

Welcome to this webinar on data triangulation!

Where are you connecting from?



WHO SCHOLAR LEVEL 2 CERTIFICATION COURSE ON

DATA TRIANGULATION FOR IMPROVED DECISION MAKING IN IMMUNIZATION PROGRAMMES

FIRST COHORT

LEVEL 2 COHORT 1-SPRING 2020 ONLINE 48 HOURS

ENGLISH 16 MARCH – 22 MAY 2020

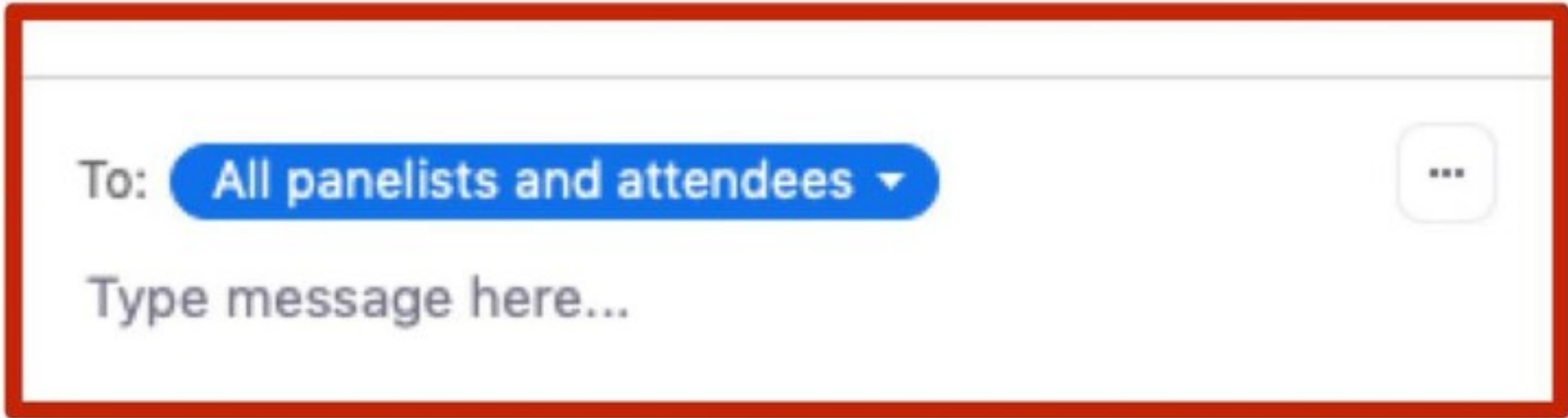
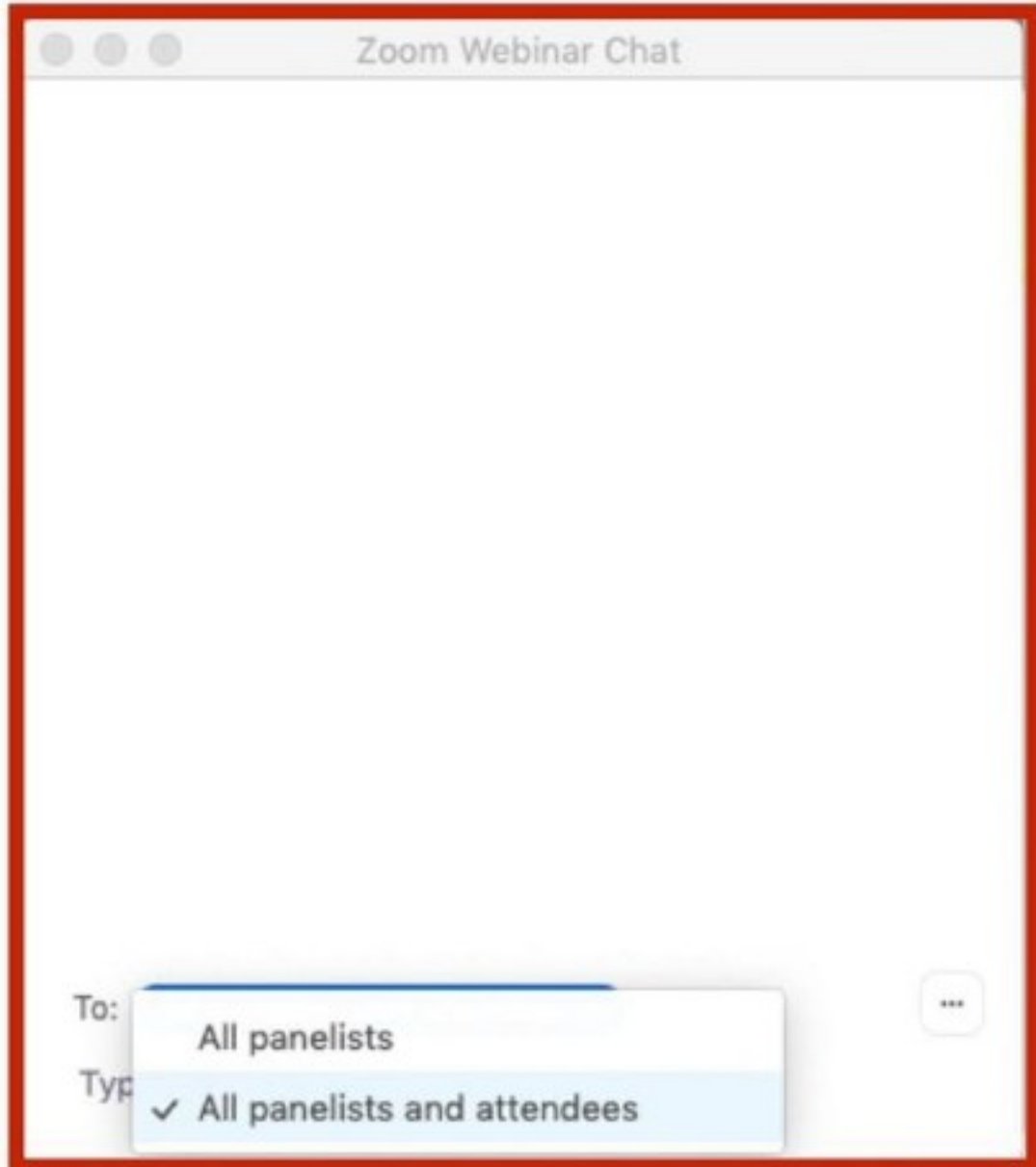
FRENCH 30 MARCH – 5 JUNE 2020

Open webinar series

Ground rules

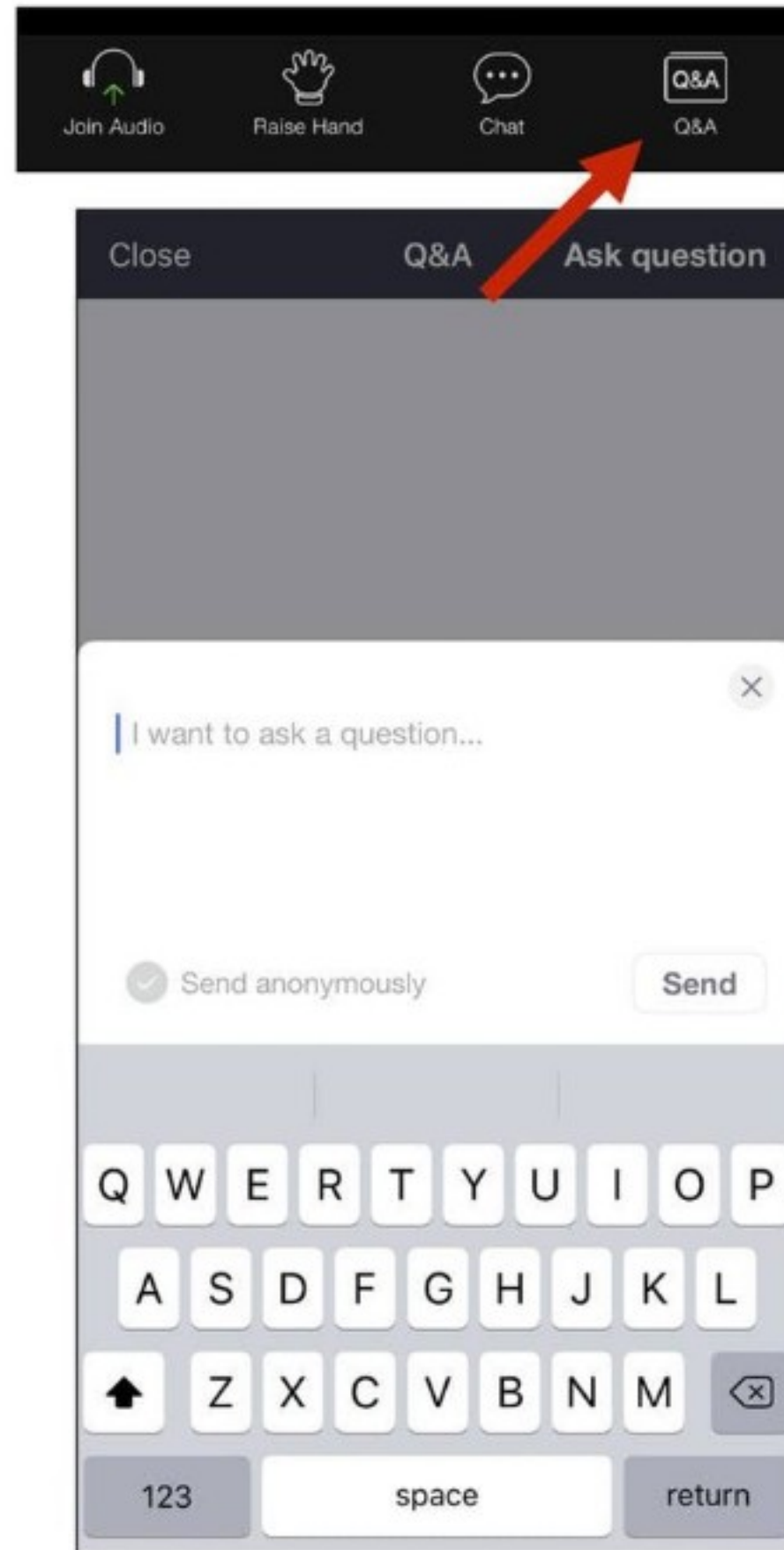
- Your active participation is needed
- Submit questions and ideas using the Q&A button in Zoom
- Vote for questions you would like to see answered
- We will also use mentimeter for quiz questions
- Go to menti.com on your phone or computer if you wish to participate
- Do not be disappointed if we are unable to answer your question
- All resources in www.tinyurl.com/2020-triangulation

