

REMEDY

Making decisions to improve
patient access

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Who are we?



Workshop Objectives



Participants:

- Learn from and collaborate with each other
- Understand more about System Design
- Participate and have fun!

Future Objective: Gain feedback to inform the creation of a global health focused learning game

How will we collect your feedback?

- Participation
- Sticky notes

Disclaimer: *Backstory is scene setting and not intended to reflect any one global health problem over another. The context is broad and meant to generate discussion and collaboration, not reflect all the realities of solving a problem like the one presented.*

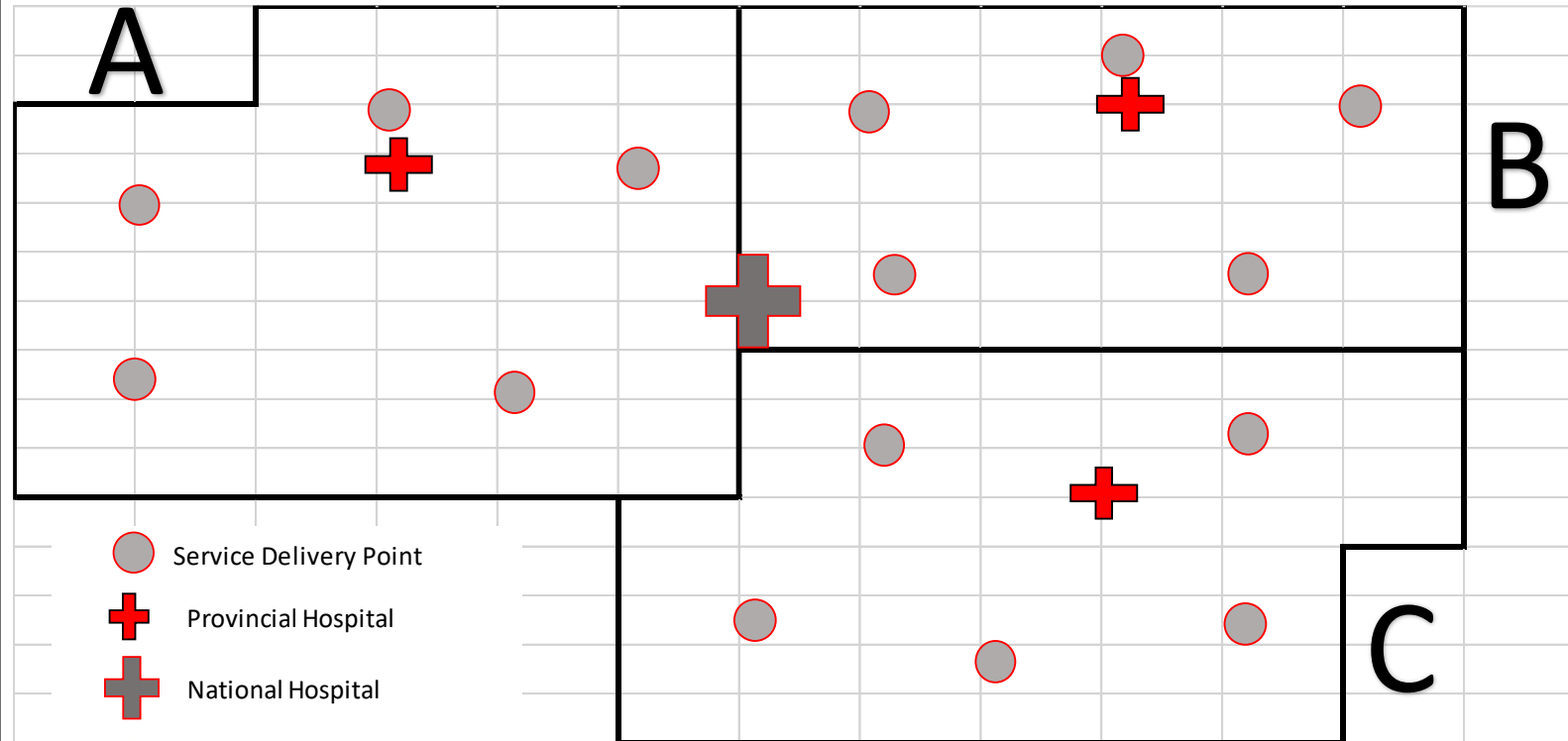
The Backstory

In the nation of **Heahulo**, only 55% of citizens have access to treatment for **Adrina Disease**. 4.5 million of the 10 million members of Heahulo were unable to access treatment for Adrina.

