

# HEALTHY BIRTH, GROWTH & DEVELOPMENT

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*knowledge integration*

December 5, 2017

## Welcome remarks and goal-setting

Thea Norman, Senior Program Officer, Quantitative Sciences

■ Thank you



## Workshop: Goals and objectives

### DAY 1

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Familiarize with  
*ki* capabilities  
and tools

### DAY 2

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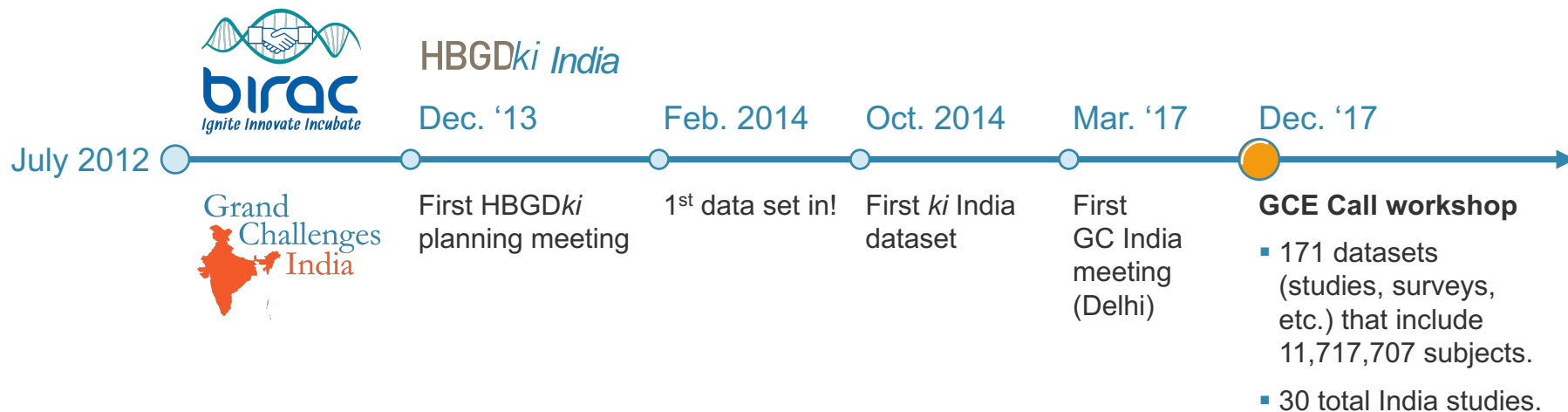
Build a community of  
data scientists and  
research scientists

### GOALS

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Develop big ideas for  
the focus of the Call  
for Grand Challenges  
Explorations proposals

