

# **Rapid Advice Guidelines**

## **At WHO**

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Guidelines Review Committee Secretariat



# **World Health Organization**

# Disclosure of Secondary Interests (5 years)

**Financial:** Teva Pharm, Athena Health, CVS Corp; none related to tobacco  
**Intellectual**

- Member, GRADE Working Group
- Member, (US) National Guideline Clearinghouse Editorial Board
- Publications: methods of nonrandomized studies, sources of bias in systematic reviews and guidelines
- Research focus: conflict of interest, bias in guideline development

## Professional

- Current: Technical Officer, World Health Association
- Current: Faculty, Oregon Health & Science University, Portland, USA
- Investigator, Evidence-based Practice Center (AHRQ)
- Investigator, Kaiser Permanente Center for Health Research
- Funders: CDC, NIH, AHRQ, American College of Chest Physicians, American Urological Association

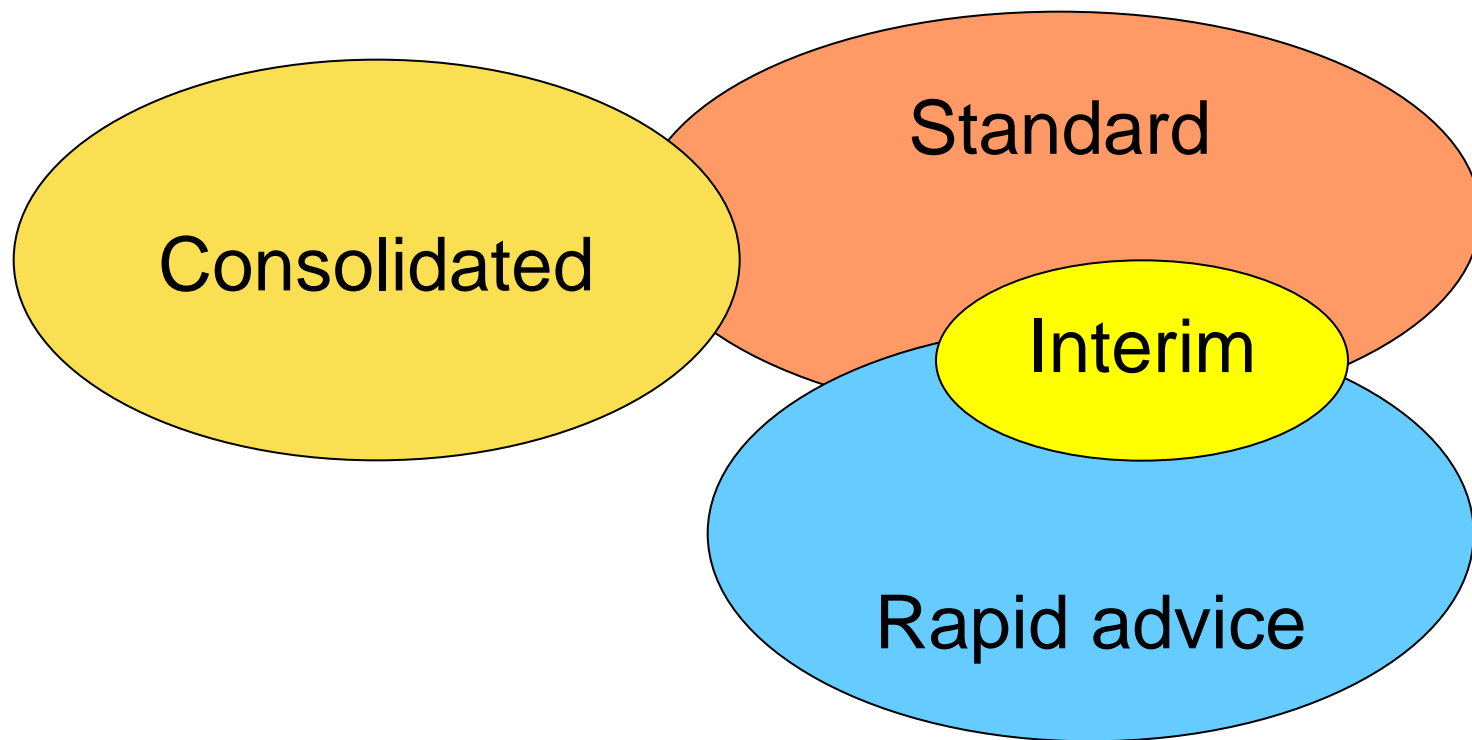
# Outline

- Types of WHO guidelines
- Describe standards and quality control measures at WHO
- Guidelines in the context of a public health emergency
- History of rapid advice guidelines at WHO
- Methods for rapid advice guidelines at WHO, example
- The future?

# Types of guidelines at WHO

- Standard
  - Systematic review(s) and full guideline development process
  - 6 months to 2 years
- Consolidated
  - Include GRC-approved recommendations
- Rapid advice guidelines
  - Compressed and abbreviated process, potential for bias
  - 1 to 3 months
- Interim
  - Standard or rapid advice guideline processes; often narrow scope
  - Anticipate short shelf-life: follow with standard guideline

