



Angus Elder | Kalei Munsell | Jack Post

FIGHTING CHILDHOOD PNEUMONIA

In Uganda



AGENDA

1

Current
Program

2

Key
Areas to
Improve

3

Program
Analysis

4

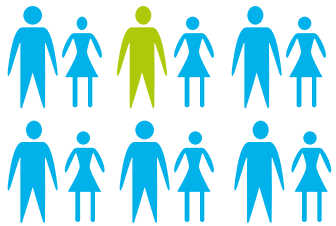
Allocation
of Funds

5

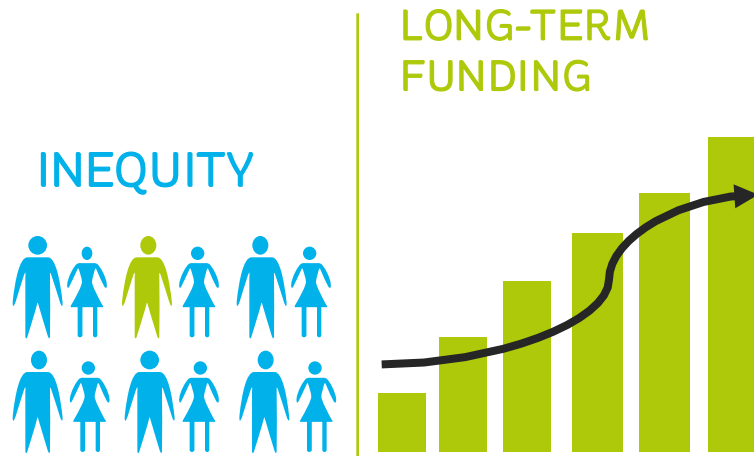
Long
Term
Impact

CHALLENGES IN UGANDA WITH THE VACCINE PROGRAM

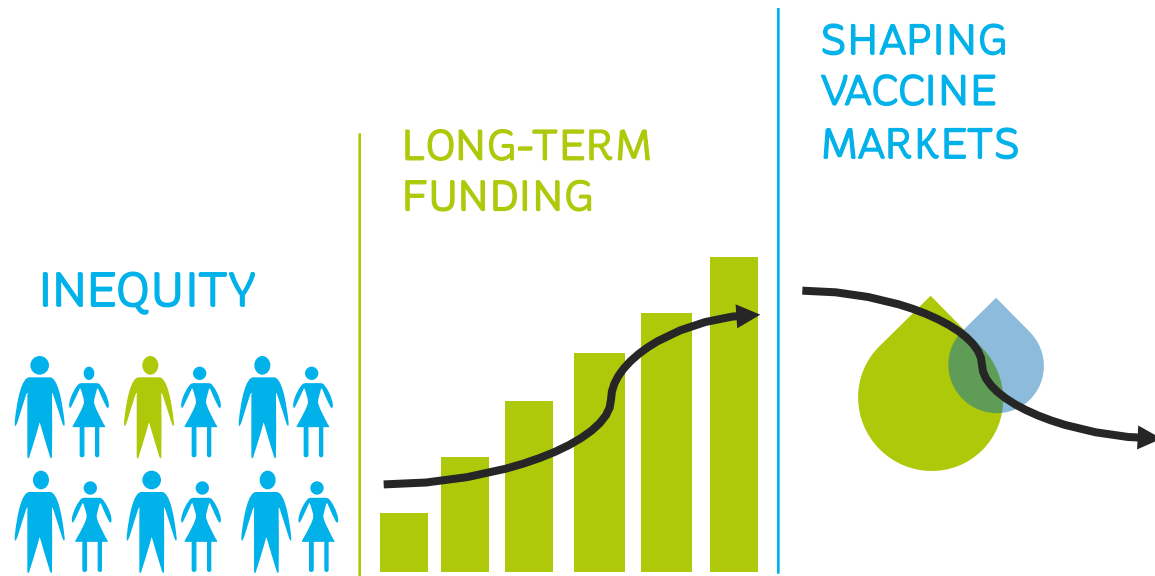
INEQUITY



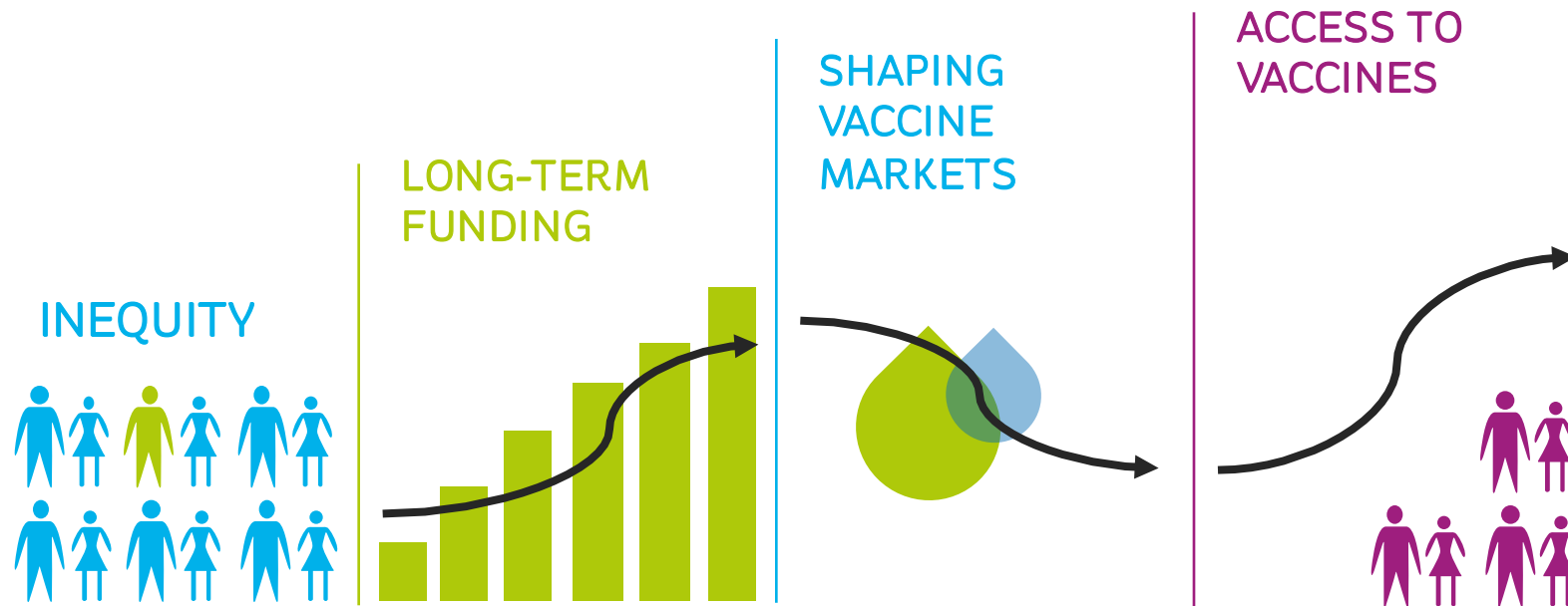
CHALLENGES IN UGANDA WITH THE VACCINE PROGRAM