To make your messages visible to everyone, please select the option **"all panelists and attendees"** in the CHAT

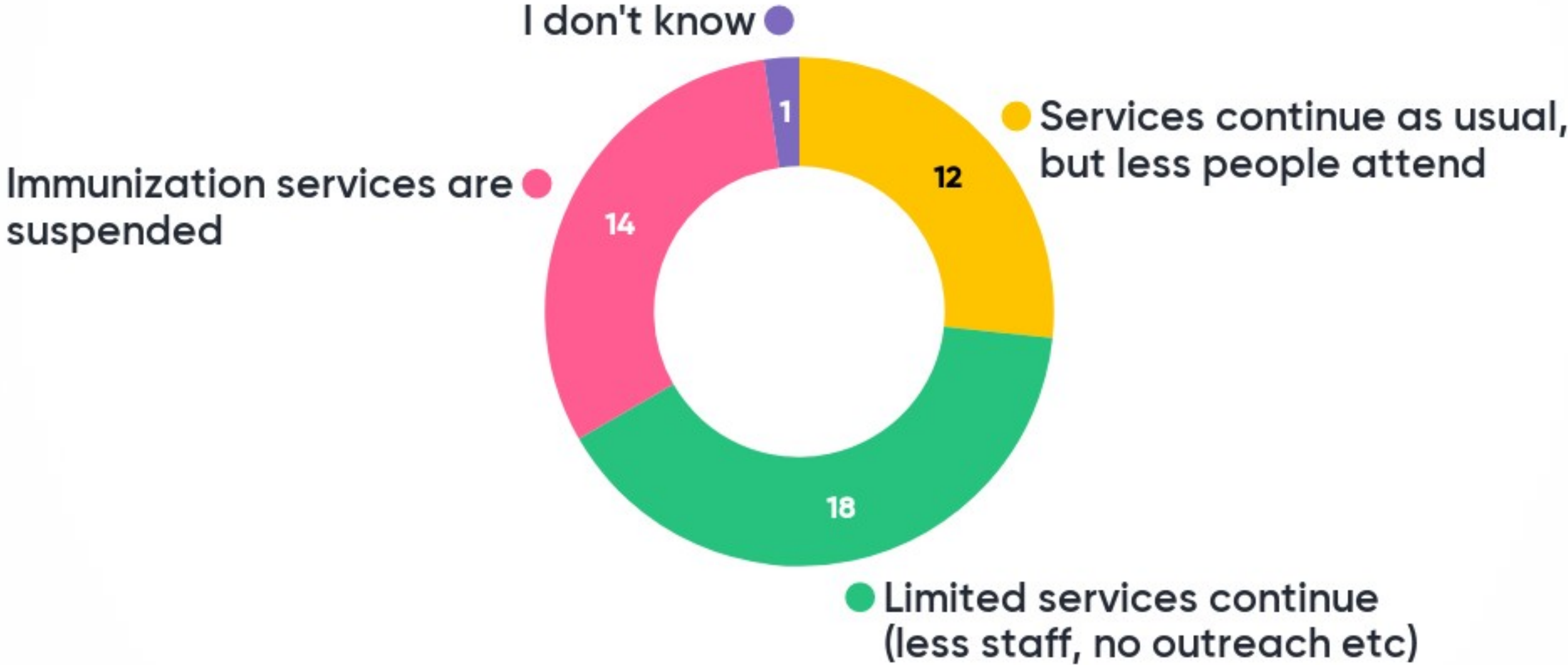


Ask your questions

- ▶ Click the Q & A button
- ▶ Vote for the best questions
- ▶ Comment on the questions



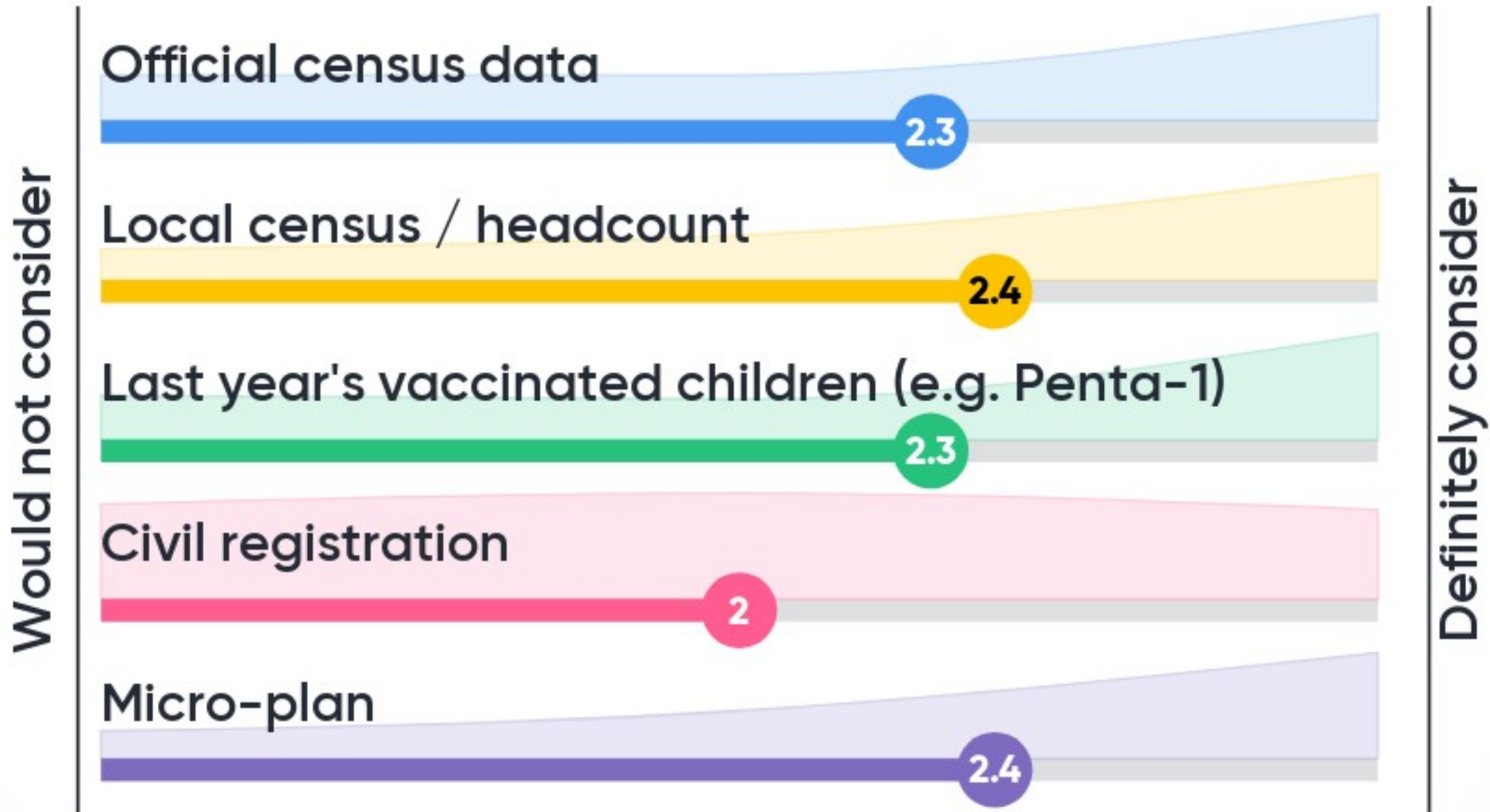
COVID-19 effect on immunization services where I work:



