deliberate interventions in Liberia. Ensembles of this model were evaluated at a set of parameters that were both epidemiologically plausible and capable of reproducing the observed trajectory. Results of this model suggested that epidemic outcome would depend on both hospital capacity and individual behavior. Simulations suggested that if hospital capacity was not increased, then transmission might outpace the rate of isolation and the ability to provide care for the ill, infectious, and dying. Similarly, the model suggested that containment would require individuals to adopt behaviors that increase the rates of case identification and isolation and secure burial of the deceased.

As of mid-October, it was unclear that this epidemic would be contained even by 99% hospitalization at the planned hospital capacity. A new version of the model, updated to reflect information collected during October and November 2014, predicts a significantly more constrained set of possible futures. This model suggests that epidemic outcome still depends very heavily on individual behavior. Particularly, if future patient hospitalization rates return to background levels (estimated to be around 70%), then transmission is predicted to remain just below the critical point around Reff = 1. At the higher hospitalization rate of 85%, this model predicts near complete elimination in March to June, 2015.

Author Summary

There is considerable uncertainty regarding the steps needed to contain the ongoing Ebola crisis in West Africa, the timeline required to achieve control, and the projected burden of mortality. To address these issues, we develop a branching process model for Ebola transmission that focuses on offspring distributions (i.e., the numbers of new infections caused by each case). We use the model to assess the likely progression of Ebola in Liberia. The model assesses the feedback between new cases and hospital demand under a range of plausible intervention scenarios, particularly ramping-up of treatment facilities over time and increasing the number of individuals seeking hospital treatment through outreach and education. Transmission scenarios—to health care workers in hospitals, to caregivers in the community, to hospital visitors, and to individuals preparing bodies for funerals—are described by distinct offspring distributions based on available data. Results suggest that the outcome of the epidemic depends on both hospital capacity and individual behavior. Additionally, the model highlights the conditions under which transmission might have outpaced hospital capacity, and projects possible epidemic trajectories into 2015.

Draft road map for Ebola vaccine development [Team B]

12 January 2015

Wellcome Trust, Centre for Infectious Disease Research and Policy (CIDRAP)

A draft road map for the expedited development, testing, manufacture, delivery and financing of Ebola vaccines has today been published by a global group of experts supported by the Wellcome Trust.

The development and delivery of safe and effective vaccines would make a huge contribution to containing Ebola in Guinea, Liberia and Sierra Leone, as well as improving responses to future outbreaks and providing a model for vaccine development against other emerging infectious disease, the expert group has concluded.

The panel of 26 international experts, convened by the and the Centre for Infectious Disease Research and Policy (CIDRAP) at the University of Minnesota, explains how the substantial scientific, financial, social and logistical challenges to rapid Ebola vaccine development and deployment can be overcome through collaboration between governments, industry and philanthropic bodies.

It highlights the potential need for multiple Ebola vaccines with different characteristics, which might enable different vaccination strategies such as ring-vaccination to prevent an outbreak from spreading, and prophylactic vaccination of high-risk individuals such as healthcare workers. It sets out the qualities that a successful vaccine should have and a set of principles for trial design.

The road map also emphasises the importance of community engagement so that vaccine trials and delivery programmes are positively received, and the need for such engagement campaigns to be adapted to national and local circumstances.

The recommendations are made in the interim report of Team B, which is co-chaired by Dr Jeremy Farrar, Director of the Wellcome Trust, and Professor Michael Osterholm, Director of CIDRAP. A full report will be published in the coming weeks, and the guidance will be a "living document" that evolves over time.

The group is called "Team B" in recognition of the principal role played by the World Health Organisation and national governments in leading the international Ebola response.

Dr Jeremy Farrar, Director of the Wellcome Trust and co-chair of Team B, said: "As Guinea, Liberia and Sierra Leone make encouraging progress in containing Ebola, we must not lose sight of the immense contribution that a safe and effective vaccine would make towards controlling both this and future epidemics. We need urgent global collaboration between governments, industry and philanthropy to ensure candidate vaccines progress through trials to manufacture and delivery as swiftly as possible.

"The draft road map we publish today, agreed by a global group of experts, offers solutions to the great scientific, social, logistical and financial challenges of delivering an Ebola vaccine on this urgent timescale. It is a living document that will evolve as we learn more about Ebola and the candidate vaccines that are available. As well as being of great value in the present crisis, it will enable vaccine strategies to begin without delay in future outbreaks, and provide a model for vaccine development in response to other emerging infectious diseases."

The draft roadmap can be viewed <u>here</u>.

::::::

WHO & Regionals [to 17 January 2015]

:: 136th WHO Executive Board session

26 January-3 February 2015 -

- Main Documents: http://apps.who.int/qb/e/e eb136.html

:: Global Alert and Response (GAR): Disease Outbreak News (DONs)

- Middle East respiratory syndrome coronavirus (MERS-CoV) Oman 16 January 2015
- Middle East respiratory syndrome coronavirus (MERS-CoV) Saudi Arabia 15 January 2015
- :: The <u>Weekly Epidemiological Record (WER) for 16 January 2015</u>, vol. 90, 3 (pp. 9–16) includes:
- Detection of influenza virus subtype A by polymerase chain reaction: WHO external quality assessment programme summary analysis, 2014

:: <u>RFP: Systematic review for measles immunization pdf, 86kb</u> 12 January 2015 Deadline for application: 26 January 2015

WHO Regional Offices

WHO African Region AFRO

Press Releases

:: Safe breastfeeding key to improve children's health

Brazzaville, 12 January 2015 – Every day an estimated 8000 children die in sub-Saharan Africa from easily preventable or treatable illnesses. Breastfeeding is one of the best ways to

provide newborns, infants and young children with the nutrients that they need while protecting them against conditions such as pneumonia, diarrhoea, and measles.

:: <u>A Decade of WHO Action in the African Region: Striving together to achieve health goals</u> [pdf1.27MB]

By Luis Gomes Sambo, Regional Director 2005–2015

ISBN: 978 929 023 2551

WHO Region of the Americas PAHO

:: <u>Isabella Danel, former CDC official, sworn in as PAHO/WHO Deputy Director (01/16/2015)</u>

:: <u>PAHO/WHO honors Haitians and international relief workers on 5th anniversary of 2010</u> earthquake

Port-au-Prince, Haiti, 12 January 2015 (PAHO/WHO) – On the fifth anniversary of the earthquake that devastated Haiti on 12 January 2010, the Pan American Health Organization/World Health Organization (PAHO/WHO) honors the earthquake's estimated 230,000 victims and their families and pays tribute to the many Haitian health workers and international relief workers for their dedication and outstanding efforts to bring relief to the disaster's victims and survivors...

WHO South-East Asia Region SEARO

No new digest content identified.

WHO European Region EURO

:: <u>Tajikistan introduces rotavirus vaccine to protect children from diarrhoeal disease</u> 15-01-2015

With an official launch ceremony on 8 January 2015, Tajikistan became the fourteenth country in the WHO European Region to introduce rotavirus vaccination into its national immunization schedule, and the fourth to do so through the generous support of the GAVI Alliance.

WHO Eastern Mediterranean Region EMRO

:: One Year Since the Last Case of Polio In Syria

Friday, January 16, 2015

Despite civil war and mass population displacement, incredible gains have been made against the polio outbreak in the Middle East.

