

First Annual Student Symposium

Dahdaleh Institute for Global Health Research

Wednesday April 17th, 2019

Dahdaleh Institute for Global Health Research Offices, York University

Mikaela Maquiling

Events & Communications Assistant

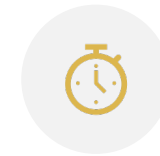
Key Tasks

- Coordinate project milestones
- Organize & lead event volunteers
- Attendee interfacing
- Event set-up & teardown
- Develop event logistics & project management process documents for future events
- Develop and sketch visual language of the Dahdaleh Institute
- Photograph headshots of Dahdaleh Institute researchers, staff and students and use Photoshop to prepare for website

Main Events



21ST CENTURY
HUMANITARIANISM
(SEPTEMBER 2018)



LANCET
COUNTDOWN:
LAUNCH OF THE
2018 CANADA-
SPECIFIC REPORT
(NOVEMBER 2018)



EMERGENCY DATA
SCIENCE
(DECEMBER 2018)

Headshots

Researchers



Aria Ilyad Ahmad
Research Fellow, Global Health
Foresighting



Byomkesh Talukder
Research Fellow, Planetary Health



Carol Devine
Community Scholar, Health,
Environment & Climate Change

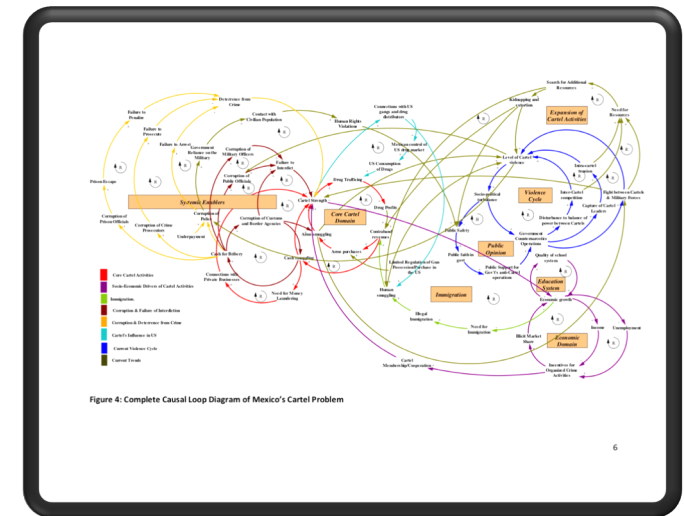
Shubhdeep Nagi

Communications Assistant

Key Tasks

- Assist in preparation for Health Emergency Data Science International Workshop
- Use Airtable to develop a comprehensive list of contacts in the world of global health research
- Research strategies to create complex causal loop maps for Planetary Health projects

Causal Loop Map example



Eileen Mae Santiago

Graphic Communications Assistant

Key Tasks

- Create a travel guide document for travelers visiting our office
- Graphically design poster presentation to communicate the research behind Safe Water Optimization Tool
- Work in HTML and CSS & designed mockups to support website re-design

Research Summary

New Evidence-Based Guidance For Water Chlorination In Humanitarian Response

Problem: Chlorination is the most widely used method for water treatment in emergencies. Current guidance states:

Free residual chlorine (FRC) at points of distribution:
 0.2 - 0.5 mg/L under normal conditions
 0.5 - 1.0 mg/L during outbreaks or when pH or turbidity are elevated

Response: MSF and partners carried engineering research in refugee camps in South Sudan, Jordan, Rwanda, and Tanzania to solve this problem.

Calculation Table:

LOCAL SITE CONDITIONS	Calculation	CHLORINATION RECOMMENDATION
Temperature (°C)	1.2 x 1.2 mg/L	0.2 mg/L
pH	1.2 x 1.2 mg/L	0.2 mg/L
Turbidity (NTU)	1.2 x 1.2 mg/L	0.2 mg/L
Free residual chlorine (mg/L)	1.2 x 1.2 mg/L	0.2 mg/L
Free residual chlorine (mg/L)	1.2 x 1.2 mg/L	0.2 mg/L
Free residual chlorine (mg/L)	1.2 x 1.2 mg/L	0.2 mg/L

How to Use: Look up the local temperature and WASH conditions of your site in the left two columns.

Follow the row to the right to see how much Free residual chlorine (FRC) you should deliver at the point of distribution.

Implement this FRC target at your site. The recommended FRC target should provide adequate protection (0.2 mg/L) at the point of consumption in peoples' shelters for the maximum duration given in the rightmost column.