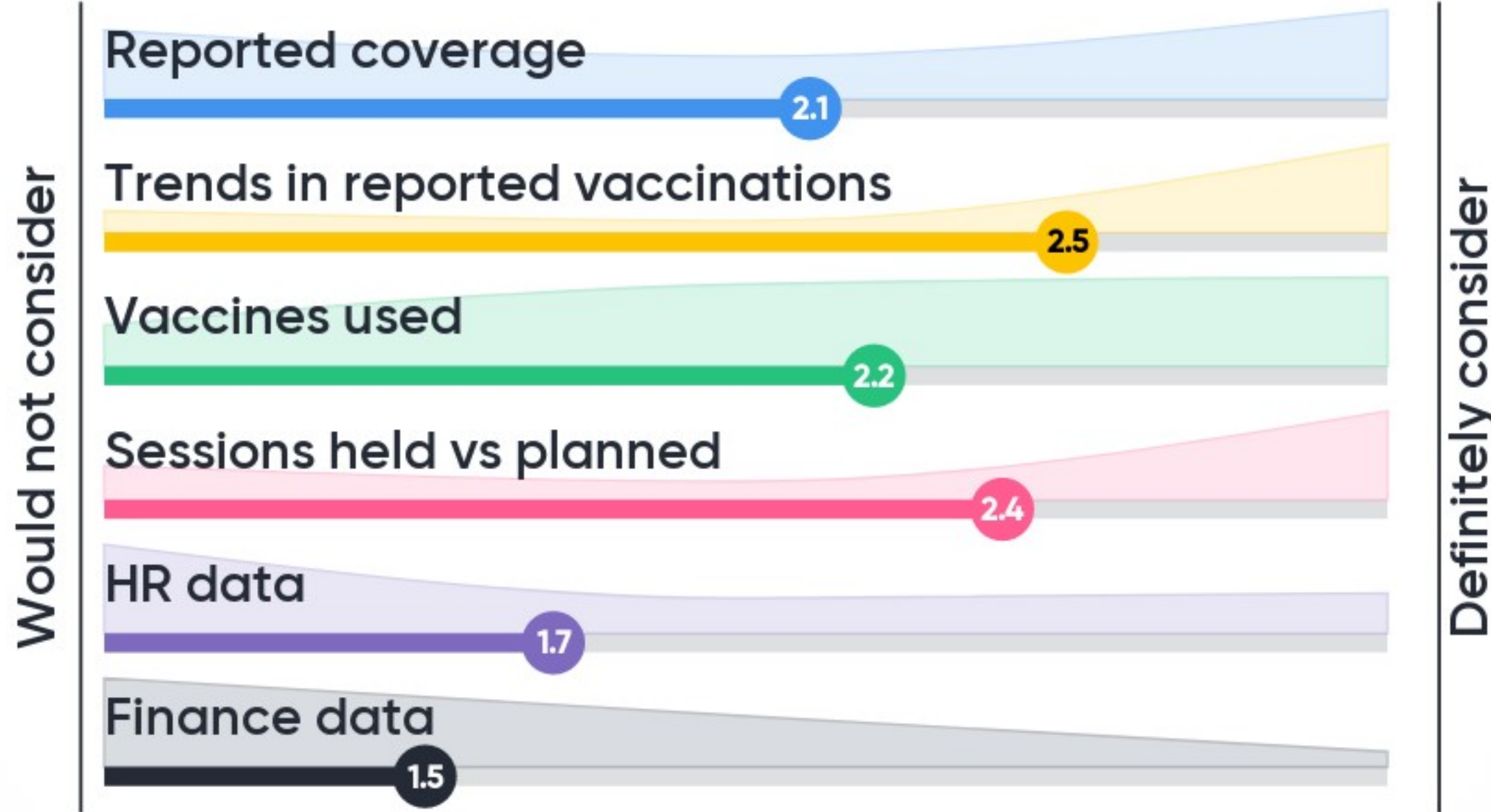
Data triangulation: improving programme performance at subnational level

- Target estimates
- Prioritization
- Immunity gaps
- Share your challenges ... and how you address them

What data are useful to set targets for health facilities?

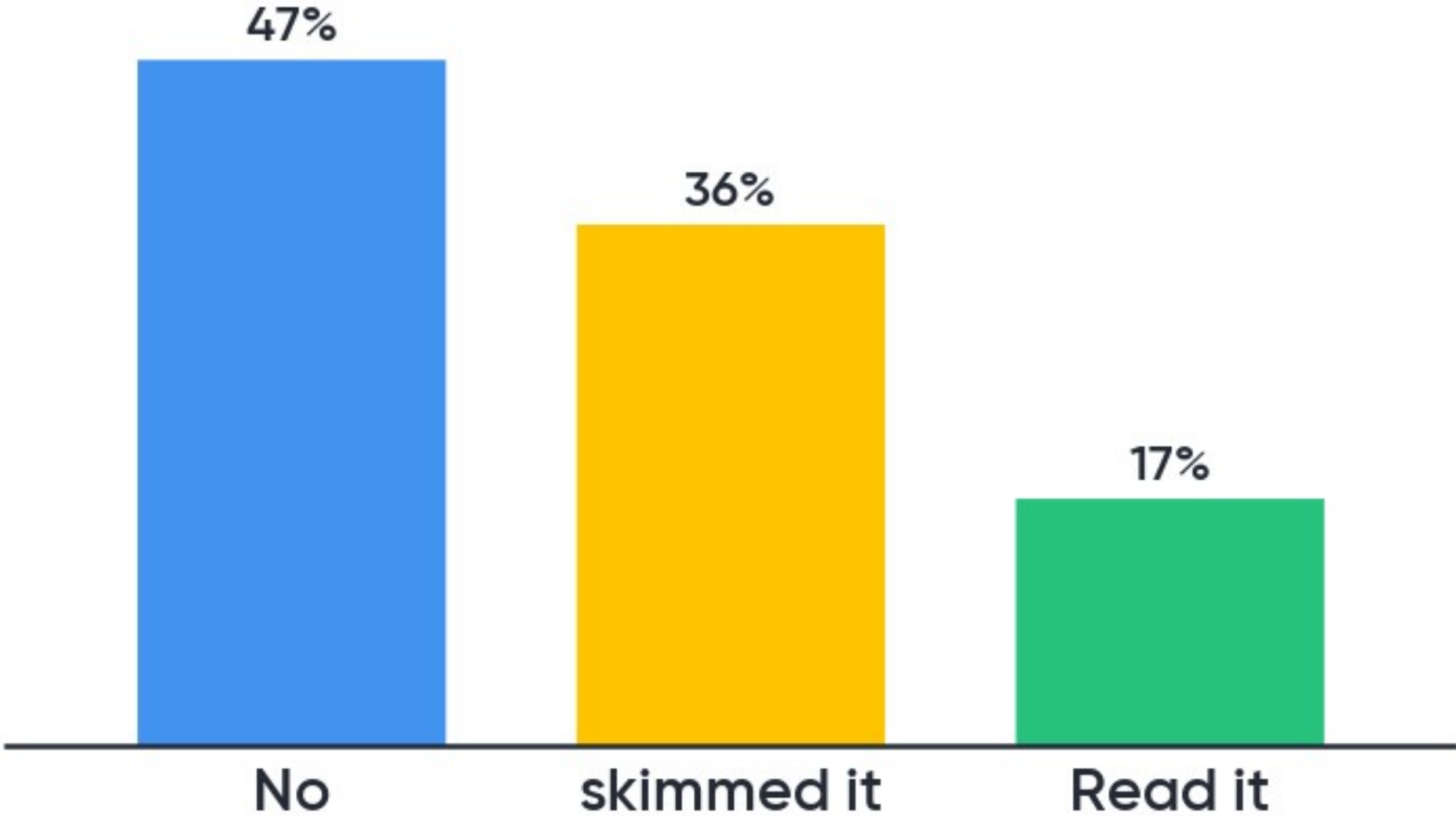


What data do you use to determine which facilities are in most need of supportive supervision?



have you looked at the triangulation guidance yet?

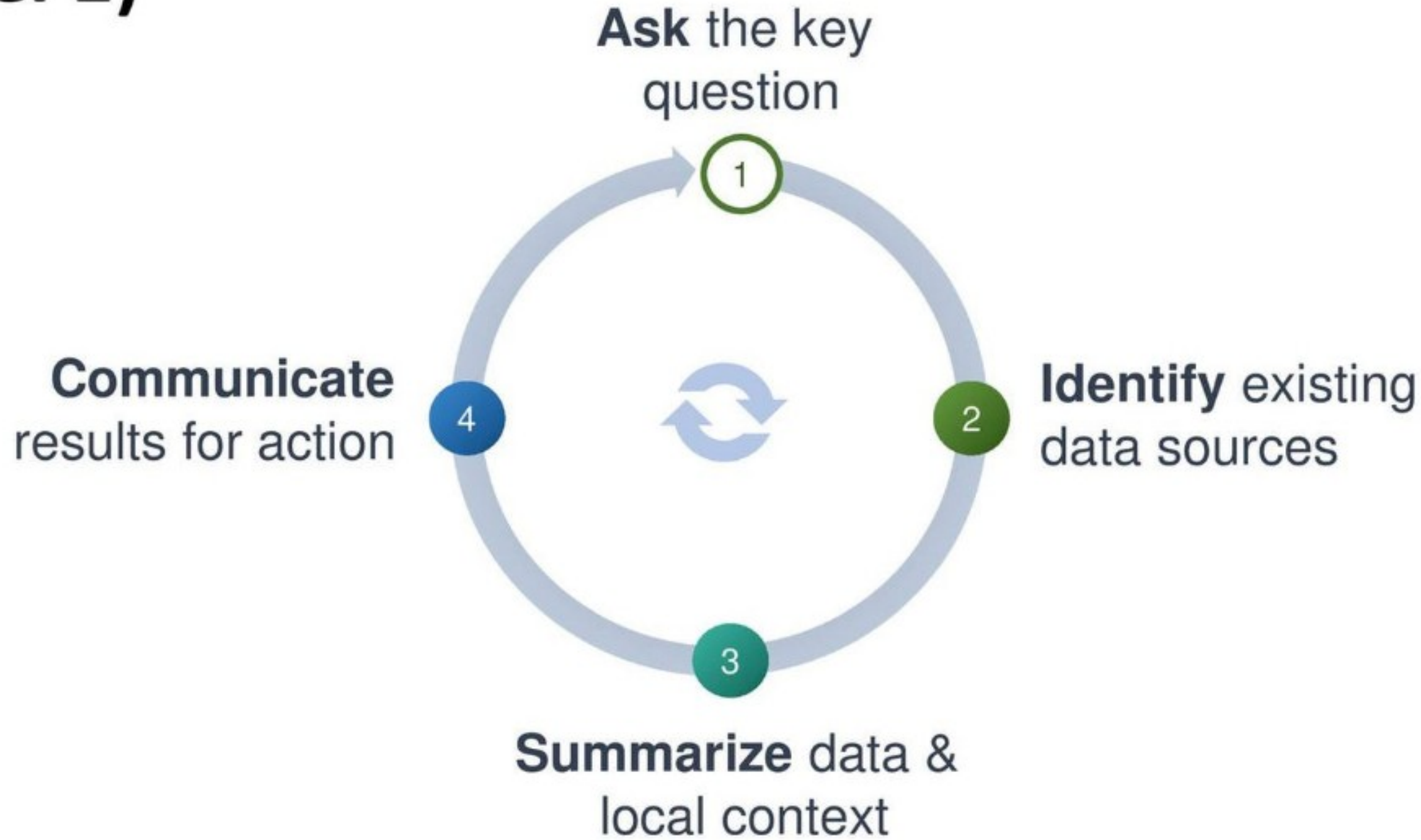
www.tinyurl.com/2020-triangulation



Level 1 Triangulation Documents

- **General Guidance**
- **Topic-specific Guidance (Annexes):**
 1. **Do current target estimates accurately capture everyone in catchment area?**
 - Improve program planning → equity in service delivery
 2. **Which facilities have issues in need of remediation?**
 - Targeted feedback & supervision → program improvement
 3. **Are there immunity gaps in your area?**
 - Reach every child → achieve disease elimination goals