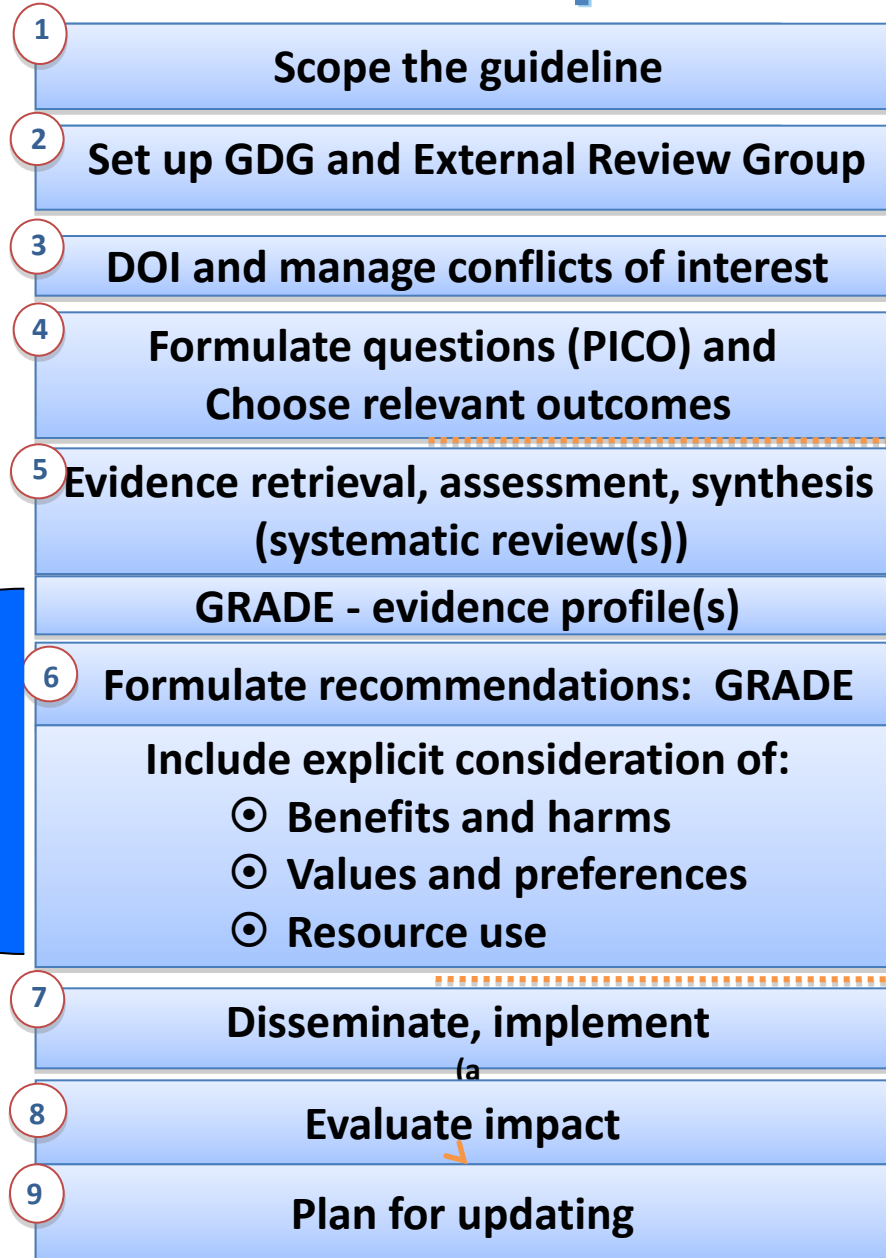
# Types of guidelines



# Guidelines produced by WHO

- 2007 to January 2015: 171 published guidelines approved by the Guideline Review Committee (GRC)
- Some guidelines are not reviewed by the GRC
  - SAGE (vaccines)
  - Essential Medicines
  - Expert Committees
  - Emergency situations

