

Data Impact Challenge II



Building a foundation for good analysis

- To dial-in please use:

Dial-in: 1(866) 290-1760

Passcode: 2422885

Tweet: @Infoway
#DataChallenge

Notice of recording

- This session will be recorded and may be:
 - Posted on Infoway's website
 - Used for future internal or external education sessions
- Please use the Q&A feature if you wish to ask a question
 - The moderator will pose the question on your behalf
 - Your name will not be used

Overview

1. ImagineNation Challenges
2. “Building a foundation for good analysis”
3. Discussion



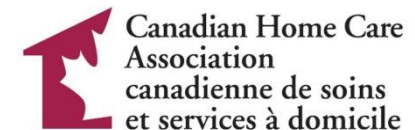
Canada Inforoute
Health Santé
Infoway du Canada

**ImagineNation
CHALLENGES**



**DÉFIS
ImagiNation**

Data Impact Challenge – Supporting Organizations



Data Impact Challenge II

- Up to \$95,000 in awards available
- 7 questions for teams to answer with data analysis

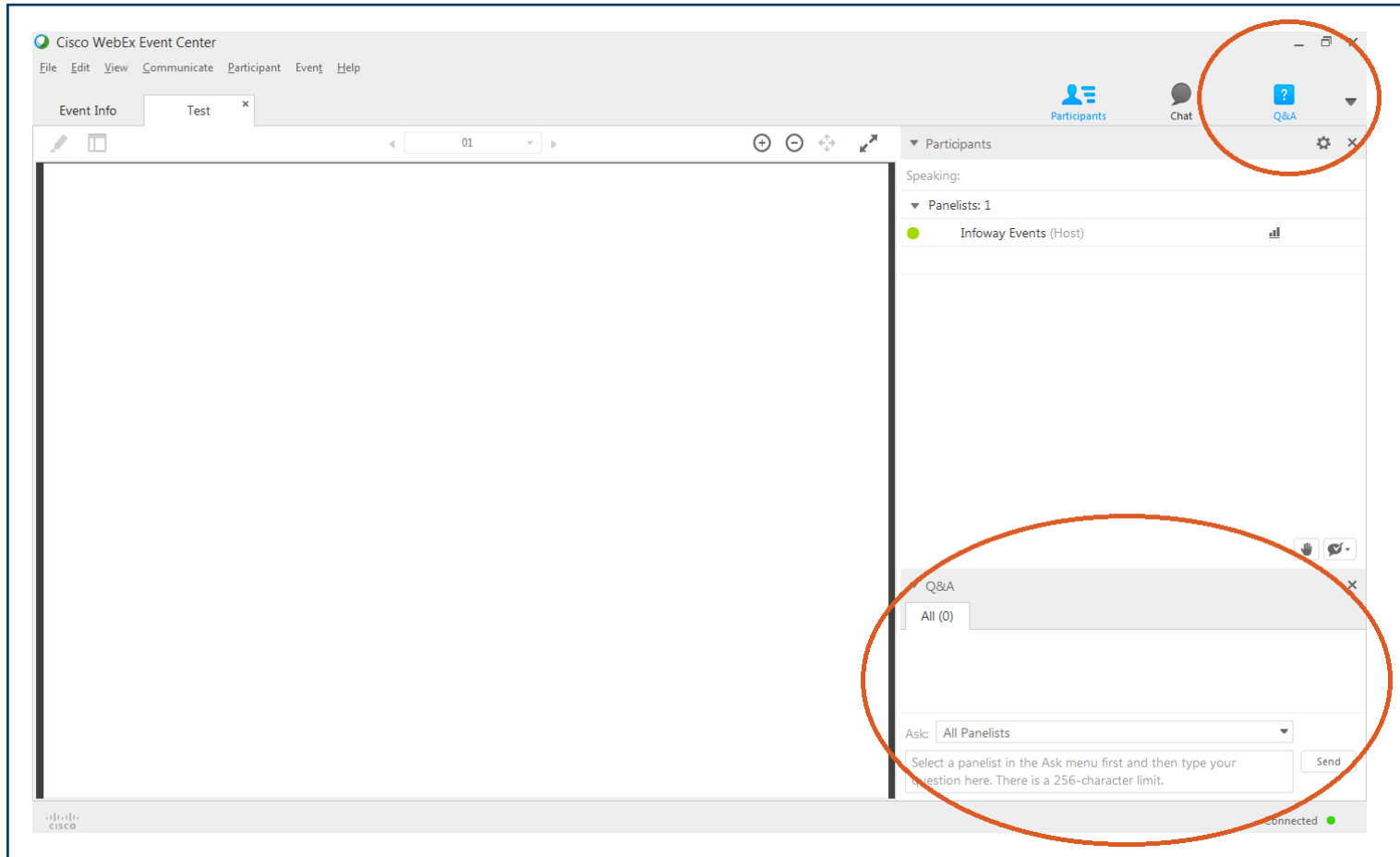


Deadline February 29, 2016

Visit ImagineNationChallenge.ca

TO ASK QUESTIONS

During this webinar all attendees have been muted.
Please use the "Q&A" function to ask questions:





Canadian Institute
for Health Information

Institut canadien
d'information sur la santé

Jennifer Frood

Project Lead, Emerging Issues

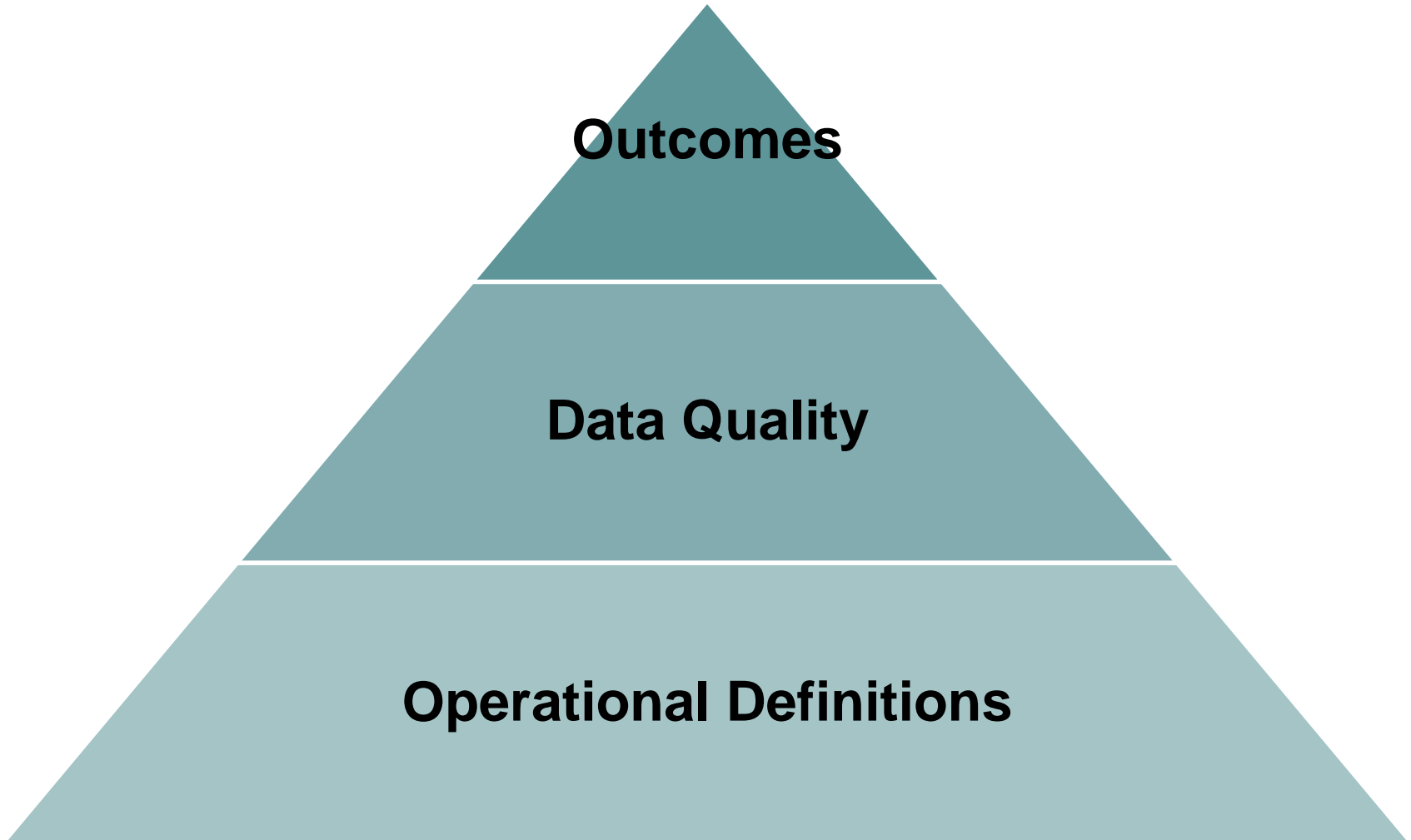
Canadian Institute for Health Information (CIHI)