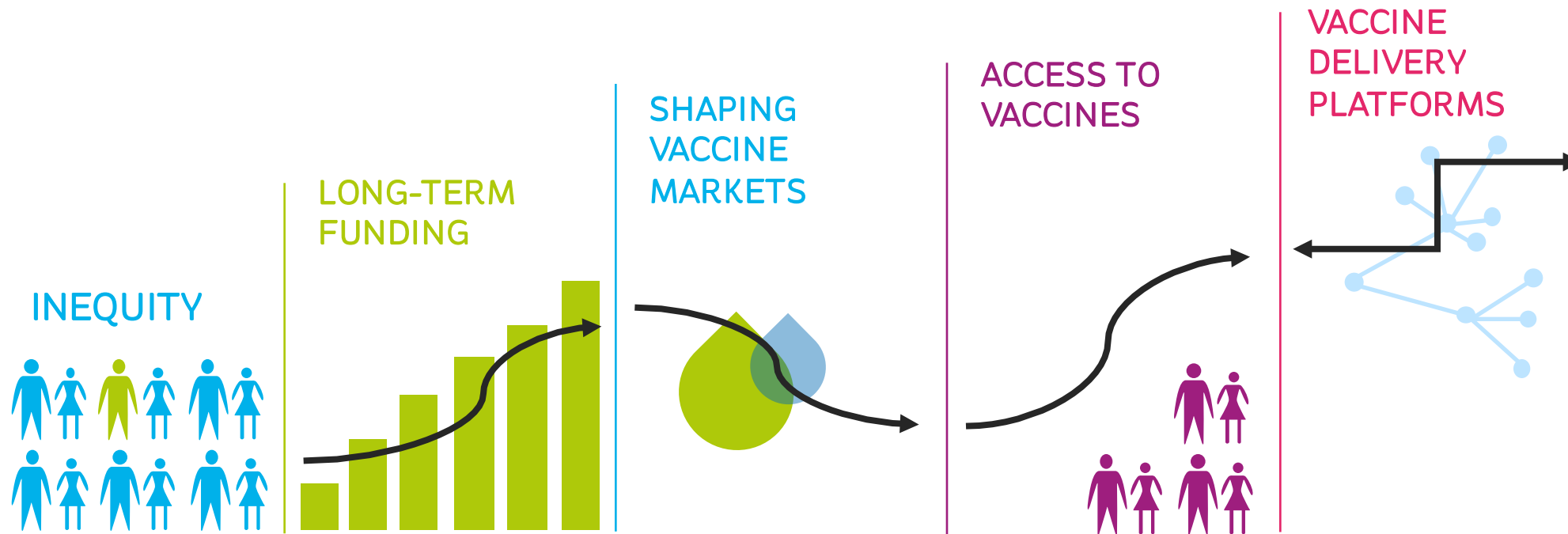
CHALLENGES IN UGANDA WITH THE VACCINE PROGRAM



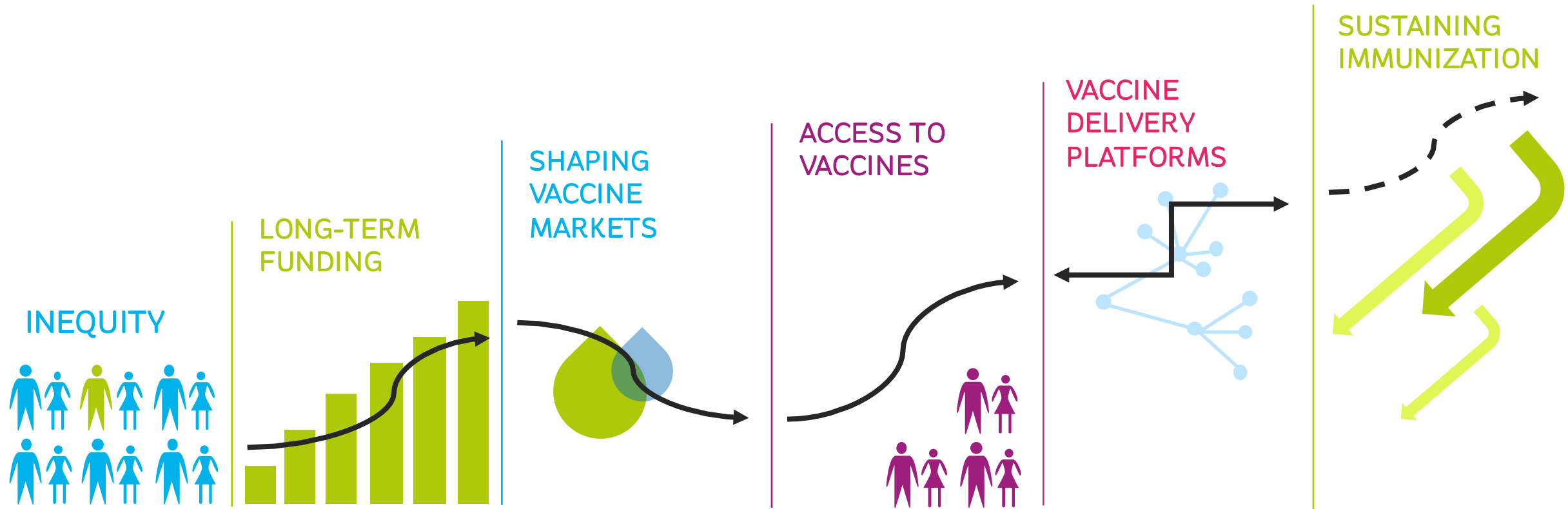
CHALLENGES IN UGANDA WITH THE VACCINE PROGRAM



CHALLENGES IN UGANDA WITH THE VACCINE PROGRAM



CHALLENGES IN UGANDA WITH THE VACCINE PROGRAM



KEY AREAS OF IMPROVEMENT IN THE NEXT SIX YEARS

KEY AREAS OF IMPROVEMENT IN THE NEXT SIX YEARS

1

Awareness

KEY AREAS OF IMPROVEMENT IN THE NEXT SIX YEARS

1

Awareness

2

Accuracy

KEY AREAS OF IMPROVEMENT IN THE NEXT SIX YEARS

1

Awareness

2

Accuracy

3

Availability

PROGRAM ANALYSIS

	Weight	Healthcare Provider Training	Village Health Teams	Patient Awareness Campaign	Sustainable Drug Seller Initiative
Cost Efficiency	.35				
Risk Factor	.25				
Sustainability	.25				
Infrastructure	.15				
Cumulative Score					