# Guideline development at WHO



GRC approval of guideline development proposal

GRC approval of final guideline

**GRADE**

# WHO

## *Handbook for Guideline Development*

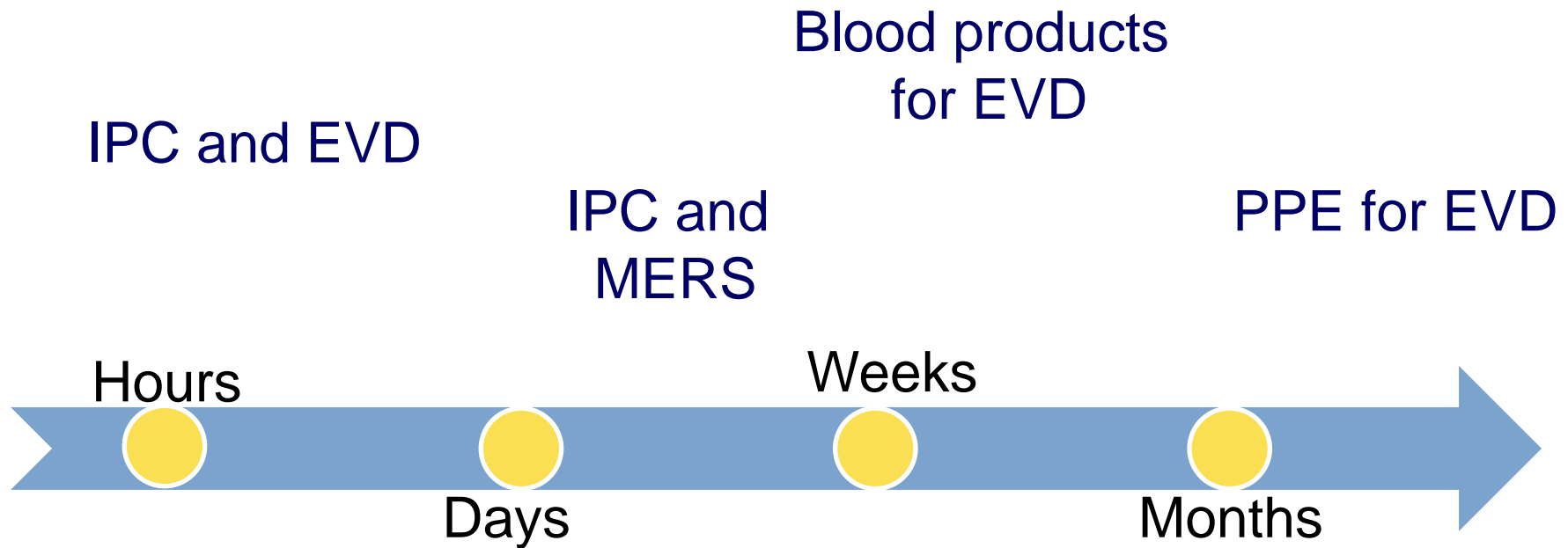
*2nd edition*



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# WHO guidelines in the context of a public health emergency



