

Integrated Workshop on Data Collection, Reporting, and Utilization for Preventive Chemotherapy NTDs

Day 4

Brazzaville, 21-25 July 2025



Integrated Workshop on Data Collection, Reporting, and Utilization for Preventive Chemotherapy NTDs

Attendance: 24 July 2025



21-25 July 2025

Brazzaville, Congo Republic

Wrap Up Day 3

Data-Driven Decision-Making – Foundations, Principles & Country Experiences

- Presenters emphasized that data must inform key programmatic decisions, not just reporting; real-time data use enables faster, more targeted action.
- CHAI introduced a data-to-action framework, stressing decision-first planning, integration of qualitative insights, and adaptive, cyclical data use.
- Kenya showcased granular ward-level mapping and harmonization with school data, enabling better targeting, expanded MDA, and optimized JRSM inputs.
- Nigeria shared innovations in digital monitoring (ODK, DHIS2, CHIP), real-time supervision, and microplanning tools that addressed low coverage and refusals in Kano State.
- Country discussions explored challenges such as denominator inconsistencies, community resistance, integration of EDC with national HMIS, and post-MDA review practices.
- Countries highlighted the importance of feedback loops and peer exchange—using real-time dashboards and national review meetings to correct gaps and strengthen accountability.

ESPEN Portal – Dashboards, Maps, and Feedback from Countries

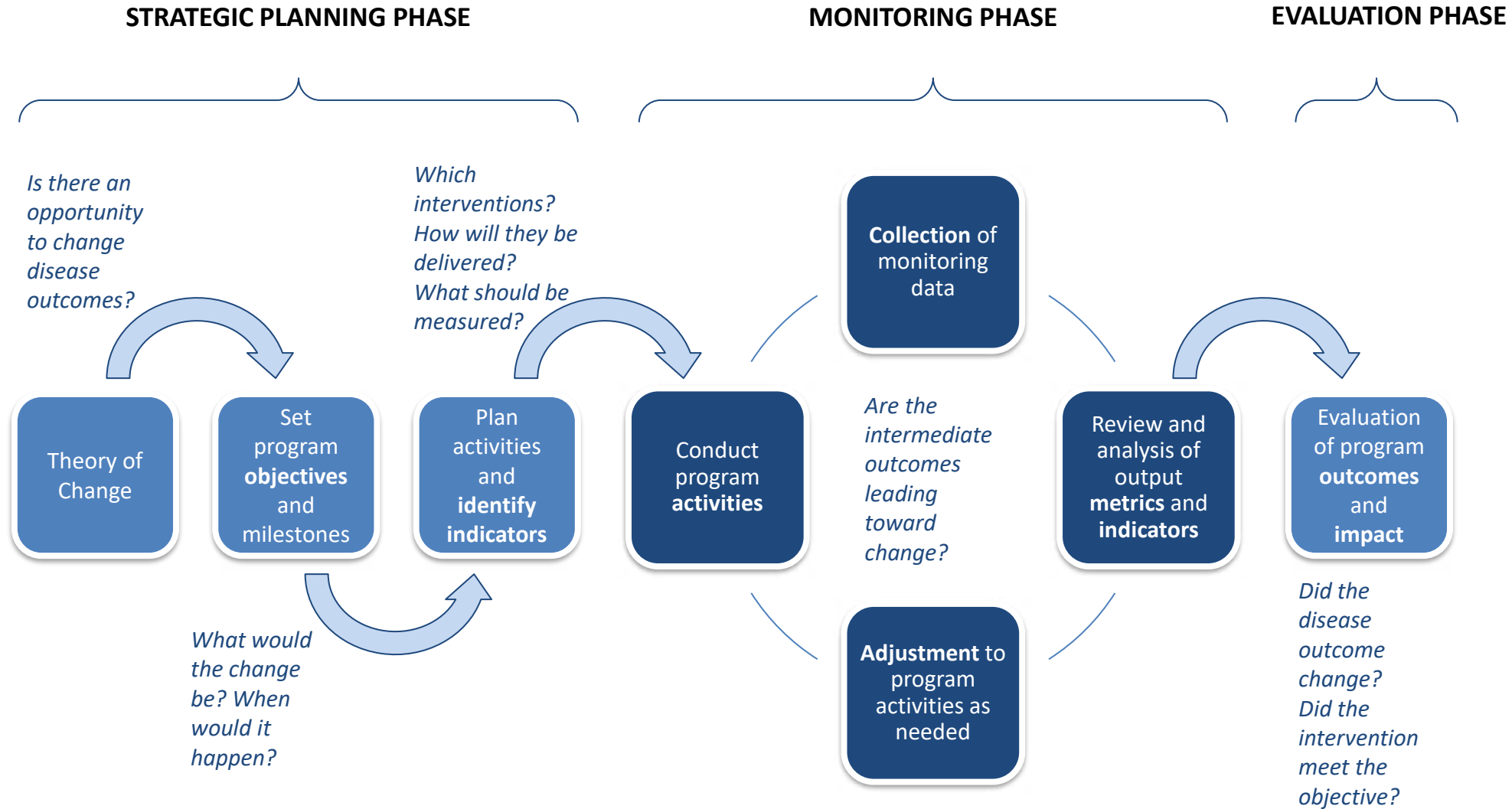
- The ESPEN Portal was highlighted as a one-stop resource for national and subnational NTD data, with tools supporting JAP submissions, IU-level planning, and partner coordination.
- Participants praised the accessibility of dashboards, maps, and query tools, and emphasized the importance of visualizing funding gaps, endemicity, and treatment trends.
- Interactive discussion revealed usability gaps: outdated data, missing export functions, lack of user guidance materials (e.g. tutorials or tooltips), and unclear dashboard labels.
- Countries requested integration of medicine quantification tools and better user support (tutorials, guides), with some proposing structured feedback groups.
- NTDdeliver received positive feedback for its supply chain visualizations, but users called for transparency on bottlenecks and stakeholder roles.
- ESPEN committed to ongoing platform refinement, with countries emphasizing the Portal's critical role in supporting routine decisions, donor reporting, and regional accountability.

From Data to Action: Using Evidence to Refine Strategies and Future Planning

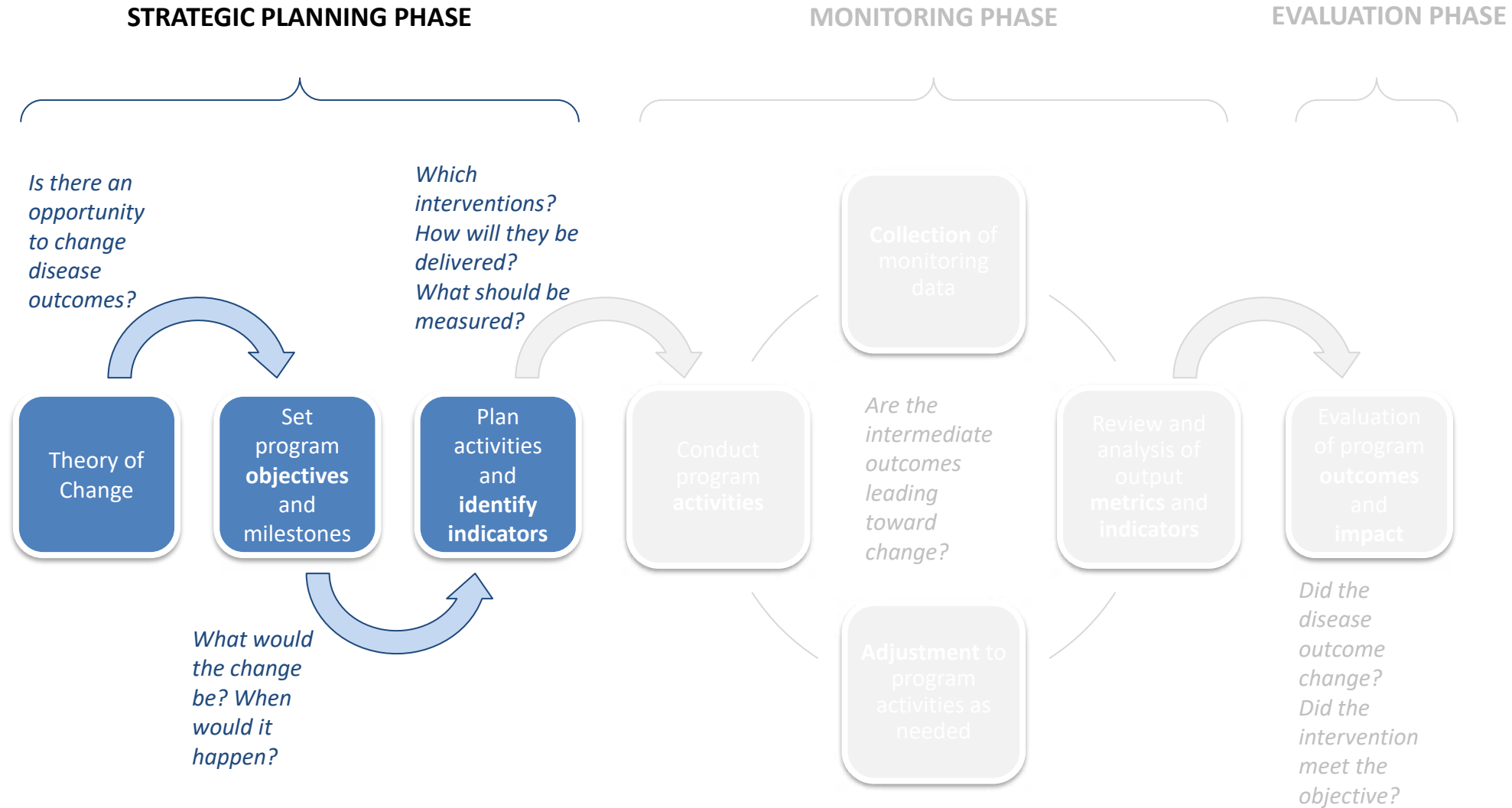
Dr Julia Dunn

Director, Analytics and Surveillance, CHAI

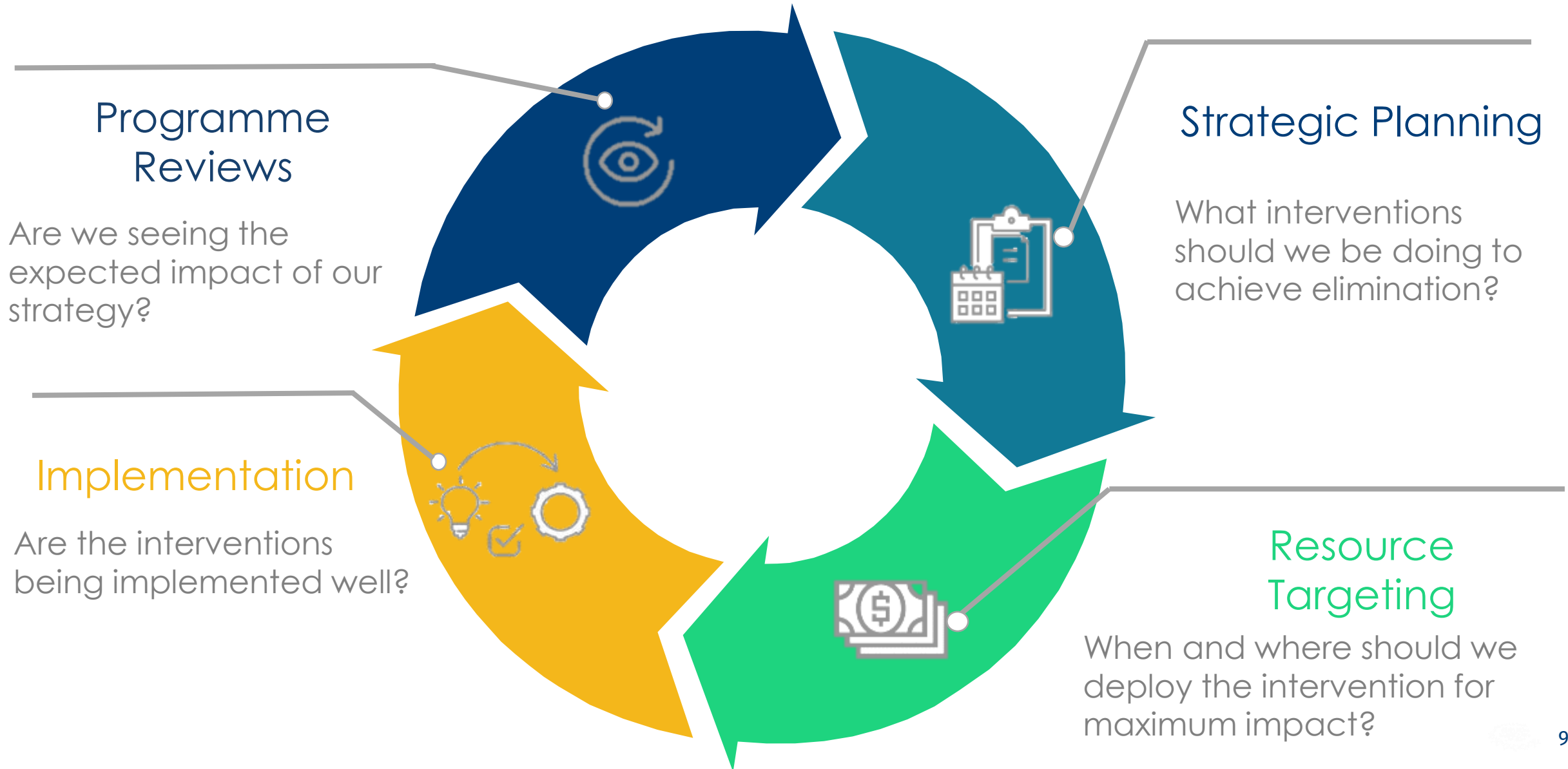
Data use is not a one-off activity, but an important part of the monitoring and evaluation cycle



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Quality data generated by strong surveillance systems are needed to inform planning and implementation of effective programmes



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Are **epidemiological goals** achieved, and what are the **drivers of transmission** (e.g., testing, interventions, env...)?

Are epidemiological, interventions, entomology, commodity data of **high quality for use?**

Are **interventions targeting** the right places/people, achieving high quality coverage and expected impact?

Are **points of care (public, private, community)** stocked, supervised and trained to deliver high quality care?

Are **resources adequate?**
Are resources **spent?**

Are suggested interventions **operationally feasible**, and what adjustments need to be made?

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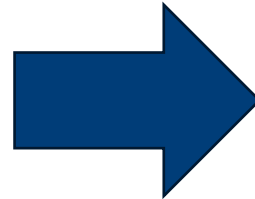
Are **resources adequate**?
Are resources **spent**?

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Consistent data use can be challenging and poorly implemented, leading to poorly informed decision making

Poor planning and misuse of data

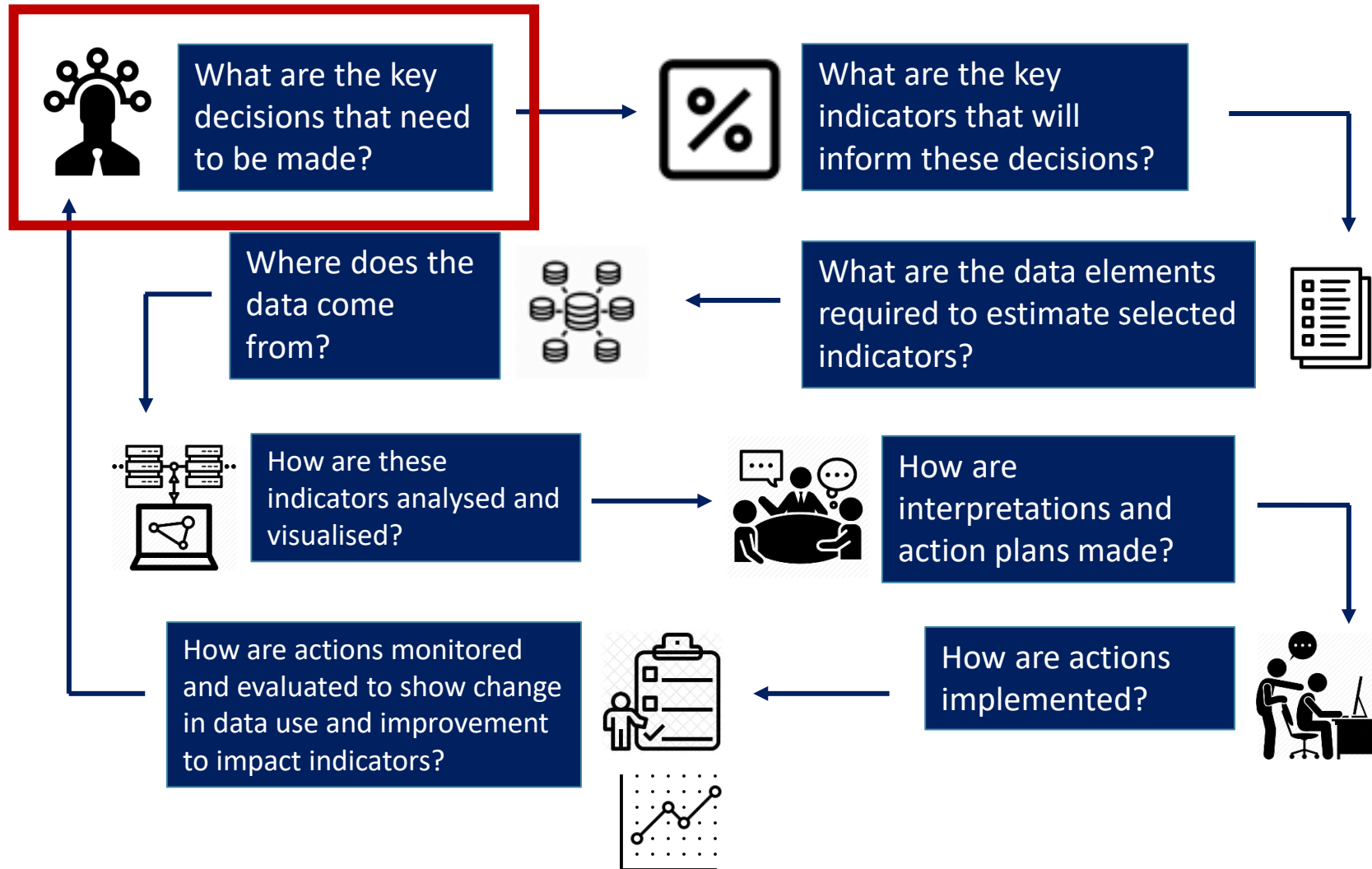
- Decisions based on intuition (“**expert opinion**”) or simplistic analysis.
- Reliance on **incomplete or outdated data**.
- Reliance on **national level data**, masking subnational variations.
- Review and use of data and evidence **at the last minute**.
- Programme cycle activities (e.g. programme review, strategic planning) **happen at the same time** instead of in sequence, or some are missed entirely.



Impact

- Decision making **process is typically short and chaotic**, which prevents data and evidence from being collected, analysed and used.
- “**One size fits all**” approach, missing the opportunity for increased impact with available resources.
- **Business as usual reinforced** due to lack of interest and ability to rigorously evaluate past performance and future options.
- **Poor grasp of the scope and scale of interventions** required to achieved goals.

“Data use” is ensuring that decisions are made by collating, digesting and interpreting the evidence available to us to make informed choices



A “data-to-action” framework starts by asking **what key decisions and questions do program staff need to answer?**

This framework is **iterative**:
The data collected inform the monitoring and evaluation of the actions taken, which lead to additional questions to be answered

Disease control and eliminations strategies are built around many aspects of data and decision making

Designing a malaria control programme within an available budget

Epidemiology

- Where is malaria?
- What species of malaria?
- Who is most at-risk?
- Is malaria seasonal? When?
- What mosquitos are prevalent? What are their behaviours?
- Is there evidence of resistance?
- Is malaria going up or down? Why?