Heahulo consists of 3 provinces. Each province has a Provincial Hospital and many district health centers. Patients seek Adrina testing and treatment from the nearest health center. Health Centers send patient samples to the Provincial Hospital to determine if the patient has Adrina or not. Health practitioners are working 8-hour days to test and treat patients for Adrina.

You must make some decisions to improve patient access to treatment and reduce that number to 1 million in the next 3 years in order to procure more funding.

Map of Heahulo



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Based on the information you've been provided, what action do you want to take first?

1

Collect data from the Ministry of Health about current patient treatment numbers at the health centers and hospitals

2

Identify all stakeholders to understand their priorities and contributions to the treatment of Adrina

3

Purchase additional disease treatments to be distributed evenly between all existing provinces

Hold on! Do we have all the information?

1

Collect data from the Ministry of Health about current patient treatment numbers at the health centers and hospitals

Are we making the right assumptions about data?

- What data is available from Ministry of Health?
- What relevant data don't we have?

3

Purchase additional disease treatments to be distributed evenly between all existing provinces

Are we making the right assumptions about the problem?

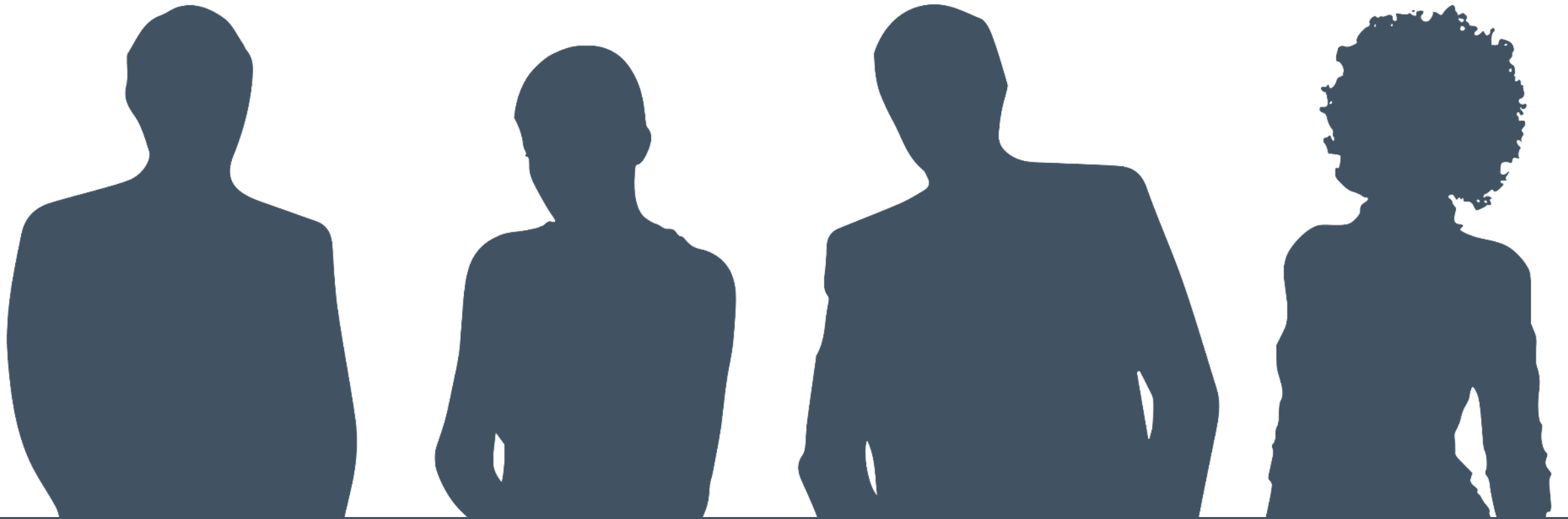
- Do we know it's a supply problem?
- What might we not know about population and treatment placement?
- What about budget and political changes?
- Patient result turn-around times?