Building a foundation for good analysis

Feb 1, 2016

Building blocks



Define your question

- A good operational definition will:
 - set the stage for the reader
 - guide decisions
 - highlight limitations

Do not use atypical antipsychotics as a first-line intervention for insomnia in children and youth.

Define outcomes

- Answer main question first and clearly before drilling down
- Parameters are generally defined by the dataset
- Definitions may also be influenced by your audience

dispense **quetiapine**

~~Do not use atypical antipsychotics as a first line intervention for~~
insomnia in children and youth.

at low doses

Define cohort inclusions

- *Who* will be included?
 - May or may not be stated in the recommendation
 - Select common definitions where possible
 - Think about who your audience will be

dispense **quetiapine**

~~Do not use atypical antipsychotics as a first line intervention for~~
insomnia in children and youth.

at low doses

Define cohort exclusions

- Who will *not* be included?
 - Who is “out” is as important to understand as who’s “in” when it comes to clear interpretation
 - Definition of cohort may be dictated/restricted by the data you have
 - Clear risk factors
 - Again, think about your audience

Poll

Do you work with data sources where there is good documentation on data quality?

- Absolutely, the documentation is good
- No, the documentation is not good
- I've heard there is documentation, but I've never seen it
- I don't work with data sources.

Check your data quality: Pre-analysis

- Data entry systems can have “pick lists”, mandatory entry or open text, all create problems in different ways
- Check for:
 - Missing
 - Invalid, out of range or unlikely values, i.e. ;
 - year=9999
 - high % people discharged at “23:59”
 - Age = 120

Check your data quality: Post-analysis

- Face validity: do the findings make logical sense
 - Can help to share results with those in the field
 - Do the differences between groups make sense, i.e., no extreme gender difference where gender shouldn't be a factor
- Triangulate outcomes where possible
 - Literature results
 - Differences between regions, i.e., if two clinics are very different investigate quality of data

Poll

How often do you conduct data analysis for stakeholders?

- Regular reporting
- Occasional reporting
- No reporting
- I don't understand the question

Drill down/Scope

- Know your audience; what are the next questions they would be asking
- Risk factors
 - Patient characteristics – *who* is at risk
 - Physician/system characteristics – policies or practice patterns that may be targeted
- Level of detail restricted by volumes and data
 - Small cell counts cause comparison, stability and privacy problems

