FAMINE & FOOD CRISIS FORECASTING CENTER

HACKATHON #1: YEMEN

Day 2: Understanding Crisis Data from Yemen

Springboard Grant – Tier 1

Sep 1, 2022 – August 31, 2023

Day 2 Hackathon Agenda

9:00 - 9:30 am: Goals & Instructions
Go over the goals and instructions for the next two days of the hackathon and make sure all teams have clear tasks and computers ready for a successful experience.

9:30 - 10:00 am: A workshop
Reality of on the ground data collection for emergency assessments

10:00 am - 12:00 pm: Breakout Hacking Session
Work in teams and participants tasked with exploring the OCHA data on famine in Yemen. Each team will brainstorm ideas, select data, and draft questions that will be used to guide the analysis of their team.**1:00 -**

2:00 pm: Working Lunch & Project Review
A working lunch during which participants review their progress with the Hackathon staff and make any necessary adjustments.

2:00 - 4:45 pm: Breakout Hacking Session
Work in teams and finalize analysis plan for the OCHA data, produce analysis results, and report their findings through 1-3 summary slides.

4:45 - 5:00 pm: End of Day Summary
Closing comments, with a compilation of summary slides and homework assignments (of course).

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DATALAB

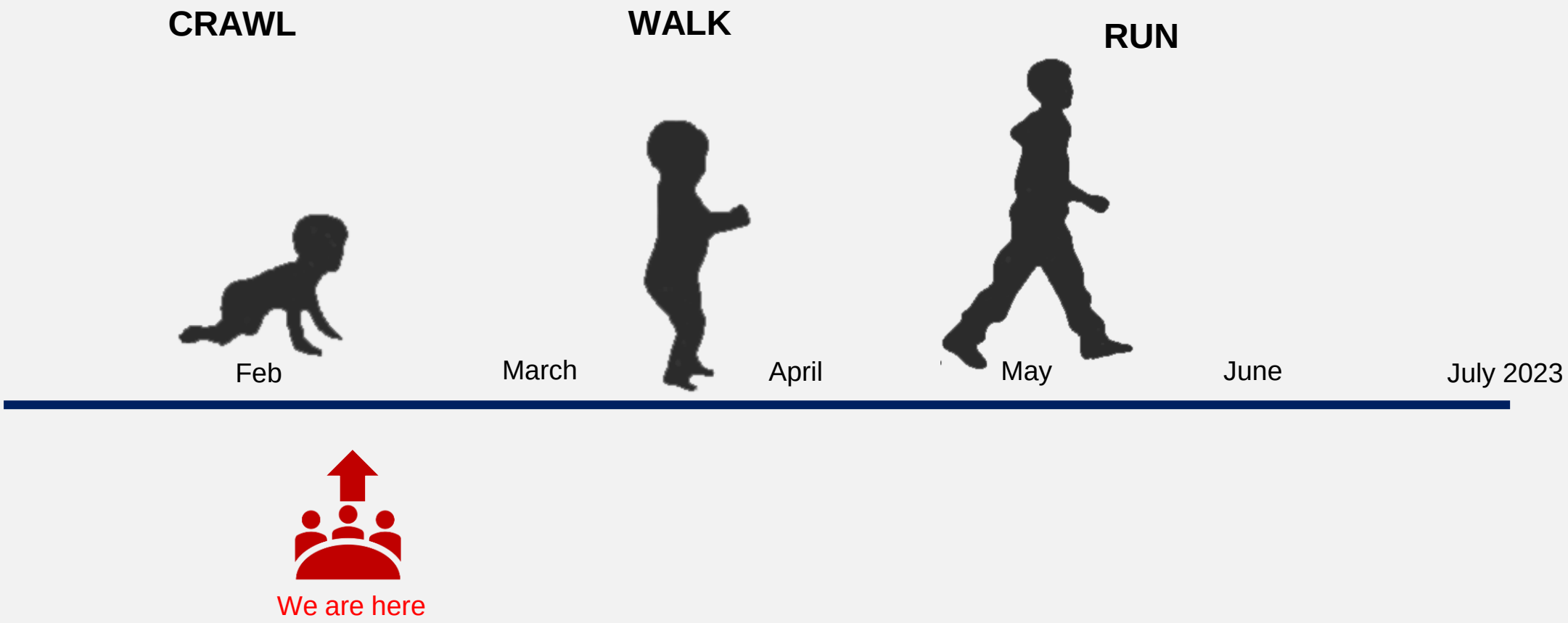
INNOVATE , ANALYZE, VISUALIZE

PREPARING YOUR COMPUTER FOR HACKATHON SUCCESS

KYLE MONAHAN MANAGER, DATA SCIENCE SERVICES

BINGJIE ZHOU DOCTORAL STUDENT, FRIEDMAN SCHOOL (NEDS)

Where you are going



Where you are going

Feb: First **hackathon**: Learn to explore data, create our first dynamic maps.

Ukraine

Yemen

May: Third **hackathon**: Compile **high-quality analysis and publishable figures**.

Feb | March | April | May | June | July 2023

Yemen

We are here

Mar: Second **hackathon**: Create questions with **impact**. Develop, design, and deploy **interactive dashboards, maps**. Apply data science.

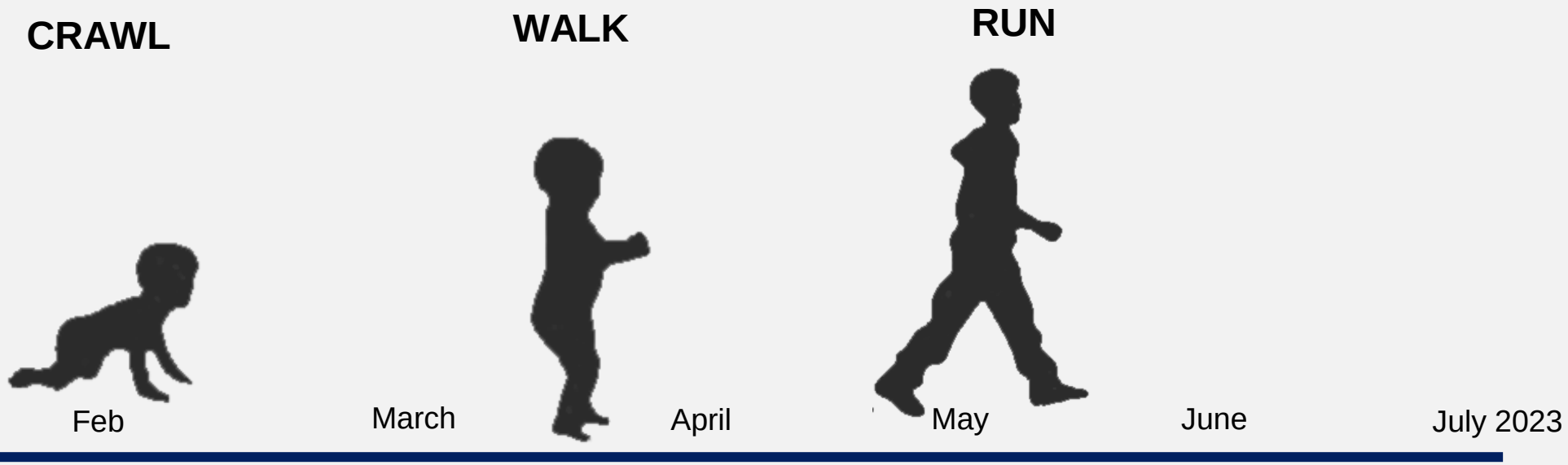
Ukraine

Yemen

South Sudan

June/July: Summary meeting to disseminate dashboards, hackathon materials, and review results.