WHO Western Pacific Region

:: <u>Update on the cluster of HIV cases, Roka Commune, Sang Ker District, Battambang Province</u> PHNOM PENH, 9 January 2015 – Between 8 to 31 December, 2014, a total of 1940 people from Roka Commune, voluntarily undertook HIV testing and counselling and 212 people tested positive for HIV. Among the people who tested HIV positive, 174 (82%) are from Roka Village. Among the total of 212 diagnoses, 39 people (18%) are 14 years old or younger, 127 (60%) are between 15 and 59 years old and 46 (22%) are 60 years old or older. Read the joint news release

http://www.cdc.gov/media/index.html

- :: <u>Protection from Flu Vaccination Reduced this Season Press Release</u> Thursday, January 15, 2015
- :: <u>Early Estimates of Seasonal Influenza Vaccine Effectiveness United States, January 2015</u> Weekly - January 16, 2015 / 64(01);10-15

Brendan Flannery, PhD1, Jessie Clippard, MPH1, Richard K. Zimmerman, MD2, Mary Patricia Nowalk, PhD2, Michael L. Jackson, PhD3, Lisa A. Jackson, MD3, Arnold S. Monto, MD4, Joshua G. Petrie, MPH4, Huong Q. McLean, PhD5, Edward A. Belongia, MD5, Manjusha Gaglani, MBBS6, LaShondra Berman, MS1, Angie Foust, MA1, Wendy Sessions, MPH1, Swathi N. Thaker, PhD1, Sarah Spencer, PhD1, Alicia M. Fry, MD1 (Author affiliations at end of text)

In the United States, annual vaccination against seasonal influenza is recommended for all persons aged ≥6 months (1). Each season since 2004–05, CDC has estimated the effectiveness of seasonal influenza vaccine in preventing medically attended acute respiratory illness (ARI) associated with laboratory-confirmed influenza. This season, early estimates of influenza vaccine effectiveness are possible because of widespread, early circulation of influenza viruses.

By January 3, 2015, 46 states were experiencing widespread flu activity, with predominance of influenza A (H3N2) viruses (2). This report presents an initial estimate of seasonal influenza vaccine effectiveness at preventing laboratory-confirmed influenza virus infection associated with medically attended ARI based on data from 2,321 children and adults enrolled in the U.S. Influenza Vaccine Effectiveness Network (Flu VE) during November 10, 2014–January 2, 2015. During this period, overall vaccine effectiveness (VE) (adjusted for study site, age, sex, race/ethnicity, self-rated health, and days from illness onset to enrollment) against laboratory-confirmed influenza associated with medically attended ARI was 23% (95% confidence interval [CI] = 8%–36%). Most influenza infections were due to A (H3N2) viruses. This interim VE estimate is relatively low compared with previous seasons when circulating viruses and vaccine viruses were well-matched and likely reflects the fact that more than two-thirds of circulating A (H3N2) viruses are antigenically and genetically different (drifted) from the A (H3N2) vaccine component of 2014–15 Northern Hemisphere seasonal influenza vaccines (2). These early, low VE estimates underscore the need for ongoing influenza prevention and treatment measures.

CDC continues to recommend influenza vaccination because the vaccine can still prevent some infections with the currently circulating A (H3N2) viruses as well as other viruses that might circulate later in the season, including influenza B viruses. Even when VE is reduced, vaccination still prevents some illness and serious influenza-related complications, including thousands of hospitalizations and deaths (3). Persons aged ≥6 months who have not yet been vaccinated this season should be vaccinated, including persons who might already have been ill with influenza this season...

- :: **MMWR Weekly,** January 16, 2015 / Vol. 64 / No. 1
- Early Estimates of Seasonal Influenza Vaccine Effectiveness United States, January 2015
- <u>Incidence of Notifiable Diseases Among American Indians/Alaska Natives United States,</u> 2007–2011
- <u>Improving Burial Practices and Cemetery Management During an Ebola Virus Disease</u> <u>Epidemic — Sierra Leone, 2014</u>
- <u>Use of a Nationwide Call Center for Ebola Response and Monitoring During a 3-Day House-to-</u> House Campaign — Sierra Leone, September 2014

http://www.sabin.org/updates/pressreleases

India Launches Massive Public Health Campaign to Eliminate Lymphatic Filariasis

WASHINGTON, D.C. — January 14, 2015 — India was certified polio-free in 2014. Today, the country has its sights set on another public health victory: the elimination of lymphatic filariasis, a neglected tropical disease (NTD) that threatens nearly half of its population. To meet this ambitious goal, the Indian Ministry of Health & Family Welfare (MOHFW) has launched one of the largest public health campaigns in India's history to provide more than 400 million people with free medication that could protect them from lymphatic filariasis...

IAVI Watch [17 January 2015]

http://www.iavi.org/press-releases/2015 GSK Global Vaccines Chairman Moncef Slaoui Joins IAVI Board of Directors January 12, 2015

Industry Watch [to 17 January 2015]

:: <u>AC Immune Enters into a Worldwide License and Collaboration Agreement for Alzheimer's Disease Therapeutic anti-Tau Vaccines with Janssen Pharmaceuticals, Inc.</u>
12 Jan 2015

- Exclusive worldwide license agreement potentially worth up to USD 509 million (CHF 500 million*)
- Three-year joint program to develop therapeutic vaccines for tauopathies
- Therapeutic vaccines offer the potential to treat Alzheimer's patients earlier in the disease

UNICEF Watch [to 17 January 2015]

http://www.unicef.org/media/media_71724.html

No new digest content identified.

European Vaccine Initiative Watch [to 17 January 2015]

http://www.euvaccine.eu/news-events

No new digest content identified.

GAVI Watch [to 17 January 2015]

http://www.gavialliance.org/library/news/press-releases/

No new digest content identified.

Global Fund Watch [to 17 January 2015]

http://www.theglobalfund.org/en/mediacenter/

No new digest content identified

IVI Watch [to 17 January 2015]

http://www.ivi.org/web/www/home

No new digest content identified.

PATH Watch [to 17 January 2015]

http://www.path.org/news/

No new digest content identified.

BMGF - Gates Foundation Watch [to 17 January 2015]

http://www.gatesfoundation.org/Media-Center/Press-Releases No new digest content identified.

NIH Watch [to 17 January 2015]

http://www.nih.gov/news/index.html

No new digest content identified.

FDA Watch [to 17 January 2015]

http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm No new digest content identified.

European Medicines Agency Watch [to 17 January 2015]

http://www.ema.europa.eu/ema/ No new digest content identified.

DCVMN / PhRMA / EFPIA / IFPMA / BIO Watch [to 17 January 2015]

No new digest content identified.

<u>Reports/Research/Analysis/Commentary/Conferences/Meetings/Book</u> <u>Watch/Tenders</u>

Vaccines and Global Health: The Week in Review has expanded its coverage of new reports, books, research and analysis published independent of the journal channel covered in Journal Watch below. Our interests span immunization and vaccines, as well as global public health, health governance, and associated themes. If you would like to suggest content to be included in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

No new digest content identified.

<u>Journal Watch</u>

Vaccines and Global Health: The Week in Review continues its weekly scanning of key peer-reviewed journals to identify and cite articles, commentary and editorials, books reviews and other content supporting our focus on vaccine ethics and policy. Journal Watch is not intended to be exhaustive, but indicative of themes and issues the Center is actively tracking. We selectively provide full text of some editorial and comment articles that are specifically relevant to our work. Successful access to some of the links provided may require subscription or other access arrangement unique to the publisher.