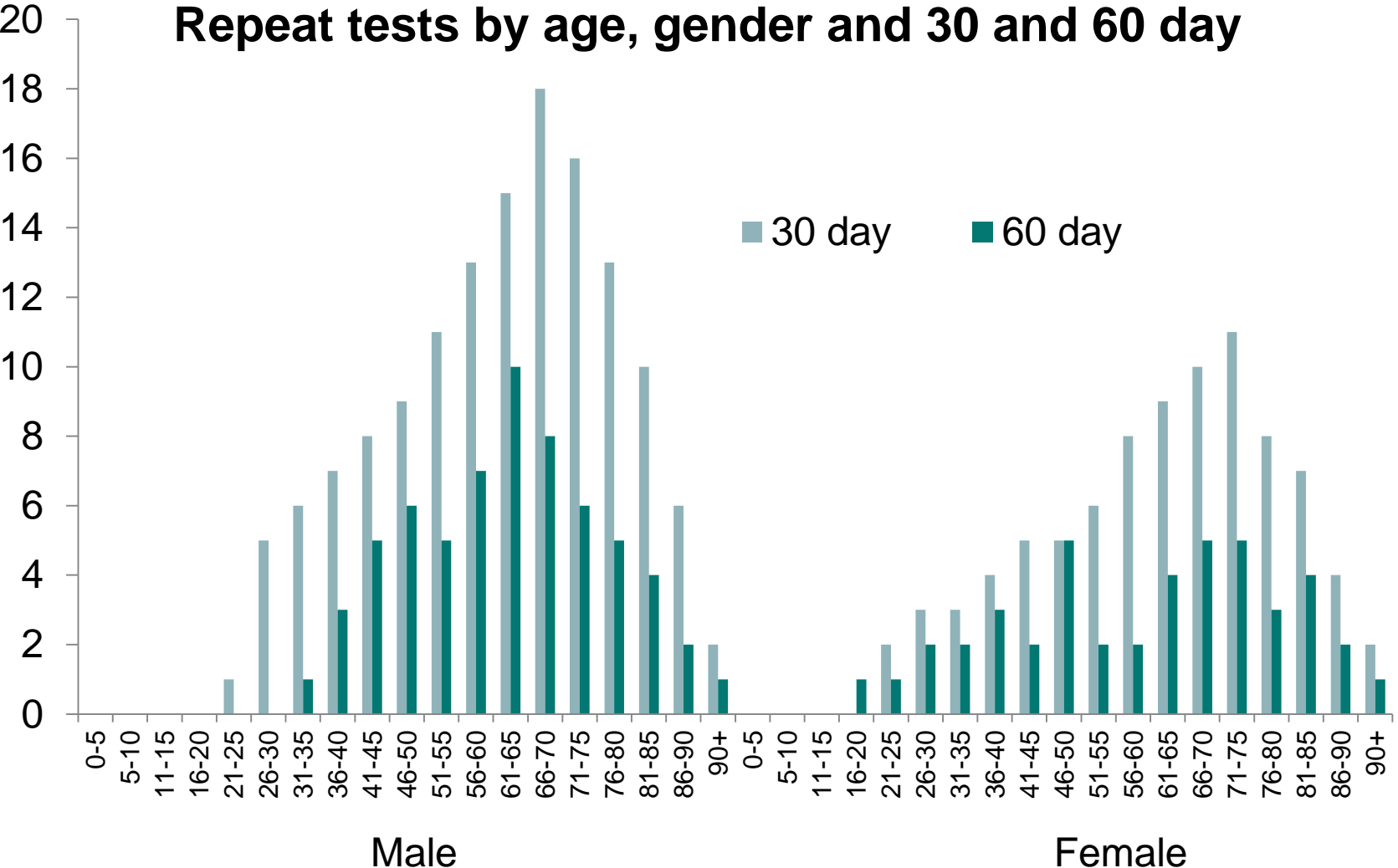
Drill down example

- Adverse drug events
 - What class of drugs, or specific drug?
 - Regional differences (SES? Prescribing patterns?)
 - Age of patient, comorbidities
- Youth mental health
 - Type of content (bullying – physical/social)
 - Frequency of posting – profile of regular posters
 - Gender and age differences

Graphs and charts

- Graphs work best when showing relationships
- Should have a clear point (not everything)
- Check (have) your labels, missing or bad labels can cause more confusion than clarity