System Design Approach

2

Identify all stakeholders to understand their priorities and contributions to the treatment of Adrina

- This will create the blueprint: Look at what would an efficient supply chain look like? How should the components fit together and interact?
- What are the current bottlenecks of the system as per the different stakeholders
- What is the baseline look like – how are patients served - how changes will affect the overall system?



Meet the Stakeholders



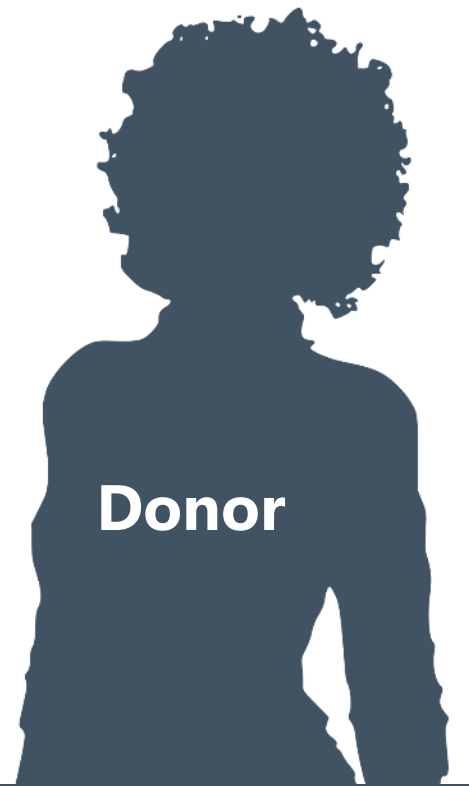
**Health
Practitioner**



**Ministry of
Health
Officer**



**Implementing
Partner**



Donor

Meet the Stakeholders

The Stakeholders

Role	Who Am I?	My Challenge	My Priority
Health Practitioner	Clinician first	Access to health care products to treat patients	Treat and get results back to patients in a timely manner.
Ministry of Health Officer	Mandate spans entire health system Competing priorities across programs	Budget <ul style="list-style-type: none"> • Must cover what donors don't • Must abide by political processes 	Budget maximization Increase access to treatment for Adrina through a functional, affordable, and sustainable supply chain
Donor	Provide 20% of Heahulo's drug & equipment budget Provide separate funding to Implementing Partner	Competing priorities for funding across multiple programs	Improved Results: prevalence rates, % meds procured vs. used/wasted Budget maximization: cost/dose or cost/pill
Implementing Partner	Partner to Ministry of Health Tasked to improve supply chain for Adrina programme	Receive funding	Show good results in the supply chain for the Adrina program Help guide MoH to cost effectively allocate the \$1M budget.