If you would like to suggest other journal titles to include in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

The American Journal of Bioethics

Volume 15, Issue 1, 2015

http://www.tandfonline.com/toc/uajb20/current

[No issue; No relevant content]

American Journal of Infection Control

January 2015 Volume 43, Issue 1, p1-98 http://www.ajicjournal.org/current [Reviewed earlier]

American Journal of Preventive Medicine

January 2015 Volume 48, Issue 1, p1-120 http://www.ajpmonline.org/current [Reviewed earlier]

American Journal of Public Health

Volume 105, Issue 1 (January 2015) http://ajph.aphapublications.org/toc/ajph/current [Reviewed earlier]

American Journal of Tropical Medicine and Hygiene

January 2015; 92 (1)
http://www.ajtmh.org/content/current
[Reviewed earlier]

Annals of Internal Medicine

6 January 2015, Vol. 162. No. 1 http://annals.org/issue.aspx [Reviewed earlier]

BMC Health Services Research

http://www.biomedcentral.com/bmchealthservres/content (Accessed 17 January 2015) [No new relevant content]

BMC Infectious Diseases

http://www.biomedcentral.com/bmcinfectdis/content (Accessed 17 January 2015) [No new relevant content]

BMC Medical Ethics

(Accessed 17 January 2015) http://www.biomedcentral.com/bmcmedethics/content

Debate

<u>Informed consent for HIV cure research in South Africa: issues to consider</u>

Ciara Staunton BMC Medical Ethics 2015, 16:3 (15 January 2015)

Abstract | Provisional PDF

BMC Public Health

(Accessed 17 January 2015)

http://www.biomedcentral.com/bmcpublichealth/content

Research article

<u>Factors associated with willingness to participate in clinical trials: a nationwide</u> survey study

Sang Chu, Eun Kim, Seok Jeong, Geu Park BMC Public Health 2015, 15

BMC Research Notes

(Accessed 17 January 2015)
http://www.biomedcentral.com/bmcresnotes/content
[No new relevant content]

British Medical Journal

17 January 2015(vol 350, issue 7991) http://www.bmj.com/content/350/7991 Clinical Review

The prevention and management of rabies

BMJ 2015;350:q7827 (Published 14 January 2015)

Bulletin of the World Health Organization

Volume 93, Number 1, January 2015, 1-64 http://www.who.int/bulletin/volumes/93/1/en/ [Reviewed earlier]

Clinical Infectious Diseases (CID)

Volume 60 Issue 3 February 1, 2015

http://cid.oxfordjournals.org/content/current

A Case-Control Study to Estimate the Effectiveness of Maternal Pertussis Vaccination in Protecting Newborn Infants in England and Wales, 2012–2013

Clin Infect Dis. (2015) 60 (3): 333-337 doi:10.1093/cid/ciu82

Gavin Dabrera, Gayatri Amirthalingam, Nick Andrews, Helen Campbell, Sonia Ribeiro, Edna Kara, Norman K. Fry, and Mary Ramsay

Abstract

This case-control study demonstrated that maternal pertussis vaccination was highly effective in preventing laboratory-confirmed pertussis infection in infants aged <2 months during a national pertussis outbreak in England and Wales

<u>Editorial Commentary: Tetanus-Diphtheria-Pertussis Immunization in Pregnant Women and the Prevention of Pertussis in Young Infants</u>

James D. Cherry

Author Affiliations

Department of Pediatrics, David Geffen School of Medicine, University of California, Los Angeles A case-control study from England and Wales on the effectiveness of tetanus-diphtheria-pertussis (Tdap) immunization in pregnant women, authored by Dabrera et al in this issue of Clinical Infectious Diseases, supports the finding of a previous observational study done by the same group of investigators [1, 2]. As noted by the authors, a single dose of Tdap was recommended in the United Kingdom for pregnant women between 28 and 38 weeks' gestation in October 2012. In the United States, the Advisory Committee on Immunization Practices (ACIP) made a similar recommendation in October 2011.

One aspect of the UK experience with Tdap vaccination of pregnant women is noteworthy—that in England and Wales, pregnant women typically receive care by general practitioners, and these same practitioners are routinely responsible for immunization of all their patients. The present study was carried out between 22 October 2012 and 11 July 2013. Therefore, it was conducted over a 9-month period that started just 3 weeks after Tdap was recommended for pregnant women. Nevertheless, approximately 64% of the pregnant women were vaccinated.

In contrast with the experience in England and Wales, the Tdap program in the United States is struggling, even though it was recommended a full year before the recommendation was made in the United Kingdom [3, 4]. Both Harriman and Winter [4] and Housey et al [3 ... Risk Assessment for Healthcare Workers After a Sentinel Case of Rabies and Review

Risk Assessment for Healthcare Workers After a Sentinel Case of Rabies and Review of the Literature

Virginia L. Kan, Patrick Joyce, Debra Benator, Kathleen Agnes, Janet Gill, Monica Irmler, Arlene Clark, George Giannakos, Audrey Gabourel, and Fred M. Gordin Clin Infect Dis. (2015) 60 (3): 341-348 doi:10.1093/cid/ciu850

Abstract

Although there has been no human-to-human transmission, fear of contagion after a rabies case represents a major concern for healthcare workers and requires rapid risk screening and counseling, as well as timely provision of postexposure prophylaxis for those with high-risk exposure.

Clinical Therapeutics

January 2015 Volume 37, Issue 1, p1-242 http://www.clinicaltherapeutics.com/current Editorial

<u>Cervical Cancer 2015 and Beyond: A Focus on Innovative Treatments and Attention</u> to Survivorship

Linda R. Duska

p6-8

Cervical cancer is primarily a disease of less-developed countries.¹ In contrast, for countries with established screening programs and access to medical care, the number of cases of cervical cancer has declined significantly over the past few decades. With the introduction of human papillomavirus (HPV) testing/typing and increasing uptake of the HPV vaccine, it is anticipated that HPV-related cervical disease (both preinvasive and invasive) will ultimately become obsolete in developed countries.

Complexity

January/February 2015 Volume 20, Issue 3 Pages fmi–fmi, 1–92 http://onlinelibrary.wiley.com/doi/10.1002/cplx.v20.3/issuetoc [New issue; No relevant content]

Conflict and Health

[Accessed 17 January 2015]
http://www.conflictandhealth.com/
[No new relevant content]

Contemporary Clinical Trials

Volume 41, <u>In Progress</u> (March 2015) [Reviewed earlier]

Cost Effectiveness and Resource Allocation

(Accessed 17 January 2015)
http://www.resource-allocation.com/
[No new relevant content]

Current Opinion in Infectious Diseases

February 2015 - Volume 28 - Issue 1 pp: v-vi,1-116 http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx [Reviewed earlier]

Developing World Bioethics

December 2014 Volume 14, Issue 3 Pages ii–iii, 111–167 http://onlinelibrary.wiley.com/doi/10.1111/dewb.2014.14.issue-3/issuetoc [Reviewed earlier]

Development in Practice

<u>Volume 25</u>, Issue 1, 2015 <u>http://www.tandfonline.com/toc/cdip20/current</u> [Reviewed earlier]

Emerging Infectious Diseases

Volume 21, Number 1—January 2015 http://wwwnc.cdc.gov/eid/ [Reviewed earlier]

Epidemics

Volume 9, <u>In Progress</u> (December 2014) http://www.sciencedirect.com/science/journal/17554365 [Reviewed earlier]

Epidemiology and Infection

Volume 143 - Issue 02 - January 2015 http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue [Reviewed earlier]

The European Journal of Public Health

Volume 24, Issue 6, 01 December 2014 http://eurpub.oxfordjournals.org/content/24/6 [Reviewed earlier]

Eurosurveillance

Volume 20, Issue 2, 15 January 2015 http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678 Letters

<u>Letter to the editor: Vaccinating healthcare workers: evidence and ethics</u> by H Kelly

<u>Author's reply: Vaccinating healthcare workers: ethics and strategic behaviour</u> by C Betsch

Global Health: Science and Practice (GHSP)

December 2014 | Volume 2 | Issue 4 http://www.ghspjournal.org/content/current [Reviewed earlier]

Global Health Governance

[Accessed 17 January 2015] http://blogs.shu.edu/ghg/category/complete-issues/summer-2013/ [No new relevant content]

Global Public Health

Volume 10, Issue 1, 2015 http://www.tandfonline.com/toc/rgph20/10/1#.VI0Y33tW_4U [Reviewed earlier]

Globalization and Health

[Accessed 17 January 2015]

http://www.globalizationandhealth.com/

[No new relevant content]

Health Affairs

January 2015; Volume 34, Issue 1
http://content.healthaffairs.org/content/current
Variety Issue
[Reviewed earlier]

Health and Human Rights

Volume 16, Issue 2 December 2014 http://www.hhrjournal.org/volume-16-issue-2/ Papers in Press: Special Issue on Health Rights Litigation [Reviewed earlier]

Health Economics, Policy and Law

Volume 10 - Special Issue 01 January 2015 http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue SPECIAL ISSUE: Global Financial Crisis, Health and Health Care [Reviewed earlier]

Health Policy and Planning

Volume 30 Issue 1 February 2015

http://heapol.oxfordjournals.org/content/current

Buy now, saved later? The critical impact of time-to-pandemic uncertainty on pandemic cost-effectiveness analyses

Tom Drake1,2,3,*, Zaid Chalabi1 and Richard Coker1,4

Author Affiliations

1London School of Hygiene and Tropical Medicine, Kepple Street, London, WC1E 7HT, UK, 2Nuffield Department of Clinical Medicine, University of Oxford, Old Road Campus, Oxford, OX3 7BN, UK, 3Mahidol University Rajvithi Road, Bangkok 10400, Thailand and 4National University of Singapore, Lower Kent Ridge Road, Singapore 119077 Accepted November 21, 2013.