# Rapid advice guidelines at WHO (2007 – 2013)

- Rapid Advice: Treatment of tuberculosis in children (2010)
- Rapid Advice: Diagnosis, prevention and management of cryptococcal infection in HIV-infected adults and children (2011)
- Clinical management of human infection with pandemic (H1N1) 2009: revised guidance (Nov 2009)
  - WHO Guidelines for Pharmacological Management of Pandemic Influenza A (H1N1) and other Influenza Viruses (full guideline) (Feb 2010)

# Rapid advice guidelines at WHO (2014-2015)

- Personal protective equipment in the context of filovirus disease outbreak response: Rapid advice guideline
- Guideline on hand hygiene in health care in the context of filovirus disease outbreak response
- Rapid advice on surgical interventions in the context of Ebola

# Guideline on personal protective equipment for health care workers in context of Ebola Virus Disease

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- June 27, 2014: request for consultation from Dr Cota Vallenias, Medical Officer in WHO Pandemic and Epidemic Diseases
- Issue: controversy between 2 types of PPE, 2 different users in the field, sparse data
- Timeline for a guideline: 8 to 10 weeks
- Plan: Rapid advice, interim guideline

# Ebola Virus Disease outbreak 2014

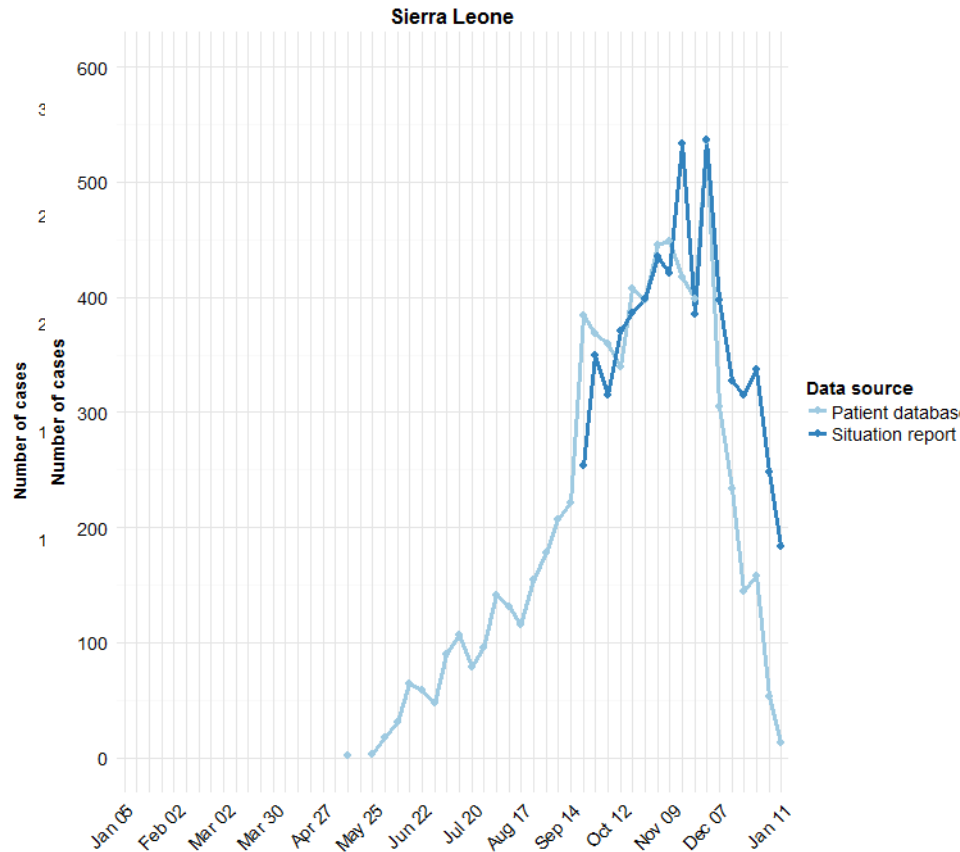
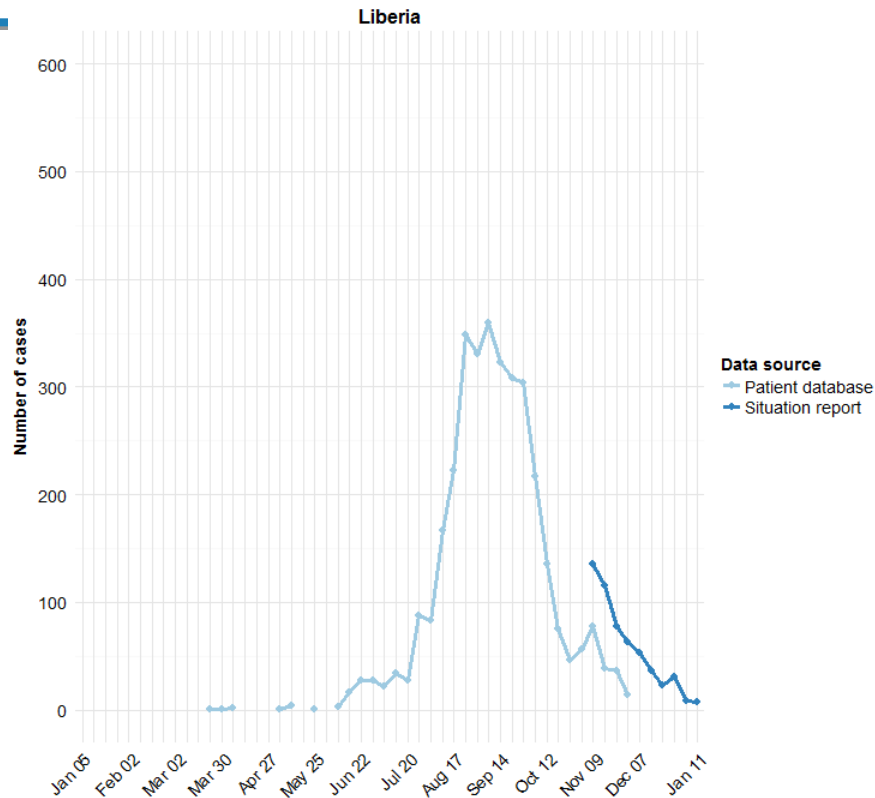
- Declared in March 2014
- WHO clinicians deployed systematically for the first time
- A variety of IPC practices with potential for confusion
- Interim Guidance updated in August 2014



Photo credit: D. Brett-Major

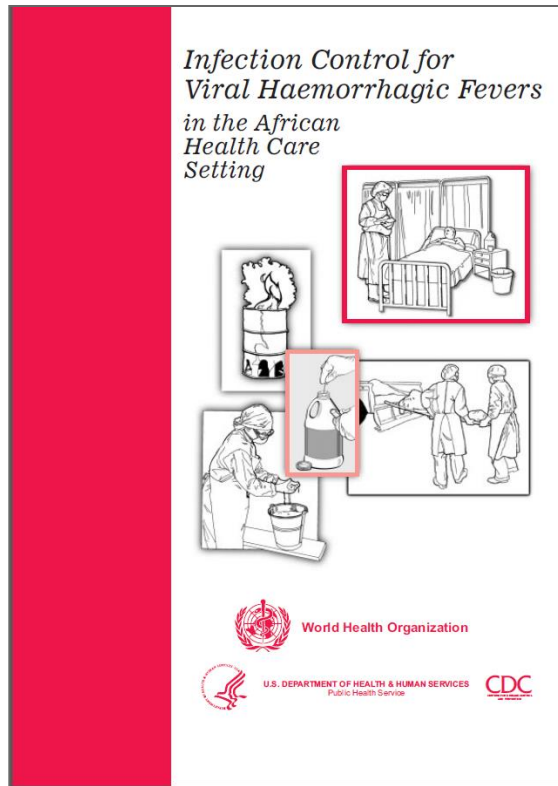
# Confirmed Ebola virus disease cases reported each week from Liberia and Sierra Leone