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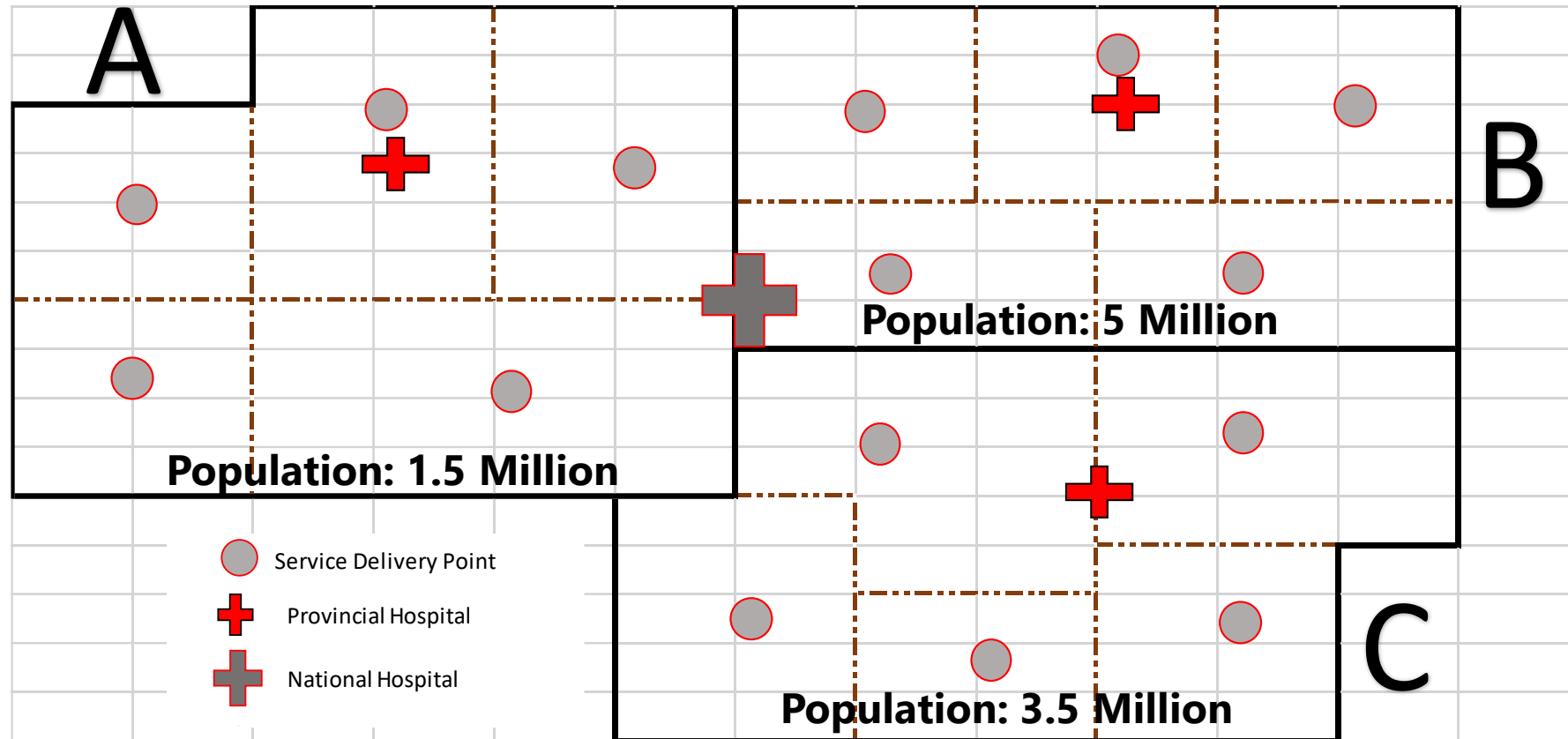
Roles

Everyone is assigned one of the four roles.

Each role has access to certain data.



Heahulo Overview



Early indications show there are enough treatments within country to treat every patient

As a team, work together and compare data to determine what you should do next

1

Invest in collecting accurate data: prevalence rates, diagnosis rates by province, patient result turn around times, and cost per sample.

2

Deliver all stakeholder data to Ministry of Health and wait for them to provide oversight and direction for next steps

3

Purchase additional treatments for Provinces with higher populations

4

Re-distribute treatment options based on population levels

5

Flex Health Practitioner schedules to patient testing 12 hours a day versus 8 hours

Wait! Do we have all the information?

2

Deliver all stakeholder data to Ministry of Health and wait for them to provide oversight and direction for next steps

3

System design is a collaborative, iterative process with all stakeholders helping to inform the way-ahead with the MoH
Purchase additional treatments for Provinces with higher populations

4

Re-distribute treatment options based on population levels

May provide an immediate solution, but would this be a lasting solution?