Abstract

Background Investment in pandemic preparedness is a long-term gamble, with the return on investment coming at an unknown point in the future. Many countries have chosen to stockpile key resources, and the number of pandemic economic evaluations has risen sharply since 2009. We assess the importance of uncertainty in time-to-pandemic (and associated discounting) in pandemic economic evaluation, a factor frequently neglected in the literature to-date. Methods We use a probability tree model and Monte Carlo parameter sampling to consider the cost effectiveness of antiviral stockpiling in Cambodia under parameter uncertainty. Mean elasticity and mutual information (MI) are used to assess the importance of time-to-pandemic compared with other parameters. We also consider the sensitivity to choice of sampling distribution used to model time-to-pandemic uncertainty.

Results Time-to-pandemic and discount rate are the primary drivers of sensitivity and uncertainty in pandemic cost effectiveness models. Base case cost effectiveness of antiviral stockpiling ranged between is US\$112 and US\$3599 per DALY averted using historical pandemic intervals for time-to-pandemic. The mean elasticities for time-to-pandemic and discount rate were greater than all other parameters. Similarly, the MI scores for time to pandemic and discount rate were greater than other parameters. Time-to-pandemic and discount rate were key drivers of uncertainty in cost-effectiveness results regardless of time-to-pandemic sampling distribution choice.

Conclusions Time-to-pandemic assumptions can "substantially" affect cost-effectiveness results and, in our model, is a greater contributor to uncertainty in cost-effectiveness results than any other parameter. We strongly recommend that cost-effectiveness models include probabilistic analysis of time-to-pandemic uncertainty.

Health Research Policy and Systems

http://www.health-policy-systems.com/content [Accessed 17 January 2015] [No new relevant content]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)

Volume 10, Issue 9, 2014

http://www.landesbioscience.com/journals/vaccines/toc/volume/10/issue/9/
Special Issue on Vaccine Acceptance; Key focus on HPV vaccine uptake and maternal immunization
[Reviewed earlier]

Infectious Agents and Cancer

[Accessed 17 January 2015]
http://www.infectagentscancer.com/content
[No new relevant content]

Infectious Diseases of Poverty

[Accessed 17 January 2015] http://www.idpjournal.com/content [No new relevant content]

International Health

Volume 7 Issue 1 January 2015 http://inthealth.oxfordjournals.org/content/7/1.toc [Reviewed earlier]

International Journal of Epidemiology

Volume 43 Issue 6 December 2014 http://ije.oxfordjournals.org/content/current

[Reviewed earlier]

International Journal of Infectious Diseases

January 2015 Volume 30, p1 http://www.ijidonline.com/current [Reviewed earlier]

JAMA

January 13, 2015, Vol 313, No. 2 http://jama.jamanetwork.com/issue.aspx [No relevant content]

JAMA Pediatrics

January 2015, Vol 169, No. 1 http://archpedi.jamanetwork.com/issue.aspx [Reviewed earlier]

Journal of Community Health

Volume 39, Issue 6, December 2014 http://link.springer.com/journal/10900/39/6/page/1 [Reviewed earlier]

Journal of Epidemiology & Community Health

January 2015, Volume 69, Issue 1 http://jech.bmj.com/content/current [Reviewed earlier]

Journal of Global Ethics

<u>Volume 10</u>, Issue 3, 2014 <u>http://www.tandfonline.com/toc/rjge20/.U2V-Elf4L0I#.VAJEj2N4WF8</u> *Tenth Anniversary Forum: The Future of Global Ethics* [Reviewed earlier]

Journal of Global Infectious Diseases (JGID)

October-December 2014 Volume 6 | Issue 4 Page Nos. 139-198 http://www.jgid.org/currentissue.asp?sabs=n [Reviewed earlier]

Journal of Health Care for the Poor and Underserved (JHCPU)

Volume 25, Number 4, November 2014

http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.2 5.4.html

[Reviewed earlier]

Journal of Health Organization and Management

<u>Issue 6 – December 2014</u>

http://link.springer.com/journal/10903/16/6/page/1

Special Focus: Mental Health and Wellness

[Reviewed earlier]

Journal of Immigrant and Minority Health

Volume 16, Issue 6, December 2014 http://link.springer.com/journal/10903/16/6/page/1 Special Issue Focus: Mental Health and Wellness [Reviewed earlier]

Journal of Immigrant & Refugee Studies

<u>Volume 12</u>, Issue 4, 2014 <u>http://www.tandfonline.com/toc/wimm20/current#.VFWeF8I4WF9</u> <u>Special Issue: New Forms of Intolerance in European Political Life</u> [Reviewed earlier]

Journal of Infectious Diseases

Volume 211 Issue 3 February 1, 2015 http://jid.oxfordjournals.org/content/current [Reviewed earlier]

The Journal of Law, Medicine & Ethics

Winter 2014 Volume 42, Issue 4 Pages 408–602 http://onlinelibrary.wiley.com/doi/10.1111/jlme.2014.42.issue-4/issuetoc Special Issue: SYMPOSIUM: The Buying and Selling of Health Care [Reviewed earlier]

Journal of Medical Ethics

January 2015, Volume 41, Issue 1 http://jme.bmj.com/content/current *JME40: Good medical ethics*[Reviewed earlier]

Journal of Medical Internet Research

Vol 17, No 1 (2015): January

http://www.jmir.org/2015/1

<u>Virtual Intervention to Support Self-Management of Antiretroviral Therapy Among People Living With HIV</u>

José Côté, Gaston Godin, Pilar Ramirez-Garcia, Geneviève Rouleau, Anne Bourbonnais, Yann-Gaël Guéhéneuc, Cécile Tremblay, Joanne Otis

J Med Internet Res 2015 (Jan 06); 17(1):e6

<u>Application of Mobile Technology for Improving Expanded Program on Immunization Among Highland Minority and Stateless Populations in Northern Thailand Border</u>

<u>Jaranit Kaewkungwal, Tawatchai Apidechkul, Kasemsak Jandee, Amnat Khamsiriwatchara,</u> <u>Saranath Lawpoolsri, Surasak Sawang, Aumnuyphan Sangvichean, Peerawat Wansatid, Sarinya Krongrungroj</u>

JMIR mHealth uHealth 2015 (Jan 14); 3(1):e4

Journal of Medical Microbiology

January 2015; 64 (Pt 1)
http://jmm.sgmjournals.org/content/current
[No relevant content]

Journal of the Pediatric Infectious Diseases Society (JPIDS)

Volume 3 Issue 4 December 2014 http://jpids.oxfordjournals.org/content/current [Reviewed earlier]

Journal of Pediatrics

Volume 165, Issue 6, p1073-1280 December 2014 http://www.jpeds.com/current [Reviewed earlier]

Journal of Public Health Policy

Volume 36, Issue 1 (February 2015) http://www.palgrave-journals.com/jphp/journal/v36/n1/index.html [Reviewed earlier]

Journal of the Royal Society – Interface

06 February 2015; volume 12, issue 103 http://rsif.royalsocietypublishing.org/content/current [New issue; No relevant content]

Journal of Virology

<u>December 2014, volume 88, issue 24</u> http://jvi.asm.org/content/current

The Lancet

Jan 17, 2015 Volume 385 Number 9964 p201-302 http://www.thelancet.com/journals/lancet/issue/current

Comment

Is the world ready for an Ebola vaccine?