PROGRAM ANALYSIS

		CURRENT PROGRAM			
	Weight	Healthcare Provider Training	Village Health Teams	Patient Awareness Campaign	Sustainable Drug Seller Initiative
Cost Efficiency	.35	80	20	25	90
Risk Factor	.25	80	40	80	30
Sustainability	.25	70	80	90	80
Infrastructure	.15	65	15	90	80
Cumulative Score		75.25	39.25	64.75	71

PROGRAM ANALYSIS

		Healthcare Provider Training	Village Health Teams	Patient Awareness Campaign	Sustainable Drug Seller Initiative
Cost Efficiency	Weight .35	80	20	25	90
Risk Factor	.25	80	40	80	30
Sustainability	.25	70	80	90	80
Infrastructure	.15	65	15	90	80
Cumulative Score		75.25	39.25	64.75	71

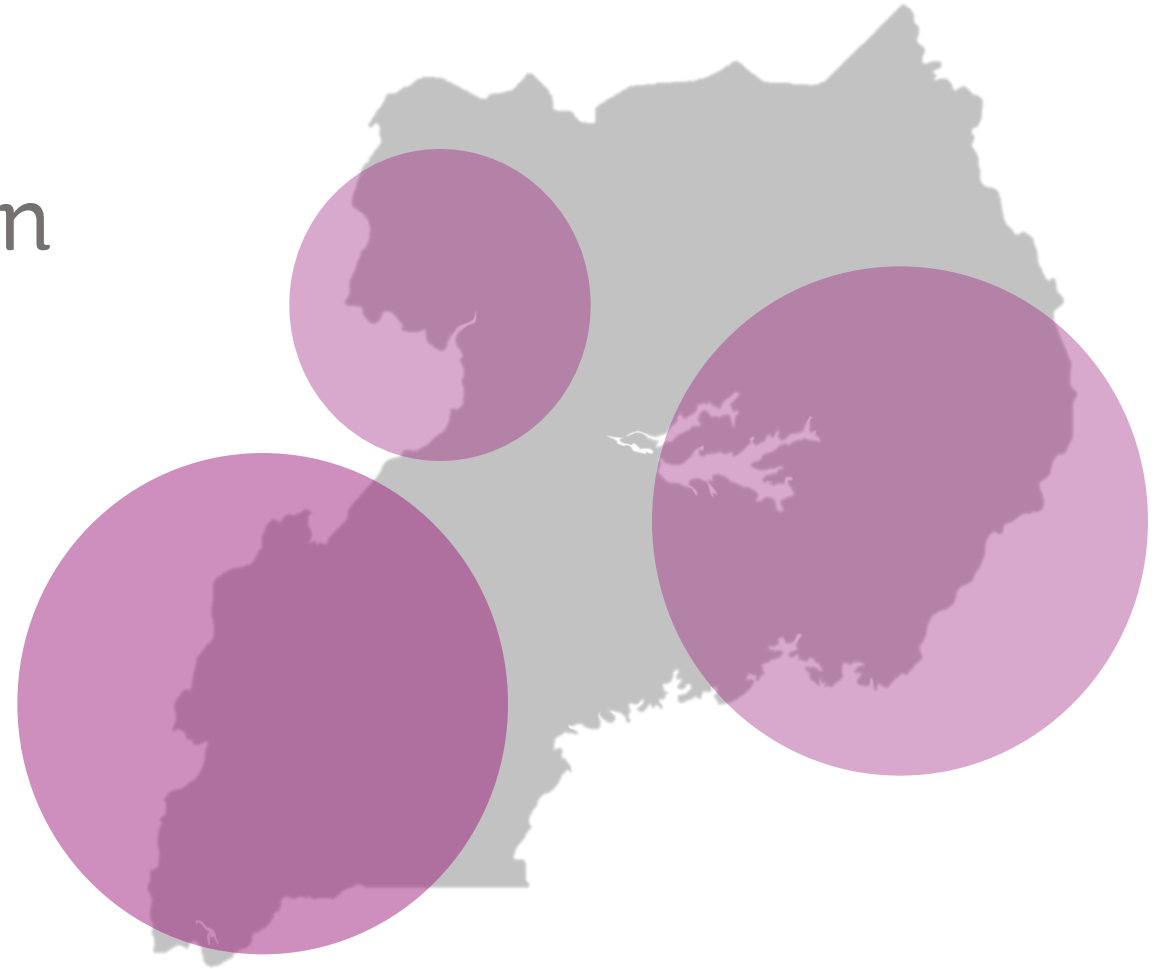


Awareness

DISTRICTS OF FOCUS