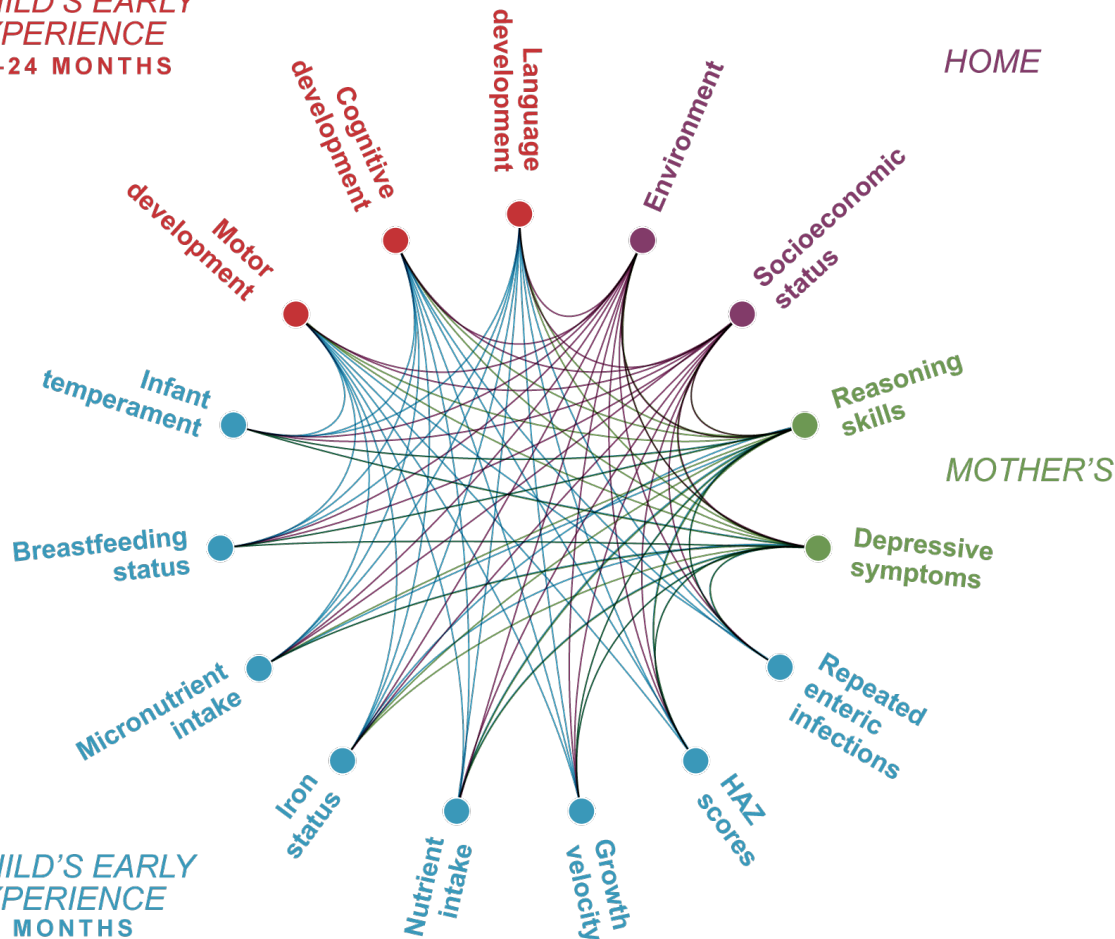
## The road so far



# The problem: Child health is complex

CHILD'S EARLY  
EXPERIENCE  
15-24 MONTHS

CHILD'S EARLY  
EXPERIENCE  
0-9 MONTHS





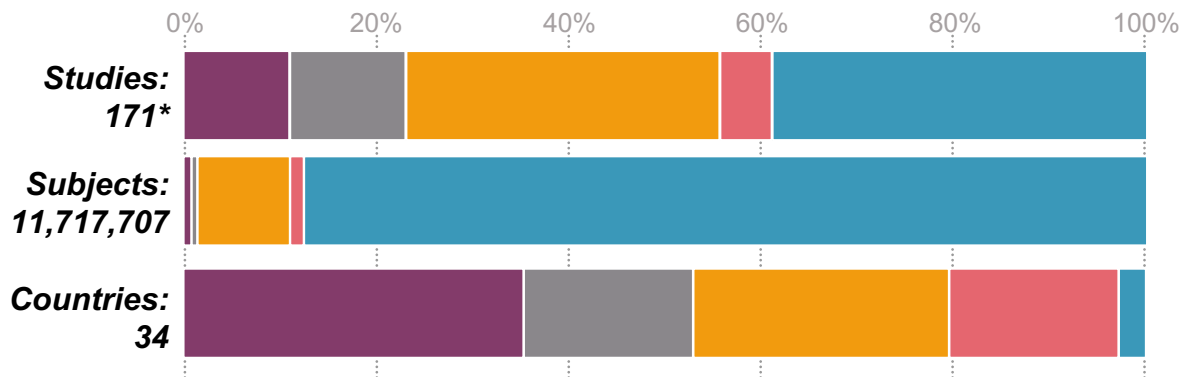
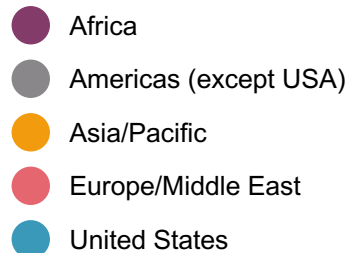
## HBGD*ki* Data, Discovery, Decisions

The right intervention for the  
right child at the right time



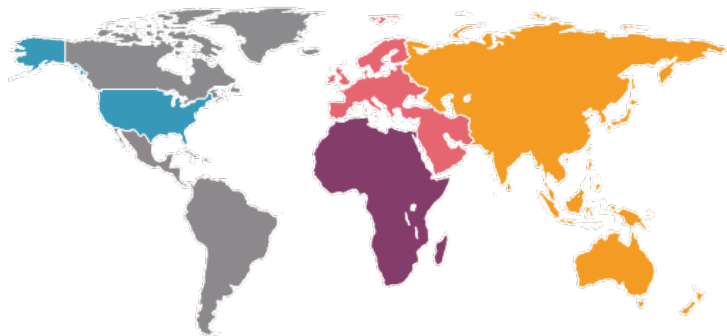
## Our strategy: To get the right data

### Child Health Data



2415 outcomes & covariates: Demographic, Clinical, and Socioeconomic.