5

Examples of additional data that could inform these decisions: inventory levels, storage capacities, treatment consumption rates, network design details, day versus 8 hours

Would flexing Health Practitioner hours solve patient access to treatment?

Do you have a full view of the system?

Do we know which locations could benefit from a change in Health Practitioner hours?

- Without an iterative, integrative approach, you don't have full visibility to the problem
- You may end up putting resources into the wrong efforts

Is this true collaboration?

- Collecting information is just the first step
- If not all stakeholders are involved and aligned, gaps can remain hidden

System Design Approach

1

Invest in collecting accurate data: prevalence rates, diagnosis rates by province, patient result turn around times, and cost per sample.

Data Collection

- Iterative process
- Developing an understanding of existing system performance
- Identify gaps and weaknesses in the existing system

Everything is Connected

- When one component of the supply chain is not working optimally, it impacts the entire system.



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Additional Data Gathered

- Detailed disease prevalence data
- Diagnosis rates by province
- Patient results turn around times
- Cost per sample

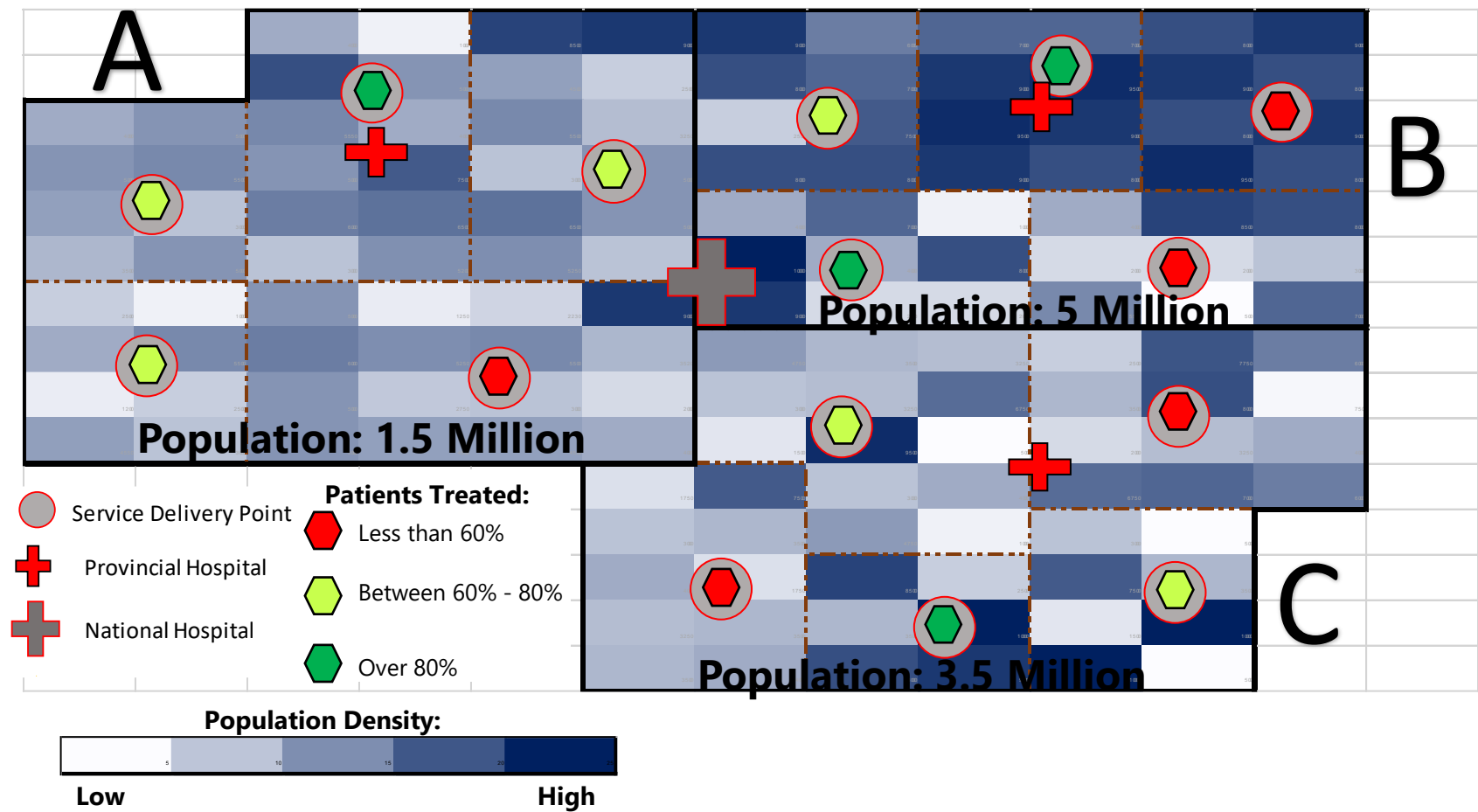
What is the status quo performance?