<u>Bruce Y Lee, William J Moss, Lois Privor-Dumm, Dagna O Constenla, Maria D Knoll, Katherine L O'Brien</u>

Summary

The west African Ebola epidemic has motivated efforts to bring an Ebola vaccine to the market as soon as possible. If a candidate vaccine successfully moves through clinical development, a product could be on the market in the next 1–2 years.1–6 Developing an efficacious vaccine will be only part of the process. Post-licensure challenges could impede and even derail an Ebola immunisation programme. We propose seven key challenges to be considered early in Ebola vaccine development that will help stakeholders prepare and allow developers to adjust vaccine characteristics accordingly.

Comment

<u>Towards evidence-based, quantitative Sustainable Development Goals for 2030</u> Børge Brende, Bent Høie

Open Access

DOI: http://dx.doi.org/10.1016/S0140-6736(14)61654-8

The success of the Millennium Development Goals (MDGs)1 on health has been due to their being easy to understand, ambitious, and achievable and, therefore, suitable for the purposes of advocacy and political mobilisation. The MDGs have brought quantitative targets and measurement of results—previously the domain of the scientific community—to centre stage for politicians worldwide. The three health MDGs (MDG 4, MDG 5, and MDG 6) have acted as a scorecard to measure progress on health, thus providing an empirical basis for the formulation of policy. For example, this scorecard has made it possible for Norwegian Prime Minister Erna Solberg and her colleagues in the MDG Advocacy Group to provide such strong advocacy for continued efforts to reach the MDGs before the deadline of 2015.

Work on the health MDGs has been based throughout on close collaboration between the scientific and political communities. Politicians have been able to convey documented progress towards the goals to the general public, and voters in both donor and recipient countries alike have been happy to support public funding for these efforts.

The world community is currently negotiating a new set of goals—the Sustainable Development Goals (SDGs)—for the post-2015 period. So far, 17 goals and 169 targets have been proposed by the Open Working Group. For politicians this number of goals is far too many. To win popular support for a comprehensive and coordinated effort for development, the goals must be easy to communicate. With regard to health, we have faced the additional challenge of combining three goals into one SDG, with an attempt to put the whole range of health issues under one coherent goal. This process, in turn, has contributed to the present "shopping list" of 13 targets within the Open Working Group proposal for a goal on health (SDG 3): "ensure healthy lives and promote well-being for all at all ages".

Of course, it is politics that led to such a long list of health targets in the first place, but ultimately it is politics that has to resolve this situation. Politicians have to set priorities. We need a more limited set of goals and targets that are ambitious, easy to understand, and

realistic. Importantly, measurement of progress towards the goals and targets must also be possible. To this end, we need contributions from the scientific community.

One plausible way forward is shown in a Lancet study by Ole Norheim and colleagues3 on quantification of the overarching 2030 SDG for health to avoid 40% of premature deaths in each country. In their review of mortality rates and trends in 25 countries, four country income groupings, and worldwide, Norheim and colleagues show that it is possible to consolidate targets in various areas, such as child health (MDG 4), maternal health (MDG 5), major infectious diseases (MDG 6), non-communicable diseases (NCDs), including mental health and injuries, and universal health coverage, under one universal and quantitative health goal. The simplicity of this approach is beautiful. Following this pattern, we could develop a tool to measure convergence in health globally, in line with the principle of universality to which we are all committed.

This approach seems to make sense from a scientific point of view as well. The proposal to set an overall indicator of avoiding 40% of premature deaths in each country is based on trends in mortality rates over the past 40 years and an estimate of what can be achieved by scaling up current cost-effective approaches. This quantification of a goal on health includes the major targets relating to MDGs 4, 5, and 6 and targets on NCDs proposed by the various communities, notably a 25% reduction in premature mortality from NCDs by 2025. This indicator is evidence based and ambitious yet achievable. It is, therefore, a good starting point for future political action and initiative.

Norheim and colleagues' study3 shows what an important part science could play in the negotiations at the 69th Session of the UN General Assembly. We, therefore, strongly urge the medical community to consider the approach outlined by Norheim and colleagues3 and develop a common position that can enable us to arrive at a single health SDG with a limited number of simple, understandable, and measurable targets. We would also welcome similar approaches for other SDGs by the relevant communities.

We believe that the health SDG could provide the key framework for global health and prosperity. In anticipation of this framework, Norway is already taking concrete action. First, we are taking steps to improve public health in Norway. Our aim is to reduce NCDs, including mental disorders, by 25% by 2025. Second, Norway is working together with partner nations, the UN Secretary-General Ban Ki-moon, and World Bank President Jim Yong Kim to develop financial frameworks both for the current MDGs and for the future SDGs. Third, Norway is actively promoting projects that focus on both education and health, reflecting the aim of the SDG agenda of realising synergies between sectors. Fourth, later in September, 2014, we will launch a national initiative called Vision 2030 to encourage researchers, commercial actors, civil society, and others to produce innovative ideas that could play a part in achieving the education and health SDGs both in Norway and abroad. Finally, together with partners in global health, Norway will explore ways to accelerate the deployment of innovations that are currently in the pipeline, and how investments can be catalysed to harness these innovations for promoting global health in the longer term.4

With so much left to do in the field of global health, by scientists as well as politicians, there is no time to lose. It is, therefore, vital that we all take action now.

BB is Norwegian Minister of Foreign Affairs. BH is Norwegian Minister of Health and Care Services.

Comment

Quantifying targets for the SDG health goal

George Alleyne, Robert Beaglehole, Ruth Bonita

Open Access Altmetric 16

DOI: http://dx.doi.org/10.1016/S0140-6736(14)61655-X Summary

The Millennium Development Goals (MDGs) represent the best example of an international commitment to a set of normative principles underpinned by ideals of equity, solidarity, and peace.1,2 The goals achieved universal support because they were ambitious, included indicators that permitted measurement and accountability, and set 2015 for final reporting. The goals institutionalised poverty as multidimensional, and shaped development as beyond economics.3 Criticisms of the MDGs included the omission of many of the concerns of the Millennium Declaration, and the lack of adequate consultation on the process. *Articles*

Avoiding 40% of the premature deaths in each country, 2010—30: review of national mortality trends to help quantify the UN Sustainable Development Goal for health

Prof Ole F Norheim, PhD, Prof Prabhat Jha, DPhil, Kesetebirhan Admasu, MD, Tore Godal, MD, Ryan J Hum, MEng, Margaret E Kruk, MD, Octavio Gómez-Dantés, MD, Colin D Mathers, PhD, Hongchao Pan, PhD, Prof Jaime Sepúlveda, MD, Wilson Suraweera, MSc, Stéphane Verguet, PhD, Addis T Woldemariam, MD, Gavin Yamey, MD, Prof Dean T Jamison, PhD, Prof Richard Peto, FRS

Open Access

DOI: http://dx.doi.org/10.1016/S0140-6736(14)61591-9

Summary Background

The UN will formulate ambitious Sustainable Development Goals for 2030, including one for health. Feasible goals with some quantifiable, measurable targets can influence governments. We propose, as a quatitative health target, "Avoid in each country 40% of premature deaths (under-70 deaths that would be seen in the 2030 population at 2010 death rates), and improve health care at all ages". Targeting overall mortality and improved health care ignores no modifiable cause of death, nor any cause of disability that is treatable (or also causes many deaths). 40% fewer premature deaths would be important in all countries, but implies very different priorities in different populations. Reinforcing this target for overall mortality in each country are four global subtargets for 2030: avoid two-thirds of child and maternal deaths; twothirds of tuberculosis, HIV, and malaria deaths; a third of premature deaths from noncommunicable diseases (NCDs); and a third of those from other causes (other communicable diseases, undernutrition, and injuries). These challenging subtargets would halve under-50 deaths, avoid a third of the (mainly NCD) deaths at ages 50-69 years, and so avoid 40% of under-70 deaths. To help assess feasibility, we review mortality rates and trends in the 25 most populous countries, in four country income groupings, and worldwide. Methods

UN sources yielded overall 1970–2010 mortality trends. WHO sources yielded cause-specific 2000–10 trends, standardised to country-specific 2030 populations; decreases per decade of 42% or 18% would yield 20-year reductions of two-thirds or a third. Results

Throughout the world, except in countries where the effects of HIV or political disturbances predominated, mortality decreased substantially from 1970–2010, particularly in childhood. From 2000–10, under-70 age-standardised mortality rates decreased 19% (with the low-income and lower-middle-income countries having the greatest absolute gains). The proportional decreases per decade (2000–10) were: 34% at ages 0–4 years; 17% at ages 5–49 years; 15% at ages 50–69 years; 30% for communicable, perinatal, maternal, or nutritional causes; 14% for NCDs; and 13% for injuries (accident, suicide, or homicide).

