Evidence Aid
Claire Allen, Knowledge Manager

NLM Workshop at WCDEM 2015
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Outline of presentation

• Why Evidence Aid
• Website and knowledge management including summaries
Who are we?

Claire Allen
Knowledge Manager, UK
(4 days per week)

Mike Clarke
Founder/Project Lead, UK and Ireland
(No specific dedicated time per week)

Bonnix Kayabu
Co-ordinator, Ireland
(1 day per week)

Dominic Mellon
PhD Student
(Evaluation of Evidence Aid), UK
(2 days per week)

We make up the equivalent of 1 full-time staff
Evidence Aid - why established?

• Established after the Indian Ocean Tsunami in December 2004.

• Like minded group of individuals (within The Cochrane Collaboration), headed by Mike Clarke (UK) and Sally Green (Australia) formed an advisory group to establish how Cochrane Reviews could help people during a natural disaster or humanitarian crisis such as the Indian Ocean Tsunami.
Evidence Aid - aims

• Use knowledge from Cochrane Reviews and other systematic reviews to provide reliable, up-to-date evidence on interventions that might be considered in the context of natural disasters and other major healthcare emergencies.

• Highlight which interventions work, which don’t work, which need more research, and which, no matter how well meaning, might be harmful.

• Provide information to agencies and people preparing for, or responding to, disasters.
Why are systematic reviews important?

• Help understand risks, benefits and consequences of decision making.
• Establish whether an intervention works, does not work, or has the potential to cause harm.
• Present a clearer and more consistent picture of the body of evidence.
• Avoid decision-making on the basis of a single study.
• Ensure decisions are based on information that is transparent, rigorous and replicable.
• We realise trials and systematic reviews are challenging but is this reason not to do them?
Evidence Aid resources - why

• Aim: To summarise information and provide to users.
• After the 2004 Indian Ocean tsunami, we realised there was no single source of information for disasters; how could Evidence Aid help?
• Between 2004 and 2009, four Special Collections were created and linked to from the front page of The Cochrane Library.
• Special Collections: Earthquakes, Flooding and Poor Water Sanitation, Burns, and Post Traumatic Stress Disorder (PTSD).
• Website hosted by Cochrane.
• As a result of the needs assessment survey we found that our potential users did not have ready or free access to evidence-based materials that would help them in their decision-making process.
Special Collections

- Not searchable.
- Defined by The Cochrane Collaboration and The Cochrane Library.
- Different audiences.
- Cochrane seen as medical, UK based and not relevant to the humanitarian aid sector.
- What could we do to overcome this?
Evidence Aid: Special Collections
The Cochrane Reviews in this Evidence Aid Special Collection are freely available; please click on the links below to access the reviews.

In times of natural disaster, having access to safe and clean water is essential. Water polluted by faecal matter can lead to the spread of diarrhoeal diseases such as cholera, and water polluted by animal waste can spread other diseases, such as leptospirosis. Natural disasters can also result in an increase in water-based insect vectors that can spread disease (such as malaria), and a lack of clean water for personal hygiene can result in an increase in diseases such as conjunctivitis and scabies. These outcomes are outlined in the World Health Organization’s Communicable Disease Control in Emergencies field manual,¹ and have informed the preparation of this Special Collection.

The burden caused by natural disasters adds to the existing burden of morbidity and mortality from diarrhoeal diseases. According to the World Health Organization (WHO), diarrhoeal disease is the second leading cause of death in children under five years old and kills 1.5 million children each year.²

Cochrane systematic reviews can contribute to the use of effective interventions to prevent and treat water-related diseases, and they have also examined interventions to improve sanitation and promote hand washing. This Special Collection presents the Cochrane Reviews that summarize the available evidence around water safety and water-related diseases. Where available, links to Evidence Update summaries are provided.

This Special Collection concludes with a list of additional resources and guidelines, recommended by the contributors to this Special Collection, likely to be of relevance and interest to those working in disaster relief.

A Japanese translation is maintained by Kyoto University School of Public Health.