Triangulation Process (Level 1)



Assessing Target Estimates

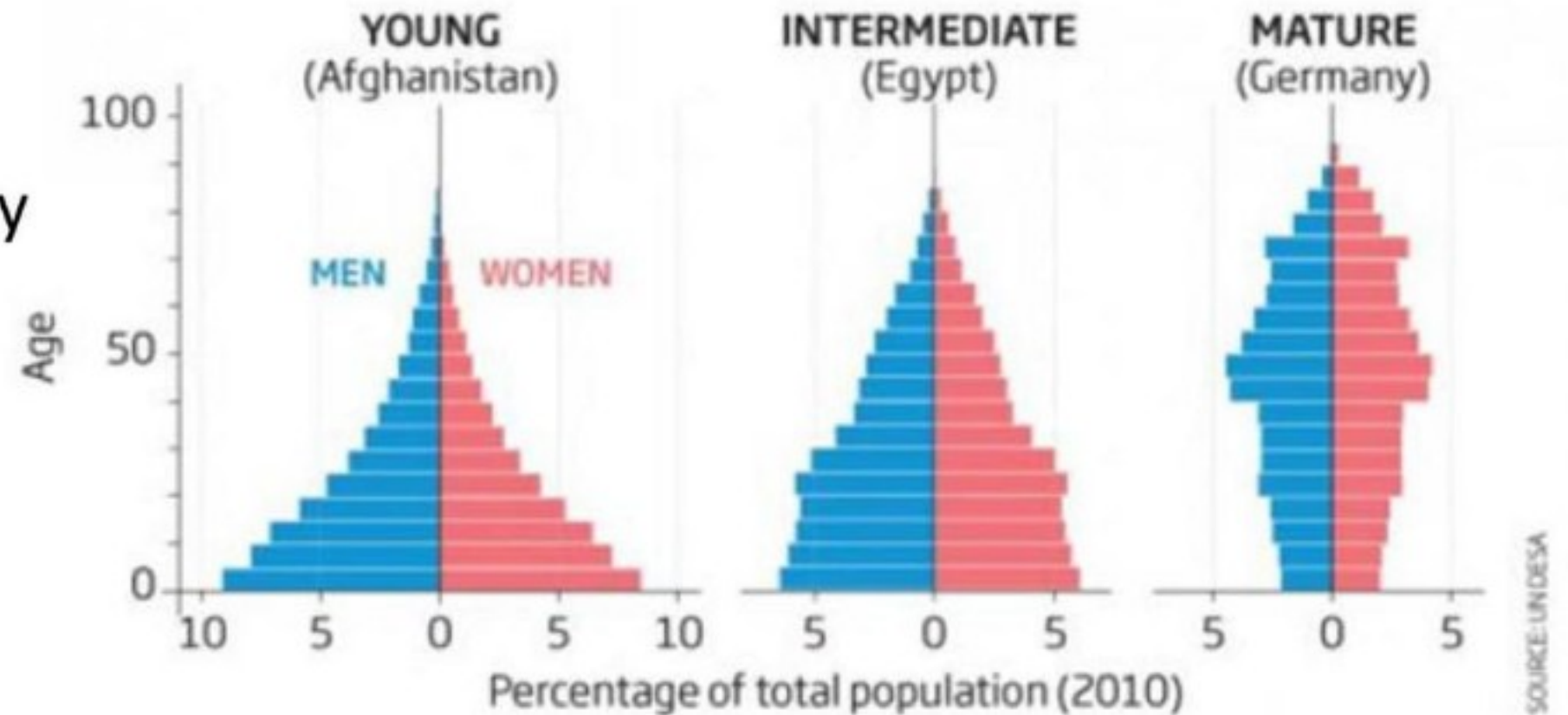
Example question

- Are trends in reported denominators for an area aligned with known demographic trends?
- Do the current target population values capture everyone in a catchment area?

Programme Target Estimates (denominators)





- Accurate targets needed:
 - Calculate vaccine coverage
 - Microplanning/forecasting
 - Finding zero-dose people
- Reasons for denominator issues vary
- Comparing different data sources can aid understanding of issues:
 - Target populations
 - Annual growth rates
 - Infant mortality rates (IMR)
- Collaborate with MOH & Bureau of Statistics – empowered to change

Demographic Transition = change!



Identify Existing Data Sources

For each data source, note following:

-  Data quality issues (e.g. missing data, data entry errors)
-  Recent change to geographic boundaries? Did data sources account for change?
-  Accounts for outsiders or left-outs?
-  Growth rate already included (e.g. census projections)?

Possible population data sources

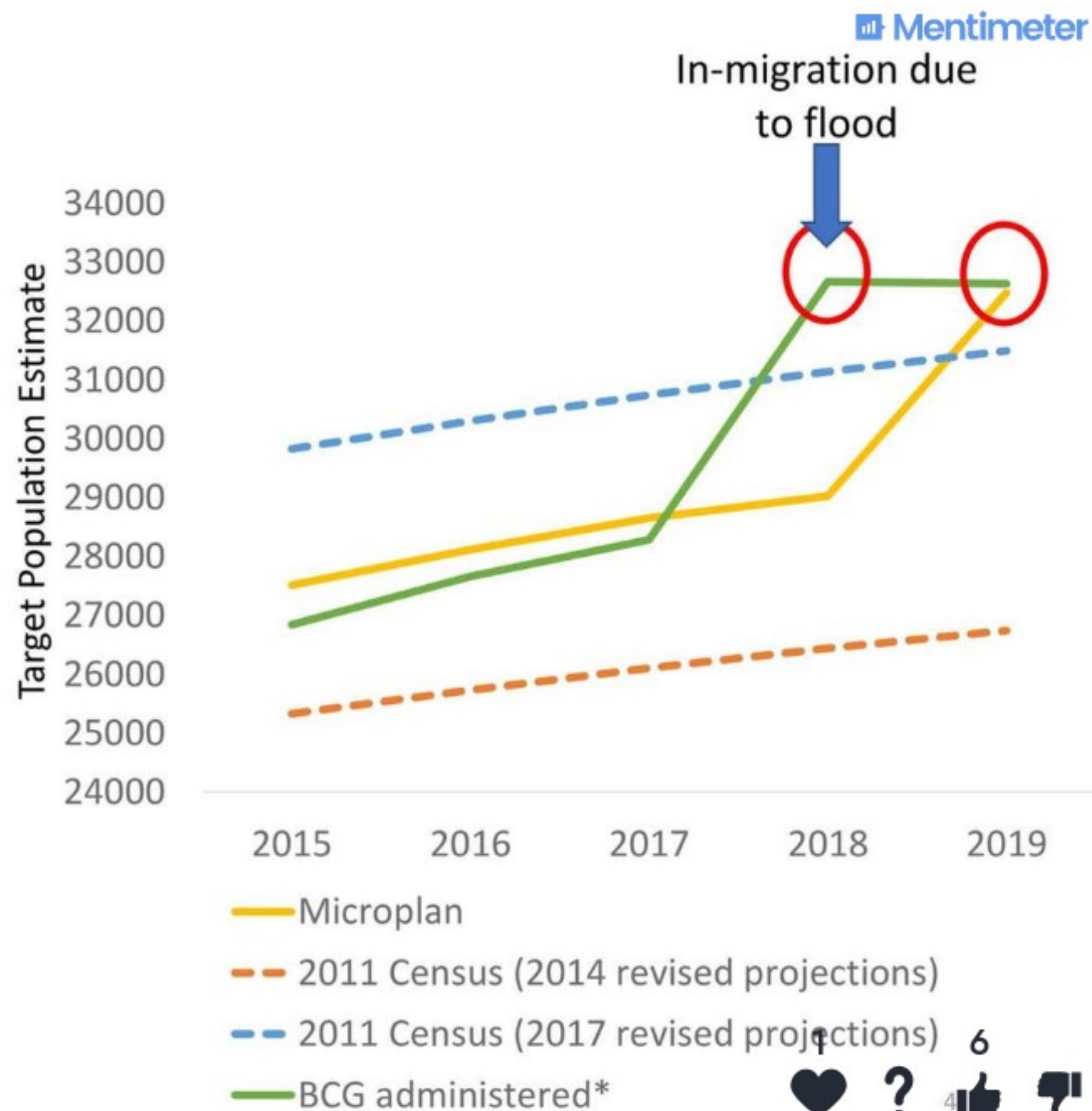
- Census projection estimates
- Civil Registration Vital Statistics
- Household demographic surveys
- Micro-censuses, heads counts
- Immunization microplan, BCG/Penta1 doses
- Other programme data
- Modeled estimates

Compare Target Estimates Across Data Sources (1)