\*As of November 21, 2017

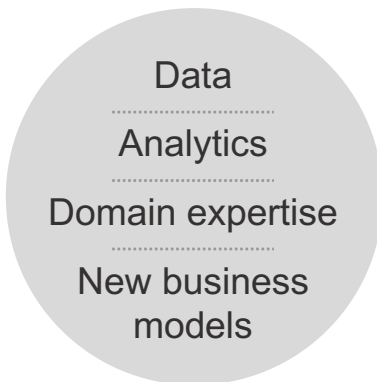




## Our strategy: Great data scientists and powerful models

**Causal**

Describe how given insults or interventions affect growth or development



**Population**

Describe how populations at large are changing over time

**Empirical**

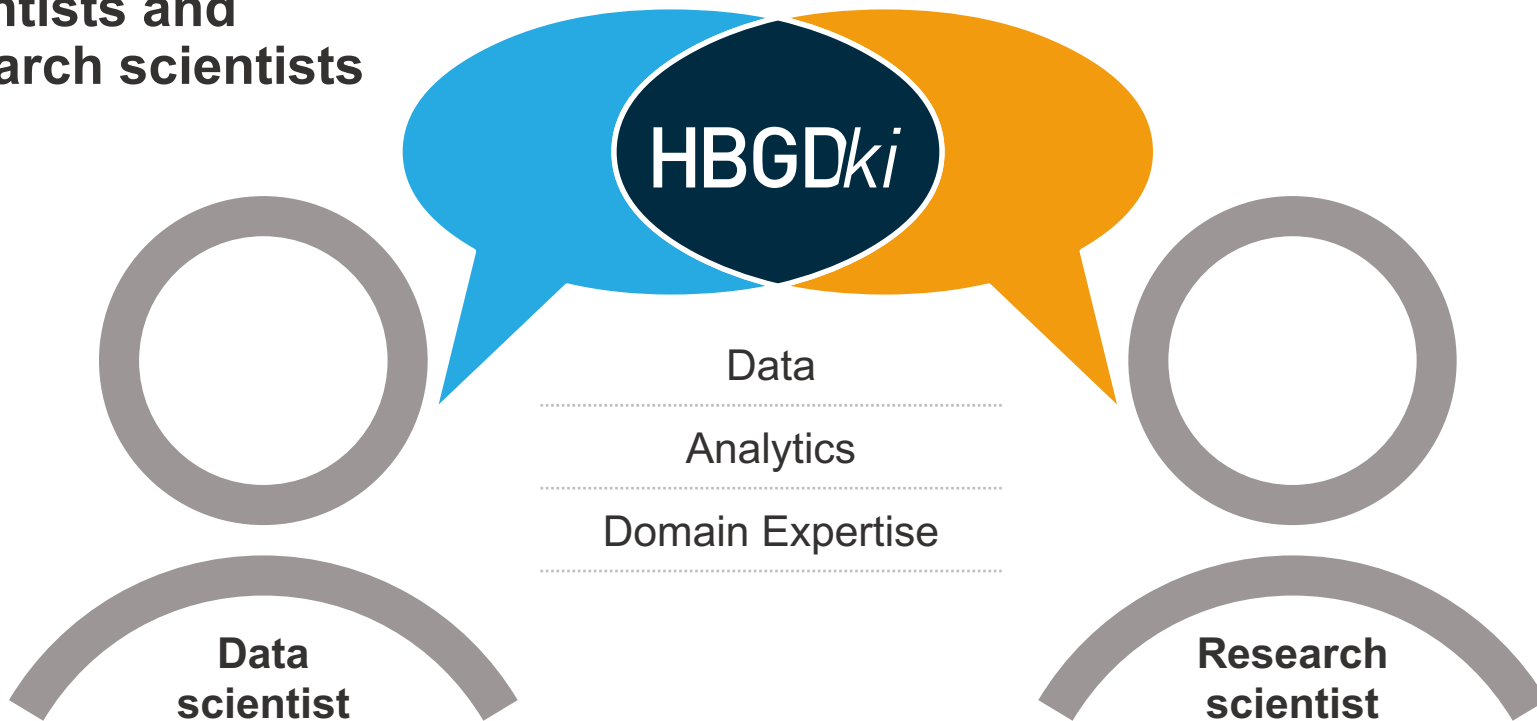
Describe trends inherent in observational data (as opposed to theoretical models that assume certain conditions)