as of 14 January 2015

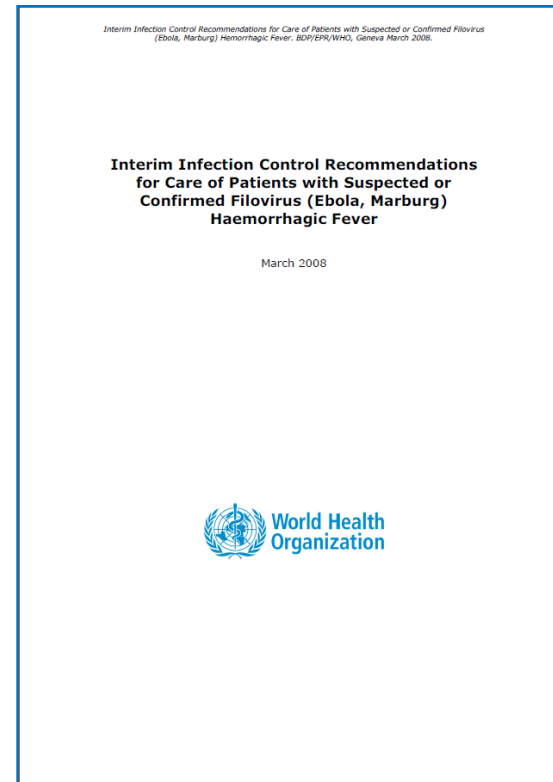


# Previous guidance

WHO/DHHS/CDC, 1998



WHO, 2008



# Processes and methods for developing for rapid advice guidelines at WHO (6/14)

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None!

...under construction...



# Steps in the development of a RAG

1. Determine if a RAG is needed
2. Establish the timeline and identify resources
3. Establish advisory groups
4. Establish the scope and write the key questions
5. Prepare the planning proposal
6. Perform the evidence review, synthesis and assessment
7. Formulate recommendations, draft the guideline
8. Conduct peer review
9. Publish

# Step 1. Is a RAG needed?

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1. What is the type of emergency and the risk to public health?
2. Is the event novel?
3. Is there uncertainty?
4. Does the uncertainty need to be urgently addressed?
5. What is the anticipated time frame for the event?
6. Will the recommendations be rapidly implemented?

# Step 3. Establish advisory groups

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1. WHO steering group
2. Guideline development group (external expert panel)
3. Peer reviewers

Involve the Guideline Review Committee Secretariat early

# Step 4. Draft the scope and key questions

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## Recommendation question

What are the appropriate specifications for PPE, as well as optimal practices for donning and doffing of PPE, to decrease risk of virus transmission to healthcare workers?

# Step 4. Draft the scope and key questions

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What is the comparative effectiveness and comparative harms of using double gloves, face protection, and gowns with high impermeability ratings, as personal protective equipment for healthcare workers in healthcare facilities when treating patients with the filovirus, compared to single gloves and less robust types of equipment that may contribute to an increased risk of exposure to bodily fluids and the virus?

# Step 5. Prepare the planning proposal

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- Full PP as for standard guideline
- Took 2 weeks to develop
- Reviewed and approved by the GRC on an urgent basis (5 days)

# Step 6. Perform the review, synthesis and assessment

- Commissioned a rapid review
- Resembled a systematic review, except:
  - English, French only
  - No peer review search strategy
  - 40% study extractions not verified
- Iterative approach to I/E criteria: study design, viruses



Ottawa Hospital  
**Research Institute**  
**Institut de recherche**  
de l'Hôpital d'Ottawa