Interpretation

Moderate acceleration of the 2000–10 proportional decreases in mortality could be feasible, achieving the targeted 2030 disease-specific reductions of two-thirds or a third. If achieved, these reductions avoid about 10 million of the 20 million deaths at ages 0–49 years that would be seen in 2030 at 2010 death rates, and about 17 million of the 41 million such deaths at ages 0–69 years. Such changes could be achievable by 2030, or soon afterwards, at least in areas free of war, other major effects of political disruption, or a major new epidemic. Funding

UK Medical Research Council, Norwegian Agency for Development Cooperation, Centre for Global Health Research, and Bill & Melinda Gates Foundation.

The Lancet Global Health

Jan 2015 Volume 3 Number 1 e1-e61 http://www.thelancet.com/journals/langlo/issue/current [Reviewed earlier]

The Lancet Infectious Diseases

Jan 2015 Volume 15 Number 1 p1-130 http://www.thelancet.com/journals/laninf/issue/current [Reviewed earlier]

Maternal and Child Health Journal

Volume 19, Issue 1, January 2015 http://link.springer.com/journal/10995/19/1/page/1 [Reviewed earlier]

Medical Decision Making (MDM)

January 2015; 35 (1) http://mdm.sagepub.com/content/current [Reviewed earlier]

The Milbank Quarterly

A Multidisciplinary Journal of Population Health and Health Policy
December 2014 Volume 92, Issue 4 Pages 633–840
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0009/currentissue
[Reviewed earlier]

Nature

Volume 517 Number 7534 pp244-406 15 January 2015 http://www.nature.com/nature/current_issue.html

The African Genome Variation Project shapes medical genetics in Africa

Open

Deepti Gurdasani, Tommy Carstensen, Fasil Tekola-Ayele, Luca Pagani, Ioanna Tachmazidou

+ et al.

The African Genome Variation Project contains the whole-genome sequences of 320 individuals and dense genotypes on 1,481 individuals from sub-Saharan Africa; it enables the design and interpretation of genomic studies, with implications for finding disease loci and clues to human origins.

Nature Medicine

January 2015, Volume 21 No 1 pp1-98 http://www.nature.com/nm/journal/v21/n1/index.html [New issue; No relevant content]

Nature Reviews Immunology

January 2015 Vol 15 No 1 http://www.nature.com/nri/journal/v15/n1/index.html [New issue; No relevant content]

New England Journal of Medicine

January 15, 2015 Vol. 372 No. 3

http://www.nejm.org/toc/nejm/medical-journal

Sharing Individual Patient Data from Clinical Trials

Jeffrey M. Drazen, M.D.

N Engl J Med 2015; 372:201-202<u>January 15, 2015</u>DOI: 10.1056/NEJMp1415160

Free Full Text, Audio, Comments

<u>Practical, Legal, and Ethical Issues in Expanded Access to Investigational Drugs</u>

J.J. Darrow, A. Sarpatwari, J. Avorn, and A.S. Kesselheim

The authors review the FDA policies and procedures that permit some patients with serious conditions to receive investigational drugs before formal product approval and examine the legal and ethical issues associated with expanded access.

The Pediatric Infectious Disease Journal

December 2014 - Volume 33 - Issue 12 pp: 1211-1312,e316-e337 http://journals.lww.com/pidj/pages/currenttoc.aspx [Reviewed earlier]

Pediatrics

January 2015, VOLUME 135 / ISSUE 1 http://pediatrics.aappublications.org/current.shtml [Reviewed earlier]

Pharmaceutics

<u>Volume 6</u>, Issue 4 (December 2014), Pages 543http://www.mdpi.com/1999-4923/6/4

[Reviewed earlier]

Pharmacoeconomics

Volume 33, Issue 1, January 2015 http://link.springer.com/journal/40273/33/1/page/1 [Reviewed earlier]

PLoS Currents: Outbreaks

http://currents.plos.org/outbreaks/ (Accessed 17 January 2015) [No new relevant content]

PLoS Medicine

(Accessed 17 January 2015)
http://www.plosmedicine.org/
[No new relevant content]

PLoS Neglected Tropical Diseases

http://www.plosntds.org/ (Accessed 17 January 2015) [No new relevant content]

PLoS One

[Accessed 17 January 2015] http://www.plosone.org/

<u>Considerations on the Current Universal Vaccination Policy against Hepatitis A in</u> Greece after Recent Outbreaks

Kassiani Mellou, Theologia Sideroglou, Vassiliki Papaevangelou, Anna Katsiaflaka, Nikolaos Bitsolas, Eleni Verykouki, Eleni Triantafillou, Agoritsa Baka, Theano Georgakopoulou, Christos Hadjichristodoulou

Research Article | published 15 Jan 2015 | PLOS ONE 10.1371/journal.pone.0116939

PLoS Pathogens

http://journals.plos.org/plospathogens/ (Accessed 17 January 2015) [No new relevant content]

PNAS - Proceedings of the National Academy of Sciences of the United States of America

(Accessed 17 January 2015) http://www.pnas.org/content/early/

[No new relevant content]

Pneumonia

Vol 5 (2014) https://pneumonia.org.au/index.php/pneumonia/issue/current- https://pneumonia.org.au/index.php/pneumonia/issue/current- https://pneumonia.org.au/index.php/pneumonia/issue/current- https://pneumonia.org.au/index.php/pneumonia/issue/current- https://pneumonia.org.au/index.php/pneumonia/issue/current- https://pneumonia.org.au/index.php/pneumonia/issue/current- https://pneumonia.org.au/index.php/pneumonia.org.au/index.php/pneumonia/issue/current- <a href="https://pneumonia.org.au/index.php.au/index.p

Public Health Ethics

Volume 7 Issue 3 November 2014
http://phe.oxfordjournals.org/content/current
Special Symposium on Dual Loyalities: Health Providers Working for the State
[Reviewed earlier]

Qualitative Health Research

February 2015; 25 (2) http://qhr.sagepub.com/content/current Special Issue: Responses to Treatment [Reviewed earlier]

Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)

<u>September 2014</u> Vol. 36, No. 3
http://www.paho.org/journal/index.php?option=com_content&view=article&id=151&Itemid=266&lang=en
[Reviewed earlier]

Risk Analysis

December 2014 Volume 34, Issue 12 Pages 2063–2188 http://onlinelibrary.wiley.com/doi/10.1111/risa.2014.34.issue-12/issuetoc [New issue; No relevant content]

Science

16 January 2015 vol 347, issue 6219, pages 209-348 http://www.sciencemag.org/current.dtl *The Ebola Epidemic*

High hopes for Guinean vaccine trial

Martin Enserink*

The push to test Ebola vaccines in the field is accelerating. Two candidates may go into phase III trials in a matter of weeks; a third one has just entered a phase I trial. Researchers have designed very different phase III studies for Liberia, Sierra Leone, and Guinea, the three countries with ongoing virus transmission. One problem they're facing is that the number of

new cases has dropped sharply in Liberia and is beginning to ebb in Sierra Leone. That's why many scientists say Guinea—where researchers plan to try a highly unusual ring vaccination design—is the most promising testing ground.