With this information, Heahulo stakeholders have a more in-depth understanding of how the Adrina program is performing and can validate the current state.

What are options for change and their impact?

From this, the stakeholders embark on a journey to use the data to develop and assess the likely impact of different improvement options with the MoH objectives.

Heahulo Overview



With a more informed picture of the Adrina programme from all stakeholders involved, what action should you take next?

1

Make decisions that allow treatment & diagnosis machines to be placed closer to patients in need

2

Make decisions to alter referral flow among health centers & provincial hospitals

3

Make decisions to modify the test collection and result delivery frequency

4

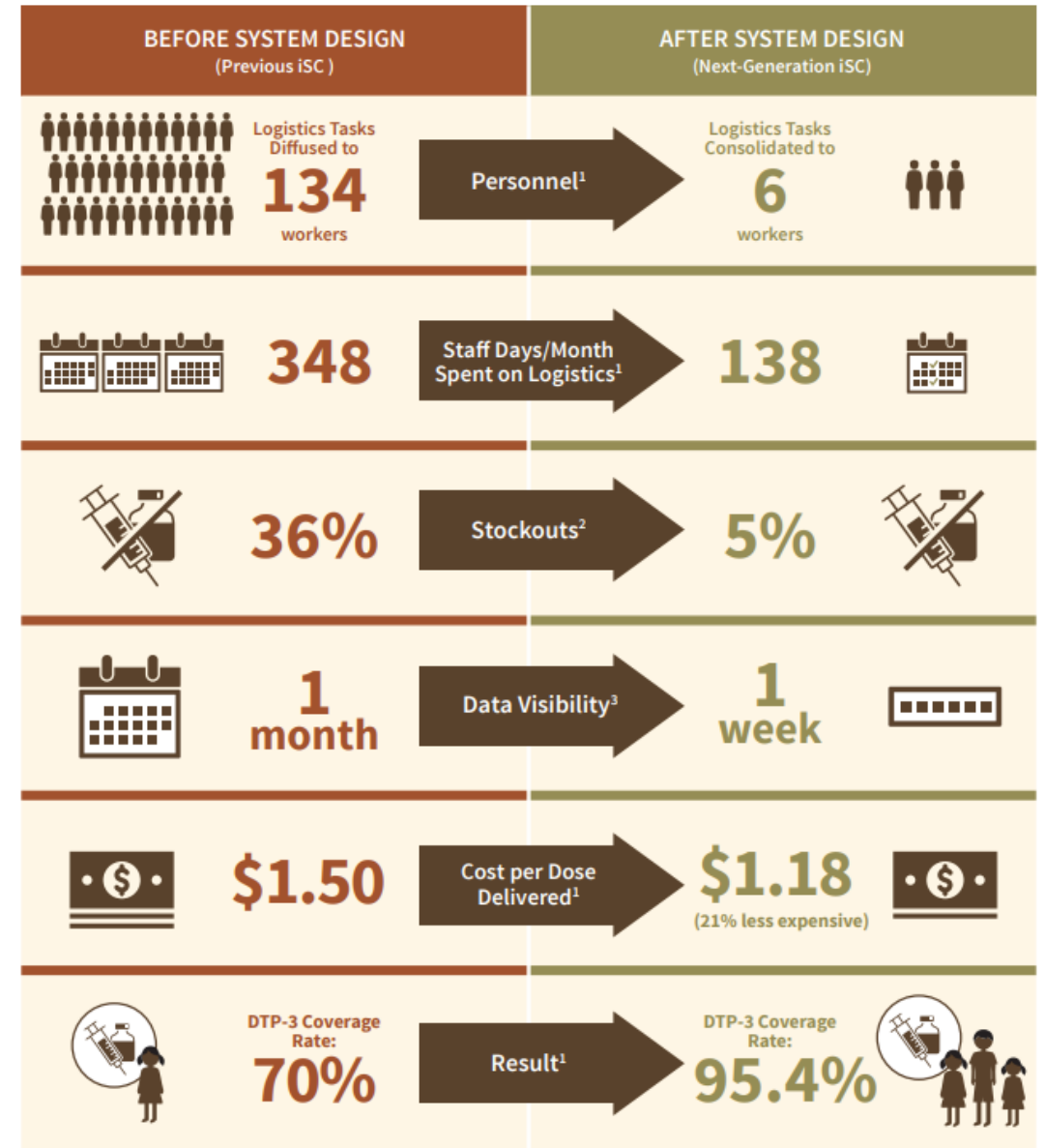
Improve data collection and communication processes among stakeholders