PATIENT AWARENESS CAMPAIGN

90% Of the population
is **rural**

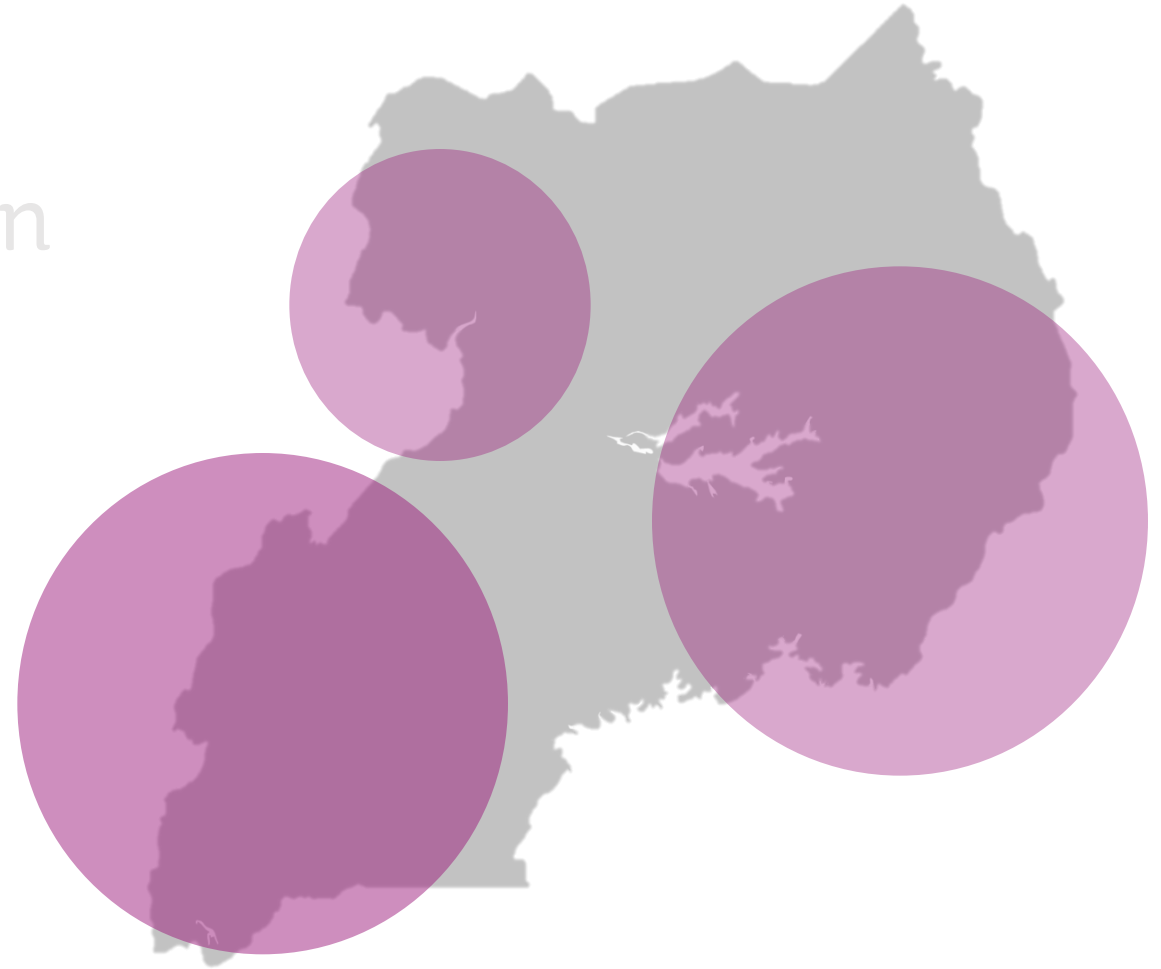


DISTRICTS OF FOCUS

PATIENT AWARENESS CAMPAIGN

90% Of the population
is rural

67% Population
literacy



MALARIA AWARENESS CAMPAIGNS

When you have
Malaria...

... keep the fever down.



... take your medicine.



Don't stop the treatment.
Complete the dose.

When malaria is not
treated, you risk...



... convulsions.



... brain damage.



... Anemia.



... death.

Don't wait. Go to a health
centre for a malaria test.

When you have these
symptoms



fever



head/body ache



loss of appetite



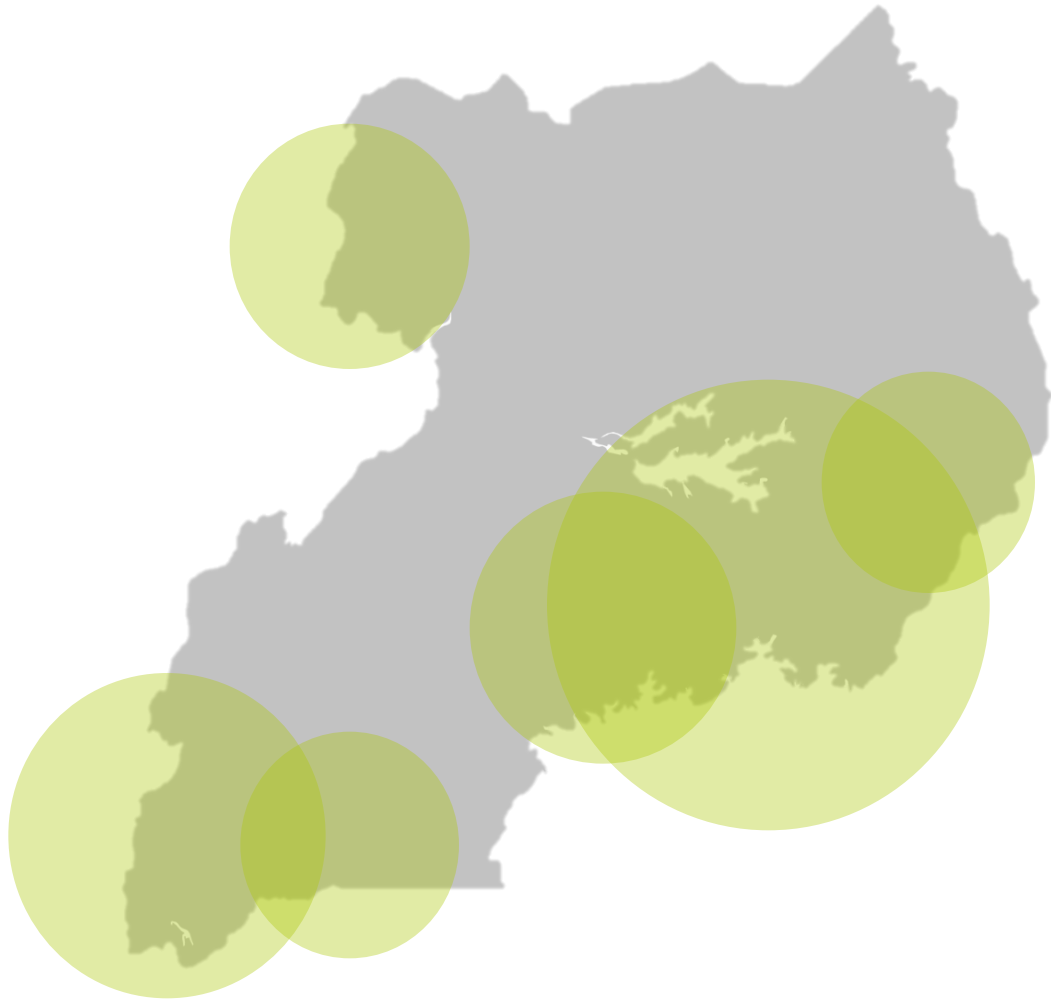
vomiting/diarrhoea

... test for malaria.