Interventions

- What interventions are available?
- What interventions have been used so far? Have they had an impact? If not, why not?
- What interventions are most appropriate to this context?

Targeting

- Where should each intervention go? (e.g. high risk areas, SMC to areas with seasonal malaria)
- When should each intervention happen? (e.g. SMC, LLIN campaign timing)
- Who should receive each intervention?

Product choice

- What type of intervention should be selected? (e.g. net type, vaccine type, IRS insecticide)

Implementation

- How should interventions be implemented? (e.g. LLIN distribution strategy, commodity distribution, CHW network)

Program

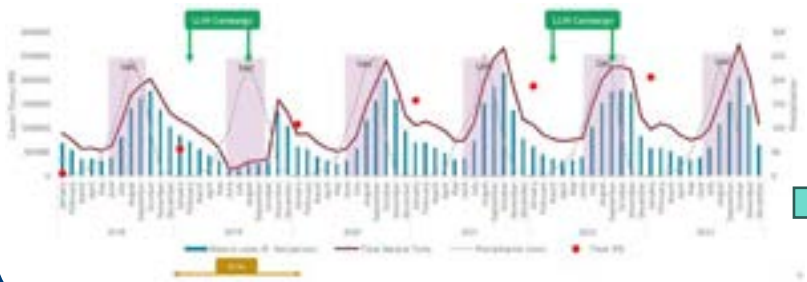
- What fundamentals need to be included? (e.g. surveillance, staffing, case management)
- How will this all be managed, paid for and tracked?

- What combination of interventions is the most impactful?
- What combination of interventions is the most impactful *within costing constraints*?

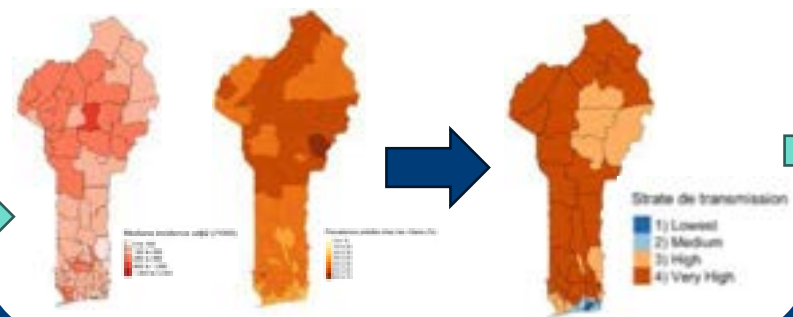
An example from malaria shows how data is used to inform national strategic planning and funding submissions



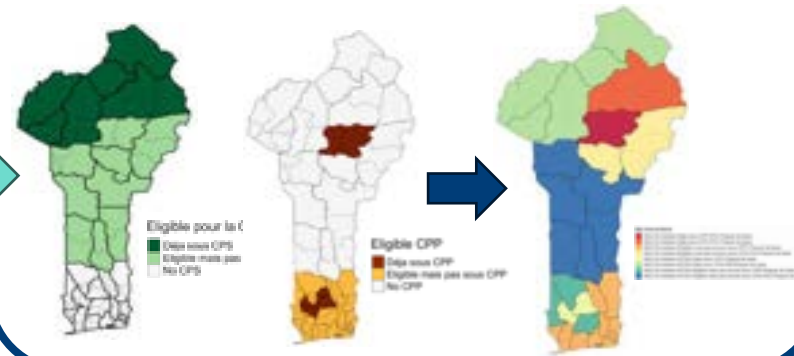
Retrospective data analysis and review tells us about disease epidemiology and historical impact of interventions



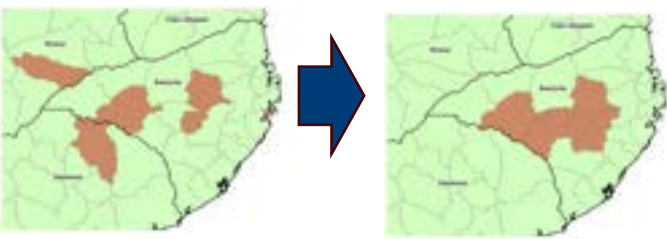
Epidemiological stratification tells us where the highest risk of disease is across the country considering metrics such as incidence, prevalence and mortality



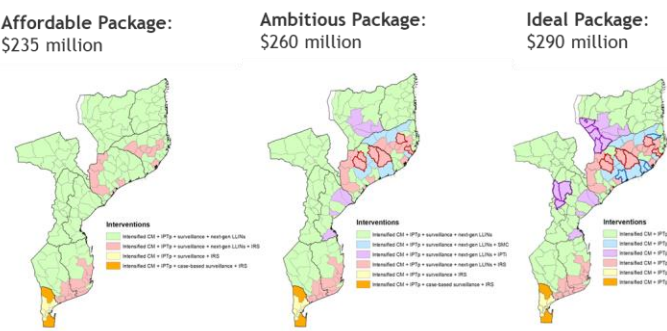
Intervention stratification tells us which areas are eligible for which interventions



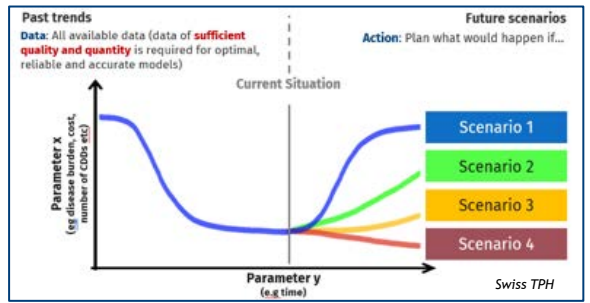
We adjust the intervention scenarios considering operational and contextual information to form a strategic plan



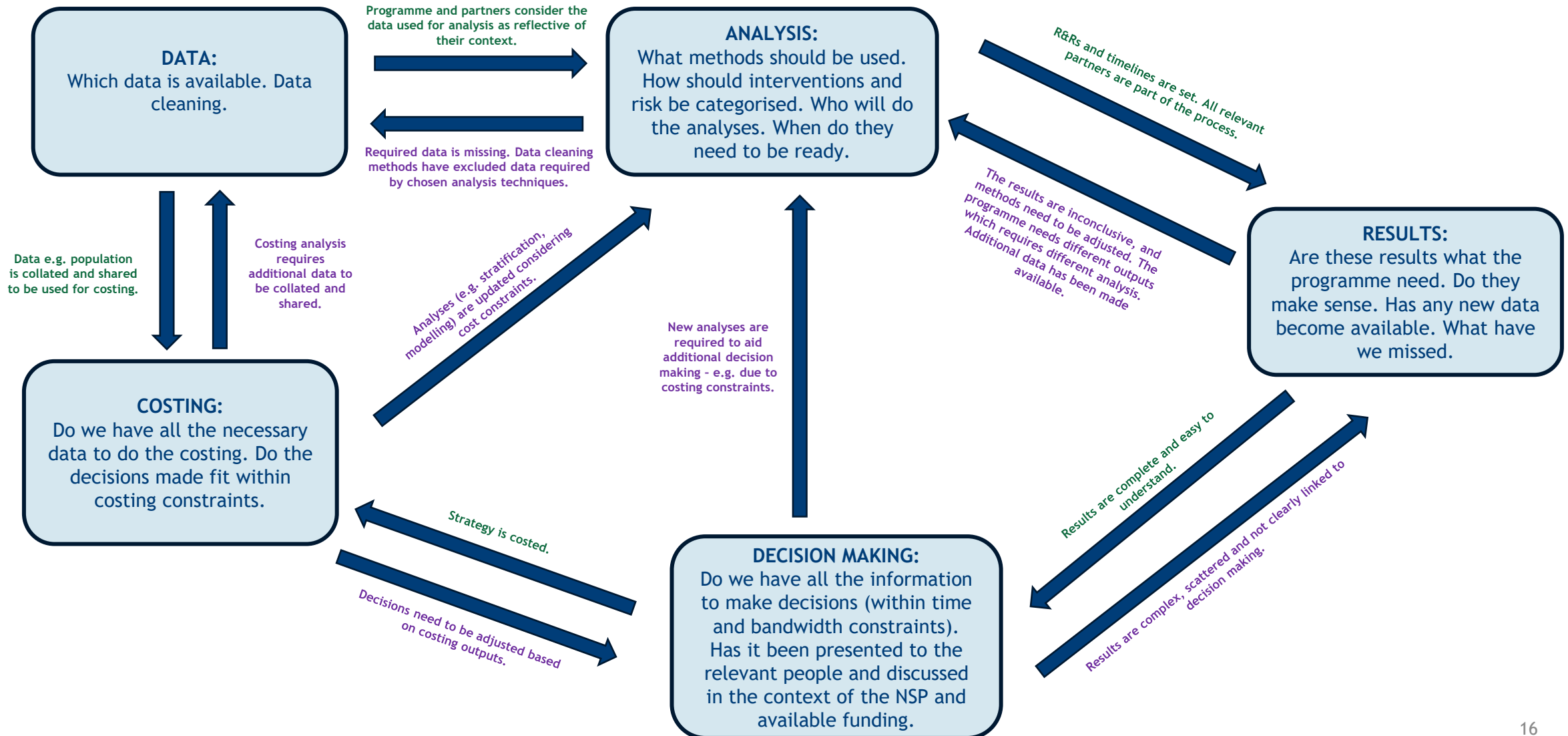
Costing analyses takes intervention scenarios and quantifies whether we have the budget to afford them. We iterate on the intervention scenarios until they fit into funding constraints but remain highly impactful



Mathematical modelling estimates relative impact of different intervention strategies including geographic targeting, product selection and distribution mechanisms



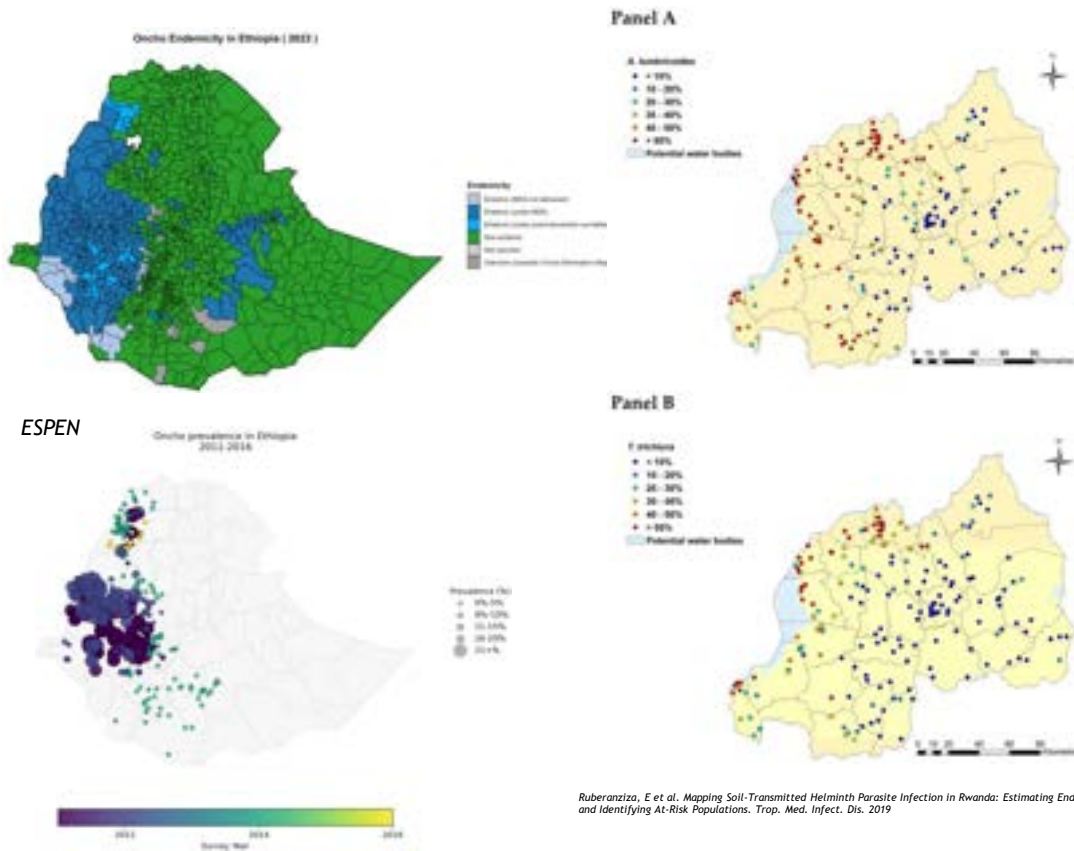
Feedback and iteration is important to make sure that we're answering the right questions and the answers are clear



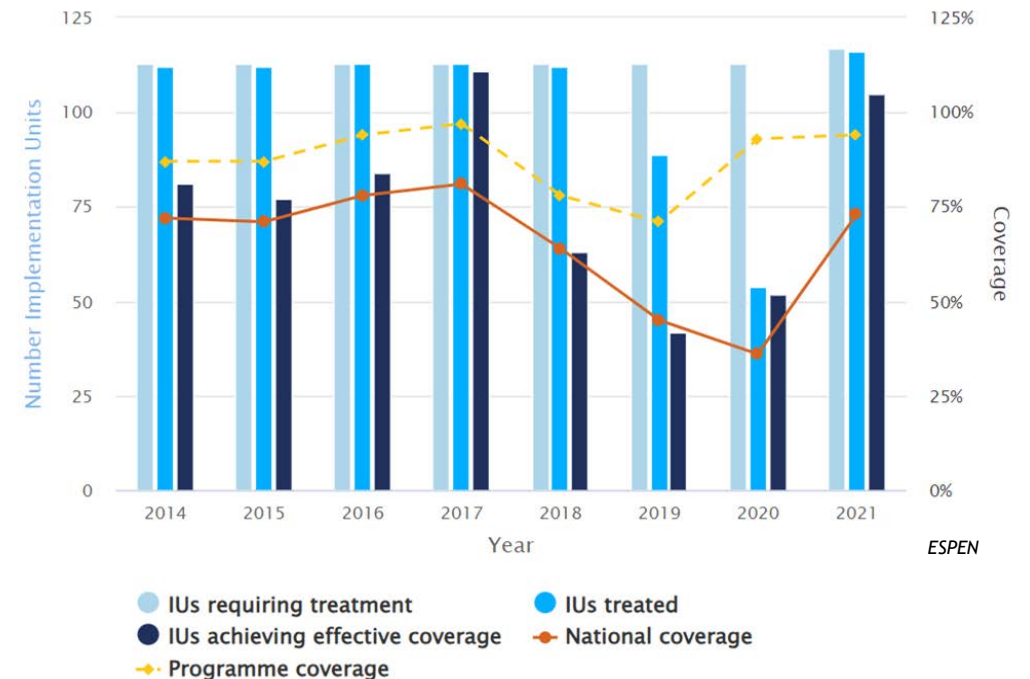
We start with a question and a decision. We gather data and evidence to inform that decision

Question: In Country X, what county/IU-level MDA strategy could achieve SCH elimination by 2030?

- 1 Where is schistosomiasis endemic and at what prevalence and intensity levels?
Where does MDA need to be targeted? Are there areas where we're unsure of SCH endemicity?



- 2 Which geographies and target groups have received MDA? For how long? At what coverage?
Are coverage targets being met? Are areas or target groups being missed? Instead of changing strategy do we need to optimise current strategy?



We continue to interrogate the disease epidemiology and interventions to understand why a disease persists and what works to reduce it

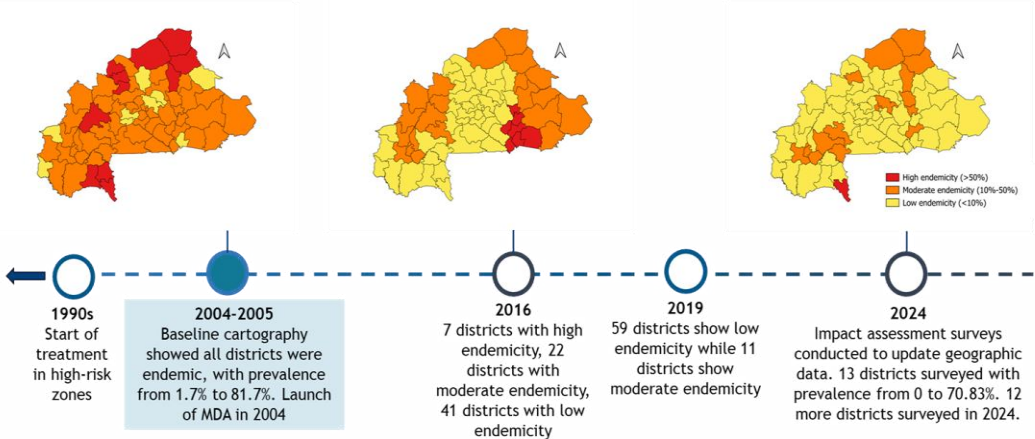
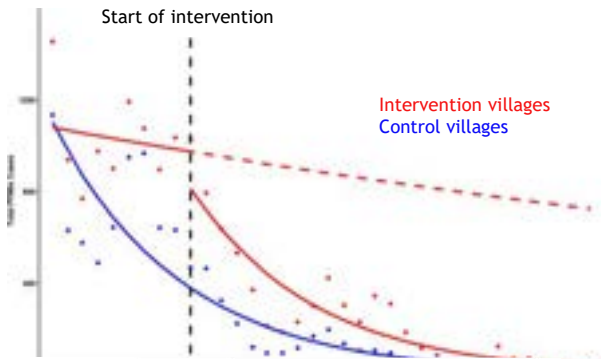


Question: In Country X, what county/IU-level MDA strategy could achieve SCH elimination by 2030?

3 How impactful has MDA been on schistosomiasis prevalence and intensity?
Is the current strategy showing impact and can improvements be made?

4 What risk factors are associated with schistosomiasis infection?
Can we use these to target MDA campaigns to those most at-risk?