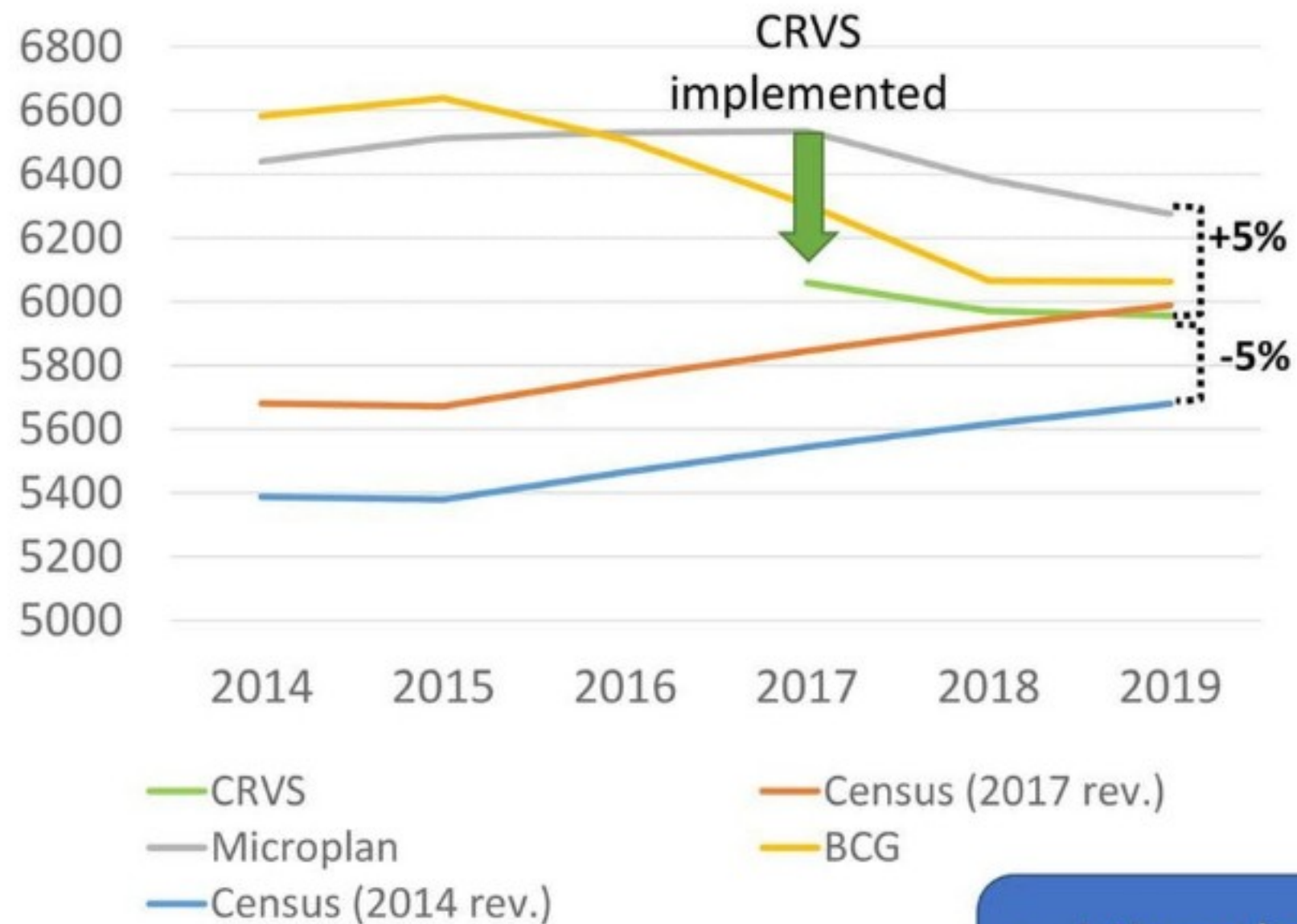
Example 1: Health Facility X

- 2019 microplan target: 32,484
- Large ↑ BCG in doses given Sep 2018- July 2019 (DHIS2)

Calculated own growth rate & made change in microplan



Compare Target Estimates Across Data Sources (2)

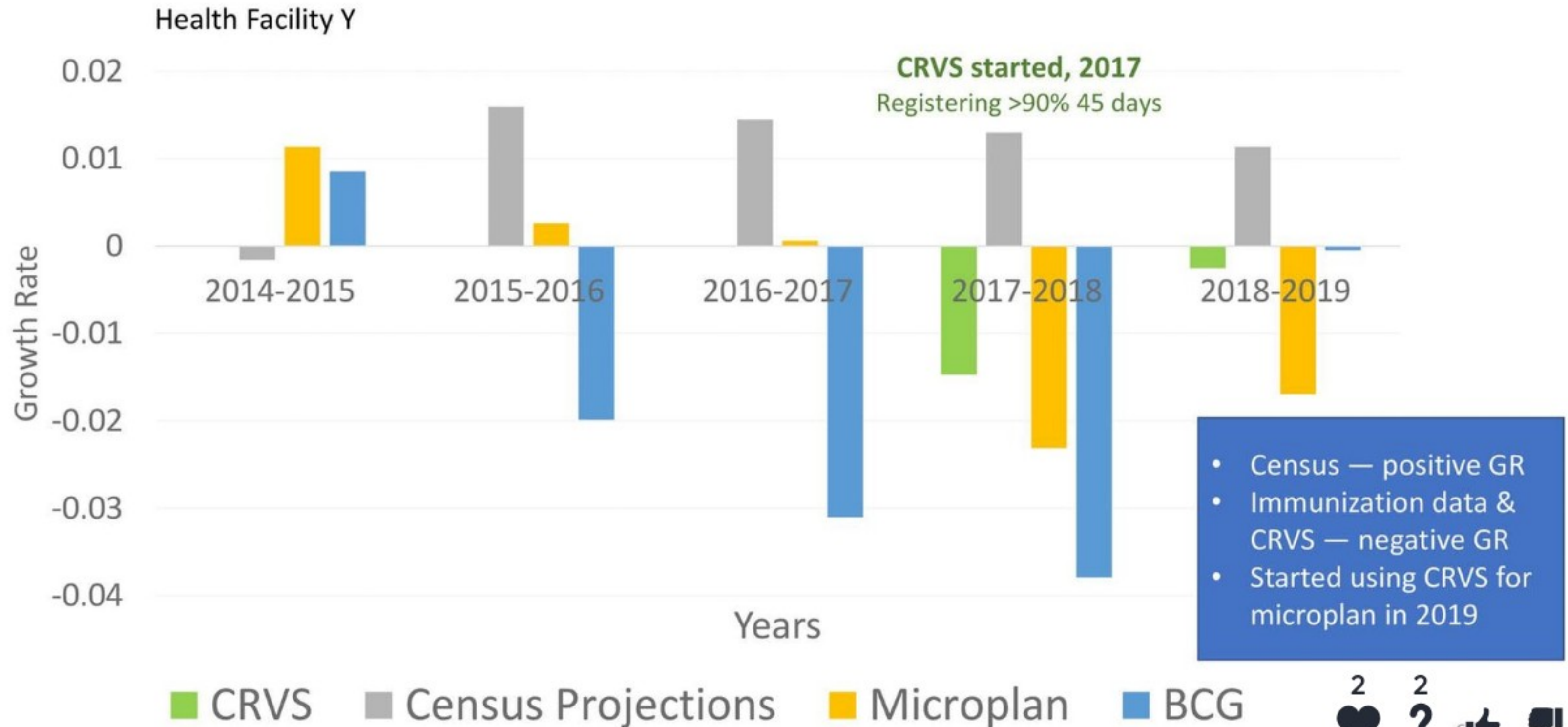


Example 2: Health Facility Y

- 2019 Microplan Target: 6,278
- Relatively high performing health complex
- 2017: Civil Registration Vital Statistics (CRVS)
 - Registering >90% of births w/in 45 days
 - Tracking registered & not registered, including specific tracking of outsiders
- 2019: Only 3 confirmed measles cases
 - All under 9 months old

- Microplan likely most accurate — CRVS + outsiders
- Census projection estimates likely underestimated

Compare Birth Growth Rates Across Data Sources



Monitoring programme performance

Example questions

- Which health units under my supervision should be prioritized for visits or follow-up?

Performance monitoring: Key concepts



Triangulation — help identify areas to prioritize for supervision



Performance monitoring should include data quality review

- Gaps hidden by only looking at district or yearly total
- Issues — often only few facilities or months



Gaps in performance and data quality revealed by

- Drilling down by reporting unit
- Observing monthly trends
- Looking at underlying numerator & denominator
- Making comparisons with other data (e.g. stock, surveillance)

Be a data detective!



Always review data before going to field



Find at least one question about data & hypothesize



Investigate your hypotheses in field & involve local staff



Put the picture together & develop an action plan as a group



If errors found, fix them!



Remember goal: vaccinating all children (not perfect data)

