

# HEALTHY BIRTH, GROWTH & DEVELOPMENT

knowledge integration

December 5, 2017

# HBGDki website: A tool for expanding the community and sharing knowledge

Kristine Johnson

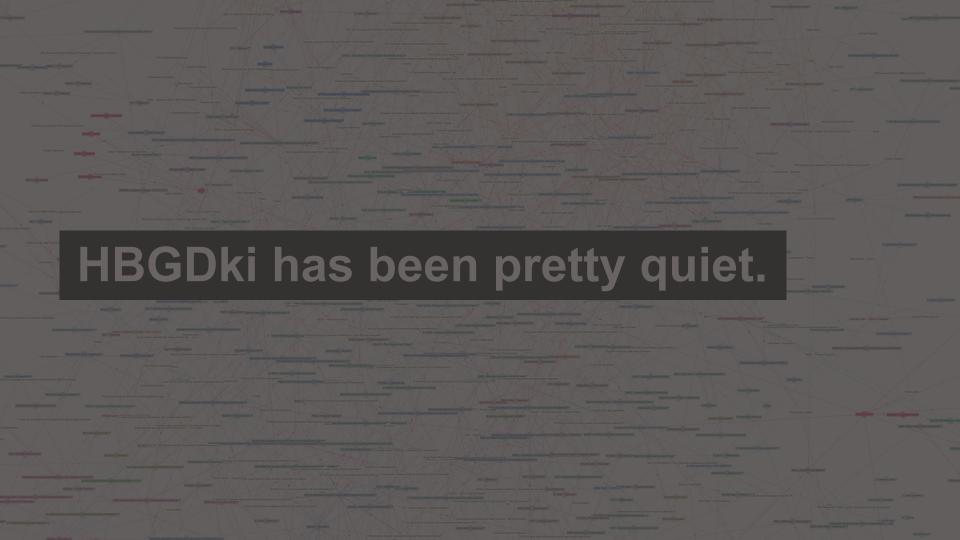


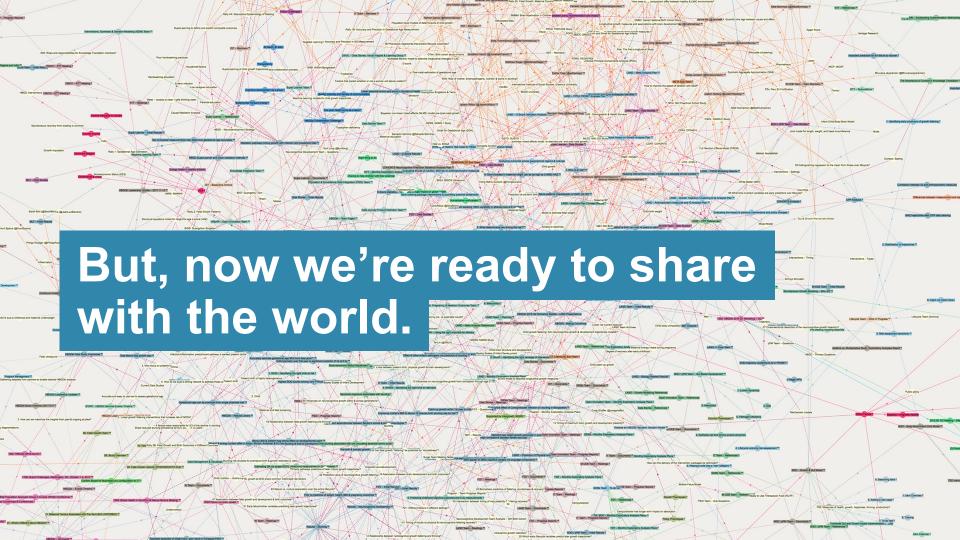








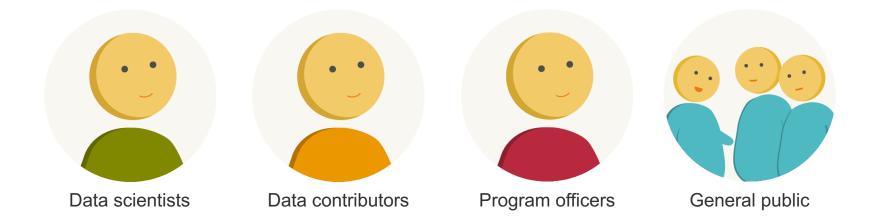




# Introducing HBGDki.org



## **Engage four key audiences**



#### Goals

- Inform people about the HBGDki initiative
- Make resources and information publicly available in a central location
- Connect a disparate community

## **Site Key Features**

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# **About HBGDki**

HBGDki aims to leverage knowledge to ensure that all children can have the opportunity to lead a healthy and productive life and maximize their potential.