Sovannaroth, S. et al. Accelerating malaria elimination in Cambodia: an intensified approach for targeting at-risk populations. *Malar J* 21, 209 (2022)



Variables	Number of participants with hookworm infection (prevalence [%])
INDIVIDUAL factors	
Age	n = 6,139
- Adults (≥15 years)	160 (4.4)
- PreSAC (1-4 years)	27 (2.0)
- SAC (5-14 years)	12 (1.0)
Gender	n = 6,139
- Male	113 (4.0)
- Female	86 (2.6)
History of deworming during the past year	n = 6,091
- No	171 (4.6)
- Yes	28 (1.2)
Shoe wearing behavior	n = 6,091
- Shoes	100 (3.0)
- No shoes	99 (3.6)
Current school attendance	n = 6,139
- No	152 (3.5)
- Yes	47 (2.5)

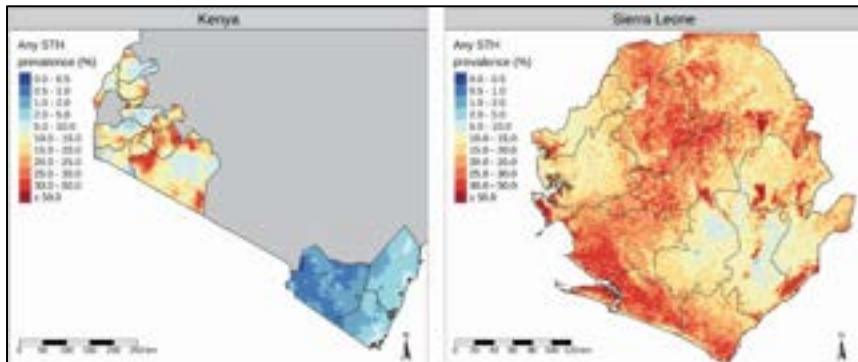


Factors associated with soil-transmitted helminths infection in Benin: Findings from the DeWorm3 study. Avokpaho EFGA et al. (2021). *PLOS NTDs*

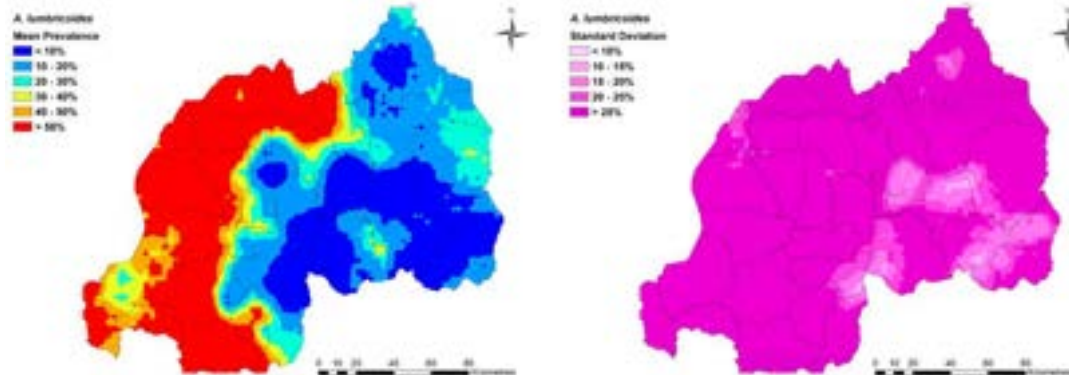
We can make use of more advanced methods, such as geospatial and mathematical modelling, to estimate unknowns

Question: In Country X, what county/IU-level MDA strategy could achieve SCH elimination by 2030?

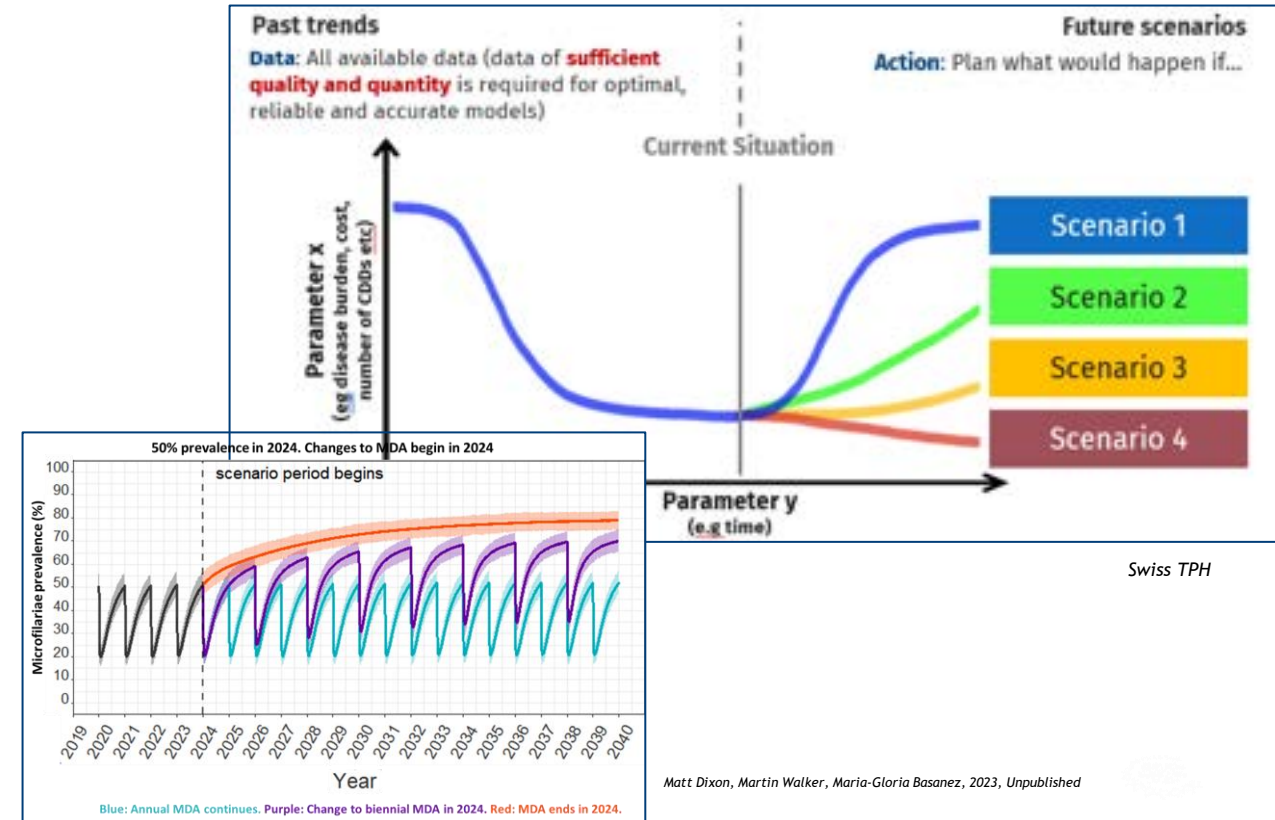
5 How is schistosomiasis distributed over the country on a sub-IU level?
How can we target MDA more accurately at endemic areas?



Olatunji Johnson et al, Model-Based Geostatistical Methods Enable Efficient Design and Analysis of Prevalence Surveys for Soil-Transmitted Helminth Infection and Other Neglected Tropical Diseases, Clinical Infectious Diseases, Volume 72 S3, 2021, S172-S179



6 What scenario of target groups, MDA frequency and MDA coverage has the most impact?
What is the optimum strategy for MDA to achieve our goals?



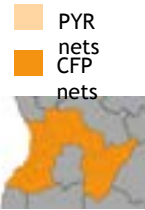
It is important to not neglect operational and contextual factors. Not everything is quantifiable!

Question: In Country X, what county/IU-level MDA strategy could achieve SCH elimination by 2030?

7 What is the most cost-effective/cost-optimised strategy?
What is the highest impact we can achieve with the funding and commodities available?

8 Should we adapt the high-impact strategy to make it feasible to conduct?
Should the suggested strategy be simplified/adapted to the country's operational context and funding?

7M over budget



100% CFP coverage.
Unaffordable

Ideal



Scenario 1

15 munis with CFP,
50% PYR coverage in
provincial capitals



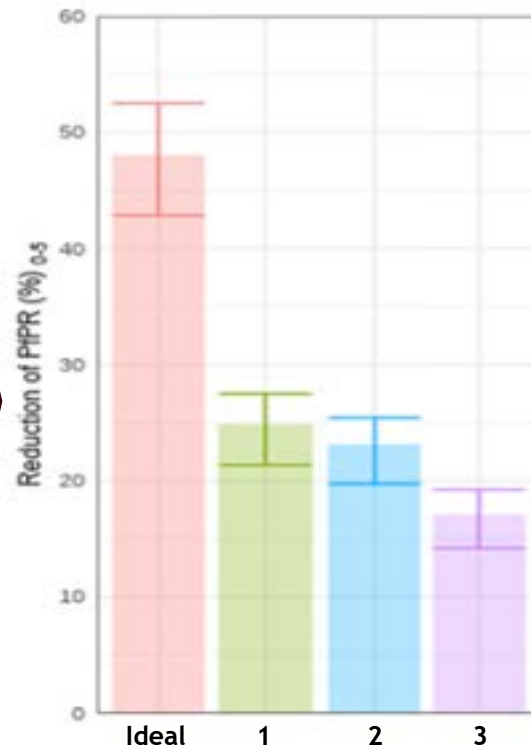
Scenario 2

13 munis with CFP,
2 munis at 56% and
1 munis at 0% PYR
coverage



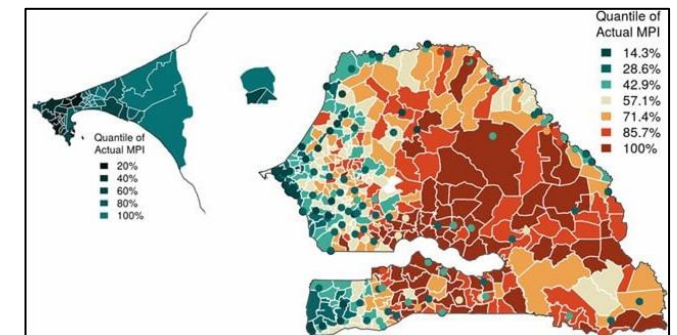
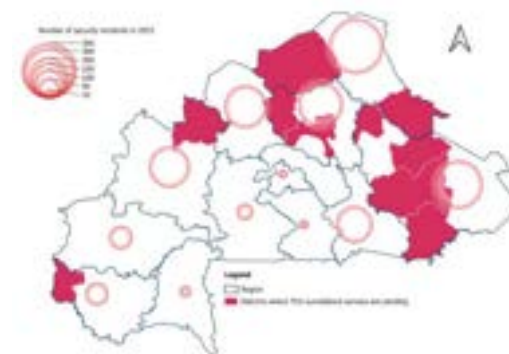
Scenario 3

5 munis with CFP, 1
munis at 36% PYR
coverage



*Munis = municipalities

Swiss TPH, CHAI



Source: Pokhriyal and Jacques 2017

Finally, results of the data review and analysis are incorporated into decision-making documents and M&E



Question: In Country X, what county/IU-level MDA strategy could achieve SCH elimination by 2030?

9 What is our strategy based on this data? Do we have the resources to support it?
What are the decision making opportunities where we can discuss and incorporate analysis results?

10 How do we measure impact and success over time?
Is the new strategy working? Do we need to make adjustments?



THE GLOBAL FUND
Section 1. Funding Request and Rationale

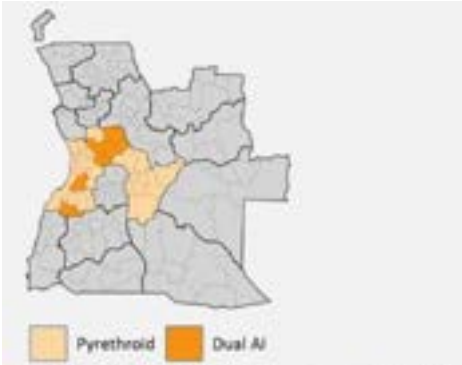
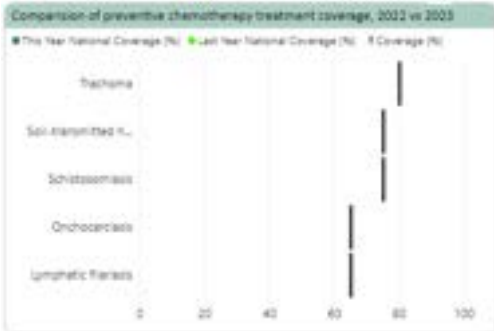
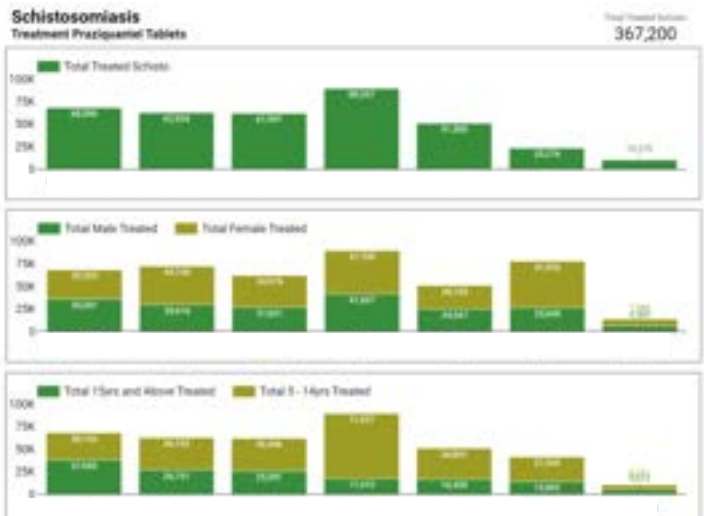


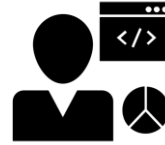
Fig 1: Map of type of ITN deployed per municipality.



The increasing availability and quality of subnational data is an opportunity for robust planning and monitoring of programmes



Developing data systems with a core aim of promoting data use through clear visualizations and co-designed databases for repeated review and analysis.



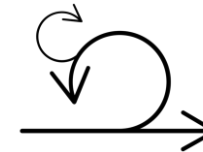
Capacitating health facility staff to review a few core indicators (e.g. number of cases, stock levels) leads to targeted and rapid decision making for their community.



Avoiding “black box” analytics helps increase country ownership. Emphasise data analysis and modelling as a thinking exercise and another form of evidence vs. focus on “fully adopting all outputs”.



Developing clear plans, follow-up and monitoring for data use. Data use doesn't always happen spontaneously. Purposefully build opportunities and forums for data analysis and review to take place, allowing flexibility.



Making time for iteration. The more decision makers and stakeholders are able to wrestle with the results, argue, ask questions, consider impact and trade offs etc. the better the end result.

Études de cas pays : Planification stratégique fondée sur les données

Administration massive de médicaments contre la filariose lymphatique – les progrès, l'efficacité et les économies financières liées à l'intégration dans une campagne de lutte contre la polio à Madagascar

Dr Patricia MARTIN

NTDs Focal point, WCO,
Madagascar



REPOBLIKAN'I MADAGASIKARA
Fitiavana - Tanindrazana - Fandrosoana



TERAN'NY FAHASALAMAM-BAHOAKA

Administration massive de médicaments contre la filariose lymphatique – les progrès, l'efficacité et les économies financières liées à l'intégration dans une campagne de lutte contre la polio à Madagascar

Présentée par : **Dr Patricia MARTIN**
NTDs Focal point, WCO, Madagascar

21-25 Juillet 2025
Brazzaville





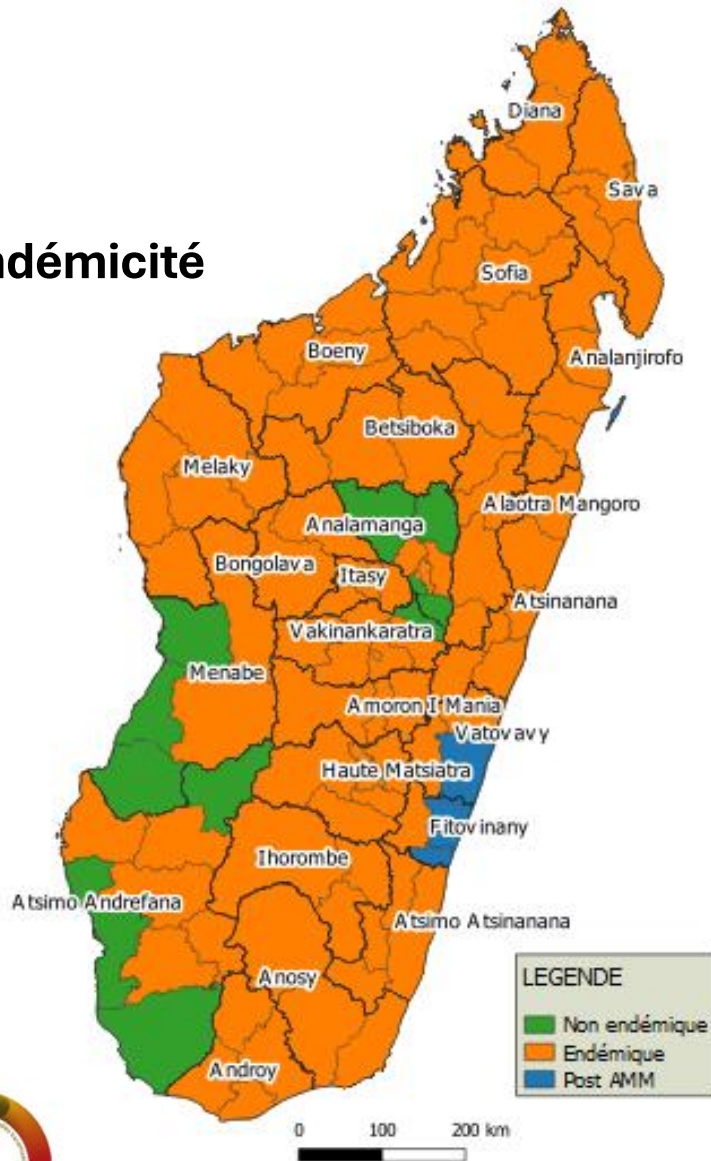
PLAN

- Introduction
- Méthodologie
- Résultats
- Défis et leçons apprises
- Facteurs de succès
- Conclusion



I. INTRODUCTION

LF endémicité



MADAGASCAR :

- ✓ Île avec une superficie de **587,041 km²**
- ✓ Population: **30 626 890 million**
- ✓ Taux de mortalité néonatale **24/1000 naissances** vivantes
- ✓ Accessibilité géographique aux services de santé **58% (<5km)**
- ✓ Nombre d'UE : **114 DS dans 23 regions**
 - ✓ 1 693 Communes
 - ✓ 19 340 Fokontany (villages), 2AC/ fokontany
 - ✓ 2850 Centre de santé de base



LF dans 87/114 districts (DS)

Exposition : 69.6% population Malagasy

- Progrès (2018-2023): Districts sanitaires endémiques
→ passé de **84,2 % à 76,3 %**, dont 4 sont sous surveillance

Coendémicité (CTP) :

- Géohelminthiase dans 102 DS (89,5%)
- Schistosomiase dans 1501 communes (88,6%)
- Taeniose dans 54 DS

(PEC) +

- Peste
- Rage
- Lèpre/MTNc

I. Introduction

Catalyseur de l'intégration

Pourquoi avons-nous choisi cette approche ?

- ❑ Engagement du Gouvernement à améliorer l'accès aux soins de santé primaires par des modèles intégrés de prestation, tels que : cliniques mobiles, "caravanes medicale"
- ❑ Soutien des partenaires au Developpement
- ❑ L'utilisation d'outils et de prestataires communs entre les programmes, réduit les coûts et limite les doublons
- ❑ La communication conjointe, le plaidoyer et l'engagement communautaire renforcent l'appropriation et l'impact à tous les niveaux.
- ❑ Existence d'un programme avec un moyen suffisant pour mener une campagne nationale

Etendue géographique

Stratégies de MDA

- Traitement de masse **1 fois /an** par district endémique
- Population cible : **2 ans et plus**
- Stratégie : Bithérapie (**DA**: Diethylcarbamazine + Albendazole)
Tri-thérapie (**IDA**: Ivermectine + Diethylcarbamazine + Albendazole)
- **2,111** Centre de santés impliquées (**CSB**)
- **15,055 villages** impliqués (Fokontany).
- **30,110 distributeurs communautaires mobilisés** pour la distribution des médicaments dans les districts endémiques
- **4 à 5 jours** de distribution de masse

II. Méthodologie

Estimation des économies financières liées à l'intégration de MDA contre la FL dans les campagnes de vaccination contre la poliomyélite

L'étude s'est concentrée uniquement sur les dépenses associées à :

1. coordination (supervision),
2. logistique,
3. déplacements et indemnités,
4. communication,
5. formation des formateurs,
6. formation des CSB
7. formation des AC.

Pour chacune de ces catégories, l'économie par catégorie est : FS_i

La différence entre les dépenses potentielles sans intégration: $EXP_{without}$ et les dépenses avec intégrations: EXP_{with} .