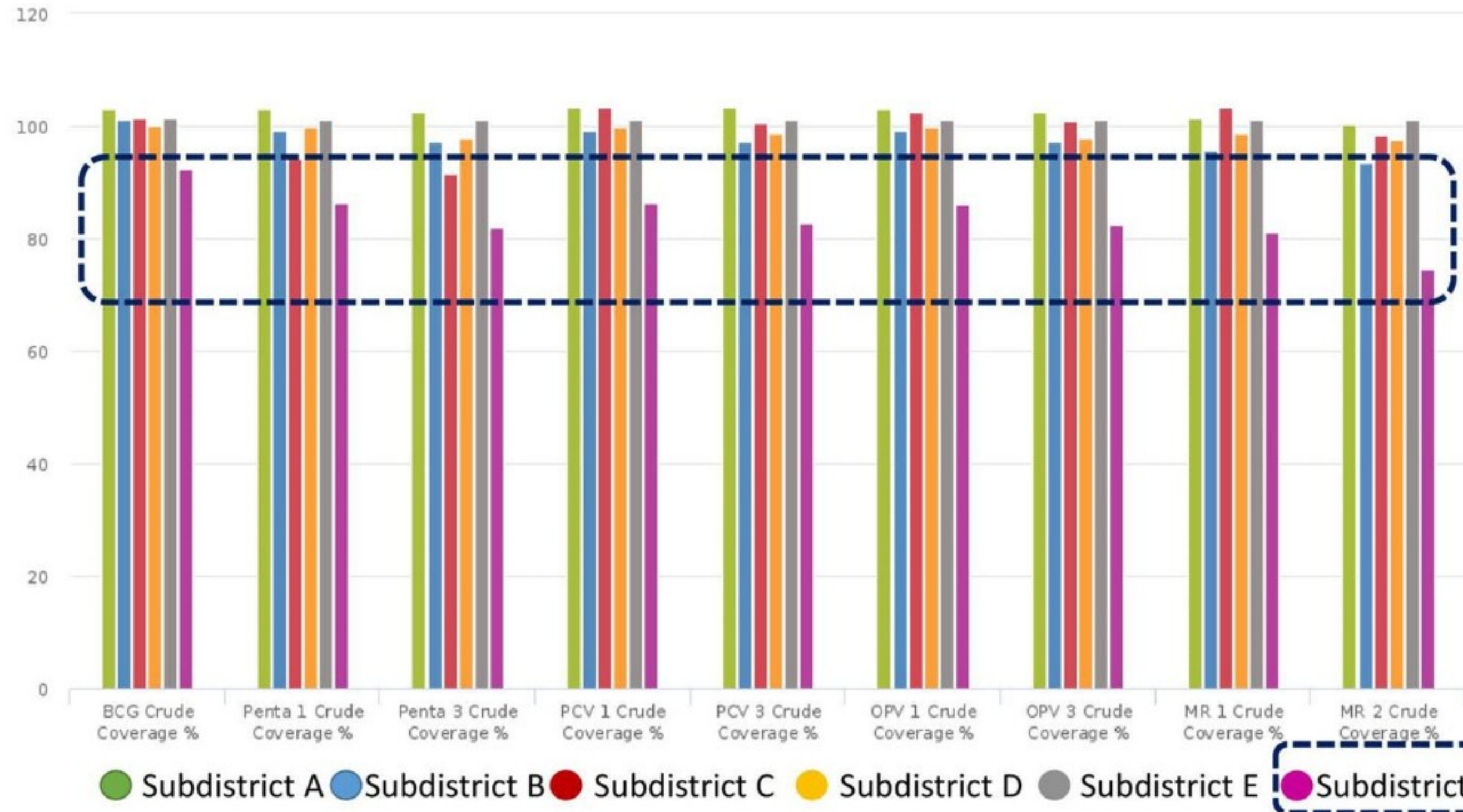


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Does this graph help with supervision?



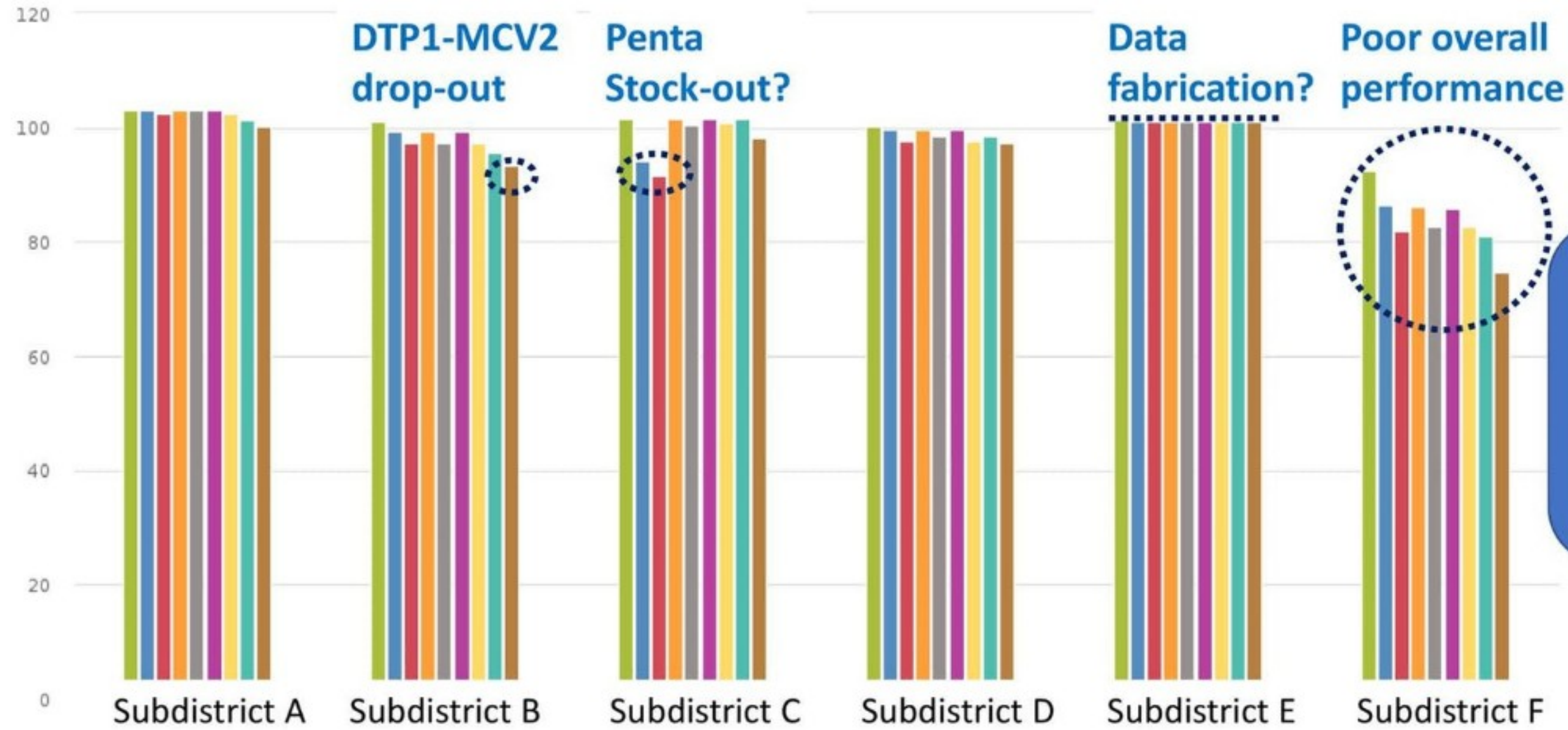
Can pick out one low performer for visit

Otherwise, hard to discern patterns

Subdistrict F

1 12 3

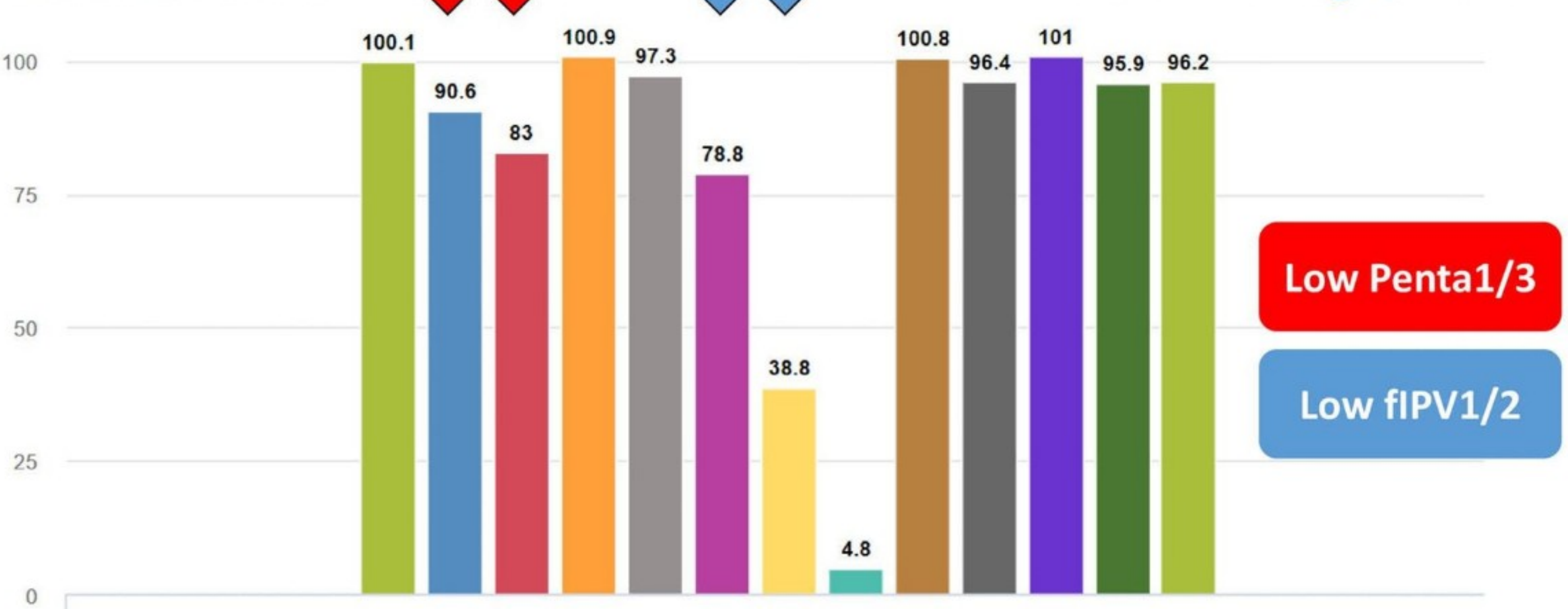
Some layouts may be better for supervision



Better addresses question of district performance

- BCG Crude Coverage %
- Penta 1 Crude Coverage %
- Penta 3 Crude Coverage %
- PCV 1 Crude Coverage %
- PCV 3 Crude Coverage %
- OPV 1 Crude Coverage %
- OPV 3 Crude Coverage %
- MR 1 Crude Coverage %
- MR 2 Crude Coverage %

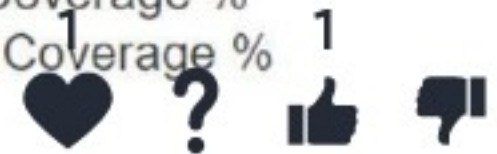
Subdistrict C ↓ ↓ ↓ ↓ Annual coverage, 2018