# Effectiveness of PPE for healthcare workers caring for patients with filovirus disease

**Adrienne Stevens,**

**Ottawa Hospital Research Institute, Canada**

**6 October 2014**



# Step 7. Formulate the recommendations

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- Guideline Development Group meeting 6,7 October 2014
- 12 panel members, many observers
- Chair, methodologist
- Discussed PPE components one by one
- Drafted 12 recommendations at the end of 2 days
- Finalized recommendations: 3 weeks

# Survey of health worker preferences regarding PPE and EVD

- Online survey n=38 expatriated physicians, MSF or WHO
- Ethics Review committee approval; 3 weeks start to finish
- Eye protection: 36 respondents had experience with goggles, 7 face shields: goggles were uncomfortable and affected ability to provide care.
  - fogging affecting visibility, and lack of proper fit and slipping while providing care.
- Main concerns to health worker safety and wellbeing: heat-associated stress, fogging of eye wear affecting vision and the masks/respirators getting wet.
  - Need for training, quality of products, comfortable sizes and fit that does not slip while providing care

# Recommendation 1

All health workers should have the mucous membranes of their eyes, mouth and nose completely covered by PPE while providing clinical care for patients with filovirus disease in order to prevent virus exposure.

*Strong recommendation, high quality evidence for protecting mucous membranes compared to no protection.*

# Recommendation 2

All health workers should use either a face shield or goggles while providing clinical care for patients with filovirus disease in order to prevent virus exposure.

*Strong recommendation, very low quality evidence for the comparative effectiveness of face shields and goggles for the prevention of filovirus transmission to health workers.*