→ s'exprime ainsi : $FS_i = EXP_{without} - EXP_{with}$

L'économies totale due à l'intégration de MDA contre la FL dans la campagne de vaccination contre la poliomyélite ($TFS_{MADAGASCAR}$) est égale à la somme des économies réalisées dans les 7 catégories de coûts ($\sum_{i=1}^7 FS_i$)

→ s'exprime ainsi : $TFS_{MADAGASCAR} = \sum_{i=1}^7 FS_{i=1,...,7}$



III. Résultats (1/2)

Economie financière réalisée grâce à l'intégration de l'MDA FL et l'AVS Polio

Tab1 : Répartition des dépenses totales avec et sans intégration, ainsi que les économies financières

→ 2023

\$ 1,058,170
Économie financière

Activités (2023)	(A). Dépenses totales sans intégration (estimatif) (US\$)	(B). Dépenses totales avec intégration (estimatif) (US\$)	(C) Economies financières (US\$) (C=A-B)
Coordination - supervision	709,120	238,272	560,848
Logistics	53,135	9,698	43,437
Communication	117,685	-	117,685
Trainings	518,957	92,757	426,199
Total	1,398,897	340,727	1,058,170

24%

→ 2024

\$ 172,046
Économie financière

Activités (2024 dans 15DS)	(A). Budget without Integration (US\$)	(B). Exact Expenses with integration (US\$)	(C). Financial Gain (US\$) (C=B-A)
Coordination – supervision	140,159	21,436	118,723
Logistics	7,548	361	7,186
Communication	14,166	-	14,166
Trainings	40,293	8,322	31,971
Total	202,166	30,120	172,046

15%

Economie réalisée grâce à l'integration :

Grâce à l'approche intégrée, le programme a pu économiser entre **75 % et 86 % des ressources** qui auraient été nécessaires pour mener les campagnes séparément.

Cela démontre la grande rentabilité d'une planification, d'une logistique et d'une mise en œuvre conjointes.

En 2 ans , \$ 1.230 216 économie réalisées grâce à l'integration de MDA FL et AVS polio



III. Résultats (2/2)

Economie financière réalisée grâce à l'intégration des MDA FL & SCH/STH et l'AVS Polio

Tab2: Répartition des dépenses totales avec et sans intégration, ainsi que les économies financières dans

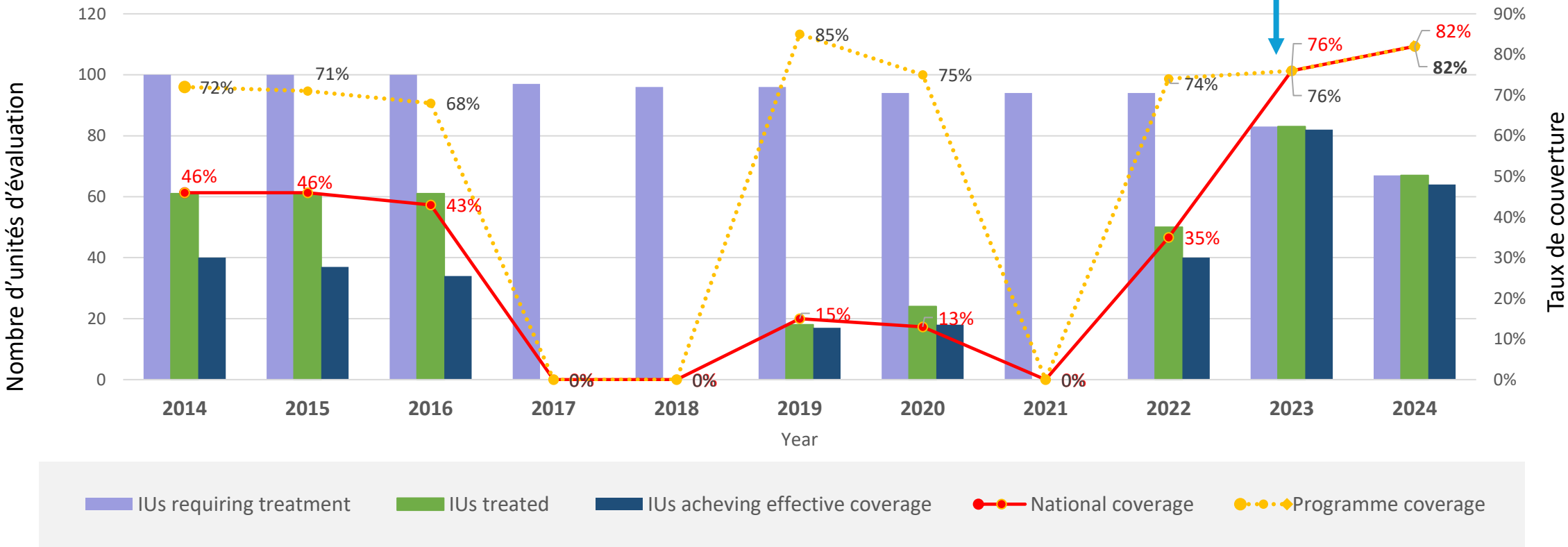
Activités 67 DS (2024)	(A). Dépenses totales sans intégration (estimatif) (\$)	(B). Dépenses totales avec intégration (estimatif) (\$)	(C) Economies financières (\$) (C=B-A)
Coordination- supervision	192,537	8,023	184,514
Logistics	209,039	353	208,685
Travel and allowance	875,733	294,274	581,459
Communication	156,092	0	0
Trainings	580,584	8,137	572,447
Total	2,013,984	310,787	1,547,105

→ **2024**
\$ 1, 547,105
Économie
financière

III- Resultats : Impact de l'intégration

Intégration avec AVS polio :
→ Taux de couverture géographique 100%

TAUX DE COUVERTURE 2014-2024



- ✓ **En 2023 : TCG 100%** pour la première fois grâce à son intégration aux activités de vaccination contre la poliomyélite **TCT 76%.**
- ✓ Atteinte d'objectifs escomptés pour chaque programme

Principaux défis d'intégration :

- Convaincre les différents bailleurs et les parties prenantes : Polio/SCH
- Acceptation des acteurs aux fusions des activités
- Le programme polio dispose déjà des plateformes pour la gestion des données en temps réel (*ODK form*).

Un tel système n'est cependant pas disponible pour le MDA

→ outils de rapport de données ont été spécifiquement créés dans ODK pour les activités MDA

- Nombre insuffisant d'agents de santé communautaires pour mener les deux activités
→ mobilisation des distributeurs communautaires
- Charge de travail élevée des gestionnaires de données au niveau des districts.
→ Recours aux étudiants en médecine comme vaccinateurs.
→ Recrutement de gestionnaires de données supplémentaires.
- Mobilisation communautaire / Plaidoyer / Communication :

Intégration de messages SMS et mise en place de mesures pour éviter la distribution erronée d'outils et de matériels dans les régions, districts ou centres de santé non concernés par la distribution des médicaments.

Leçons apprises :

- La mise en place d'un organe unique de coordination au niveau central a permis de mutualiser les ressources pour le suivi des préparatifs, la formation des acteurs et leur déploiement sur le terrain.
- Le report de la distribution d'un jour a permis de réduire la charge de travail et d'éviter que des effets secondaires ne soient attribués à l'un ou l'autre des médicaments/vaccin
- La synchronisation des deux activités a permis d'éviter tout retard dans la mise en œuvre de l'une ou de l'autre.
- Renforcement de la collaboration entre les parties prenantes des programmes MDA et Polio, avec un partage des bonnes pratiques pour les deux initiatives.
- L'intégration a permis une rationalisation des ressources humaines, logistiques et financières, aboutissant à des économies significatives.
- 2 AC + 2 DC /Fokontany ont permis de renforcer la sensibilisation et les rattrapages des cibles

IV- Facteurs de succès



1ère dame : marraine de la vaccination avec le **Ministre** lors d'une campagne de masse

Publication DOVEPRESS :

<https://www.dovepress.com/implementation-of-mass-drug-administration-for-lymphatic-filariasis-in-peer-reviewed-fulltext-article-RRTM>

1.Engagement gouvernemental et coordination multisectorielle

- **Implication active des parties prenantes jusqu'aux APART**, à tous les niveaux
- Le ministre ordonne à tous les districts avec **TCT<65% de mener un rattrapage MDA**
- Depuis **2024 lute contre FL est l'une des priorités du MoH**

2. Forte implication des partenaires/OMS

3. Opérationnalisation de la coordination : Leadership efficace des membres du QG, appuyé par un système de coaching pour les districts

4. Planification conjointe : Intégration de la microplanification jusqu'à la mise en œuvre sur le terrain

5. Formation du personnel : Sessions en ligne pour les EMAR/EMAD, suivies de formations en présentiel pour les agents de santé et les agents communautaires.

6. Logistique : Mutualisation des moyens de transport pour les vaccins et les médicaments, avec l'appui des partenaires opérationnels (OG)

7. Intégration de la supervision et du suivi-évaluation : Harmonisation de l'utilisation des plateformes numériques (KoboCollect, ODK) et des données à tous les niveaux.

8. Fluidité de la communication : Échanges mutuels et partage d'informations via les groupes WhatsApp

V- CONCLUSION :



1- Intégration des MDA à la campagne de vaccination contre la poliomyélite :

- ✓ **Efficiency +++**
- ✓ **Atteinte des objectifs** fixés par les différents programmes

2- Intégration catalyseur du progrès national

La réussite de l'intégration des activités a permis à Madagascar d'accélérer considérablement les progrès vers l'élimination de la LF

2024 : 32 districts ont pu être éligibles pour une enquête préliminaire EMS (Epidemiological Monitoring Survey)

2025 : en s'appuyant sur cette dynamique,
→ TAS 1 dans 32 DS et EMS dans 27 DS

2026 Dernier tour MDA



Intégration distribution
moustiquaire & MDA



**Intégration EMS + Big catch Up +
distribution moustiquaire**

Merci !



Organisation
mondiale de la Santé

Country Case Studies: Data-Driven Strategic Planning

Application of the SCH Practical and Precision Assessment (SPPA) Survey for SCH and STH Decision-Making: A Tanzania Case Study

Dr Clarer Jones Mwansasu

NTD Manager, MoH

Tanzania





Application of the SCH Practical and Precision Assessment (SPPA) Survey for SCH and STH Decision-Making: A Tanzania Case Study

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NTD Manager, MoH Tanzania

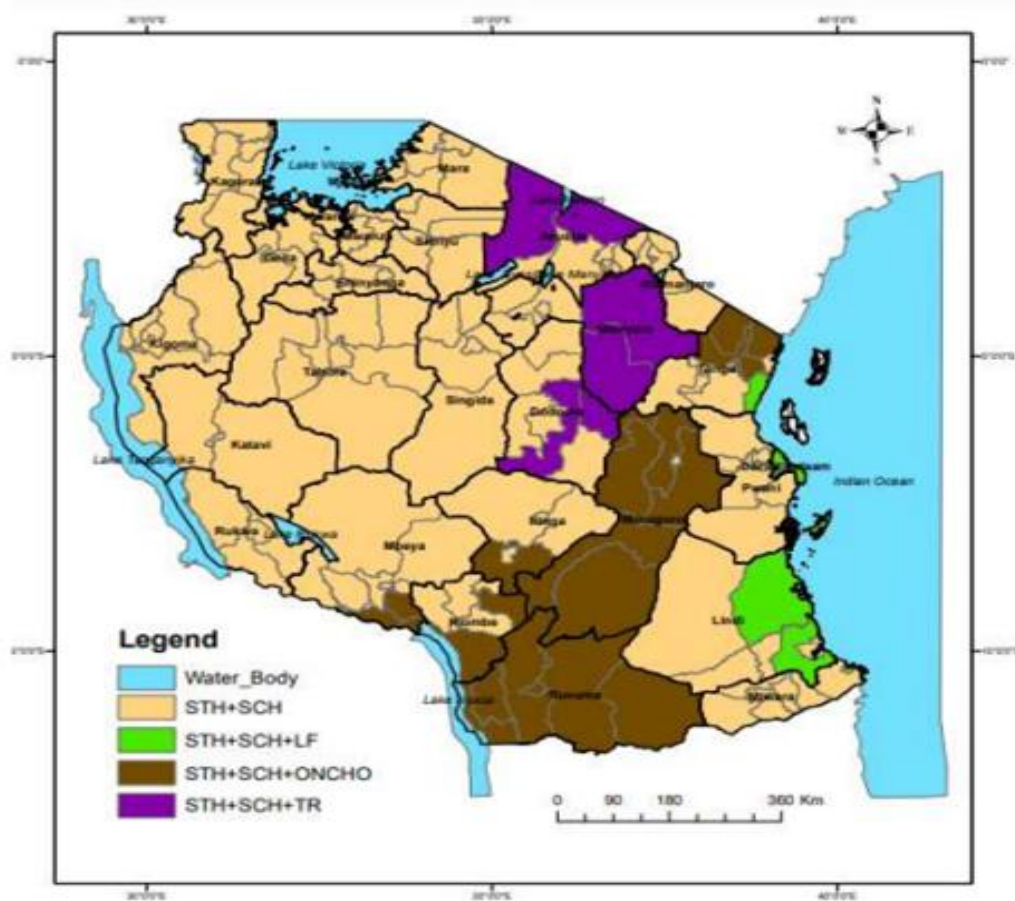


Outline

- Background: Introduction to SCH & STH in Tanzania
- The Evolution of Mapping: From Conventional to Precision
- The 2024 Impact Assessment in Tanzania: Implementation (Objectives, Scope and Methodology)
- Key Findings: SCH & STH Prevalence and Intensity
- Data Guiding National Decision-Making and Treatment Strategies
- Challenges, Success and Lesson Learnt
- Next Steps



Schistosomiasis and Soil Transmitted Helminths Control/Elimination Progress



- In Tanzania, schistosomiasis and STH are known to be endemic across the country, in which:
 - 26 Regions.
 - 184 DCs
- At baseline, the level of infection ranged from 12.7% to 87.6% prevalence in the SCHISTO and above 50% for STH
- MDA started in 2004 by 2015 attained full geographical coverage.
- Current Status: 92 Councils has implemented impact assessment.

The Evolution of Mapping: From Conventional to Precision

Challenge of Conventional Mapping:

- Traditional district-level mapping often led to misclassification (over/under-treatment) due to the focal nature of schistosomiasis transmission
- Missed "hotspots" and treated non-endemic areas

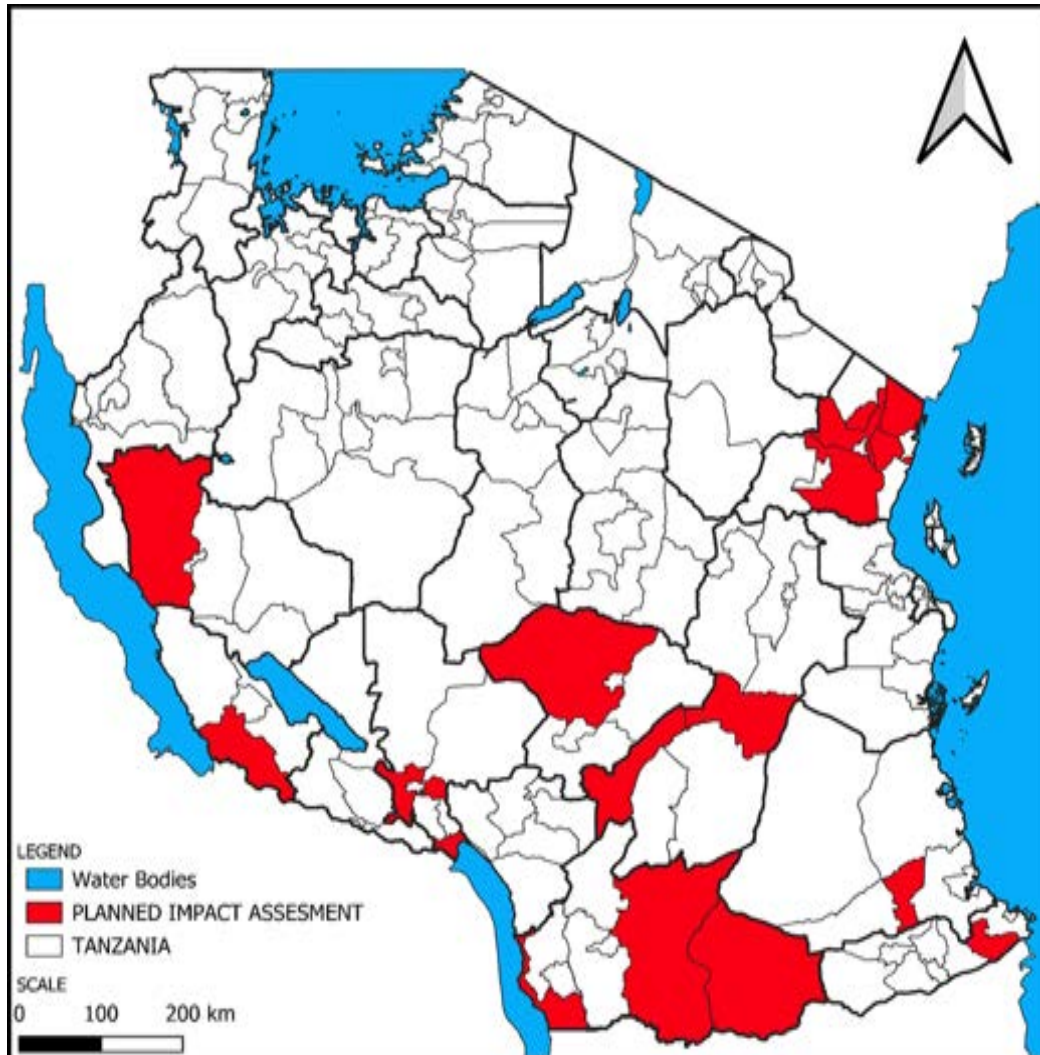
Need for finer Geographical resolution (Practical and Precision Assessment)

- Addresses the need for sub-district level decision-making.
- Minimizes over- and under-treatment.
- Ensures efficient resource allocation.





SCH &STH Impact Assessment Surveys 2024



- **Timeline:** February and May 2024
- **Scope:** 10 councils in mainland Tanzania
- **Criteria for Selection:** Completed at least 5 effective round of MDA
- **Aim:** Evaluate current prevalence levels of SCH and STH among school-aged children after years of MDA





Methodologies



- The survey adopted Systematic random sampling
- School-based survey targeting 10–14-year-olds (Standard 4-6)
- Electronic data capture via WHO ESPEN Collect for real-time data management and quality control
- GIS/GPS employed for mapping spatial patterns of infection
- Adopted SPPA approach





Methodologies.....

Planned to implement two stages approach as per WHO SPPA Manual:

Goal: Classify sub-Implementation Units (IUs) (wards) as $\geq 10\%$ or $< 10\%$ SCH prevalence to guide treatment decisions.

Stage 1: Practical Assessment:

- Conducted at the district (IU) level to test for heterogeneity. Sample size: 15 sites x 30 School-Aged Children per district (total 450 SAC).
- Systematic sampling of wards, random selection of schools.
- Decision based on the *number of sites* with $\geq 10\%$ prevalence
(*Has been conducted and decision made as per findings*)





Methodologies.....

- **Stage 2: Precision Assessment:**
 - Planned to conduct at the sub-district level when Practical Assessment shows heterogeneity (2-7 sites with $\geq 10\%$ prevalence)
 - Sample size is : 4 sites x 20 SAC per sub-district
Purposive sampling of sites.
 - Decision based on the *mean prevalence* across all sites in the sub-district. (*Not done*)
- Diagnostic Methods: Urine filtration for S. Haematobium and Kato-Katz for S. Mansoni and STH





Key Findings: SCH Prevalence and Intensity

Overall SCH Prevalence:

- *S. Mansoni*: 1.2%,
Haematobium: 8.3%.