**Mechanistic**

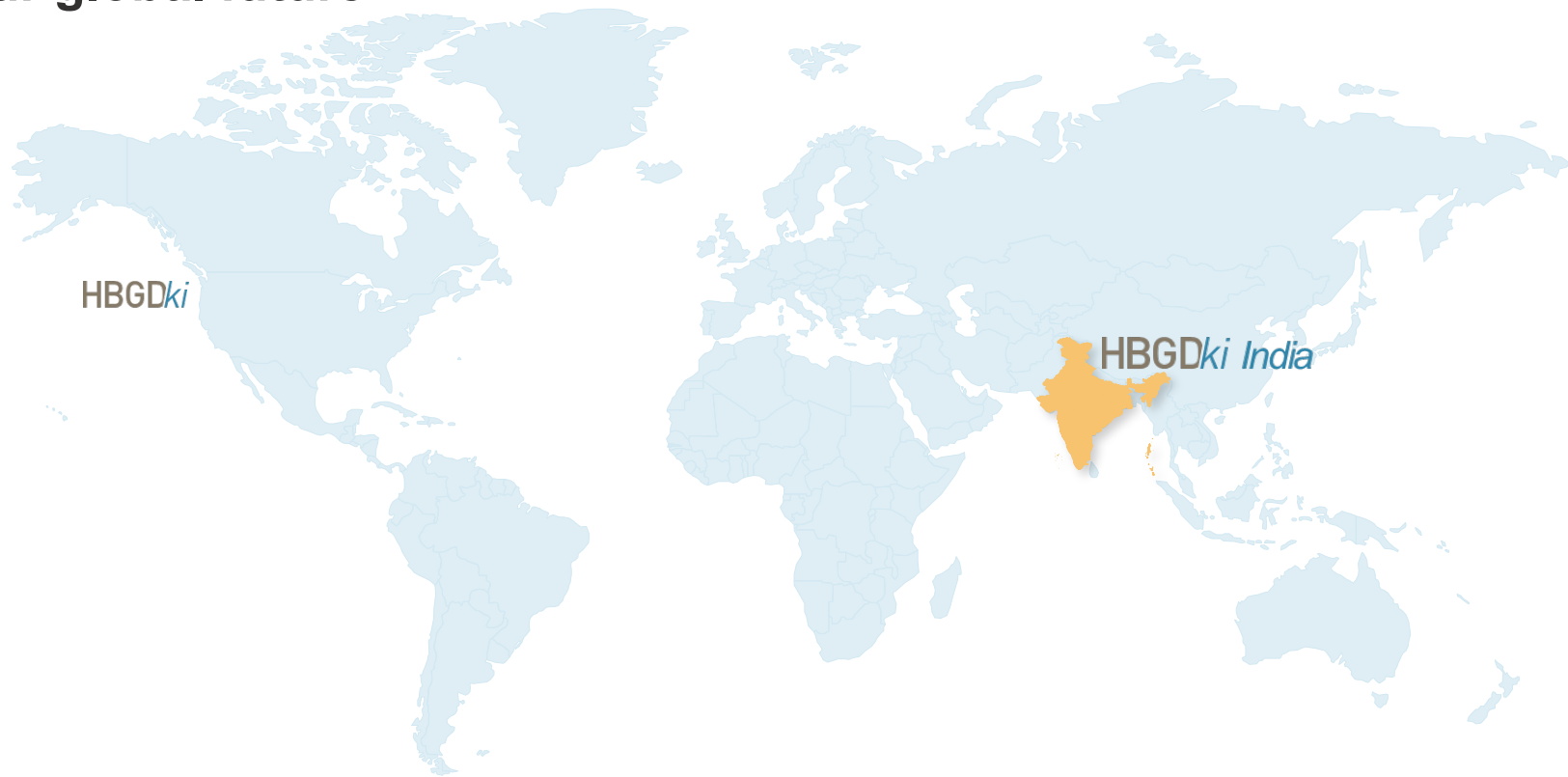
Describe a relevant process underlying growth and development, e.g., mathematical model of the human gut



**Our strategy:**  
*Connecting* data  
scientists and  
research scientists



## HBGDki India: Our global future



# Our agenda:

Detailed schedule for  
Tue, Dec. 5, 2017

Morning session

## TUESDAY, DECEMBER 5

Following each session, we will have a 5-minute table discussion followed by 5-minute group Q&A