#### Explore our focus areas



STUNTING





NEUROCOGNITIVE DEVELOPMENT

#### DATA SCIENCE RESOURCES

#### Tools & Models

HBGDki is using state-of-the-art tools, including modeling and visualization methods, to understand and analyze data in the HBGDki knowledge base.

By curating and aggregating data sets into the HBGDki knowledge base, we can work with collaborators to use these tools to ask bigger and broader questions about healthy birth, growth, and neurocognitive development.

An HBGDki model catalog is being created to organize HBGDki models that are at various stages of development and testing. Here are some of the tools and models that we have developed to explore the growing knowledge base.

#### Tools

HBGDki tools are interactive applications that are designed to explore data and advance learning to promote healthy birth, growth, and development. The information explored

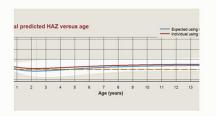
### **Tools**

HBGDki tools are interactive applications that are designed to explore data and advance learning to promote healthy birth, growth, and development. The information explored with HBGDki tools includes existing knowledge (Seminal Events Timeline), isolated data sets (Trelliscope), and integrated data sets (Full Random Effects Model Explorer; Study Explorer).



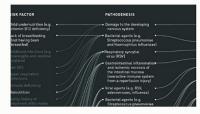
#### **Country Segmentation**

Better understanding of nuanced differences and similarities between countries, to improve the effectiveness of recommended global policy.



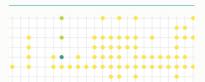
#### FREM Explorer

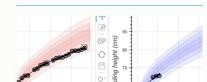
A tool that helps design better clinical studies to promote child growth so that every child has a chance to live a healthy and productive life.



# Seminal Events Timeline

A tool that highlights existing knowledge and identifies gaps to advance research in child growth and development.







TRACKING PROGRESS

#### **Answer Team Results**

A key part of the discovery phase of HBGDki involves data science rallies, which are based on efficient, sprint-like efforts adapted from the Agile software development method. This approach to data science is producing actionable answers to specific questions about child growth and development. HBGDki models are used during rally sprints, which usually run for 2 weeks and address a specific question, hypothesis, and deliverable. The continual communication happens by having the rally team work in a cloud-based collaborative work space specifically developed for Team Science.

# Rally 4C: Dose-Response Relationship of Breastfeeding on Wasting

STATUS | COMPLETE

DATES | 2017-08-08 to 2017-09-14

**TOPIC TAGS** 

**PUBLICATIONS** 

# Papers, Posters, & Presentations

#### **POSTER**

Kristine Johnson, David Ehlert, Chad P. Hall, Britt Barran-Stanley, Clare Ortblad, Amanda Grage, Karlie Grasle, Jared Travnicek, Tom Callahan, Geoff Brousseau, Gretchen Moosbrugger, Thea Norman, Ted Grasela, Ryan Hafen, Elly Trepman, Jeremy Derfner, Dave King, David Price, HBGDki Community

# HBGDki.org Website for Healthy Birth, Growth, and Development knowledge integration

Grand Challenges (October 2017)

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**PRESENTATIONS** 

Ben Pierson

#### Introduction to HBGDki

Grand Challenges (October 2017)

**NEWS** 

**HBGD**ki

## **Updates & Insights**



LEADERSHIP UPDATE | August 10, 2017

HBGDki Collaboration
Opportunities with Centro de
Integração de Dados e
Conhecimentos para Saúde
(CIDACS) on the 100 Million

Learn more about





PROGRESS PUBLICATIONS

## **HBGDki.org future vision**

- More tools and models coming on line as development pipelines mature
- Enhanced filtering
- Integration with tools and science platforms
- Exclusive content and opportunities for HBGDki community



Q&A