Intensity of Infection (SCH):

- *S. Mansoni*: 40.7% light, 48.2% moderate, 11.1% heavy.
- *S. Haematobium*: 55.9% light, 44.1% heavy.

Geographical Heterogeneity:

- Significant variation observed across and within councils. Kyela DC (Mahenge school: 86.7% *S. Haematobium*), Nanyamba TC (Dinyecha school: 63.3% *S. Haematobium*).
- Some districts with very low prevalence/near-elimination levels (e.g., Mbeya, Tanganyika, Handeni and Iringa are generally low).





Key Findings: Associated Factors



- Higher *S. Haematobium* prevalence in male students (10.4% vs 6.2% in females)
- Higher prevalence in students who engaged in water contact activities (swimming, fishing).
- Schools with poor sanitation (e.g., pit openings with faeces around them) showed higher *S. Haematobium* prevalence.





Key Findings: STH Prevalence and Intensity

Overall STH Prevalence:

- Hookworm: 2.1%
- Ascaris: 1.1%
- Trichuris: 0.6%
- Any STH: 3.4%

Intensity of Infection (STH):

- All STH infections were predominantly light intensity

Geographical Variation (STH):

Handeni DC and Tanganyika DC showed higher *STH* prevalence (20% and 23% respectively), WHILE

Mbeya DC (14 schools) and Iringa DC (12 schools) had very low prevalence (<2%)





Data Guiding National Decision-Making and Treatment Strategies



- **Strategic Use of SPPA Data:**
 - **Tailored Interventions:** SPPA allows for a shift from blanket MDA to targeted strategies based on ward-level prevalence.
- **Decision Tree Application:**
 - **Red Category ($\geq 10\%$ prevalence in 8-15 sites for Practical, or mean $\geq 10\%$ for Precision):** Annual MDA for all age groups.
 - **Yellow Category (2-7 sites with $\geq 10\%$ prevalence in Practical):** Triggers Precision Assessment at sub-district level or localized treatment decisions.
 - **Green Category (0-1 site with $\geq 10\%$ prevalence in Practical, or mean $< 10\%$ for Precision):** Maintain/reduce treatment frequency (e.g., biennial, or active test-and-treat) and transition to surveillance.



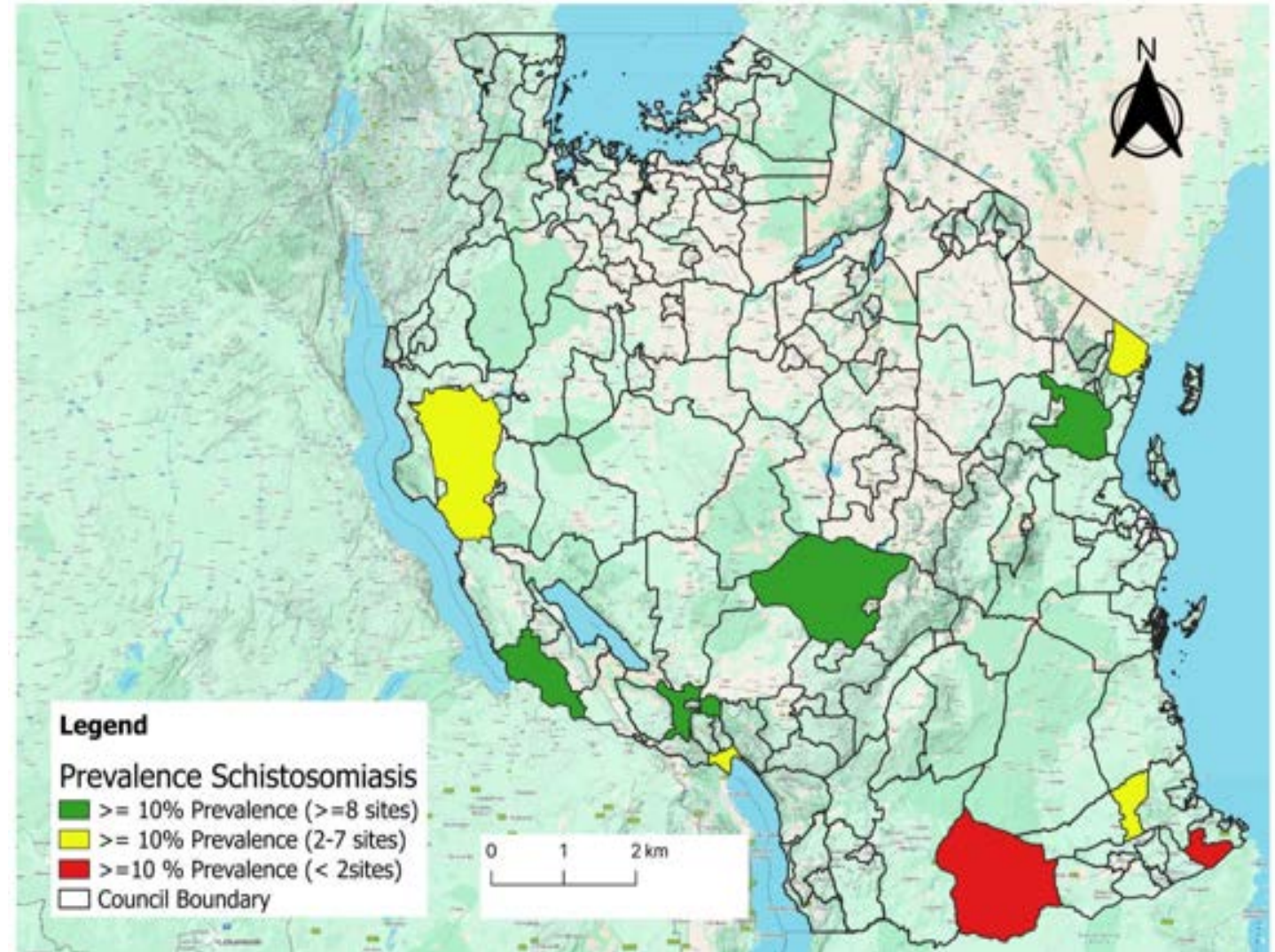


Data Guiding National Decision-Making and Treatment Strategies



Decision from 2024 Assessment:

- **Four Councils** 2-7 schools with $\geq 10\%$ SCH prevalence, recommending Precision Assessment.
- **Four Councils** less than 2 schools with $\geq 10\%$ SCH prevalence, recommending Maintain/**Reduce treatment**.
- **Two Councils** 8-15 schools with $\geq 10\%$ SCH prevalence, recommending Annual treatment for each ward.



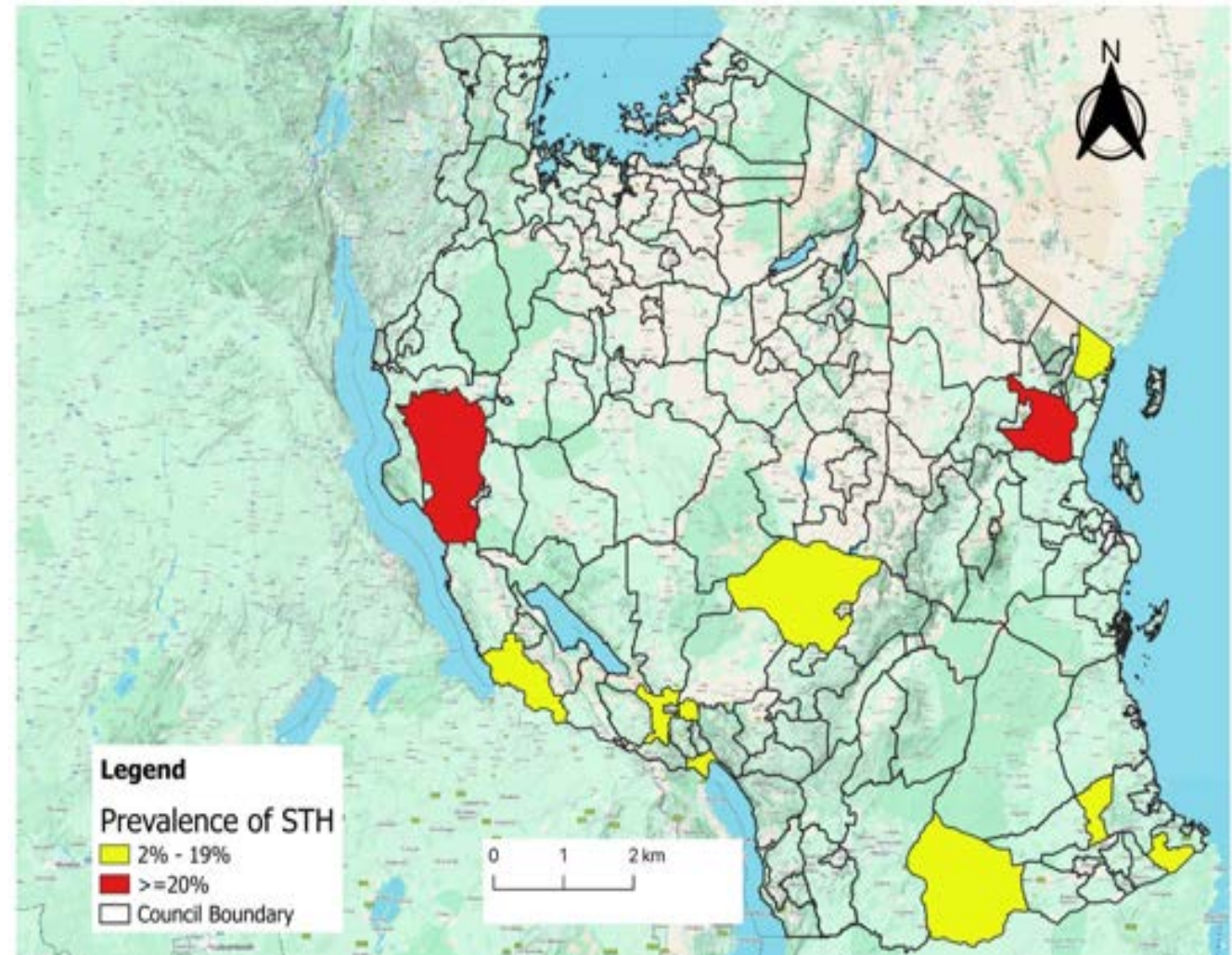


Data Guiding National Decision-Making and Treatment Strategies



Decision from 2024 Assessment for STH:

- **Two Councils** show higher prevalence, indicating continued need for MDA,
- While the rest show low frequency, Mbeya DC and Iringa DC show very low prevalence, suggesting reduced frequency eventually move to surveillance





Challenges, Successes, and Lessons Learned

Challenges:

- Deciding for MDA plan for the non-surveyed wards as a result of observed heterogeneity (eg Councils in Yellow category)
- Size and population of the Implementing Unit may affect the generalization

Successes:

- Successful implementation of a comprehensive, data-intensive survey.
- Findings validated the reported coverages (PZQ: 87.3%, ALB: 90.7%).
- Significant reduction in prevalence in many areas, validating MDA impact.
- Identification of areas with no detected schistosomiasis,

Lessons Learned:

- Granular data (ward-level) is important for effective targeting and resource allocation .
- The need for continued monitoring and adaptive strategies.
- Strong collaboration between national programs, research institutes, and partners is crucial.





Next Steps

- Strengthen MDA uptake in high-prevalence areas.
- Strengthen WASH interventions, especially for SCH.
- Consider Ivermectin MDA for Trichuris-endemic areas
- In surveillance in areas with very low/no detected prevalence using sensitive diagnostics.
- Further detailed data analysis and dissemination of findings.
- Continued collaboration for mapping remaining districts and follow-up studies.





Country Case Studies: Data-Driven Strategic Planning - Zanzibar Context

Dr Rashid Saleh Khamis

**NTD Program Officer, MoH
Zanzibar**





LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



**Unlimit
Health.**
ENDING PARASITIC DISEASE

TOPIC: Country Case-studies: Data Driven Strategic Planning. (Zanzibar context)


**Presenter: Rashid Saleh Khamis.(MD).
MPHIL.MCH).**

**Designation: NTD-Program Officer-
Zanzibar.**

NTD's in Zanzibar

Zanzibar is **endemic** for:

- Schistosomiasis (SCH) in Zanzibar only urogenital,
- Lymphatic Filariasis (LF),
- Soil transmitted Helminths (STH),
- Snake bite,
- Trachoma (only in few areas),
- Tungiasis



Most common with wide spread across the Islands

About the Diseases

Lymphatic Filariasis

- These parasites are transmitted by the bite of a range of infected mosquito genera and species
- Lymphatic filariasis or elephantiasis is a disease which primarily disrupts the lymphatic system

Soil Transmitted Helminths

- Transmitted by eggs in human faeces, which contaminate the soil in areas with insufficient sanitation
- Adult worms live in the intestines and feed on the host's tissues

Schistosomiasis

- Schistosomiasis is transmitted through contact with contaminated water during everyday activities, such as bathing and fishing
- Adult worms live in blood vessels and lay eggs which cause disease

Intervention approach to NTDs

**Preventive
Chemotherapy.**

Veterinary
Public
Health.

Intensive
disease
management.

Vector
ecology and
management.

Water
Sanitation
and Hygiene
(WASH).

One Health
(OH)
approach.

Summary of SCH and STH Activities in Zanzibar

SCH and STH in Zanzibar



Since the 1990s, the programme has conducted **over 30** rounds of Mass Drug Administration (MDA) for schistosomiasis.

Studies in Zanzibar have found **S. haematobium** to be prevalent, with **no** evidence of local **S. mansoni** transmission.

The National Programme aims to **eliminate schistosomiasis** as a public health problem by 2030 and reduce **STH moderate-to-high intensity infections to below 10%**.

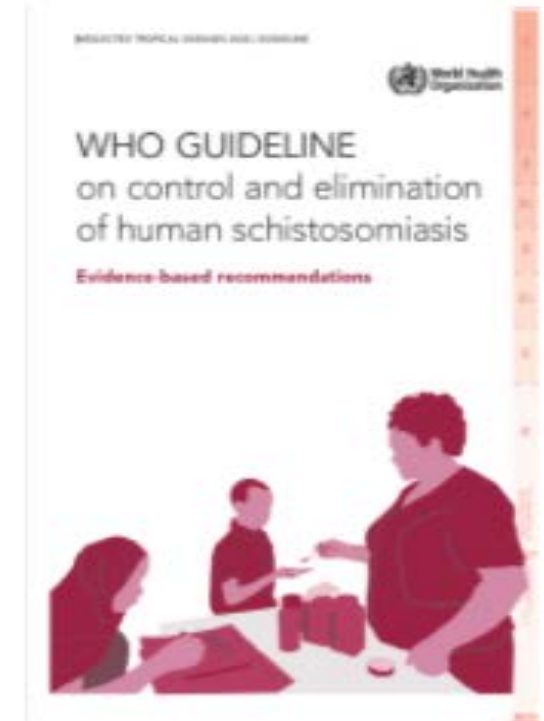
The Ministry of Health (MoHZ) plans to **target interventions** based on **disease prevalence, focal distribution, and resource availability, prioritizing high-burden areas**.

Planning.

- Is an approach to designing and implementing NTD programs using high-quality, relevant, and timely data at every stage of planning and decision-making.
- The goal is to improve the **effectiveness, efficiency, and equity of interventions aimed at controlling, eliminating, or eradicating NTDs**

Context

- **The requirement**
- WHO requires countries to regularly monitor effective coverage and to conduct impact assessments to inform the decision to change intervention strategies in terms of frequency of preventive chemotherapy (PC) and age-groups within targeted areas
 - In the specific context of SCH, WHO is currently requesting recent impact assessment survey data from countries at the sub-district level (the 'shehia' in Zanzibar) – rather than district - to continue donating medicines
- **When?**
 - Impact assessments after 5 years of effective treatment cycles (WHO)



WHO guideline on control and elimination of human schistosomiasis. Geneva: World Health Organization; 2022.

- **Survey summary**



2/9/2026

**Impact assessment
results as guided by
WHO.**

Context

Impact Assessment Objectives

Measure **progress** following treatment cycles

Measure the **current prevalence** of SCH and STH

- **Improve knowledge** on disease distribution: moving to the sub-district level (shehia)

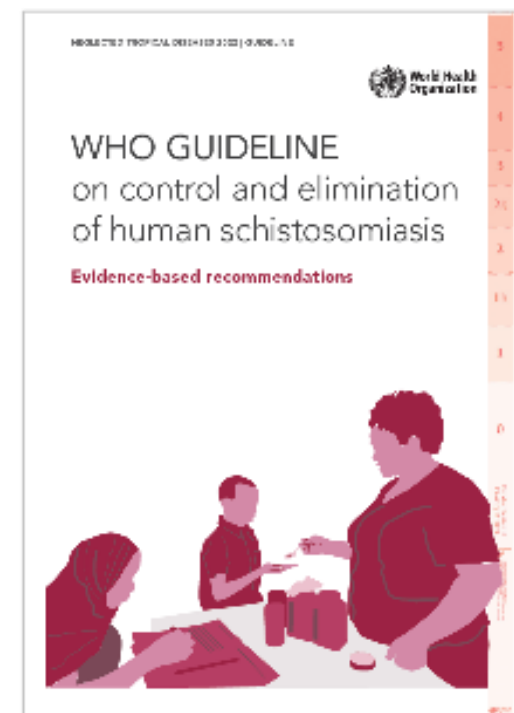
Results

Adapting the treatment strategy to new findings related to endemicity and prevalence

Focusing on high-prevalence areas and hotspots to **accelerate progress** towards elimination

Reducing overtreatment and improving the efficiency of drug allocation

- **Reducing undertreatment** in areas previously untargeted due to missing or outdated data



WHO guideline on control and elimination of human schistosomiasis. Geneva: World Health Organization; 2022.

Outcomes of Zanzibar impact assessment

- To determine whether the prevalence of *S. haematobium* at the sub-district (shehia) level among SAC was **greater than or less than 1%, 10% and 50%.**

Result highlights: Endemicity classificatio before & after impact assessment

The WHO guidelines for SCH treatment (1/2)

WHO GUIDELINE on control and elimination of human schistosomiasis



Recommendation 1

In endemic communities with **prevalence of *Schistosoma spp.* infection $\geq 10\%$** , **annual preventive chemotherapy (PC)** with a single dose of praziquantel at $\geq 75\%$ treatment coverage **in all age groups from 2 years old**, including adults, pregnant women after the first trimester and lactating women, to control schistosomiasis morbidity and advance towards eliminating the disease as a public health problem.

Recommendation 2

In endemic communities with **prevalence of *Schistosoma spp.* infection $< 10\%$** , one of two approaches **based on programmatic objectives and resources**: (i) where there has been a programme of **regular PC**, to **continue the intervention at the same or reduced frequency** towards interruption of transmission; or
(ii) where there has not been a programme of **regular PC**, to use a clinical approach of **test and-treat**, instead of preventive chemotherapy targeting a population.

The WHO guidelines for SCH treatment (2/2)

WHO GUIDELINE on control and elimination of human schistosomiasis



Recommendation 3

In endemic communities with **prevalence of *Schistosoma spp.* infection $\geq 10\%$** that demonstrate **lack of an appropriate response** to annual PC, despite adequate treatment coverage ($\geq 75\%$), WHO suggests **consideration of biannual (twice yearly)** instead of annual.