Low Penta1/3

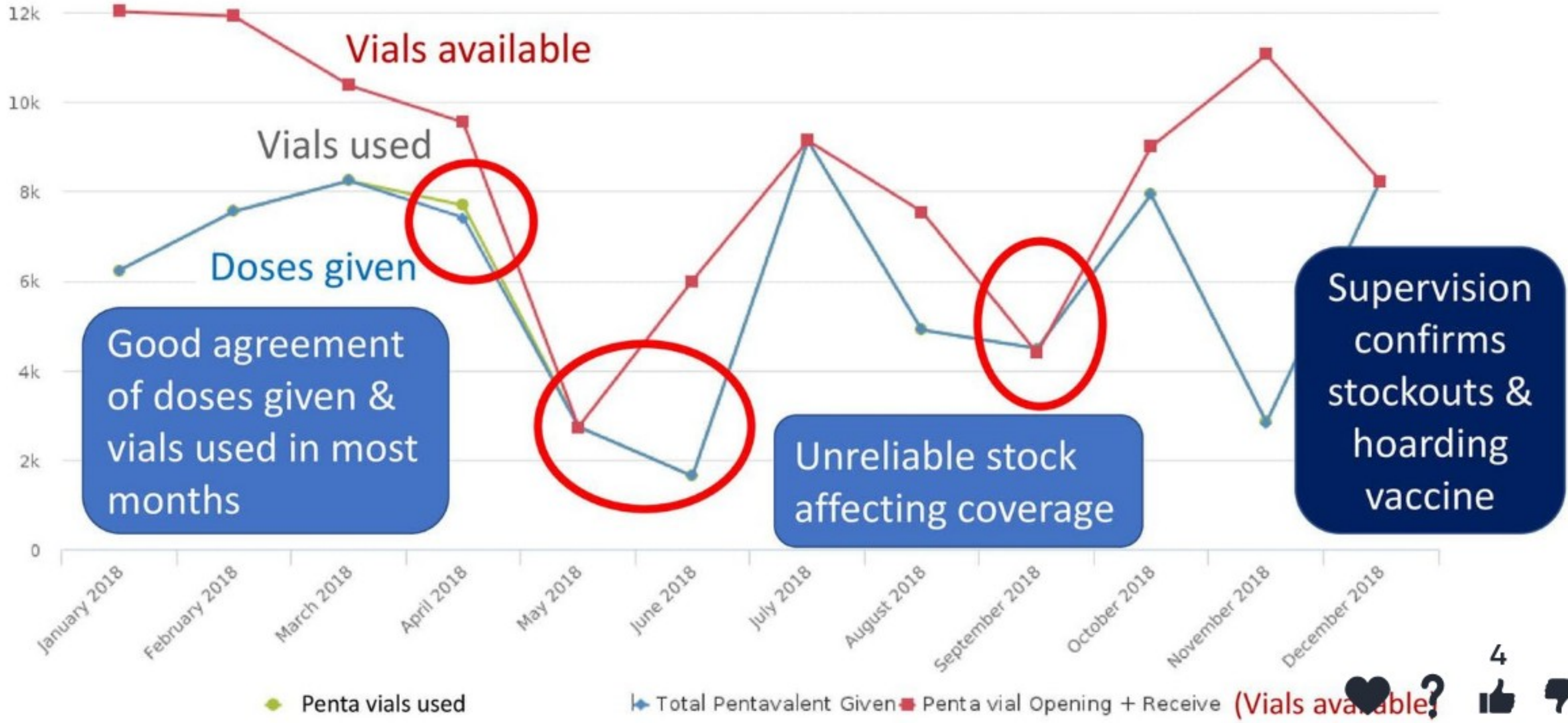
Low fIPV1/2

- BCG Crude Coverage %
- PCV 1 Crude Coverage %
- OPV 0 Crude Coverage %
- MR 2 Crude Coverage %
- Penta 1 Crude Coverage %
- PCV 3 Crude Coverage %
- OPV 1 Crude Coverage %
- Fully Immunized child(%)
- Penta 3 Crude Coverage %
- fIPV1 Crude Coverage %
- OPV 3 Crude Coverage %
- fIPV2 Crude Coverage %
- MR 1 Crude Coverage %



Subdistrict C

Monthly Penta doses given, vials available & used (stock), 2018



Identifying Immunization Coverage Gaps

Example questions

- Does surveillance data suggest there are immunization coverage gaps?
- Does administrative coverage in my area appear to be accurate?

Immunization Coverage Gaps



- Suboptimal quality of vaccine coverage data hides variation in immunity
- Surveillance data helps identify immunity gaps & underlying program issues & close gaps
- Many countries/regions have measles & rubella elimination goals



Find Immunization Coverage Gaps

Health Facility Example: Measles Administrative Coverage

Coverage is now 100% for both MR1 & MR2

Could this be data error?
Fabrication?



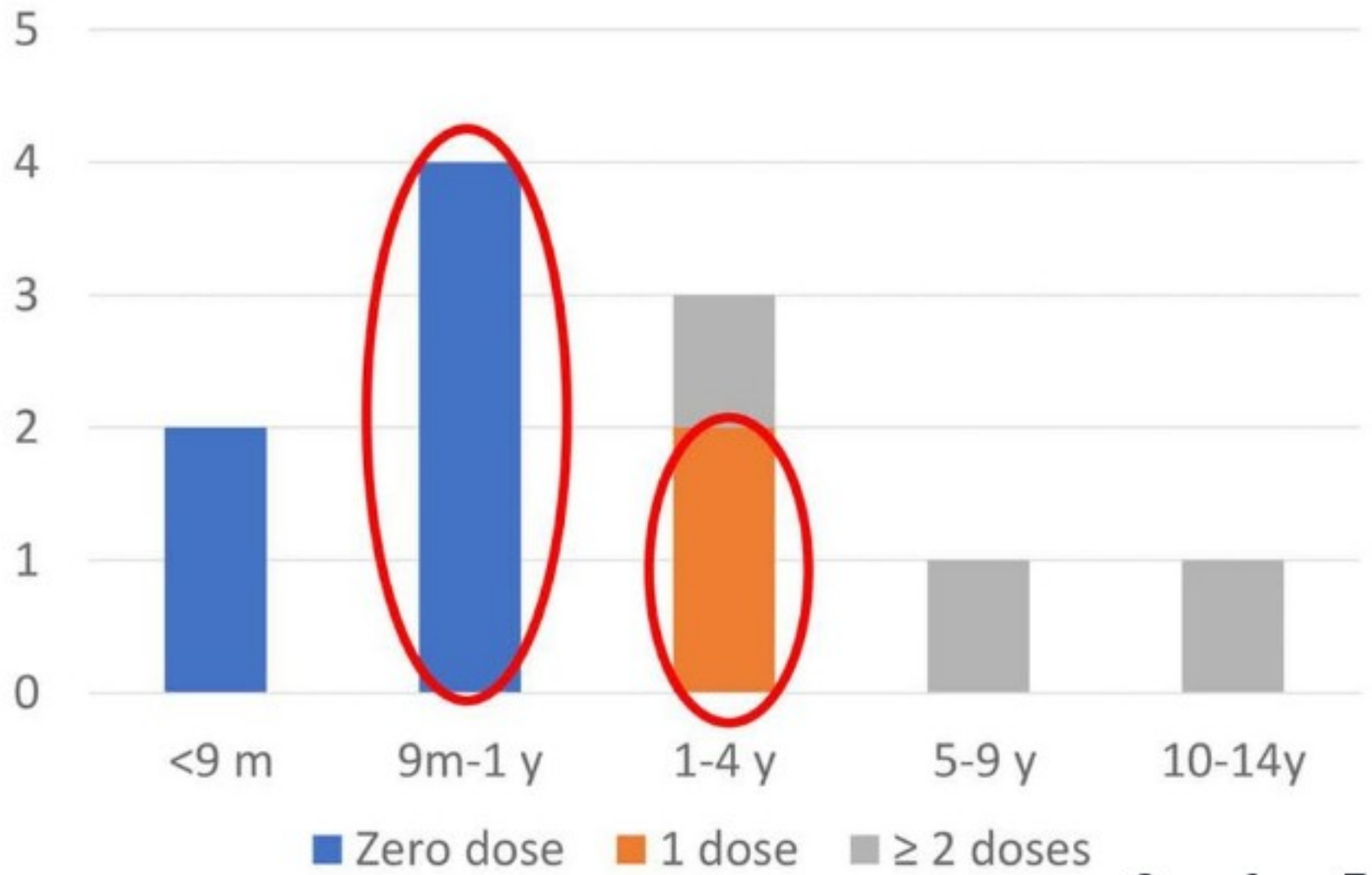
Health Facility Example: Age and Vaccination Status

Generally doing well with few cases

Evidence of delayed vaccination

Field investigation found not vaccinating sick children

Confirmed Measles Cases



Health Facility Example: Measles line-list

Village	Sub-district	Date of Onset
Yellow town	Sub-district-B	1-Dec-19
Yalluw town	Sub-B	28-Nov-19
Green town	River Union	20-Aug-19
Blue town	Lake	17-Sep-19
Yellow town	Yellow town	3-Dec-19
Red town	Mountain	1-Jan-19
Yellow	B	1-Dec-19
Purple town	Ocean WARD-2	15-Mar-19
Orange	WARD-3	8-Jul-19
Brown town	WARD-1	7-Nov-19
Yellow	B	4-Dec-19
Yellow town	Yellow	11-Dec-19
Pink town	Delta	23-Jan-19