Accuracy

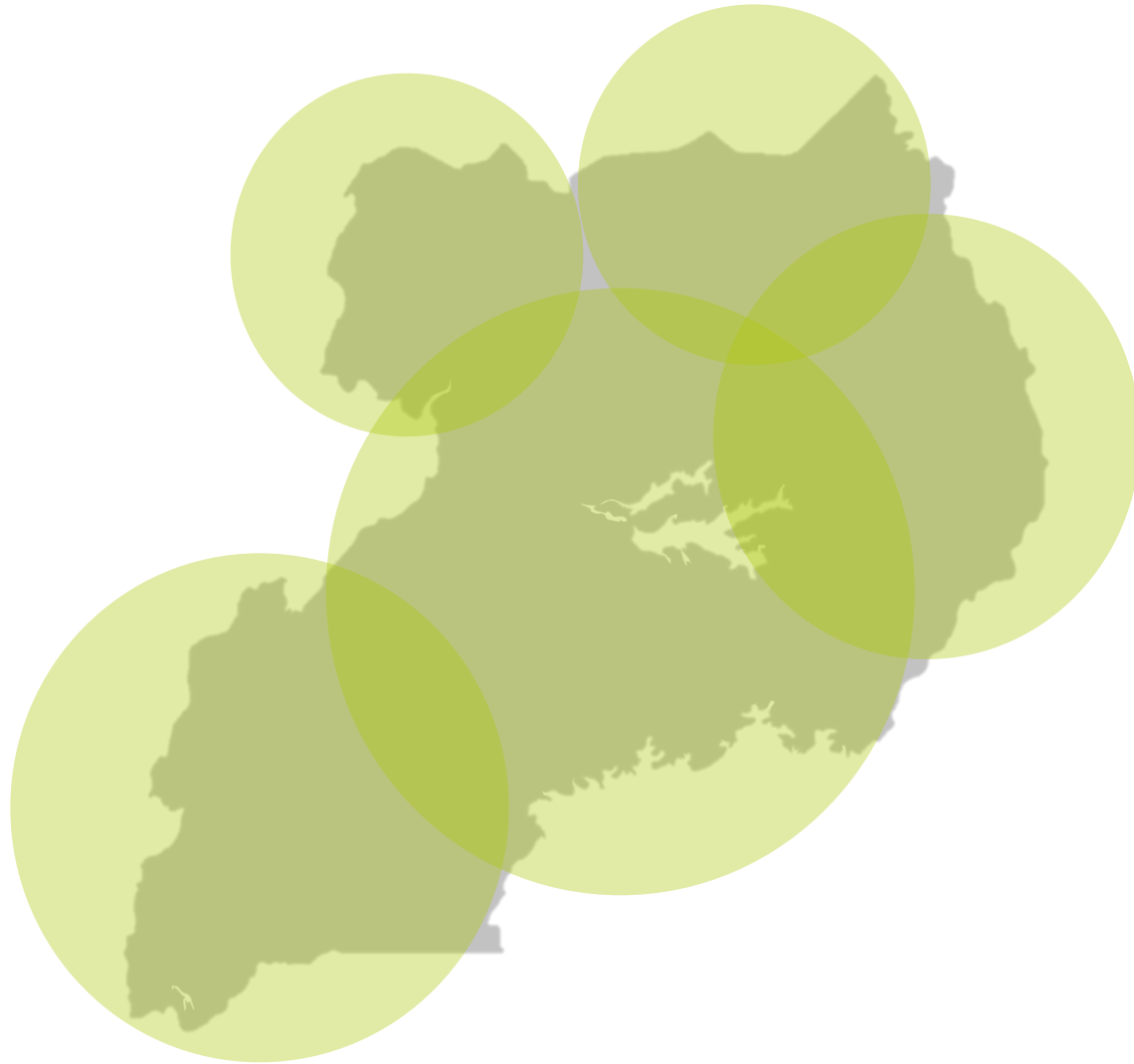


HEALTHCARE PROVIDER TRAINING



Densely populated areas
with existing clinics

HEALTHCARE PROVIDER TRAINING



Densely populated areas
with existing clinics

Coverage of **entire
country**

OLIMAI COMMUNITY HEALTH CARE CENTRE

P.O. BOX 203, KUMI
TEL. 0772624548, 0712220694,
0392826585, 0702721616.
Olimai_ohc@gmail.com



OLIMAI COMMUNITY HEALTH CARE CENTRE

P.O. BOX 203, KUMI
TEL. 0772624548, 0712220694,
0392826585, 0702721616.
Olimai_ohce@gmail.com