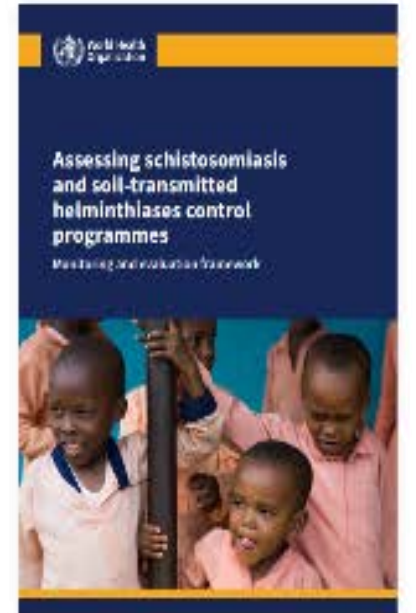
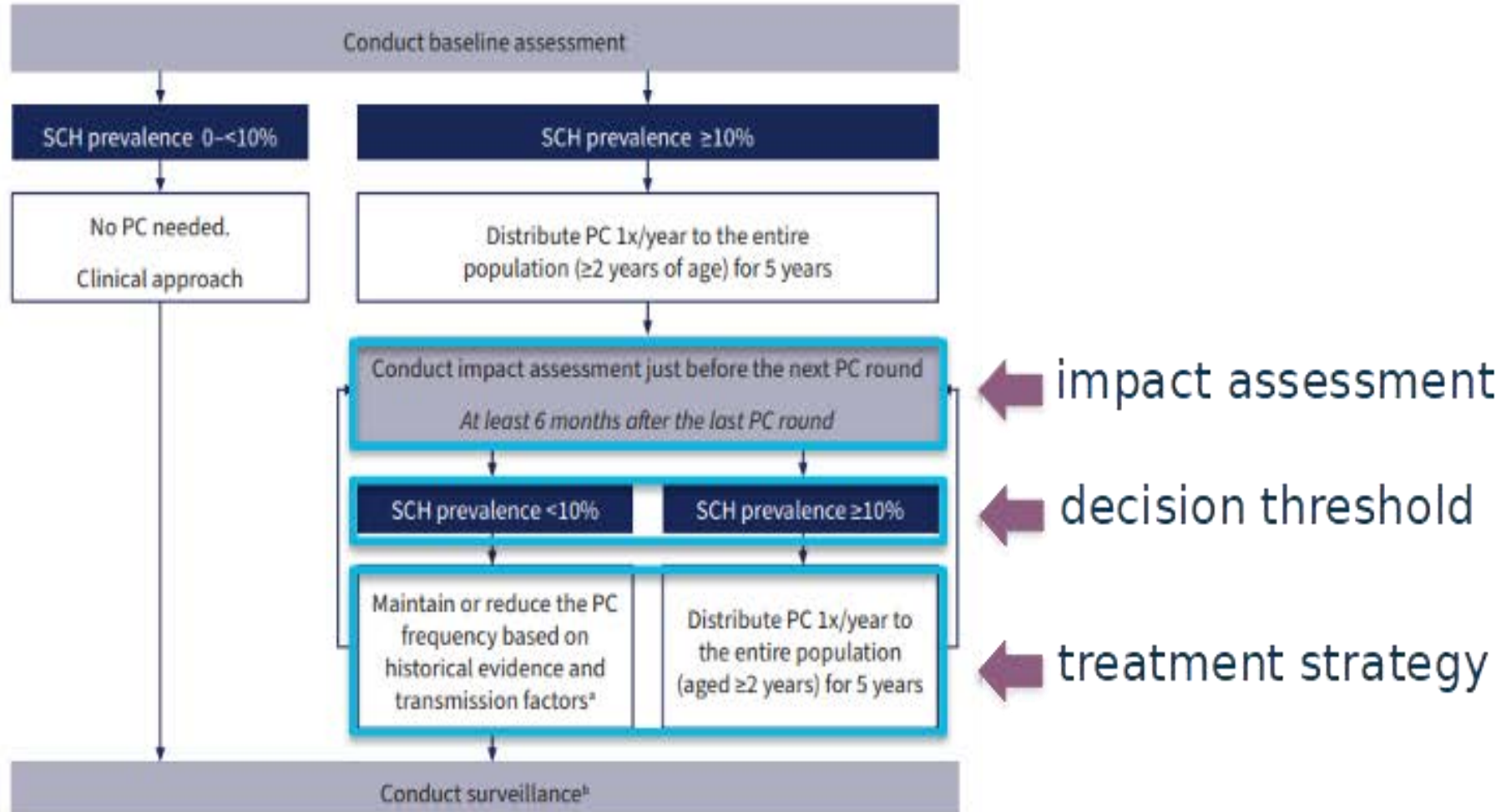
Conditional Recommendation

Additional note for **heavy intensity**:

In settings of **high prevalence ($\geq 50\%$) or persistent hot spots**, **biannual (twice a year)** preventive chemotherapy with praziquantel may be more effective than annual treatment at reducing the prevalence of infection, intensity of infection and prevalence of infections of **heavy intensity**.

WHO decision tree for SCH treatment (1/3)

A2.2a Schistosome infections and impact assessment: standard approach



Assessing schistosomiasis and soil-transmitted helminthiasis control programmes: Monitoring and evaluation framework. Geneva: World Health Organization; 2024.

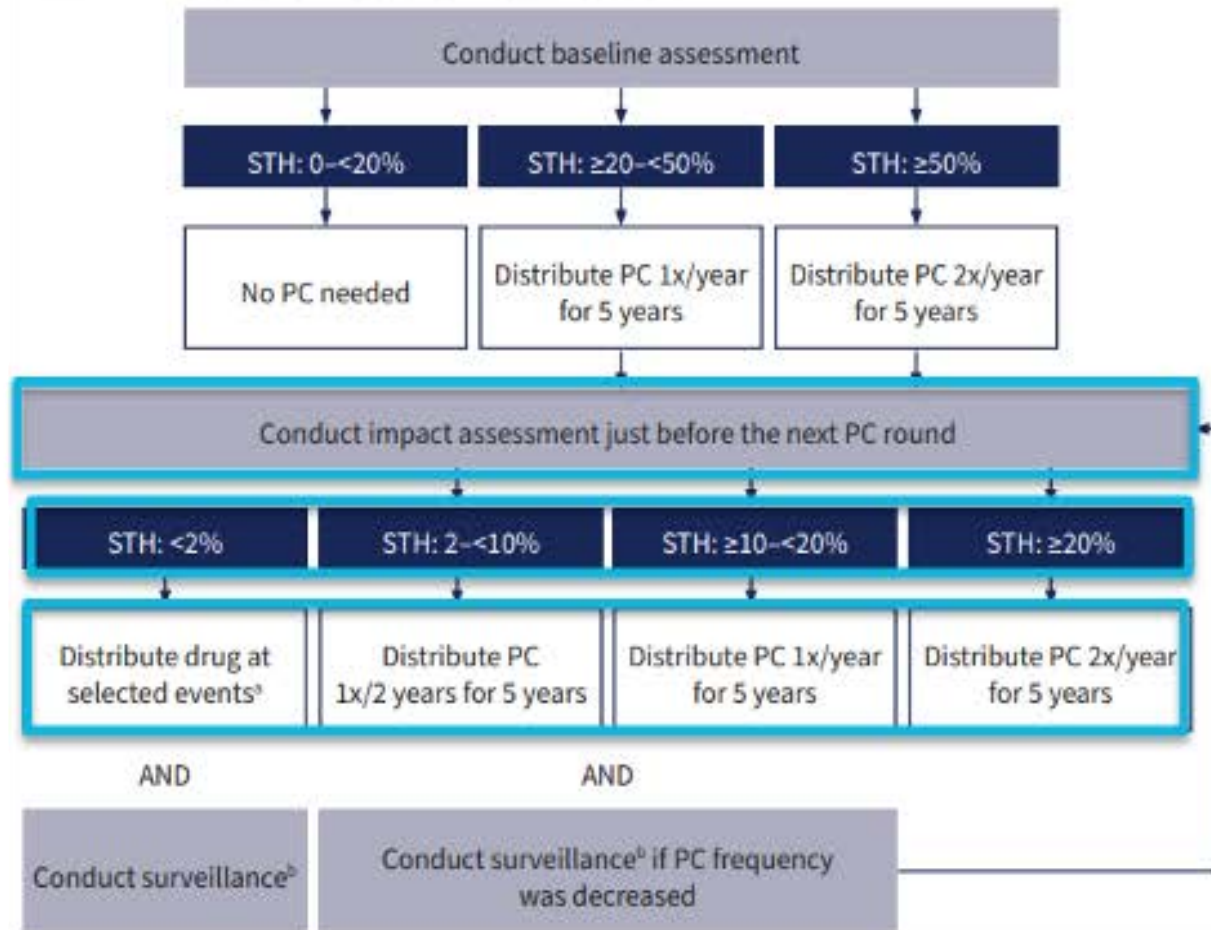
Outcomes of Zanzibar impact assessment

- To determine whether the prevalence of *S. haematobium* at the sub-district (shehia) level among SAC was **greater than or less than 1%, 10% and 50%.**
- To determine whether the district-level prevalence of all **STH** and individual species, among SAC was **greater than or less than 2%, 10%, 20%, and 50%.**

WHO decision tree for STH treatment

A2.1

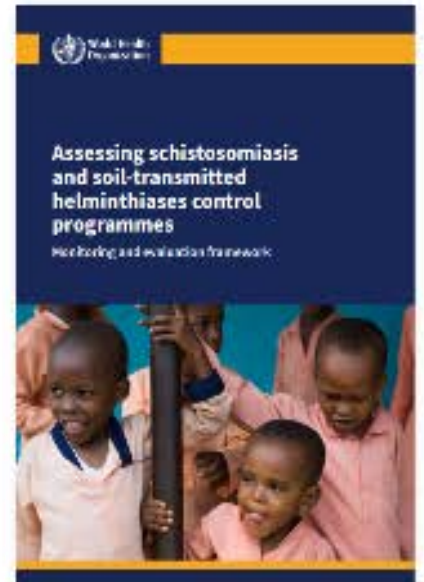
Soil-transmitted helminth infections



← impact assessment

← decision threshold

← treatment strategy



**Discussion and way
forward Based on data
findings.**

Conclusions about the results: SCH

Key conclusions

Plan to shift from district to shehia levels to avoid under-/over-treatment, but the 'what next' regarding strategy needs to be agreed in the context of integration, mainstreaming and coordination

A substantial proportion of communities have zero values; plans likely need to be made on a shehia-by-shehia basis

Increasingly important to have a robust surveillance system in place, most likely a combination of passive (i.e. south of Unguja) and active

Further discussion is required on the $\geq 1\%$ - $< 10\%$ category in particular, although this is expected to be defined by revisions to the strategy; this must align with decisions on the $< 1\%$ category

Conclusions about the results: SCH

Opportunities

Coordinating Committee/ Task Force/ Technical Working Group

Revision of strategic plan and bringing together technical and implementation points of view

Exploration of transmission dynamics, particularly in areas of continued higher prevalence

Leveraging of interventions/ integration of delivery to move away from vertical approach

Close working with CHWs to build knowledge and awareness of the disease

Surveillance protocol that all adhere to, built with lessons learnt in mind

Conclusions about the results: SCH

Risks

Rebound of transmission when drug pressure is reduced

Drug donation, resource availability (i.e. finance) and sustainability

Stopping treatment without sufficient surveillance, diagnostic tests, data control, capacity, etc.

Undefined guidelines (i.e. criteria for vector control, test and treat, surveillance)

Communications between efforts (i.e. MDA and vector control) and advocacy

Engagement with communities (e.g. hesitancy about drugs)

Conclusions about the results: SCH



<1%

≥1% - <10%

>10%

A matter of 'when' for changes to the MDA strategy

Preference to continue to treat as a transition strategy (whilst considering surveillance and response plans)

Mainstreaming of treatment in health systems expected, but this must be clearly set out in strategy

Develop a set of evidence-backed scenarios for consideration and review with WHO for ongoing treatment

Revisions to the strategy are essential to enable a response to this category

Need to make an informed decision based on resources/ funding available, as well as decision on <1% category

Potential focus on specific age groups

Only a small number of shehias in this category

Shehias to be treated as they are at present - annual PC

Should start to consider platforms/ mechanisms for integration

Conclusions about the results: STH

Key conclusions

Generally, very striking results – particularly in Pemba - with rates driven up largely by *Trichuris* and *A. scaris* – something complicated is happening and requires exploration (e.g. socio-economic, ecological & environmental factors)

There is a strong correlation between intensity and prevalence (both remain high)

Progress is difficult to discern despite ongoing control efforts – revisions to strategy need consideration, including investigations into individual behaviours and comparative programmes (i.e. cholera)

Need to go beyond standard MDA alone – consider other interventions (WASH), the importance of local community involvement, alternative drug formulations (in the future)

Conclusions about the results: STH

Opportunities

Enhancing interventions to extend beyond MDA

Conducting operational studies as well as qualitatively evaluating behavioural drivers of transmission

Inter-sectoral collaboration

Revisions to operational strategies and policies to enable implementation

Coordinating Committee/ Task Force/ Technical Working Group

Conclusions about the results: STH

Risks

There is potential to split SCH/ STH MDAs, but this may have resource/ finance implications

Siloed working

Albendazole may not be the most efficacious drug for *T. trichiura*

Engagement with communities (e.g. hesitancy about drugs)

The WHO guidelines for SCH treatment (1/2)



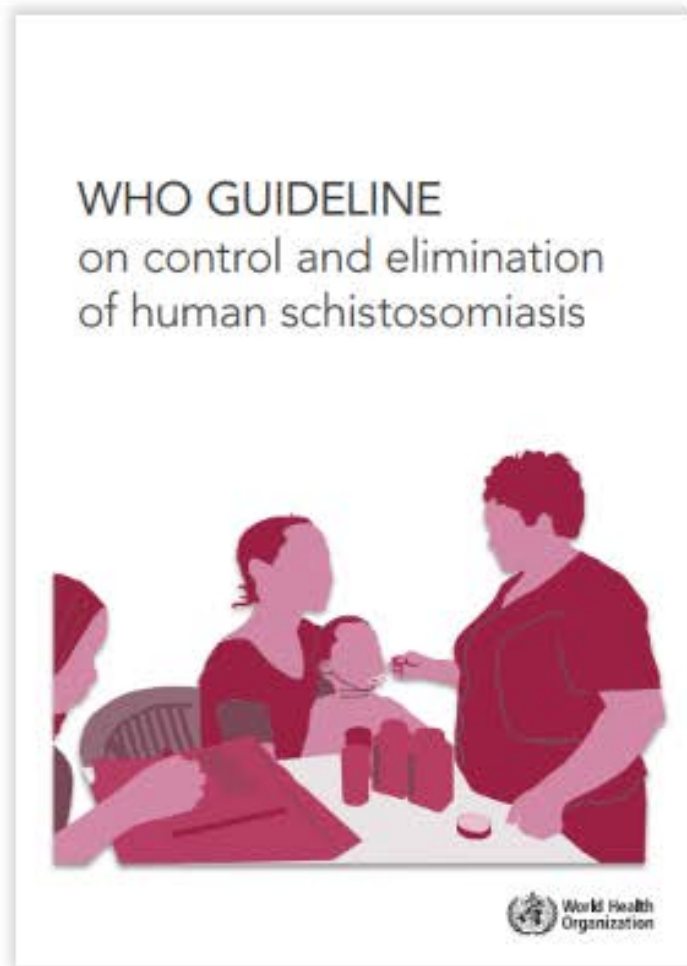
Recommendation 1

In endemic communities with prevalence of *Schistosoma* spp. **infection $\geq 10\%$** , WHO recommends **annual preventive chemotherapy** with a single dose of praziquantel at $\geq 75\%$ treatment coverage **in all age groups from 2 years old**, including adults, pregnant women after the first trimester and lactating women, to control schistosomiasis morbidity and advance towards eliminating the disease as a public health problem.

Recommendation 2

In endemic communities with prevalence of *Schistosoma* spp. **infection $< 10\%$** , WHO suggests one of two approaches **based on programmatic objectives and resources**: (i) where there has been a programme of regular preventive chemotherapy, to **continue the intervention at the same or reduced frequency** towards interruption of transmission; or (ii) where there has not been a programme of regular preventive chemotherapy, to use a clinical approach of **test and-treat**, instead of preventive chemotherapy targeting a population.

The WHO guidelines for SCH treatment (2/2)



Recommendation 3

In endemic communities with prevalence of *Schistosoma* spp. **infection $\geq 10\%$** that demonstrate **lack of an appropriate response** to annual preventive chemotherapy, despite adequate treatment coverage ($\geq 75\%$), WHO suggests **consideration of biannual (twice yearly)** instead of annual preventive chemotherapy.

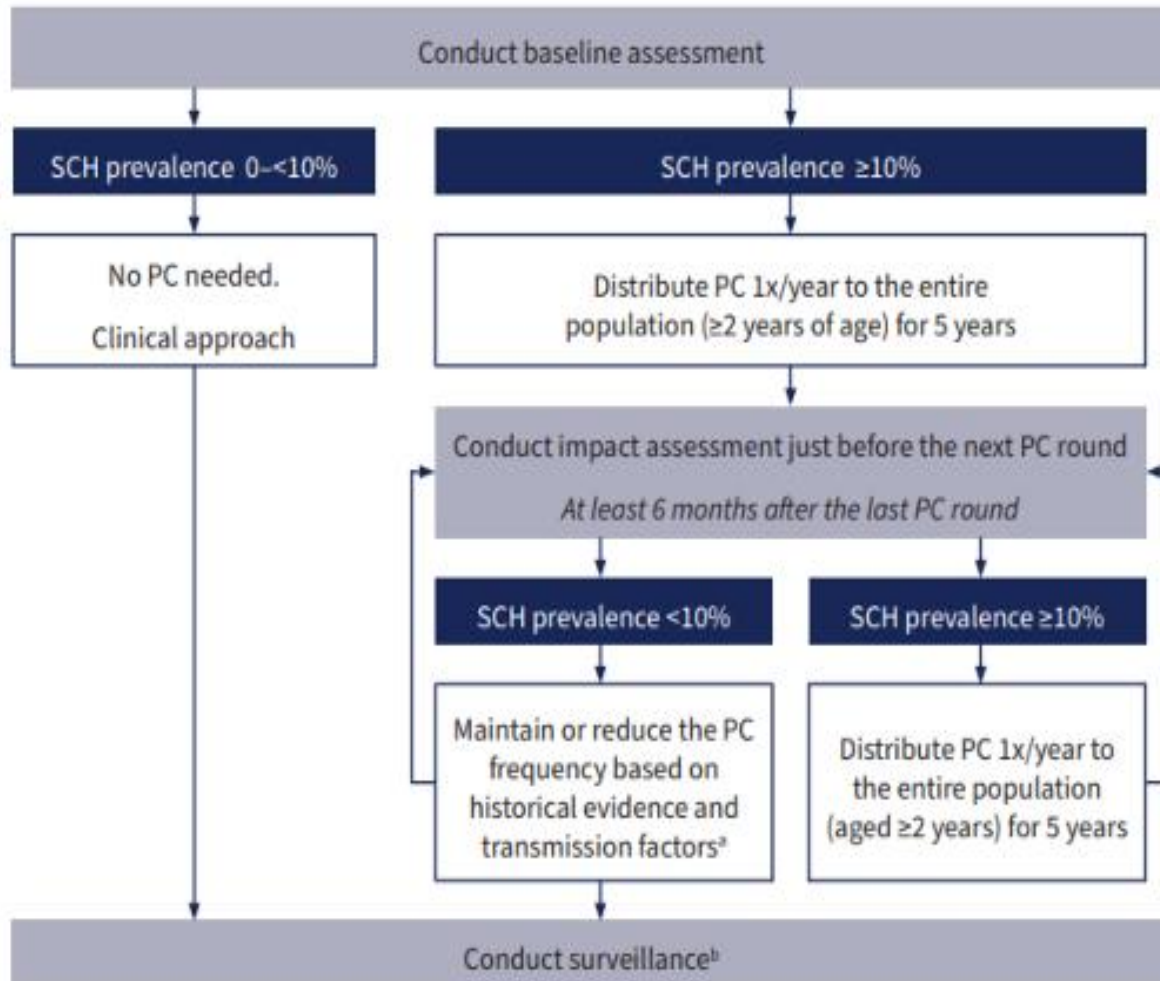
Conditional Recommendation

Additional note for **heavy intensity**:

In settings of **high prevalence ($\geq 50\%$) or persistent hot spots, biannual (twice a year)** preventive chemotherapy with praziquantel may be more effective than annual treatment at reducing the prevalence of infection, intensity of infection and prevalence of infections of **heavy intensity**.