Where you are going



Developing *mastery* in…

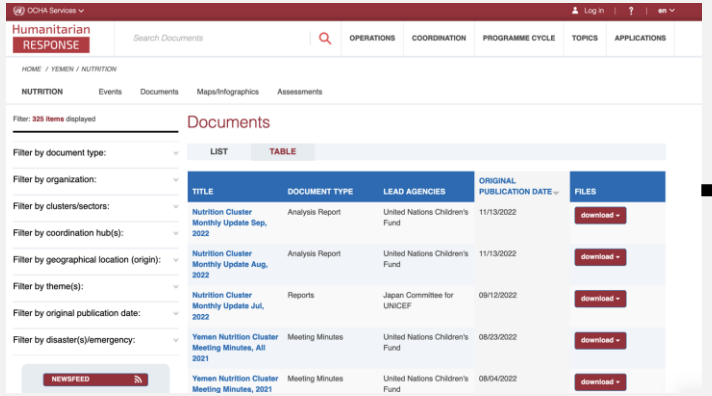
Geospatial time series famine data.

Steps for hackathon one

DATA

MERGING, UNDERSTANDING, CLEANING

PRODUCT



- Slides w/ tables, exploratory graphs & charts
- Dashboards
- Interactive maps
- An interactive map with video walkthrough

How do I access these software?

- The **TTS Remote Lab (Adobe)** provides access to graphic or data-intensive software such as Adobe Creative Cloud suite, GIS, ENVI, SAS, SketchUp Pro, etc
  - Access the TTS Remote Lab (Adobe) on a **Windows Computer**
  - Access the TTS Remote Lab (Adobe) on a **Mac Computer**
- The **TTS Virtual Lab (VDI)** provides access to general computing software and resources. No Adobe Creative Cloud suite, GIS, etc.

For inquiries regarding which remote solution is right for you, please contact DataLab-Support@elist.tufts.edu

How can I prepare for the hackathon?

You can just arrive, no need to prepare, however, be sure to check out the suggested pre-trainings if you want to enhance your technical skills!

- R
  - Intro R
  - Data visualization in R
- Python
  - Intro to Python
  - Scientific Computing with Numpy
  - Getting started with Python Data Analysis
- Geospatial
  - Raster analysis & remote sensing data in Python
  - Geospatial Python analysis