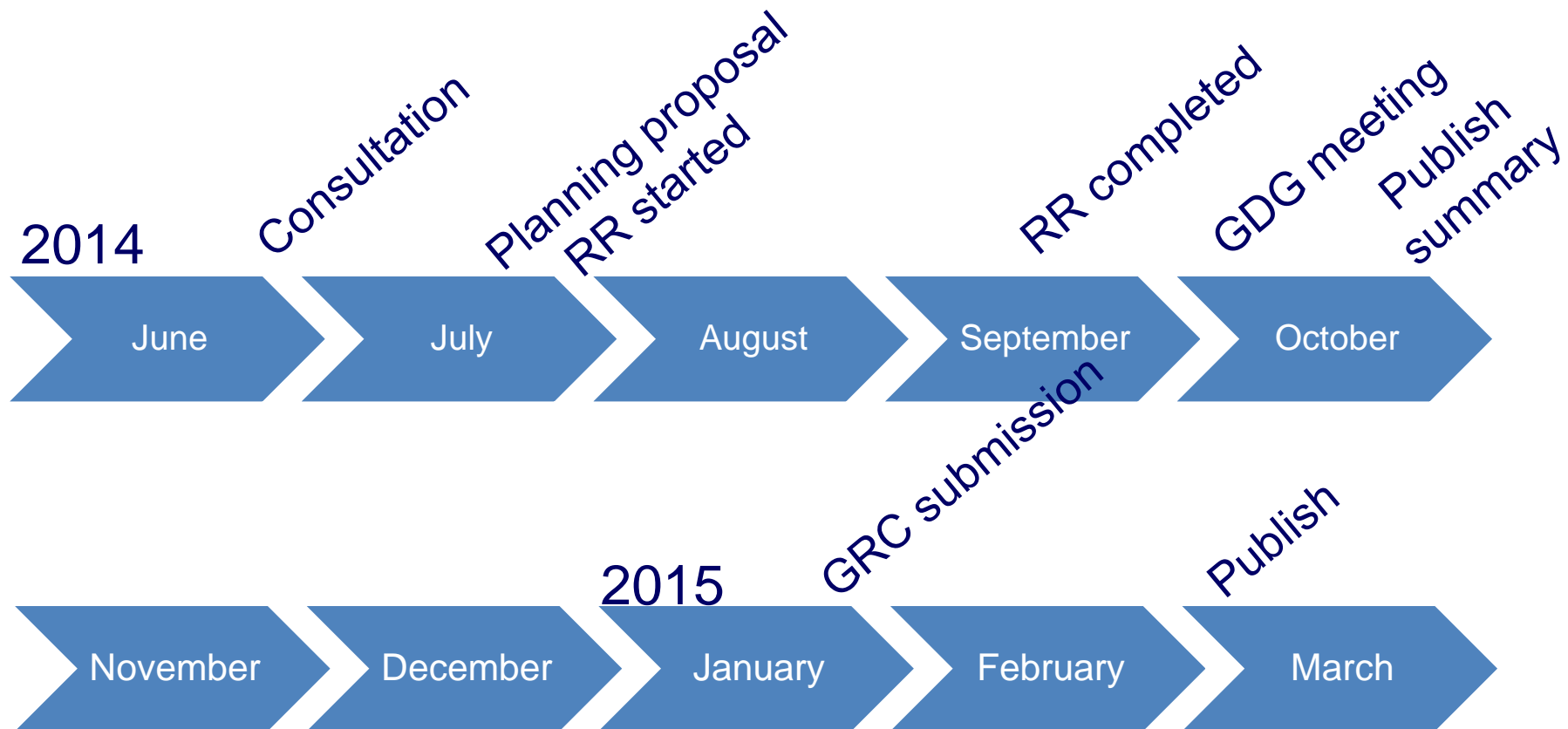
# Step 8. Conduct peer review

- Peer review of full guideline document = 5
- Occurred after the release of the summary of the guideline
- Focused on clarity, implementation issues
  - Can't change recommendations

# Step 9. Obtain approval and publish

- GRC and Organizational approval was in 2 parts:
  - summary guideline: overnight
  - final guideline: standard processes (3 weeks)

# Timeline: Personal protective equipment and EVD rapid advice guideline



# GUIDELINE ON HAND HYGIENE IN HEALTH CARE IN THE CONTEXT OF FILOVIRUS DISEASE OUTBREAK RESPONSE, Nov. 2014





# Rapid advice guideline on PPE and EVD: What worked?

## ● Procedural

- GRC Secretariat involved early and continuously
- Detailed (standard) planning proposal
- GRC review, approval process efficient, flexible
- Publication of summary before full guideline

## ● Technical

- High quality rapid review team
- Expert consultations on background questions: virus characteristics, materials permeability
- Survey of values and preferences in field workers

## ● Organizational

- The technical unit approached the GRC Secretariat:  
Why? High profile, needed to do it right  
Collaboration across the Organization



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# Rapid advice guideline on PPE and EVD: Challenges

- Procedural
  - Inefficiency in contracting mechanisms for rapid review team
  - Violation of confidentiality agreements
  - Delay getting full guideline completed
  - Small pool of potential contractors
- Technical
  - Scope creep
  - Sparse data, use of indirect evidence
  - Inclusion of non-comparative studies: quality, heterogeneity
  - Studies poorly reported
  - Difficulty collecting primary data
- Organizational
  - Obtaining adequate funding
  - Getting WHO leadership on board; reasonable expectations
  - Dissent among GDG members and their organizations

# Essential elements for developing a rapid advice guideline at WHO

- Procedural
  - GRC Secretariat involvement early and continuously
  - GRC oversight: flexible and efficient processes
  - Obtain DOI, manage COI
  - Release of summary prior to full guideline
- Technical
  - Contractor with experience with rapid reviews
  - Early involvement of guideline methodologist
  - Streamlined, flexible rapid review process
- Organizational
  - Involve all relevant technical units
  - Adequate funding
  - High level support and understanding



# Key questions going forward

- How evaluate and adapt off-the-shelf guidelines?
- When are de novo RAGs indicated?
- What corners can and cannot be cut?
- What are the essential steps given different timeframes?
- How develop guidelines overnight or within days?
- What is the role of the GRC in emergency guidelines?
- Do RAGs impact policy? Health outcomes?

# Acknowledgements

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- Bill & Melinda Gates Foundation
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- Rapid Review team lead: Adrienne Stevens, OHRI



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