WHO decision tree for SCH treatment (1/3)

A2.2a Schistosome infections and impact assessment: standard approach



SCH: schistosomes; PC: preventive chemotherapy.

* The choice to maintain or reduce PC frequency should be based on historical evidence such as the level of baseline prevalence and the presence of factors facilitating transmission (in case of very high baseline prevalence or intense water contact, it is suggested to maintain PC once a year).

^b If a signal is detected, a more detailed investigation is recommended (before any planned impact assessments).

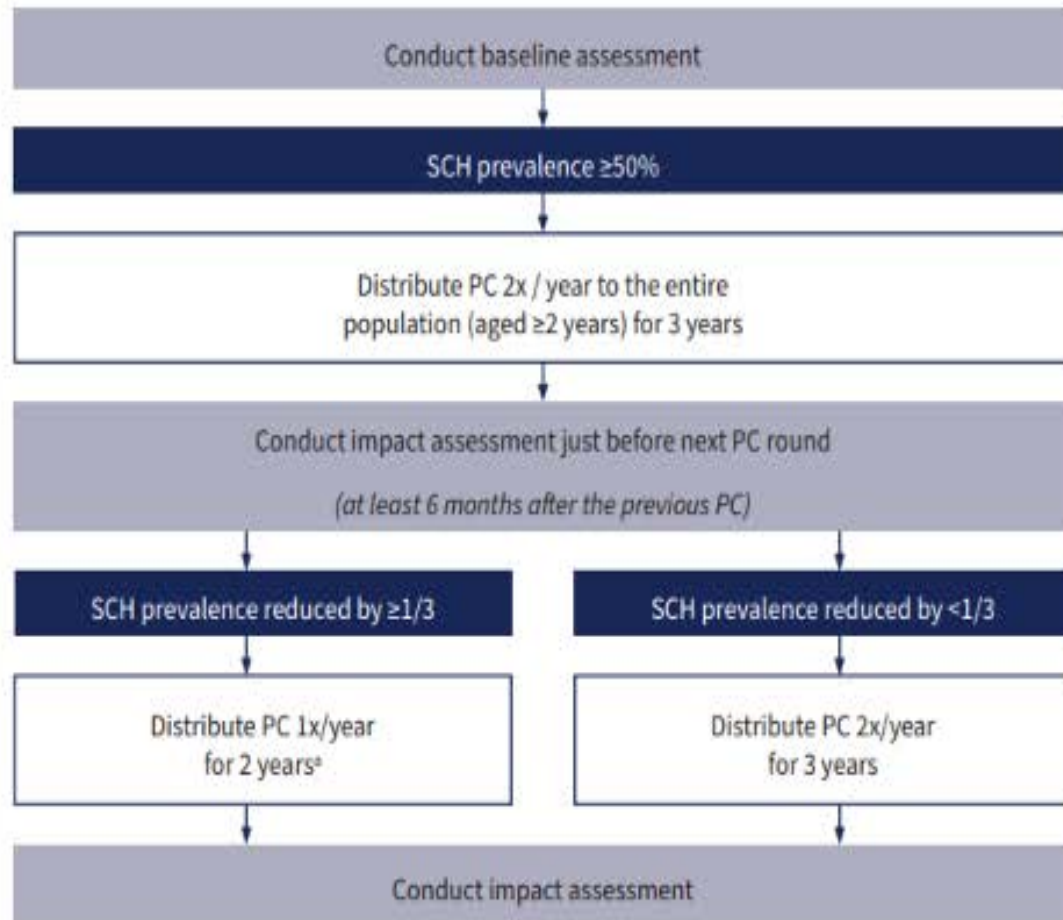
Note: The elimination of schistosomiasis as a public health problem is defined as a prevalence of heavy intensity infections of < 1% among school-aged children. While this is an important indicator for assessing the elimination of morbidity, it is not considered for the purpose of making decisions on the frequency of PC distribution.

WHO decision tree for SCH treatment (2/3)

A2.2b. Schistosome infections and impact assessment. Special case 1: To be used if additional resources are available to distribute preventive chemotherapy more frequently in areas of high prevalence at baseline

SCH: schistosomes; PC: preventive chemotherapy.

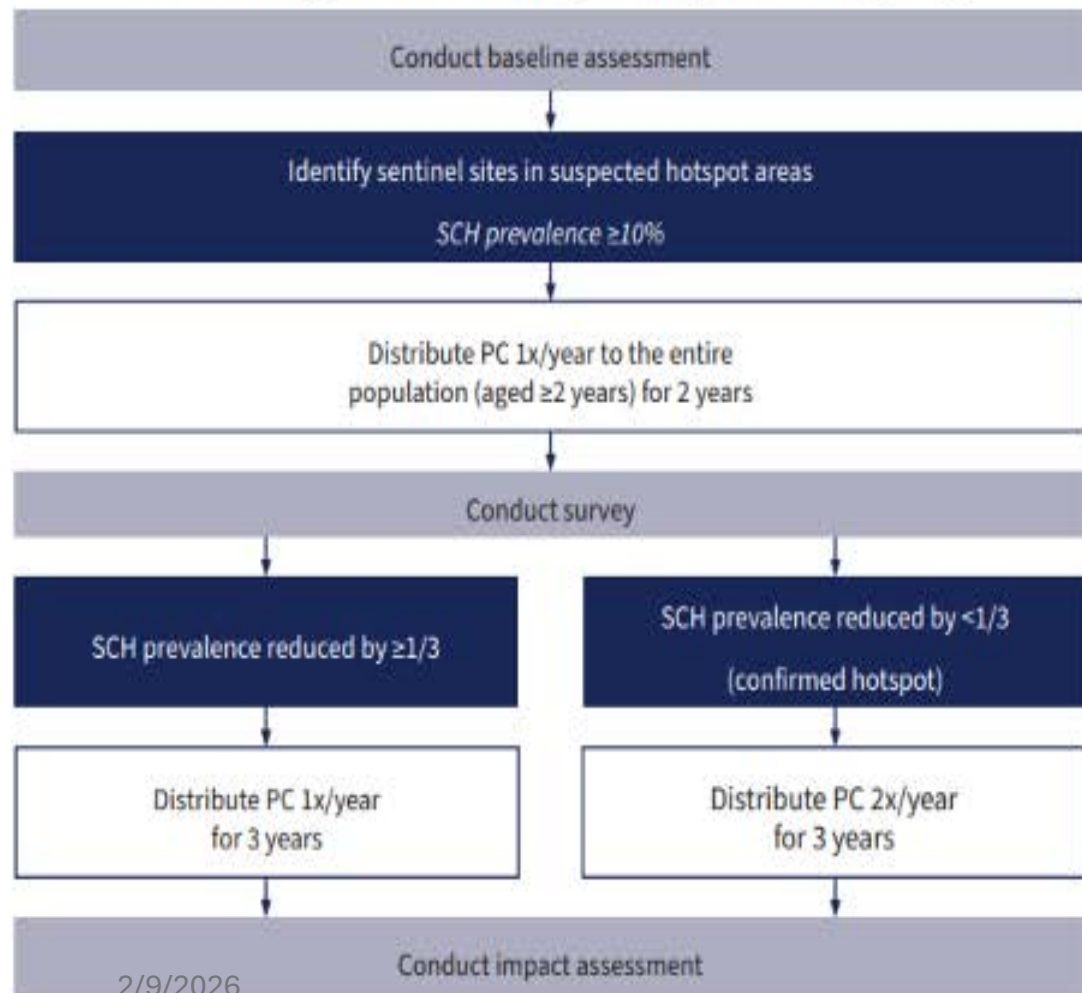
^a After this impact assessment, follow the standard approach (see [A2.2a](#)).



WHO decision tree for SCH treatment (3/3)

A2.2c. Schistosome infections and impact assessment. Special case 2. To be used if additional resources are available to distribute preventive chemotherapy and conduct surveys for hotspots more frequently

^aAfter this impact assessment, follow the standard approach if the reduction in prevalence is $\geq 1/3$ (see A2.2a).



Thank you

Merci

Coffee Break



World Health
Organization
African Region

75
HEALTH
FOR ALL



ESPEN GenAI Assistant

AI Assistant for NTD Programs

Ms Namrata Tomar

Research and Operations
Manager, Dimagi

dimagi

ESPEN GenAI Assistant

AI Assistant for NTD Programs

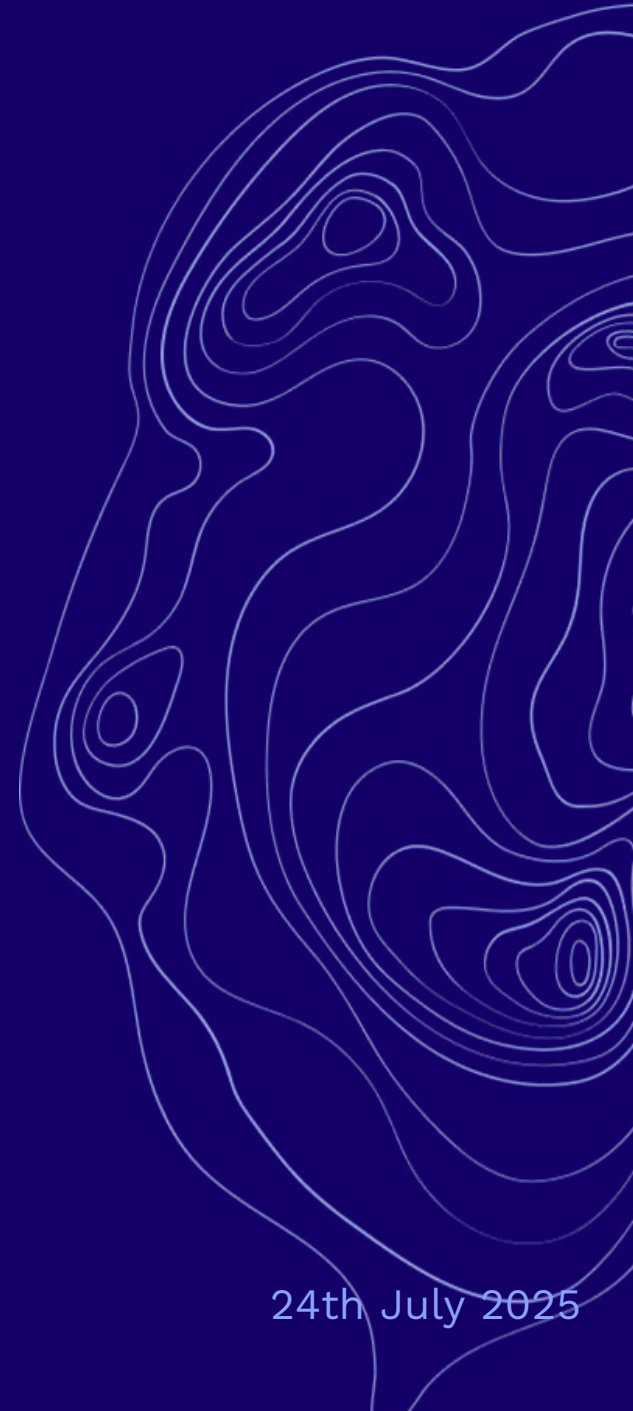


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1. About Dimagi
2. Open Chat Studio
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4. ESPEN GenAI Assistant
5. Development Timeline
6. Accessing the AI Assistant
7. Demonstration
8. QnA



About Dimagi



Vision: A world where all people have access to the services they need to thrive

Mission: To build and scale sustainable, high-impact digital solutions to amplify frontline work



 **CommCare**
by dimagi

The customizable digital platform for frontline work everywhere



sureAdhere
by dimagi

Enabling remote treatment support through person-centered virtual care

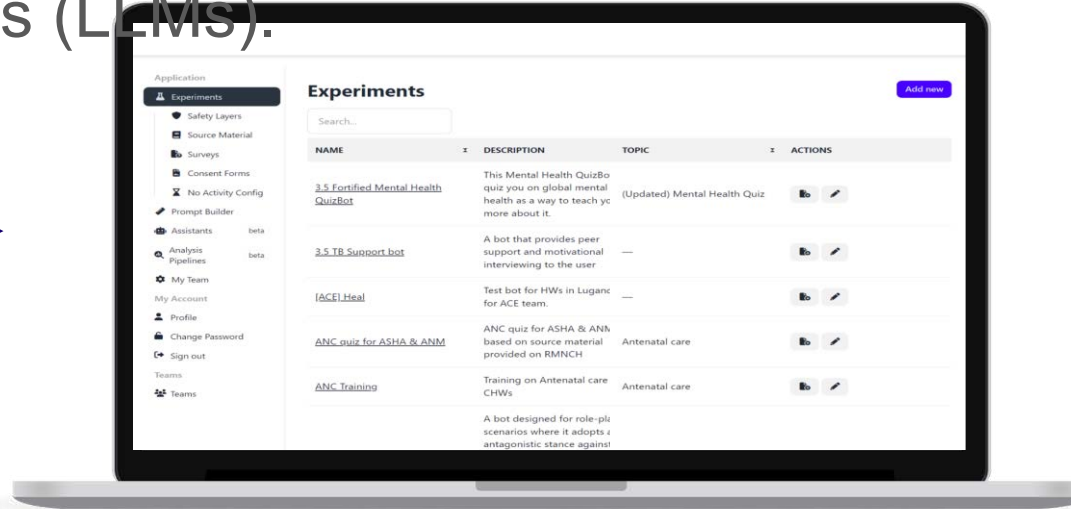


Open Chat Studio

Advancing equity and impact with artificial intelligence

Open Chat Studio

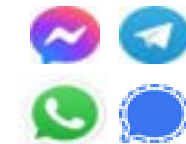
Developed by Dimagi, Open Chat Studio is an easy-to-use, open source platform for rapidly prototyping, testing and deploying chatbots created using Large Language Models (LLMs).



Open Chat Studio*



User interface
Web, SMS, messenger
services
Social sites



*Initial development supported by BMGF FP investment on conversational agents in Senegal and Kenya

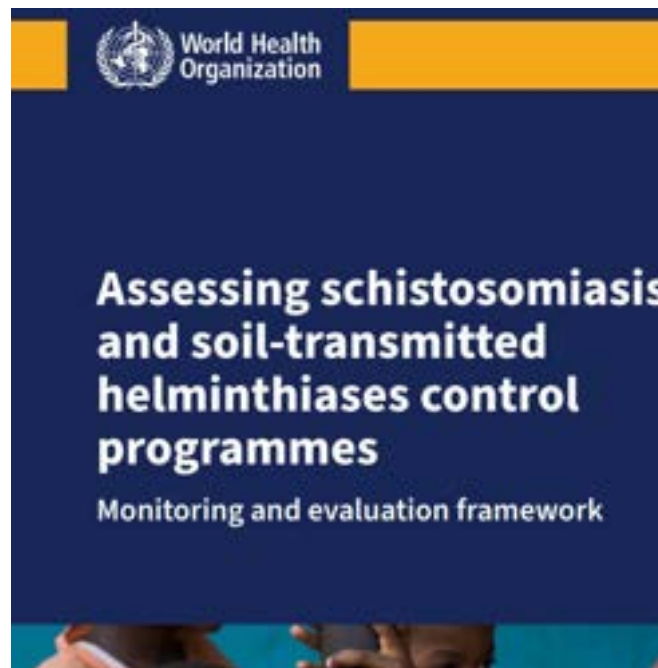
Problem Statement

ESPEN Portal: Rich repository of WHO guidelines, data, reports & maps

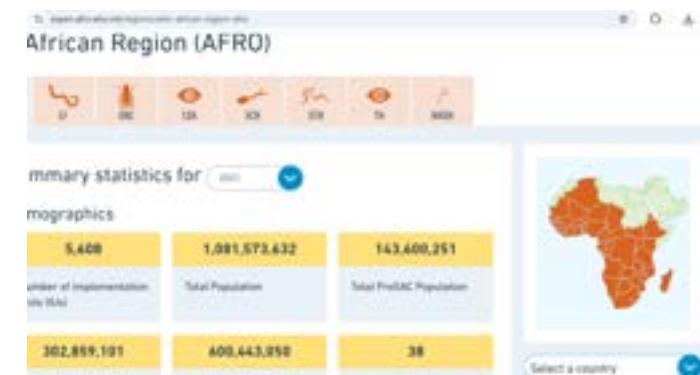
Challenge:

- Fragmented data access.
- Limited analytical capacity for decision-making.
- Time-consuming document searches.

Need: Increase engagement & usability of ESPEN data



SN	CONTINE	REGION	WHO_RE	ADMIN0	ADMIN0C	ADMIN0_
1	Africa	Northern	AAFR0	Algeria	1	AG
2	Africa	Northern	AAFR0	Algeria	1	AG
3	Africa	Northern	AAFR0	Algeria	1	AG
4	Africa	Northern	AAFR0	Algeria	1	AG
5	Africa	Northern	AAFR0	Algeria	1	AG
6	Africa	Northern	AAFR0	Algeria	1	AG
7	Africa	Northern	AAFR0	Algeria	1	AG
8	Africa	Northern	AAFR0	Algeria	1	AG
9	Africa	Northern	AAFR0	Algeria	1	AG
10	Africa	Northern	AAFR0	Algeria	1	AG
11	Africa	Northern	AAFR0	Algeria	1	AG
12	Africa	Northern	AAFR0	Algeria	1	AG
13	Africa	Northern	AAFR0	Algeria	1	AG
14	Africa	Northern	AAFR0	Algeria	1	AG





Introducing the ESPEN GenAI Assistant

Your AI-powered guide to NTD data, insights, and reports.
Faster than ever!

- **Advanced Data Analysis:** Connecting to diverse datasets, analyzing trends, and exporting findings, making complex information actionable for users across all technical levels.
- **Instant Knowledge Retrieval:** Providing instant access and interpretation of complex documents, with multilingual support for inclusive accessibility.
- **Enhanced Collaboration and Program Support:** Fostering communication and efficiency among national NTD programs by providing direct navigation to relevant ESPEN portal pages, offering insights from the Campaign Intelligence Hub, and streamlining workflows, all within a single, integrated platform.

Where can I locate ESPEN's resources for visualizing soil-transmitted helminthiasis data?

Based on your query, I found relevant information on pages E5 and E7 from the documents you uploaded. The ESPEN resources for visualizing soil-transmitted helminthiasis data can be accessed through the ESPEN Portal. This portal provides tools such as the PC-NTD Progress Dashboards, which include 10-level maps and datasets showing prevalence data, current endemicity, and PC coverage by year. Additionally, the ESPEN Survey Services supports the collection and visualization of real-time data through the ESPEN Collect mobile application!