Time	Session	Presenter
8:30am-9:15am	Registration and Getting Settled	
9:20am-9:50am	Welcome Opening Remarks His Thoughts	<i>Dr. Shirshendu Mukherjee Dr. Renu Swarup &amp; Dr. Steven Buchsbaum Prof. K. VijayRaghavan (Chairman BIRAC &amp; Secretary DBT)</i>
9:50am-10:00am	Overview & Goals of Workshop	<i>Thea Norman</i>
10:00am-10:30am	Fostering Innovation: From Ideas to Implementation	<i>Ted Grasela</i>
10:30am-10:45am	Tea Break and Connection Activity: Introduction to Cognitive City	<i>Dave King</i>
10:45am-11:15am	Understanding ki Data and the Contributions From India	<i>Tom Peppard</i>
11:15am-12:00pm	Data to Discovery to Decision: "Rallies" and Selected Highlights of Things We Have Learned	<i>Ryan Hafen</i>

# Our agenda:

Detailed schedule for  
Tue, Dec. 5, 2017

Afternoon session

## TUESDAY, DECEMBER 5

*Following each session, we will have a 5-minute table discussion followed by 5-minute group Q&A*

Time	Session	Presenter
12:00pm-12:30pm	Lightning Talks	<i>Dr. Shinjini Bhatnagar and Dr. Prasanna Samuel</i>
12:30pm-1:15pm	Lunch	
1:15pm-1:30pm	HBGD <i>ki</i> Website: A Tool for Expanding the Community and Sharing Knowledge	<i>Kristine Johnson</i>
1:30pm-2:00pm	Country Segmentation Tool	<i>Dave King</i>
2:00pm-3:00pm	Country Segmentation Training	<i>All</i>
3:00pm-3:15pm	Break	
3:15pm-3:45pm	Discovering Undiscovered Public Knowledge with Influence Search	<i>Mihai Surdeanu</i>
3:45pm-4:45pm	Influence Search Training	<i>All</i>
4:45pm-5:15pm	Community Discussion and Day 1 Recap	<i>All</i>
7:00pm-7:30pm	Pre-Dinner talk (The India State-Level Disease Burden Initiative)	<i>Dr. Lalit Dandona</i>
7:30pm	Dinner hosted by Secretary DBT & Chairman, BIRAC	<i>Prof. K.VijayRaghavan</i>

HELLO!



MY LOCATION  
Buffalo, NY, USA

DATA  
DISCOVERY  
DECISIONS

HBGD*ki* India

 **Ted Grasela, PharmD, PhD**

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 MY EMOJI TRAIT




 *I figured it out!*

 HOW I CAN HELP ANSWER  
HBGD QUESTIONS IN INDIA:

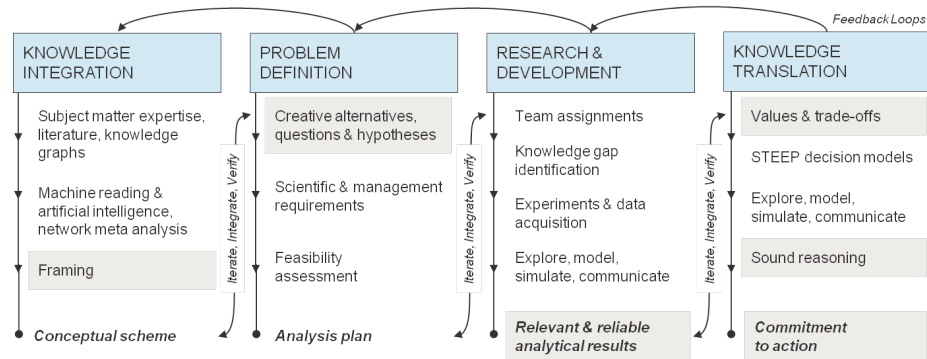
Design workflows that will efficiently generate valuable results to influence policy making

 WHAT I HOPE TO GET  
OUT OF THIS WORKSHOP:

A better understanding of how Indian researchers and data scientists can work together to accelerate successful innovations

 I'M LOOKING TO PARTNER WITH:  
Creative and enthusiastic scientists willing to tackle complex problems

 AN IMAGE REPRESENTING WORK I'M  
PROUD OF & WANT TO SHARE:



STEEP: Societal, Technological, Environmental, Economic, and Political.