All 3,300 Clinics Trained in Year 1

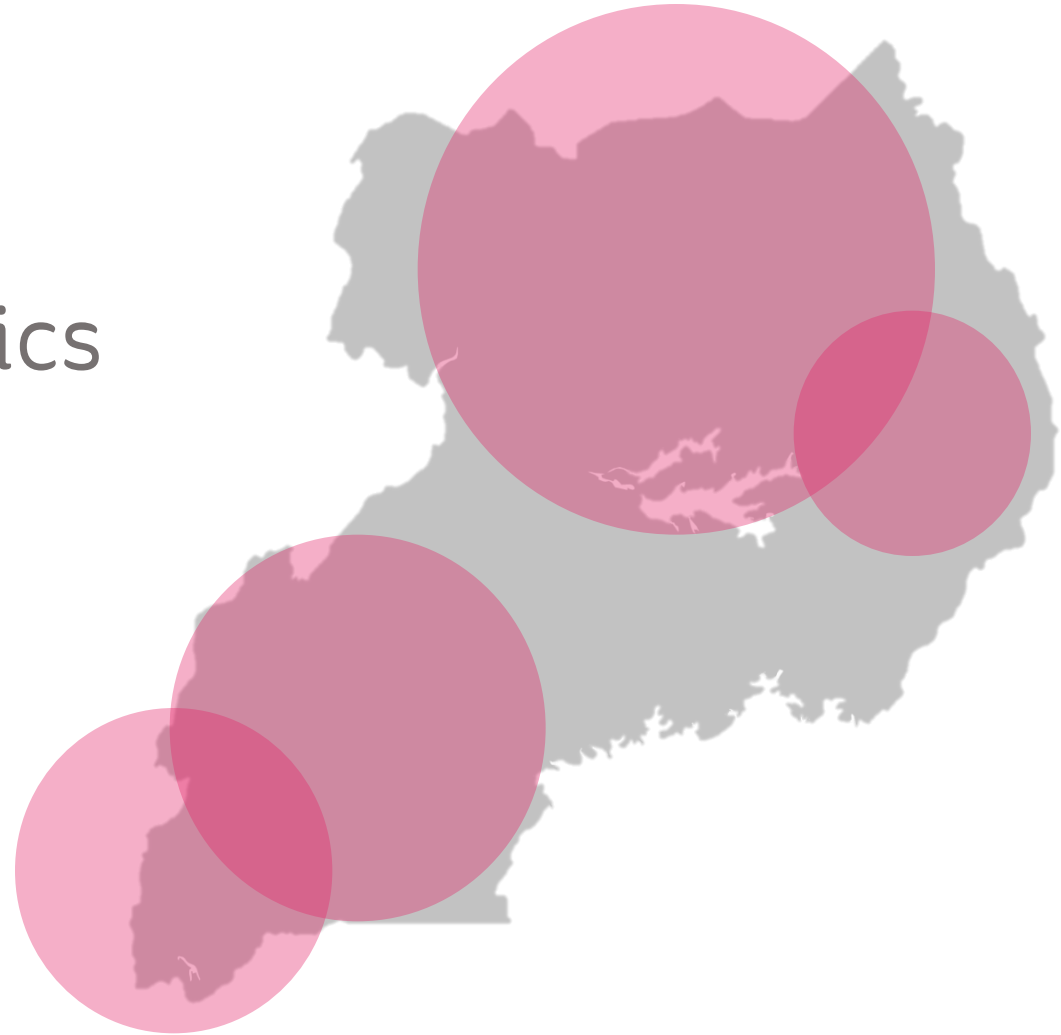


Availability

SUSTAINABLE DRUG SELLER INITIATIVE

1

Rural areas
without public clinics



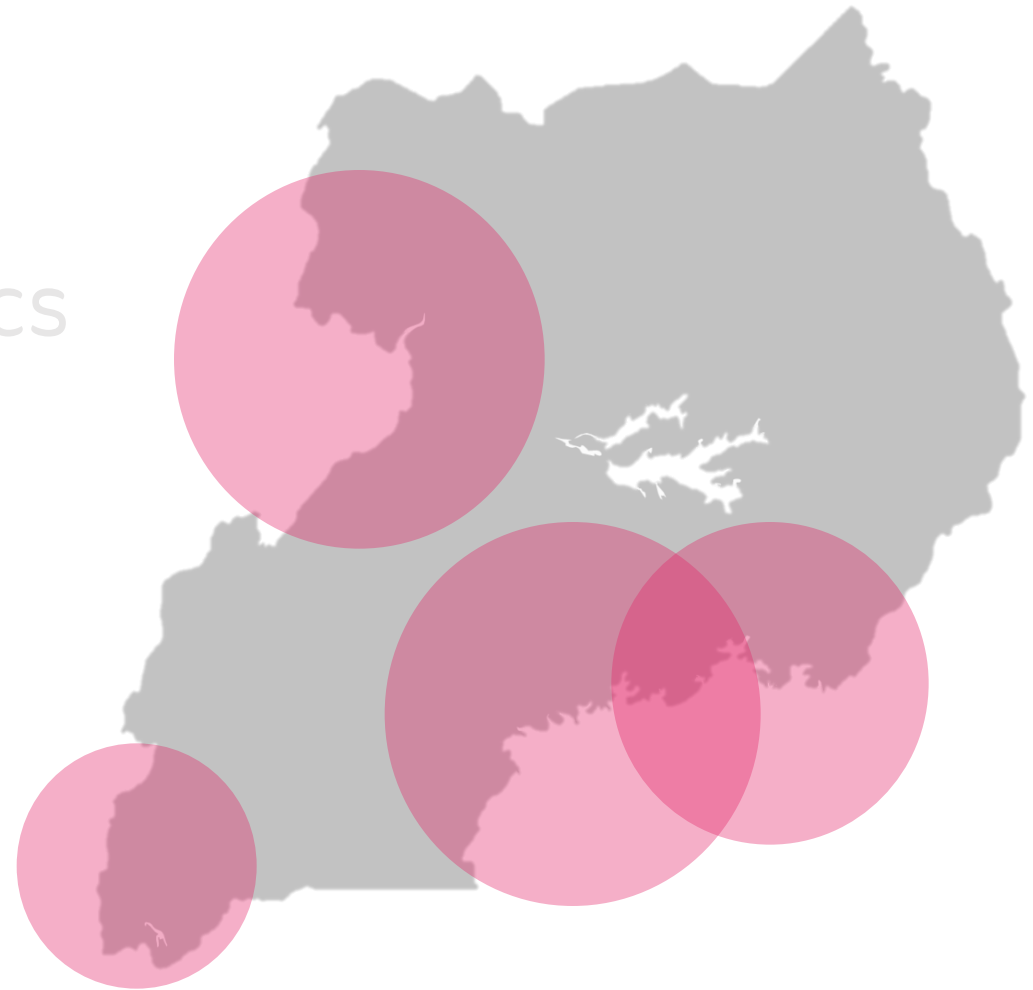
SUSTAINABLE DRUG SELLER INITIATIVE

1

Rural areas
without public clinics

2

Urban areas lacking
resources



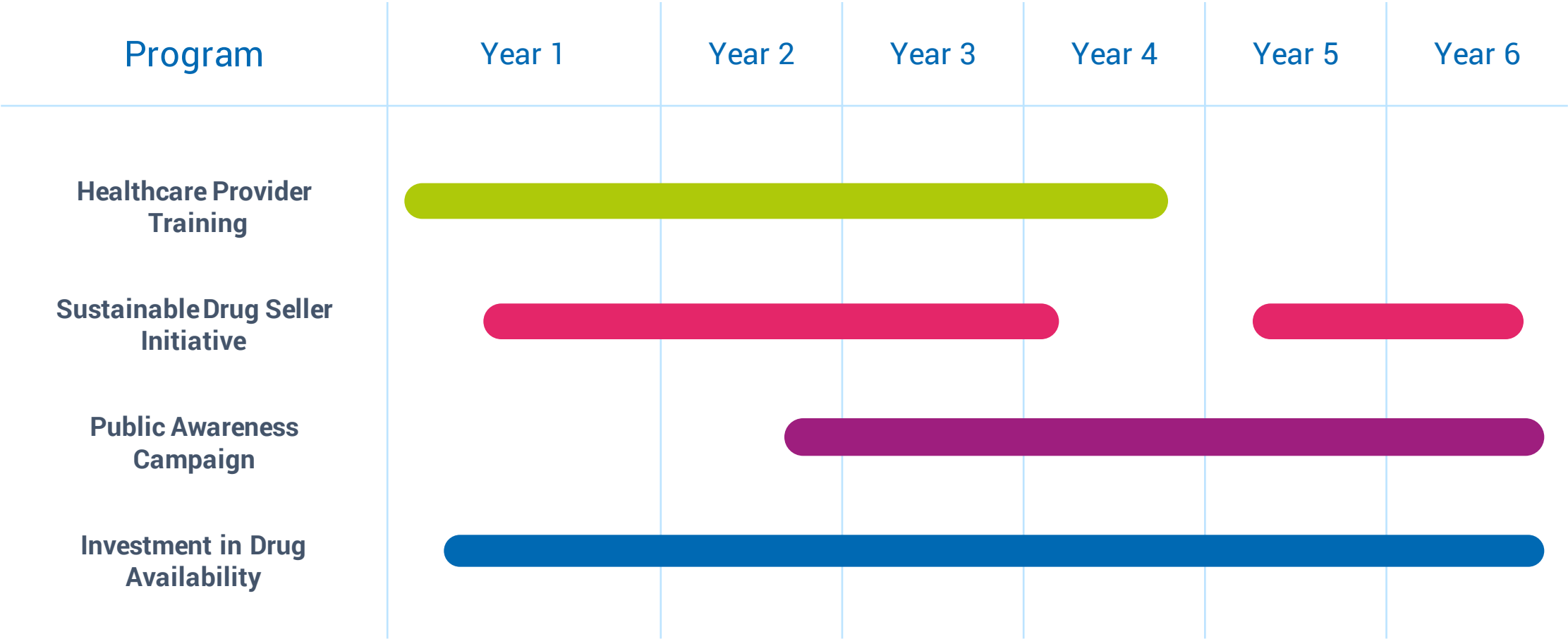


A photograph of a community meeting or clinic setting. On the left, a man in a white shirt is seated at a desk, writing in a notebook. Behind him, a woman is also seated. In the center and right, a group of people, including several women and a young child, are seated and looking towards the camera. The room has a wall covered with various posters and notices, including one that says "NEGLECTED DISABLING DISEASES". A blue board is visible on the wall. The text "INVESTMENT IN DT TABLETS" is overlaid in white, with a red horizontal line underneath it, and "DISTRIBUTION TO PUBLIC CLINICS" is overlaid in white below the line.