- Water-related diseases caused by faecal pollution: general diarrhoea prevention, management, and treatment
- Water-related diseases caused by faecal pollution: sorted by disease
- Water-related diseases caused by water-based insect vectors
- Skin, eye, & louse-borne diseases that can occur when there is a lack of water for personal hygiene
- Skin diseases caused by long-term exposure to water
- Water-related diseases caused by urine of certain mammals

WATER-RELATED DISEASES CAUSED BY Faecal POLLUTION: GENERAL DIARRHEA PREVENTION, MANAGEMENT, AND TREATMENT

Diarrhoea prevention: water quality and hand washing

Diarrhoea is a common cause of morbidity and a leading cause of death among children aged less than five years, particularly in low- and middle-income countries. Persistent diarrhoea can also contribute to malnutrition, reduced resistance to infections, and sometimes impaired growth and development. Many of the infectious agents are transmitted by ingesting contaminated food or drink, by direct person-to-person contact, or from contaminated hands.

Interventions to improve water quality for preventing diarrhoea
Diarrhoea treatment: zinc and probiotics

Oral zinc for treating diarrhoea in children

In areas where the prevalence of zinc deficiency or the prevalence of moderate malnutrition is high, zinc may be of benefit in children aged six months or more. The current evidence does not support the use of zinc supplementation in children below six months of age.

Zinc supplementation is recommended by WHO and UNICEF. In areas where the prevalence of zinc deficiency or the prevalence of moderate malnutrition is high, zinc may be of benefit in children aged six months or more. But the current evidence does not support the use of zinc supplementation in children below six months of age.

There is currently not enough evidence to confirm that whether zinc supplementation during acute diarrhoea reduces death or hospitalization. But in children aged more than six months with acute diarrhoea, zinc supplementation may shorten the duration of diarrhoea. In children over six months with malnutrition zinc appears to reduce the duration of moderate diarrhoea. In children aged less than six months, the available evidence suggests zinc supplementation may have no effect on mean diarrhoea duration. In children aged over six months with persistent diarrhoea, zinc supplementation may shorten the duration of diarrhoea. The majority of the data included in the 24 included trials are from Asia, from countries at high risk of zinc deficiency, and may not be applicable elsewhere.

Probiotics for treating infectious diarrhoea

Used alongside rehydration therapy, probiotics appear to be safe and have clear beneficial effects in shortening the duration and reducing stool frequency in acute infectious diarrhoea. However, more research is needed to guide the use of particular probiotic regimens in specific patient groups.

Probiotics are microbial cell preparations or components of microbial cells that have a beneficial effect on the health and well-being of the host. Probiotics may offer a safe intervention in acute infectious diarrhoea to reduce the duration and severity of the illness. This review assesses the effects of probiotics in proven or presumed acute infectious diarrhoea.

Probiotics for treating persistent diarrhoea in children

There is limited evidence suggesting probiotics may be effective in treating persistent diarrhoea in children.

Persistent diarrhoea (diarrhoea lasting more than 14 days) accounts for one third of all diarrhoea-related deaths in developing countries in some studies, and probiotics may help treatment. This review evaluates probiotics for treating persistent diarrhoea in children.
Evidence Aid website

- Evidence Aid website with a database of resources launched August 2013.
- Searchable resources.
- Brand identity throughout the website.
- Gives a consistent message.
- Ability to include links not relevant to Cochrane.
Resources: identification

- Priority setting done by Mike Clarke, David Tovey (Editor in Chief of The Cochrane Library) and Bonnix Kayabu.
- Checked with the relevant Cochrane Review Group.
- Partnership with the International Rescue Committee.
Evidence Aid resources

Providing resources for decision-makers before, during and after disasters and other humanitarian emergencies