Social Science & Medicine

Volume 126, <u>In Progress</u> (February 2015) <u>http://www.sciencedirect.com/science/journal/02779536/126</u> [Reviewed earlier]

Tropical Medicine and Health

Vol. 42(2014) No. 4 https://www.jstage.jst.go.jp/browse/tmh/42/4/_contents [Reviewed earlier]

Tropical Medicine & International Health

January 2015 Volume 20, Issue 1 Pages 1–119 http://onlinelibrary.wiley.com/doi/10.1111/tmi.2014.20.issue-1/issuetoc [Reviewed earlier]

Vaccine

Volume 33, Issue 3, Pages 403-486 (9 January 2015) http://www.sciencedirect.com/science/journal/0264410X/33/3 [Reviewed earlier]

Vaccine: Development and Therapy

(Accessed 17 January 2015) http://www.dovepress.com/vaccine-development-and-therapy-journal [No new relevant content]

Vaccines — Open Access Journal

(Accessed 17 January 2015)
http://www.mdpi.com/journal/vaccines
[No new relevant content]

Value in Health

January 2015 Volume 18, Issue 1, p1-136 http://www.valueinhealthjournal.com/current

Pediatricians' Preferences for Infant Meningococcal Vaccination

<u>Christine Poulos</u>, PhD, <u>F. Reed Johnson</u>, PhD, <u>Girishanthy Krishnarajah</u>, MBA, MPH, <u>Andrea</u> Anonychuk, MSc, Derek Misurski, PhD

DOI: http://dx.doi.org/10.1016/j.jval.2014.10.010

Abstract

Background

Meningococcal disease is rare but can cause death or disabilities. Although the Advisory Committee on Immunization Practices has recommended meningococcal vaccination for at-risk children aged 9 through 23 months, it has not endorsed universal vaccination. Health insurance payments for the vaccination of children who are not at risk are likely to be limited. Use of infant meningococcal vaccines by these families will thus depend on the preferences of physicians who might recommend vaccination to parents, as well as parents' preferences. Objective

To quantify pediatricians' preferences for specific features of hypothetical infant meningococcal vaccines.

Methods

A sample of pediatricians (n = 216) completed a Web-enabled, discrete choice experiment survey in which respondents chose between pairs of hypothetical vaccines in a series of trade-off questions. The questions described vaccines with six attributes. A random-parameters logit regression model was used to estimate the relative importance weights physicians place on vaccine features. These weights were used to calculate the predicted probability that a physician chooses hypothetical vaccines with given characteristics.

Results

Pediatricians' choices indicated that increases in vaccine effectiveness were among the most important factors in their vaccine recommendations, followed by increases in the number of injections. The age at which protection begins and the number of additional office visits were less important. Whether a booster was required after 5 years was the least important factor in vaccine recommendations. The results suggest that virtually all (99.9%) physicians in the sample would recommend a vaccine even with the least-preferred features rather than no infant meningococcal vaccine.

Conclusions

Physicians' responses indicate a strong preference for infant meningococcal vaccination.

<u>From Google Scholar & other sources: Selected Journal Articles, Newsletters, Dissertations, Theses, Commentary</u>

Revista de Saude Publica

Oct 2014; 48(6): 906–915.

doi: <u>10.1590/S0034-8910.2014048005284</u>

Factors associated with vaccination coverage in children < 5 years in Angola

<u>Manuel Falcão Saturnino de Oliveira</u>, I <u>Edson Zangiacomi Martinez</u>, II and <u>Juan Stuardo Yazlle</u> Rocha

Abstract

OBJECTIVE

To analyze vaccination coverage and factors associated with a complete immunization scheme in children < 5 years old.

METHODS

This cross-sectional household census survey evaluated 1,209 children < 5 years old living in Bom Jesus, Angola, in 2010. Data were obtained from interviews, questionnaires, child immunization histories, and maternal health histories. The statistical analysis used generalized linear models, in which the dependent variable followed a binary distribution (vaccinated,

unvaccinated) and the association function was logarithmic and had the children's individual, familial, and socioeconomic factors as independent variables.

RESULTS

Vaccination coverage was 37.0%, higher in children < 1 year (55.0%) and heterogeneous across neighborhoods; 52.0% of children of both sexes had no immunization records. The prevalence rate of vaccination significantly varied according to child age, mother's level of education, family size, ownership of household appliances, and destination of domestic waste. CONCLUSIONS

Vulnerable groups with vaccination coverage below recommended levels continue to be present. Some factors indicate inequalities that represent barriers to full immunization, indicating the need to implement more equitable policies. The knowledge of these factors contributes to planning immunization promotion measures that focus on the most vulnerable groups.

Media/Policy Watch

This section is intended to alert readers to substantive news, analysis and opinion from the general media on vaccines, immunization, global; public health and related themes. *Media Watch* is not intended to be exhaustive, but indicative of themes and issues CVEP is actively tracking. This section will grow from an initial base of newspapers, magazines and blog sources, and is segregated from *Journal Watch* above which scans the peer-reviewed journal ecology.

We acknowledge the Western/Northern bias in this initial selection of titles and invite suggestions for expanded coverage. We are conservative in our outlook in adding news sources which largely report on primary content we are already covering above. Many electronic media sources have tiered, fee-based subscription models for access. We will provide full-text where content is published without restriction, but most publications require registration and some subscription level.

Al Jazeera

http://www.aljazeera.com/Services/Search/?q=vaccine
Accessed 17 January 2015
[No new, unique, relevant content]

The Atlantic

http://www.theatlantic.com/magazine/ Accessed 17 January 2015 [No new, unique, relevant content]

BBC

http://www.bbc.co.uk/ Accessed 17 January 2015 [No new, unique, relevant content]

Brookings

http://www.brookings.edu/ Accessed 17 January 2015 [No new, unique, relevant content]

Council on Foreign Relations

http://www.cfr.org/ Accessed 17 January 2015 [No new, unique, relevant content]

The Economist

http://www.economist.com/ Accessed 17 January 2015 [No new, unique, relevant content]

Forbes

http://www.forbes.com/ Accessed 17 January 2015

Gates Foundation CEO: "History Is Going To Judge Us"

Sue Desmond-Hellmann took the helm at The Bill & Melinda Gates Foundation last May. She talks about what she's hoping to change and how working in Uganda informs what she does now.

Kerry A. Dolan, Forbes Staff Jan 16, 2015

Gates Foundation CEO: A Picture Of Hope In Early Ebola Vaccine Trials

Efforts to develop vaccines for Ebola are moving more quickly than usual for this kind of disease, says The CEO of The Bill & Melinda Gates Foundation.

Kerry A. Dolan, Forbes Staff Jan 12, 2015

Foreign Affairs

http://www.foreignaffairs.com/ Accessed 17 January 2015 [No new, unique, relevant content]

The Guardian

http://www.guardiannews.com/ Accessed 17 January 2015 [No new, unique, relevant content]

The Huffington Post

http://www.huffingtonpost.com/ Accessed 17 January 2015 [No new, unique, relevant content]

Le Monde

Accessed 17 January 2015
http://www.lemonde.fr/
[No new, unique, relevant content]

Mail & Guardian

http://mg.co.za/ Accessed 17 January 2015 [No new, unique, relevant content]

New Yorker

http://www.newyorker.com/ Accessed 17 January 2015 Surviving Ebola 16 January 2015

In West Africa, people who catch Ebola and do not die are called "survivors...

New York Times

http://www.nytimes.com/ Accessed 17 January 2015 [No new, unique, relevant content]

Reuters

http://www.reuters.com/ Accessed 17 January 2015 [No new, unique, relevant content]

Wall Street Journal

http://online.wsj.com/home-page? wsjregion=na,us& homepage=/home/us Accessed 17 January 2015

Study of Ebola Drug ZMapp Set for West Africa

17 January 20215

A clinical trial of the experimental Ebola drug ZMapp may be ready to get under way in infected patients in West Africa in February, the latest effort to combat the current epidemic and any future outbreaks.