15-50% Water Safety effectiveness of existing guidelines

70-85%+ Water Safety effectiveness of New Guidelines

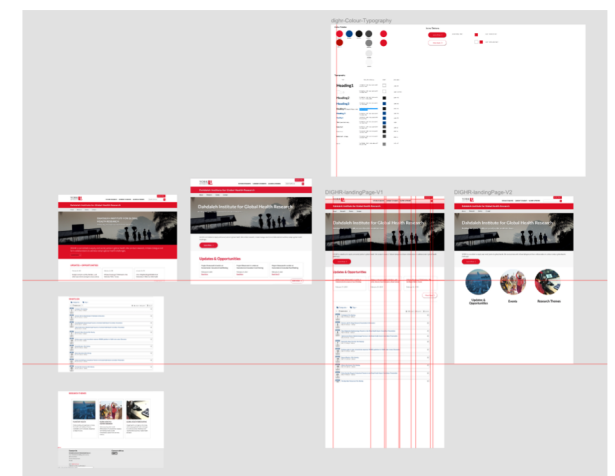
Next: Safe Water Optimization Tool

What would be ideal is to have a unique water treatment guideline for every site. We can do this now!

1. Share WQ data
 2. Design inputs
 3. Field testing

For more info, you can reach me at esantiago@icg.org

Website Mockups



Ameen Al-Gailani

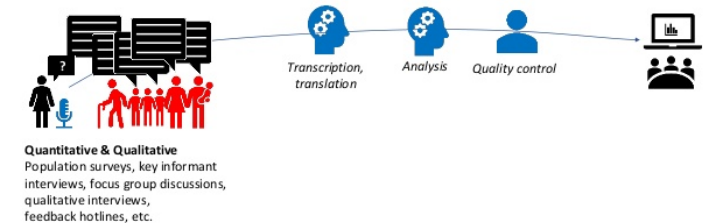
Special Projects Assistant, Backend

Key Tasks

- Assess the technical performance of different Natural Language Processing (NLP) techniques for transcribing and translating qualitative survey responses

Model of NLP Use in Humanitarian Setting

Understanding affected populations with NLP



Sayo Falade & Tanya Narang

Global Health & Humanitarianism Research Assistants **Literature Review Process**

Key Tasks

- Conducted Systematic Literature Review to support Chemical Water Quality (CWQ) & Malnourished Child Health project
- Screened 1558 articles
- Took notes & wrote summary of Expert Panel workshop on CWQ
- Conducted scoping review of grey and published literature, including knowledge synthesis and gap analysis, to support the development of a research programme on health and humanitarian response



Screen 1558
articles by title
and abstract



Read the
included articles



Screen all
references of
included articles

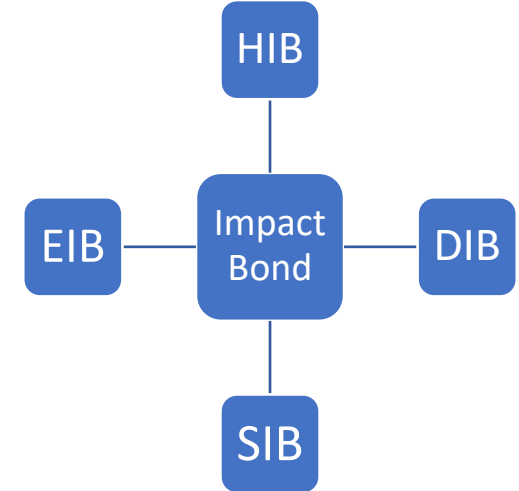
Dolev Yissar & Bryan Yau

Global Health Foresighting Research Assistants

Key Tasks

- Research blended finance mechanisms to support Alternative Finance Mechanisms in Global Health project
- Document case studies of Impact Bonds to assess their impact and viability

Impact Bonds Types



Clockwise: Humanitarian Impact Bonds (IB), Developmental IB, Social IB, Environmental IB

Fatima Sayedi

Planetary Health Assistant

Key Tasks

- Conduct research on health impacts of climate change on smallholder farmers
- Assess regional differences in health impact

Summary of Major Findings

- Major economical impacts on crop yield and livestock productivity
- Ecosystem degradation and loss → urbanization
- Increase frequency and intensity, reduce predictability, and change spatial distribution of extreme climatic hazards
- Direct and indirectly affects mental, social, and physical health