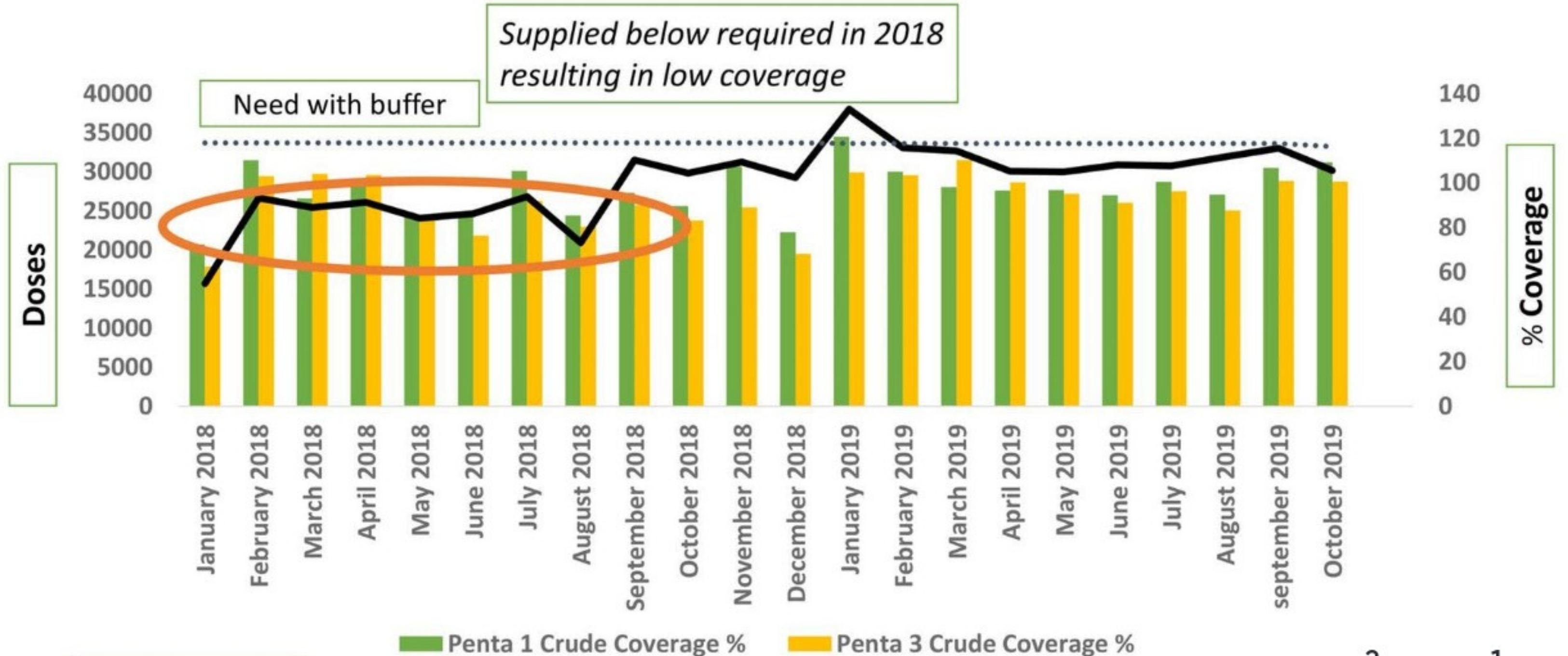
Focus on time & space. Are we missing outbreaks?

Example from WHO Scholar

Dr Sorwer, Bangladesh



Penta doses available & used vs. Coverage, City Corporation X, 2018- 2019 (Oct)

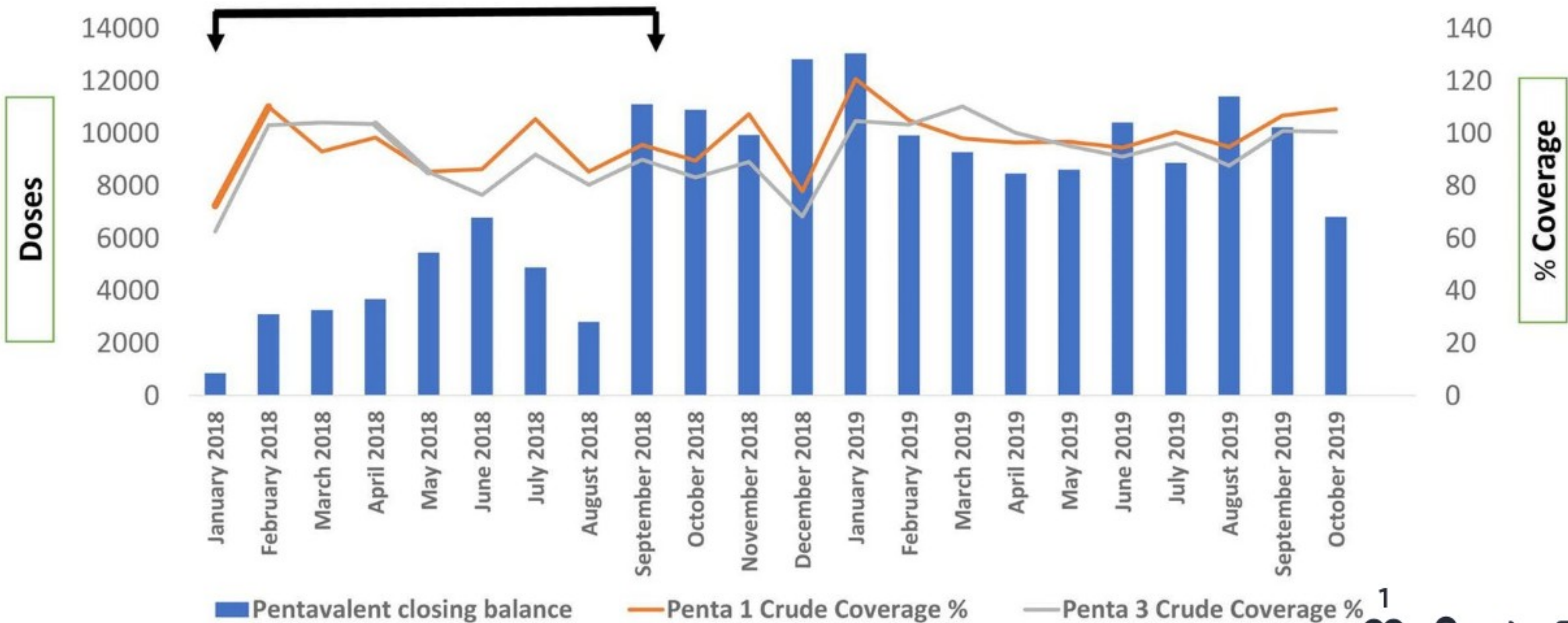


Source: DHIS2

■ Penta 1 Crude Coverage % ■ Penta 3 Crude Coverage %
— Penta vial Opening + Receive Pentavalent need with buffer

City Corporation X: Pentavalent stock position Vs Coverage

stock out and Low Stock leading to low coverage in 2018



Source: DHIS2

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 24



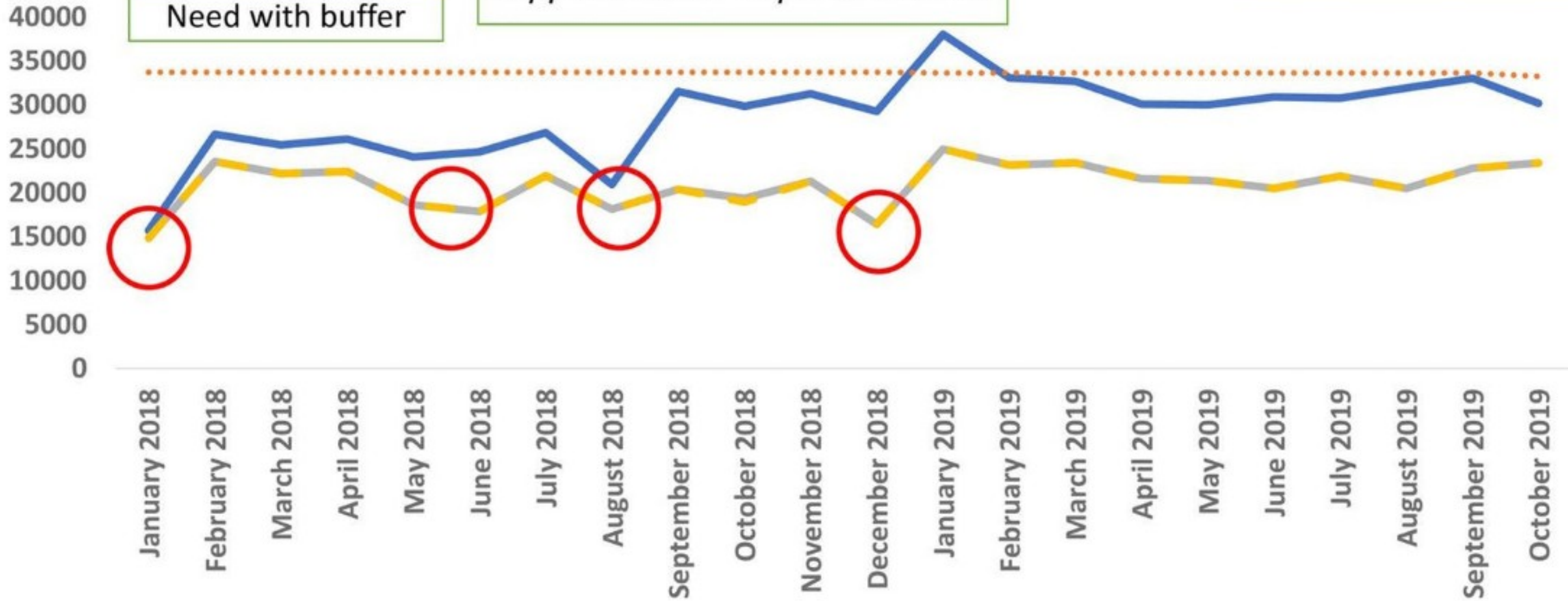
Penta doses available & used vs. doses administered, City Corporation X, 2018- 2019 (Oct)

Good agreement between doses given & doses used

Supplied below required in 2018

Need with buffer

Doses



— Penta vial Opening + Receive - - - - Pentavalent need with buffer
— Total Pentavalent Given — Pentavalent vial_used

Source: DHIS2

2 ❤️ ? 25 4 👍 👎

Time to hear from you

Share your challenges, your solutions around the use of different kinds of data to improve programmes at subnational level



Suggestions and questions!

Data triangulation using GIS maps

Thanks

Can we shorten the time and restricted it to one hour

This is very useful to guide how to use triangulation data analysis using different resources

Thank you all

Better data quality in Hard to Reach

The presentation and discussion were very useful. More exercises and practical field observation on data triangulation is very helpful for us to learn.

Why Bureau of Statistics department is not engaged to address the issues of denominator

Thank you Team

Suggestions and questions!

Data triangulation using gis
and surveillance data

'How to start using available
technology (mobile
technology, GIS,) for data
traingulation

Thank You Everyone

Practical instructions and
example required cor better
learning