Graph example



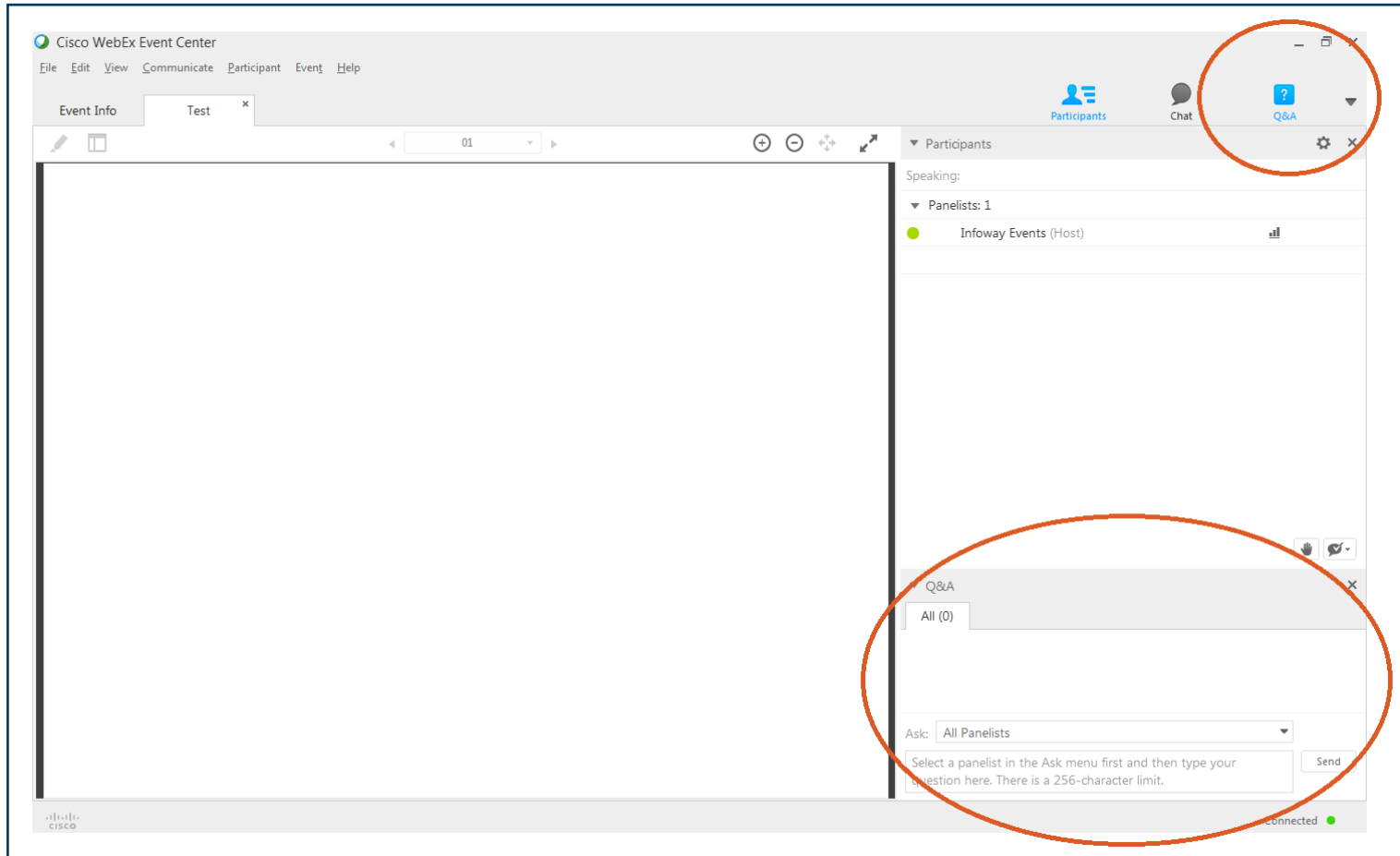
General hints

- Spell out abbreviations
- Use simple language
- We can only evaluate what's written down, you may have done due diligence on building a foundation but if that's not reflected in your submission we don't know
- Cross reference number to ensure tables add up – silly transposition or missing information throw all results into question

Overall Repeat rate	After positive result	After negative result
7%	10%	25%

TO ASK QUESTIONS

During this webinar all attendees have been muted.
Please use the "Q&A" function to ask questions:



Poll

How do you plan on participating in the Data Impact Challenge II?

- As a judge
- A part of a team
- A user of the data
- I will not participate

Data Impact Challenge II



Data Impact Challenge II:

Answering health care questions to support decision-making

You Asked, You Chose, Now Teams Answer!

In the Data Impact Challenge II, all Canadians were invited to submit health care questions that they would like to see answered. Each qualifying question submission was posted and voted on by Canadians. Now, the Challenge questions have been chosen and authorized users of health data sets are invited to submit answers until **February 29, 2016**.

Don't miss your chance to earn part of more than **\$95,000** in awards available and the opportunity to lend your knowledge to answer important health care questions.

To learn more and register, visit:

www.imaginationchallenge.ca/data-impact-challenge-ii/



ImagineNation
DATA IMPACT CHALLENGE II