INVESTMENT IN DT TABLETS

DISTRIBUTION TO PUBLIC CLINICS

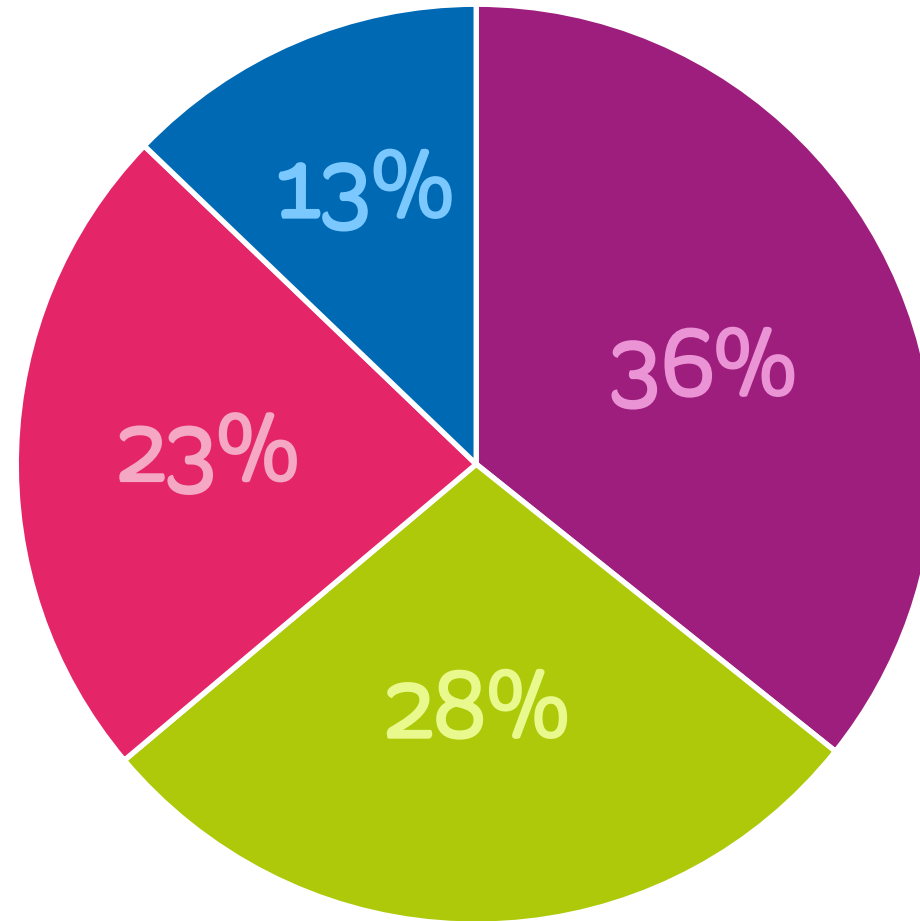
IMPLEMENTATION TIMELINE



IMPLEMENTATION TIMELINE

Program	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Healthcare Provider Training	\$5,000,000	\$2,000,000	\$720,000	\$720,000		
Sustainable Drug Seller Initiative	\$4,000,000	\$1,430,000	\$720,000		\$420,000	\$420,000
Public Awareness Campaign			\$1,990,000	\$2,710,000	\$3,010,000	\$3,010,000
Investment in Drug Availability	\$1,000,000	\$570,000	\$570,000	\$570,000	\$570,000	\$570,000

ALLOCATION OF TOTAL INVESTMENT



■ Patient Awareness Campaign ■ Healthcare Provider Training ■ Sustainable Drug Seller Initiative ■ DT Tablets

A photograph of three children holding hands in a circle on a sandy ground. The child on the left wears a patterned dress, the middle child wears a blue shirt and shorts, and the child on the right wears an orange top and a floral skirt. A semi-transparent circle is overlaid on the image, containing the text "QUESTIONS?".

QUESTIONS?

APPENDIX

CHALLENGES IN VACCINE PROGRAM	KEY AREAS OF IMPROVEMENT	PROGRAM ANALYSIS	AWARENESS	ASSUMPTIONS ANALYSIS
ACCURACY	AVAILABILITY	TIMELINE	INVESTMENT TIMELINE	COST OF DT
ALLOCATION OF INVESTMENTS	DETAILED ALLOCATIONS	COST EFFICIENCY	WHY DT TABLETS?	MALARIA CAMPAIGN
SWOT AWARENESS	SWOT HEALTHCARE TRAINING	SWOT SELLER INITIATIVE	SWOT VILLAGE HEALTH TEAMS	VACCINE SOLUTIONS

THANK YOU FOR YOUR TIME.



ALLOCATION OF INVESTMENTS

		Patient Awareness Campaign	Healthcare Provider Training	Sustainable Drug Seller Initiative	DT Tablets
Percentage Of Funds	1	0	0.5	0.4	0.1
	2	0	0.5	0.3575	0.1425
	3	0.4975	0.18	0.18	0.1425
	4	0.6775	0.18	0	0.1425
	5	0.7525	0	0.105	0.1425
	6	0.7525	0	0.105	0.1425
Spend by Year	1	0	5000000	4000000	1000000
	2	0	2000000	1430000	570000
	3	1990000	720000	720000	570000
	4	2710000	720000	0	570000
	5	3010000	0	420000	570000
	6	3010000	0	420000	570000
		10720000	8440000	6990000	3850000
Coverage %	1	0	0.986874568	1	
	2	0	0.394749827	0.3575	
	3	0.1098234	0.142109938	0.18	
	4	0.149558499	0.142109938	0	
	5	0.16611479	0	0.105	
	6	0.16611479	0	0.105	

COST EFFICIENCY

Annual Costs

Healthcare Provider Training	Clinics	Oximeter Cost	Patient Awareness Campaign	Districts	Cost/District	Months	Coverage
	3300	505		112	20000	3	0.5
Training Cost	3400000		Cost to Reach everyone	17920000			
Cost of Oximeter	1666500		Fixed Costs	200000			
Total Cost	5066500		Total Costs	18120000			

Sustainable Drug Seller Initiative	Cost of Program	Coverage
	800000	0.2
Total Cost	4000000	

Village Health Teams	Districts	Covered Districts	Coverage
	112	34	0.5
Total Cost	18447058.82		

UNWEIGHTED PROGRAM ANALYSIS

	Village Health Teams	Sustainable Drug Seller Initiative	Patient Awareness Campaign	Healthcare Provider Training
Cost Efficiency	20	90	25	80
Risk Factor	40	30	80	80
Sustainability	80	80	90	70
Infrastructure	15	80	90	65

VILLAGE HEALTH TEAMS



S

- Multi purpose
- Increase diagnoses
- Recommend proper medication



W

- Physically hard to implement
- Only in 34 district out of 112
- Expensive cost



O

- Expand into more districts
- Gives people valuable training
- Can reduce pneumonia by up to 60%