Washington Post

http://www.washingtonpost.com/ Accessed 17 January 2015 Editorial –The Post's View

The United States should generously support Gavi's immunization efforts

The Washington Post | 11 January 2015

AN IMPORTANT conference is to be held in Berlin on Jan. 27 to secure financial replenishment for Gavi, the Vaccine Alliance, a multilateral nonprofit that for 15 years has been bringing vaccines to children in the world's 73 poorest nations. Many attendees will be watching to see what the United States pledges to the effort for the next few years. It ought to be generous...

* * * *

Ebola/EVD: Additional Coverage

UNMEER [UN Mission for Ebola Emergency Response] @UNMEER #EbolaResponse

Editor's Note: UNMEER's <u>website</u> is aggregating and presenting content from various sources including its own External Situation Reports, press releases, statements and other formats.

We present a composite below from the week ending 17 January 2015. We also note that 1) a regular information category in these reports – human rights – has apparently eliminated as it no longer appears in any of the continuing updates, and 2) the content level of these reports continues, in our view, to trend less informative and less coherent. We will review continuing coverage of this material over the next few weeks.

UNMEER External Situation Reports

UNMEER External Situation Reports are issued daily (excepting Saturday) with content organized under these headings:

- Highlights
- Key Political and Economic Developments
- Human Rights
- Response Efforts and Health
- Logistics
- Outreach and Education
- Resource Mobilisation
- Essential Services
- Upcoming Events

The "Week in Review" will present highly-selected elements of interest from these reports. The full daily report is available as a pdf using the link provided by the report date.

:: <u>16 Jan 2015</u> UNMEER External Situation Report

Response Efforts and Health

- 2. In Sierra Leone, the UNICEF-led Family Tracing and Reunification (FTR) network have identified 15,258 children as being directly affected by the Ebola crisis (7,664 girls and 7,594 boys), with 7,968 children having lost one or both parents to Ebola and 552 unaccompanied or separated from their caregiver. 9,103 Ebola-affected children have been provided with psychosocial support.
- 8. The OCHA Ebola Virus Outbreak Overview of Needs and Requirements, now totaling USD 1.5 billion, has been funded for USD 1.15 billion, which is around 77% of the total ask. *Essential Services*
- 13. The guidelines for the reopening of schools in February was shared with educational authorities in Sinoe County, Liberia. The schools need to establish a committee to oversee the implementation of the guidelines, register the students and identify people trained in IPC procedures. Medical Team International (MTI) offered to distribute the guidelines to the schools. UNICEF will provide three thermoflashes per school to 220 schools. Among the challenges and issues in instituting the guidelines are: 1) the lack of personnel to implement them in the schools (some schools have one teacher for 100 students); 2) the inaccessibility of some schools due to their remote location; 3) lack of basic equipment like printers and photocopiers to disseminate the guidelines; and 4) lack of clarity on no-touch policy for people caring for children under 3-years-old (it may not be possible to institute the policy in these cases). The general community health volunteers (gCHVs) plan to support the schools in some locations.
- 14. Preparations are underway for a second mass distribution of anti-malaria treatments in Ebola hotspots in Sierra Leone. An estimated 2.5 million are expected to be reached in the coming

:: 15 Jan 2015 UNMEER External Situation Report

Key Political and Economic Developments

- 1. According to press reports, President Ernest Bai Koroma of Sierra Leone predicted while visiting Port Loko, Tonkolili and Bombali in the northern District that his country would be Ebola-free by May.
- 2. In Forécariah, Kindia Prefecture, Guinea, following the lynching of two police officers and a driver by the local population on 17 January, tension remains high. Evaluation team for the campaign "Zero Ebola in 60 days" reported that several villages were currently inaccessible due to the heightened tension.

:: 14 Jan 2015 UNMEER External Situation Report

Key Political and Economic Developments

- 1. UNDP is leading an Early Recovery Assessment mission in the three most affected countries. The mission includes representatives from the World Bank, the African Development Bank, the European Union and UN agencies. In Liberia, the mission met with President Ellen Johnson-Sirleaf, as well as with Ministers and Deputy Ministers, the Governance Commission, Land Commission, Civil Services Agency and the leadership of the IMS and UNMEER. The mission is today in Sierra Leone and will then travel to Guinea before compiling a plan for early recovery in the three most affected countries.
- 2. The Islamic Development Bank (IDB), has announced financing in the amount of USD 35 million to countries affected by Ebola. *Response Efforts and Health*
- 3. Health workers have been paid across Liberia in a coordinated effort led by the Ministry of Health and supported by UNDP and UNMEER. In total, more than USD 1 million in cash was distributed to thousands of workers, with Ministry of Health, Ministry of Finance and UNDP staff travelling to remote areas over the past six days. Logistics assistance was provided by WFP and UNMEER, as well as the County Health Teams. The Ministry is now collecting data from the field and will report on final numbers this week.
- 6. As of last week, the number of children in Liberia registered as orphaned due to EVD is 4,372. All of the children identified are currently receiving follow-up and psychosocial support. The Child Protection Sub-Cluster estimates that there can be as many as 7,500 Ebola orphans in Liberia. UNICEF is partnering with the government and NGOs to train and engage more social workers to identify and ensure that all the orphans are in an adequately protective environment.

:: 13 Jan 2015 UNMEER External Situation Report

Key Political and Economic Developments

3. Two new World Bank reports indicate that the socio-economic impacts of Ebola in Liberia and Sierra Leone are far-reaching and persistent. Both countries continue to experience job losses, despite their differing health outlooks. These impacts have not been limited to the areas where infections have been the highest, which points to economy-wide slowdowns. As a result, many households have been forced to take short-term actions to cope, which can have substantial long-term effects on welfare.

Outreach and Education

14. UNICEF, in partnership with the Monrovia and Paynesville city councils, Liberia launched Operation Stop Ebola – a mass media, community outreach and engagement campaign targeting 900,000 people or about 80 percent of the population of Montserrado County. To this end, 170 commissioners, governors and community leaders have been trained.

15. In Sierra Leone, social mobilizers from various agencies mobilized 782 religious leaders and 2,077 community leaders and reached 11,003 households to inform them about improvements in services and to mobilize people to seek early care and treatment. The intensification resulted in an increase in number of calls to the 117 hotline to report sick or suspected cases or to seek information and care. It also led to an increase in 'walk-ins' and

:: <u>12 Jan 2015</u> UNMEER External Situation Report Response Efforts and Health

3. WFP has finalised the rehabilitation of a hospital in Kambia, Sierra Leone, to be managed by Partners in Health (PiH). This hospital will be used as a Holding Centre with 40 beds and on 9 January was officially inaugurated by President Ernest Bai Koroma. WFP has the capacity to provide additional necessary equipment and staff to support the construction of additional wings at the hospital; this Centre could be extended to become an Ebola Treatment Unit (ETU) with a capacity to hold up to 100 beds, by erecting an additional 10m x 24m Mobile Storage Unit (MSU).

* * *

Vaccines and Global Health: The Week in Review is a service of the Center for Vaccines Ethics and Policy (<u>CVEP</u>) which is solely responsible for its content, and is an open access publication, subject to the terms of the Creative Commons Attribution License (<u>http://creativecommons.org/licenses/by-nc/3.0/</u>). Copyright is retained by CVEP.

Support for this service is provided by its governing institutions — <u>Department of Medical</u>

Ethics, NYU Medical School; The Wistar Institute Vaccine Center and the Children's Hospital of
Philadelphia Vaccine Education Center. Additional support is provided by the <u>PATH Vaccine</u>

Development Program; the <u>International Vaccine Institute</u> (IVI); the <u>Bill & Melinda Gates</u>

Foundation; industry resource members Janssen, Pfizer, and Sanofi Pasteur U.S. (list in formation), and the Developing Countries Vaccine Manufacturers Network (DCVMN).

Support is also provided by a growing list of individuals who use this membership service to support their roles in public health, clinical practice, government, NGOs and other international institutions, academia and research organizations, and industry.

* * * *