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DATALAB

INNOVATE , ANALYZE, VISUALIZE

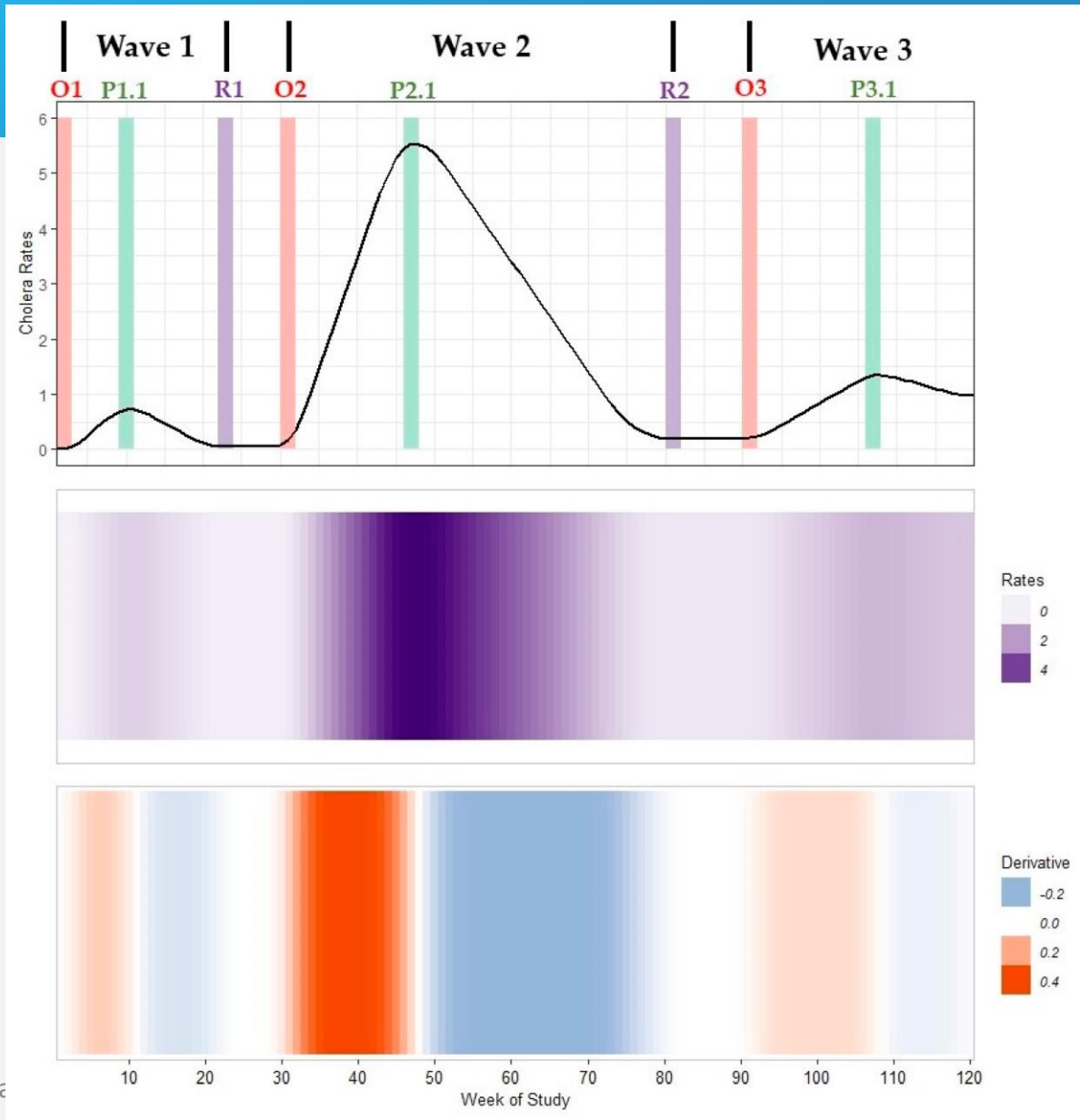
TIPS ON TIME SERIES

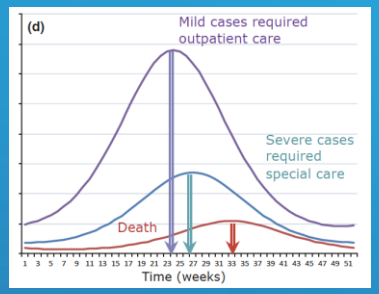
ELENA N. NAUMOVA PROFESSOR, NUTRITION EPIDEMIOLOGY & DATA SCIENCE

Cholera in Yemen, 2016-2019

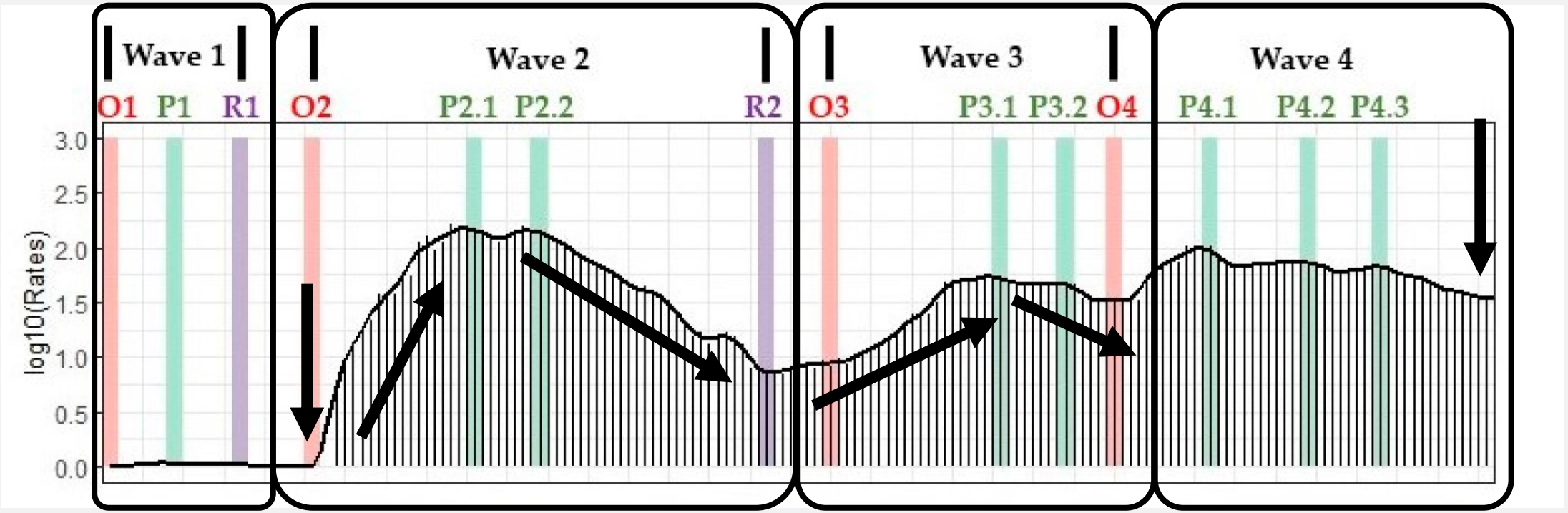
Dataset

Feature	Cholera Infections
Database	Eastern Mediterranean Regional Office (EMRO) Epidemiological Bulletins
Host	World Health Organization (WHO)
Case Definition	Laboratory confirmed cholera cases
Location	21 of 22 governorates in Yemen
Time Period	04 January 2016 – 29 December 2019