T

- Civil unrest
- High risks
- High turnover rates

THE SUSTAINABLE DRUG SELLER INITIATIVE



- Diagnose and treats Pneumonia
- Drugstores are more prevalent and available than clinics
- Caters to the high demand of patients that opt for self-treatment



- Drug store works don't always recognize signs of pneumonia
- Monitoring by the government is infrequent
- Take a couple years to expand into other



- Opportunity to expand into other districts
- High chance to reach greater number of people



- Incentive to prescribe regardless of need
- Gives credibility to unlicensed shop keepers

PATIENT AWARENESS CAMPAIGNS



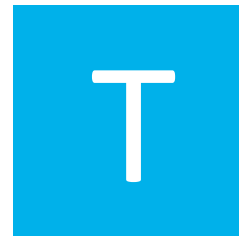
- Effects most people
- Far reaching across Uganda
- Proven to work and
- Has the need infrastructure



- Doesn't directly reach younger generation
- Doesn't help the immediate situation



- Raising awareness can lead to better health outcomes
- Expand into rural Uganda
- Can affect people habits



- Success is linked to the availability of treatment
- Costly

HEALTHCARE PROVIDER TRAINING AND DIAGNOSTIC



- Helps diagnose more people with pneumonia
- speeds up patient case time
- Improves effectiveness of the diagnoses



- Does not help treat pneumonia
- Requires repurchasing of equipment

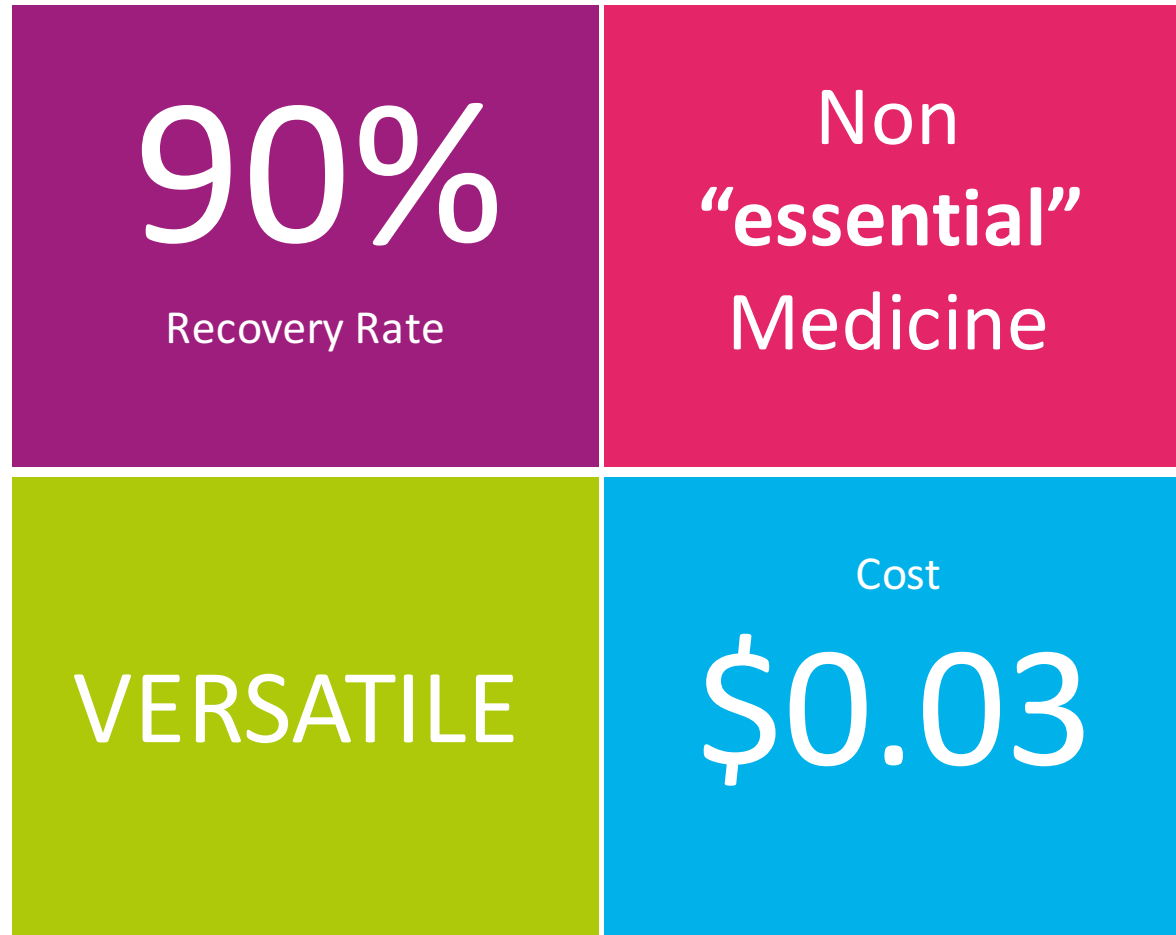


- Increases awareness
- Can effect multiple patients over a long period of time



- Has three parts so it is somewhat more complex

WHY DISSOLVING TABLETS?



ASSUMPTIONS IN ANALYSIS

Patient Awareness Campaign

Low Risk Factor – concern is that it doesn't reach enough people

High Sustainability – awareness is easily spread

Large Infrastructure – radios can be listened to by many and the infrastructure is in place for people to spread via word of mouth

Healthcare Provider Training

Low risk – concern is that not enough people can get to clinics

High Sustainability – once doctors are trained, it is easy for them to diagnose pneumonia for a long time

Fairly Large Infrastructure – 3300 clinics (public and private), but not close to everyone

Village Health Teams

Medium-High Risk Factor – people might leave to go work elsewhere after they are trained

High Sustainability – once you have a team in place, easy to continue treating patients (even if a few members leave, still left with others on site)

Small Infrastructure – currently only serving about 15% of the population so there would have to be many new teams formed and implemented in many different regions

Sustainable Drug Seller Initiative

High Risk Factor – Drug sellers might take advantage of patients and overprescribe them, costing more money and not necessarily helping with the problem. They are not licensed doctors so that could be a problem as well

High Sustainability – Unlikely that established drug stores will go out of business, especially if they receive valuable training

Large Infrastructure – 5000+ drug stores that are accessible by many in Uganda

COST OF TABLET INTRODUCTION

Approx Doses/Child	Chlidren Covered	Price/Dose	Total Cost
20	950000	0.03	570000

SOLUTIONS TO VACCINE CHALLENGES

INEQUITY

- Go to rural Uganda
- Focus on lower income

FAIR PRICE

- Work with the Clinton health network
- Allie with other nations
- Domestic production

SUSTAINABILITY

- Ensure future health network
- Create an infrastructure