Other suggested Questions related to your query:

1. What are the key features of the ESPEN Collect mobile application?
2. How can ESPEN's forecasting dashboards be utilized for NTD program planning?
3. What kind of data is available through the ESPEN Portal for soil-transmitted helminthiasis?

For accessing this resource please refer to [Documents on ESPEN Portal](#) where you can download the file by filtering and search for documents.

1. [Namibia NTD Master Plan 2013 - 2027.pdf](#)

where can I find maps and data on the ESPEN portal?

You can find maps and data on the ESPEN portal here: <https://espen.afro.who.int/maps-data>

This page provides access to a wide range of maps and data related to neglected tropical diseases (NTDs) across Africa, including country-specific and regional overviews.

What is the trend in epidemiological coverage for Onchocerciasis in Burkina Faso over the past five years?

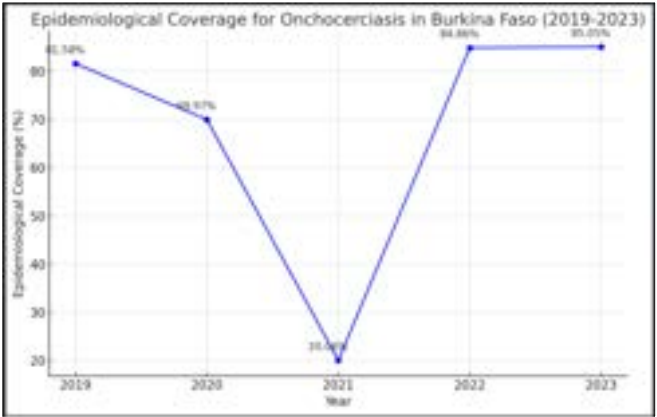
Assumptions: Since your query specified Burkina Faso and Onchocerciasis, I made no assumptions regarding the country or disease. The data was fetched for the past five years.

Table Reference: The information was retrieved from the "Afro_Country_Oncho_data" table using the columns for Year and Epidemiological Coverage (EpiCoverage).

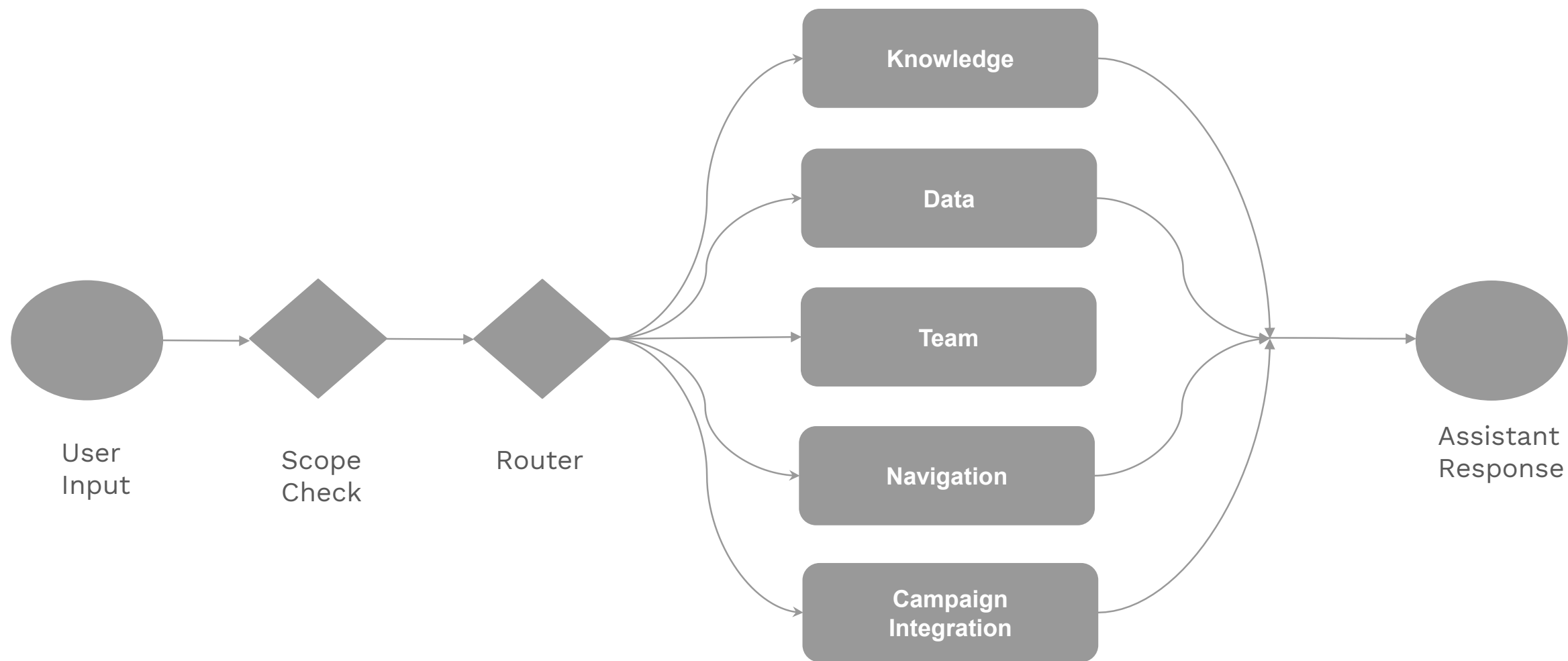
Answer:
Here is the trend in epidemiological coverage for Onchocerciasis in Burkina Faso over the past five years:

Year	Epidemiological Coverage (%)
2023	85.05
2022	84.86
2021	20.06
2020	86.97
2019	81.58

Key insights: The epidemiological coverage for Onchocerciasis in Burkina Faso has generally been high, with a significant drop in 2021. The coverage improved again in 2022 and 2023, reaching over 85%.

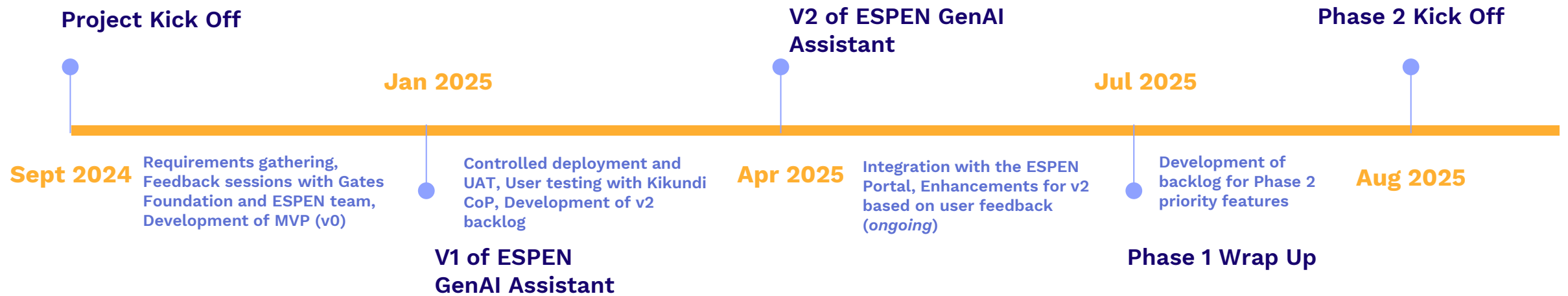


Introducing the ESPEN GenAI Assistant





Development Timeline



Accessing the ESPEN GenAI Assistant

Option 1:

Access via ESPEN Portal (<https://espen.afro.who.int/>)



Option 2:

Access via Open Chat Studio Platform





Demonstration



When was the last time you needed some data for e.g. **What is the history of MDA implementation for Schistosomiasis in Angola since 2013, including the number of implementation units each year** -- and spent 15 minutes clicking through PDFs or spreadsheets?



Let's see how the ESPEN GenAI Assistant works with summarizing information from different documents:

What are the overarching global targets for 2030 as outlined in the road map?



The ESPEN GenAI Assistant is also capable of sharing data from the Campaign Intelligence Hub* to plan effectively for upcoming campaigns.

Let's ask the assistant: **We have a LF campaign in 2025 but don't have resources to distribute the drugs due to the USAID cuts. Are there other campaigns I can integrate with to make sure the drugs don't expire? I am based in Burundi.**

*We're currently in the process of setting up an API integration with the Campaign Intelligence Hub that will allow for auto-refresh of the upcoming campaigns data.



The ESPEN GenAI Assistant can also help you find the relevant place to find information on the current ESPEN Portal for e.g.
Where can I find country level maps on the ESPEN Portal?



QnA



Thank You

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Deep Dive: Strategic Use of Data for Programme Scenarios and Prioritization

Ms Katie Shanahan

Data Scientist, JSI

Agenda

- Overview and introduction
- Frameworks for data-informed decisions
- Applying frameworks to decisions
- Data teams
- Wrap up

What Does it Mean to be Data Driven?

Using data consistently to adjust the decisions we make

- To be data driven, we need:



A data-driven mindset



Descriptive analysis



Appropriate tools



Diagnostic analysis



Decision support analysis



Taking action in response



Making data use routine

Beyond Reporting: Use Data to Make Decisions

- Yesterday, we look at using past data to understand:
 - What happened
 - Why it happened
- Today, not just looking back—using data to:
 - Plan ahead
 - Avoid waste
 - Improve outcomes

Taking Action



- **Identify actionable findings:** What can realistically be changed?
- **Engage decision-makers early:** Share findings with those who can act
- **Prioritize changes:** Focus on high-impact, feasible steps
- **Document decisions:** Create a record of what action was taken and why
- **Track follow-up:** Monitor whether changes made a difference

Data is only useful if it leads to change!

From Data to Decision



Start with the decision, not the data: What problem are we trying to solve?



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Types of Decisions Data Supports



- **Strategic: Long-term direction**

- Where should we scale up or down?
- Where are we under-resourced?
- What happens if funding changes?

- **Tactical: Planning and optimization**

- What's the likely demand next quarter?
- Are our stock levels aligned with expected need?

- **Operational: Daily execution**

- Where are shipments delayed?
- Who hasn't reported?
- What's the stockout risk next week?

Example: Stockouts

- Strategic: Change distribution model
- Tactical: Order better
- Operational: Adjust delivery

Frameworks and Tools for Data-Informed Decision Making

5W1H



- Ask of each decision:
 - **What** are we deciding?
 - **Why** does it matter?
 - **Where** does it apply?
 - **When** is action needed?
 - **Who** is involved or affected?
 - **How** will data inform our options?
- You can apply this to real examples like:
 - Reallocating drugs before a campaign
 - Choosing districts for intensified support
 - Deciding when to shift to school-based vs. community-based MDA

WHO Integrate Framework

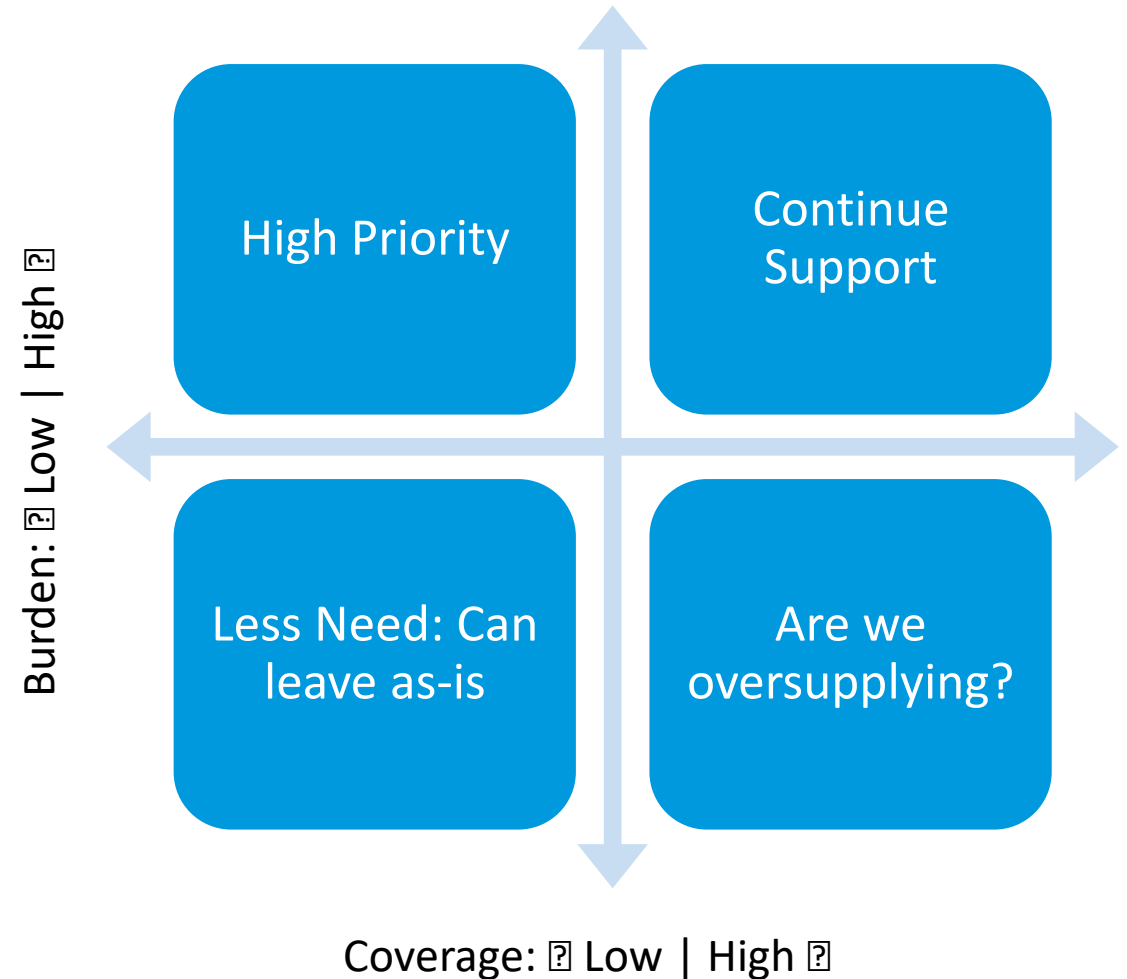


Criterion	Description
1. Balance of benefits and harms	Will this improve health more than it causes problems?
2. Human rights and sociocultural acceptability	Is it acceptable, respectful, and culturally appropriate?
3. Health equity, equality, non-discrimination	Will it reduce health disparities or leave people behind?
4. Societal implications	What are the broader effects on systems, communities, or behavior?
5. Financial and economic considerations	Is it affordable and a good use of resources?
6. Feasibility and health system considerations	Can it realistically be done in the current system?
7. (Meta) Quality of evidence	How certain are we in the data supporting this decision?

Priority Matrix



- Create a matrix:
 - Example: High burden + low coverage = high priority
 - Use scoring to compare



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Advanced Analytics



You can use AI tools (e.g., powerdrill, Julius AI) or analyst support for advanced analyses:

Forecasting

Analyzes data over time to predict future values

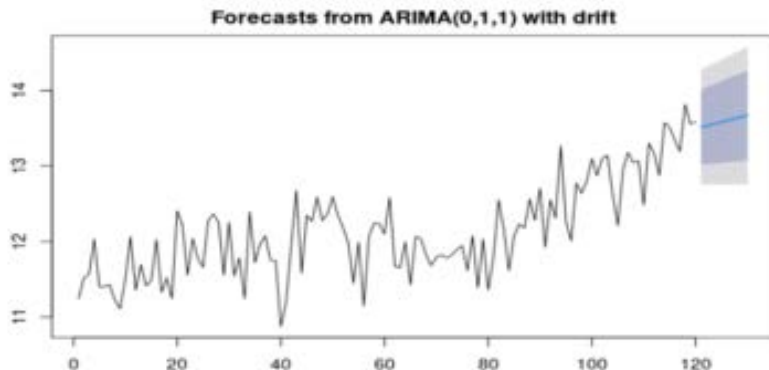


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Predictive Modeling

Models relationships between variables to predict outcomes

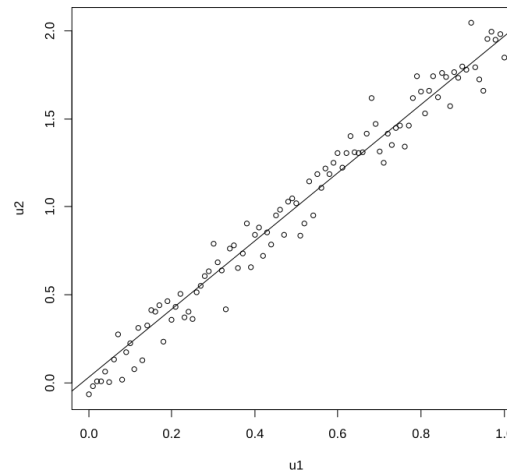


Image source: Cdang, CC0, via Wikimedia Commons

Optimization

Identifies the best solution given constraints

Simulation

Models different scenarios or possible outcomes

For analysts or those with analyst support, the appendices have resources for doing these in Excel



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Applying to Different Types of Decisions

Scenario Idea – Choosing Delivery Channels for Next MDA



- Decision: Should we shift from community-based to school-based delivery?
- Options:
 - Stay with current method
 - Pilot school-based in 5 areas
- Data:
 - Past coverage by age group
 - School enrollment
 - Resource availability
- Framework: Use 5W1H to guide the comparison

Scenario Idea – Prioritizing Districts With Limited Funding



- Decision: Where should we focus intensified support this year?
- Options: Districts A, B, and C
- Data:
 - Coverage trends
 - Missed populations
 - Supply history
 - Feasibility reports
- Framework: Use Integrate to choose the best target area.

Scenario Idea – Estimating Drug Needs for Contingency Planning



- Decision: How much buffer stock should we keep for re-treatment?
- Data:
 - Past campaign failure rates
 - Past stock outs of medicines
 - Re-treatment coverage
 - Supplier lead times
- Use: Simple trend analysis + projections to plan.



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Practical Considerations

Ethical & Responsible Data Use

- Use data to improve programs—not punish people
- Poor data may reflect system issues, not individual failure
- Respect privacy: avoid exposing personal or identifiable data
- Share summaries, not raw names or sensitive information
- Consider if parts of your population may be missing from the data or if their needs may not be reflected in your analysis

Making Data Use a Habit



- Build regular reviews into monthly or quarterly meetings
- Assign data champions at district or facility level
- Use simple visuals (dashboards, charts) to keep data front and center
- Reward data-informed decisions (even small ones!)
- Share what data you used to make decisions
- Automate alerts or reminders for common issues (e.g., low coverage)

Routine use builds a culture of data—not just one-time reports.

How to Work with Analysts or Data Teams



- Be clear on what decision you need to make
- Ask for insights, not just graphs
- Be clear about what output you need. Is it a tool? A report? The answer to a question?
- Review results together
- Give feedback when data helped you take action

What to Do When the Data Isn't Enough?

- Use expert judgment
- Add qualitative insights
- Ask: Does this match field experience?
- Don't let perfect be the enemy of progress

Wrap Up

Use Data to Move from Insight to Action

- Ask:
 - What's the decision?
 - What are the options?
 - What's the best action based on what we know?
- Then:
 - Communicate it
 - Act on it
 - Learn and adapt

What's one future-oriented question your team could start asking with data?

Lunch Break



Practical Session: Scenario-Based Planning and Decision Support (Part II)

Programme & Data Managers

Practical Session: Scenario-Based Planning and Decision Support (Part II)

Supply Chain Management Officers

Coffee Break



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Preview Day 5 - Preparations for Day 5

Ms Namuchile Kaonga

ESPEN Supply Chain
Management Officer





THANK YOU