5

Something else (define it and present back to the group)

System Design Approach

- Each country is unique; possible improvements could be varied
- Decision-makers need high-quality, current data
- Weigh and test options for long-lasting improvements:
 - Continuous data collection
 - Collaboration among stakeholders
 - System Design Workshops
 - Modeling



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Case Study - Nigeria

Overview of System Design engagement (especially Key Output)

Three-hub design projected to ensure more efficient use of vaccine storage capacity and result in yearly savings of approximately \$1M in OpEx and CapEx costs

Informed push implemented in about five (5) states with increased vaccine availability. Currently being evaluated for scale-up

Why System Design?

- Efficient in-country distribution of vaccines
- Preparation for planned vaccine introductions e.g. Rota, IPV
- Inefficient utilization of original vaccine storage space

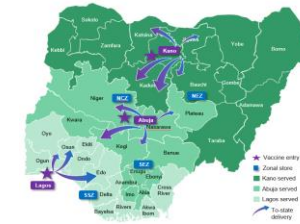
Via what mechanism(s) was the system design analysis conducted?

- National Primary Health Care Development Agency Team (NPHCDA)
- Private Sector partners
- National Primary Health Care Development Agency in MOU states, Implementing partners and Private Sector

What System Design Scenarios were considered?



Original iSC structure:
All vaccines are flown to Abuja, and then flown to 6 Zonal Stores



Re-designed iSC structure:
Three Hubs (three entry points) including two additional (apart from Abuja) Vaccine Entry Points (Kano and Lagos)
Direct transportation from three hubs to State clusters

RESULTS	Original	Three Hubs
Storage Capacity Needs (2020 demands)	672m ³	339m ³
CapEx requirements (2020 demands)	Approx \$8m	Approx \$3-5m
OpEx requirements (2020 demands)	Approx \$4.8m	Approx \$3m
Operational efficiency	Low utilization of storage spaces	More efficient utilization of storage spaces

Thank you

Objective: Gain feedback to inform the creation of a global health focused learning game

Feedback Questions:

1. Do you understand better what system design can do for you?
2. Would you be interested in learning more about a web version of a system design activity?
3. Were your roles clear?
4. Was the objective clear?
5. What would make this game more useful for you?



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