Timeliness	Weekly (Monday – Sunday)





Outbreak Signature Decomposition: applicability for humanitarian emergencies



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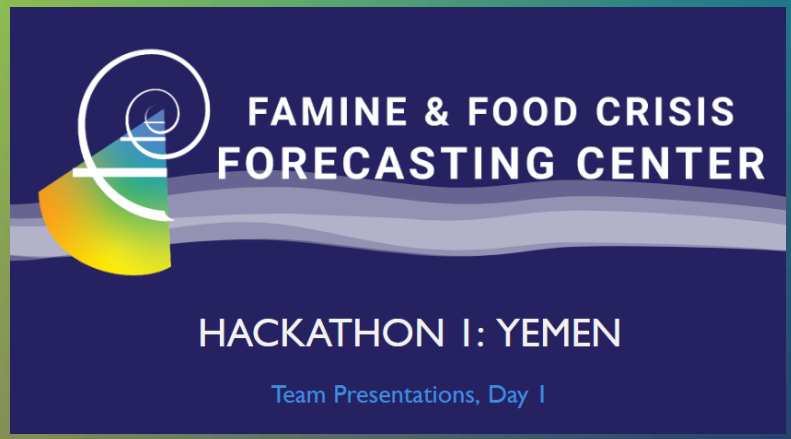
Feinstein International Center

REALITIES OF DATA COLLECTION

MERRY FITZPATRICK ASSISTANT PROFESSOR, FEINSTEIN INTERNATIONAL CENTER

HACKING GROUPS!

- Read through Glossary
- Explore dataset
- Create timeline of events relevant to your research question
- Review Gantt chart
- Create visualizations
  - Is there missing data?
- Complete slide with your findings!



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Team Presentations, Day 2