Resources

Until now, the main source of systematic reviews for Evidence Aid have been Cochrane Reviews, with Special Collections made available through The Cochrane Library website (www.thecochranelibrary.com) for various topics. The Evidence Aid team continues to assess the titles, protocols and full reviews to identify those of potential relevance to Evidence Aid. The list of potentially eligible Cochrane reviews has been reviewed by the Emmanuel D’Harcourt and Ruwan Ratnayake from the International Rescue Committee (USA) and the prioritised reviews will have summaries written, contextual summaries developed, and be added to the Evidence Aid website along with the Cochrane Reviews from the existing Special Collections. Other evidence will be made available within the database which will have a fully functioning search facility to help people to get to the information they need more quickly.
Diarrhoea prevention: water quality and hand washing

- Hand washing for preventing diarrhoea
- Interventions to improve disposal of human excreta for preventing diarrhoea
- Interventions to improve water quality for preventing diarrhoea

Diarrhoea management: oral rehydration solution (ORS)

- Oral rehydration salt solution for treating cholera: ≤ 270 mOsm/L solutions vs ≥ 310 mOsm/L solutions
- Oral versus intravenous rehydration for treating dehydration due to gastroenteritis in children
- Polymer-based oral rehydration solution for treating acute watery diarrhoea
- Reduced osmolarity oral rehydration solution for treating dehydration caused by acute diarrhoea in children

Diarrhoea treatment: zinc and probiotics

- Oral zinc for treating diarrhoea in children
- Probiotics for treating infectious diarrhoea
- Probiotics for treating persistent diarrhoea in children

Fracture management
Interventions that promote hand washing can reduce diarrhoea episodes by about one-third. This significant reduction is comparable to the effect of providing clean water in low-income areas.

Hand washing after defecation and handling faeces, and before preparing and eating food, is one of a range of hygiene promotion interventions that can interrupt the transmission of diarrhoea-causing pathogens. This review evaluates the effects of interventions to promote hand washing on diarrhoeal episodes in children and adults. [Evidence Update summary]
Hand washing for preventing diarrhoea

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Editorial Group: Cochrane Infectious Diseases Group

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Other Resources

Allocation of Scarce Resources in Mass Casualty Events published by AHRQ (June 2012)

An evidence review of research on health interventions in humanitarian crises (published November 2013): This is a collaborative report from the London School of Hygiene and Tropical Medicine, the Harvard School of Public Health and the Overseas Development Institute (ODI).


Evidence Aid survey article

Knowledge as a key resource for health challenges


The Human Impact of Floods: a Historical Review of Events 1980-2009 and Systematic Literature Review

The Human Impact of Tropical Cyclones: a Historical Review of Events 1980-2009 and Systematic Literature Review
Expanding the resources

• We will partner with other organisations to ensure we have freely available evidence available that is specific to the emergency setting.

• Talking with American Academy of Pediatrics, Health Evidence, DynaMed.

• Should we be talking to others?
Philippines Disaster

- Within 48 hours, packaged together resources for Typhoon Haiyan.
- Resource link distributed to aid agencies, NGOs, policy makers, and academics.
- Links made with medics travelling to the Philippines who are responding to the disaster.
Evidence Aid Special Collections
Infectious diseases and flooding
Disaster evacuation and medication
Flooding and mental health
Secondary stressors and extreme events and disasters
Health impacts of windstorms
Disaster Risk Management for Health
Disaster needs assessment

Download bundle of the PDFs

Following the devastation caused by Typhoon Haiyan in the Philippines, Evidence Aid is working with colleagues in the disaster community to compile evidence-based resources that might help. These will be kept refreshed as information is gathered through an ongoing needs assessment and are available here.
Ebola 2014: Evidence Aid packaged together systematic reviews, other important articles and other resources allowing people a ‘one stop shop’ for information about Ebola.
2015 – Further building the resources

- Improving the search functionality.
- Systematic reviews from outside of health care but with health care outcomes (e.g. engineering, shelter, water and sanitation).
- Contextual summaries for systematic reviews.
- Mobile applications.
- Multi-lingual.
The future

• We want to share resources and knowledge with those who most need it at the time that they need it most.

• To be effective, we need them to share their information and their knowledge needs too!
Winners of the Unorthodox Prize 2013!