REGIONAL SUPPLY CHAIN WORKSHOP

DAY 4

Multi-Year Forecasting

World Health Organization
African Region

ESPEN
EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

World Health Organization
African Region

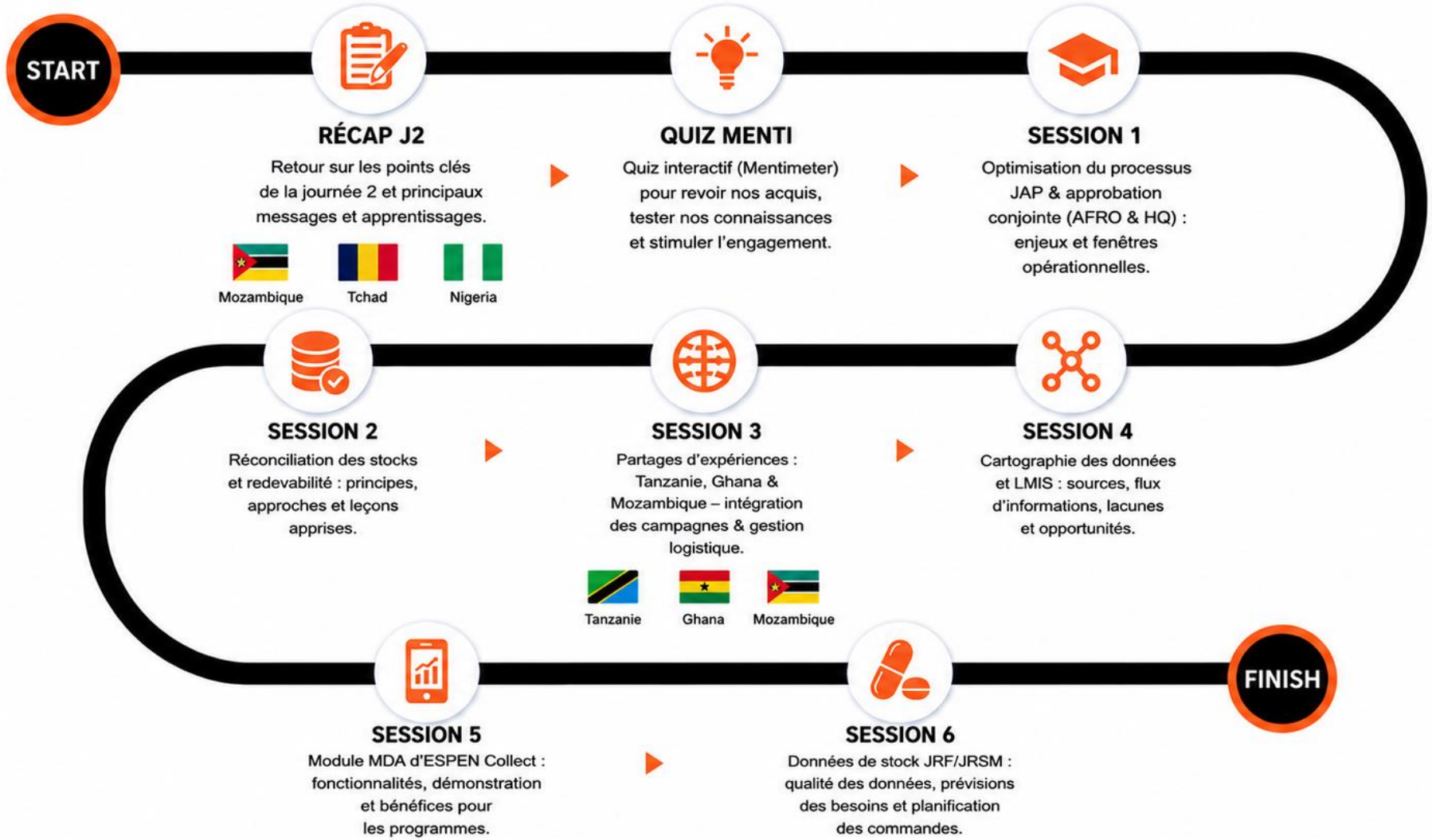
EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

WRAP UP
DAY 3

Democratic Republic of Congo (DRC), Mauritania, Kenya

RÉCAP J3 (J3)

RDC | Kenya | Mauritanie



Sessions 1-2

1.Optimisation du Processus JAP

Pourquoi soumettre tôt ?

- Validation des données
- Confirmation des financements
- Quantification des besoins
- Coordination des partenaires
- Organisation expéditions & dédouanement

Défis identifiés

- Données incomplètes ou obsolètes
- Dossiers JAP incomplets
- Capacités d'analyse limitées
- Coordination insuffisante entre partenaires

2.Réconciliation des Stocks

Stock initial + Réceptions = Distribués + Pertes + Restant

Principaux défis

- Documentation insuffisante
- Données non harmonisées entre niveaux
- Écarts stocks théoriques / physiques
- Difficulté de justification des pertes

Recommandations

- Standardiser les outils de collecte
- Réaliser des inventaires réguliers
- Renforcer la traçabilité des produits
- Développer des systèmes numériques interopérables

💡 **Des données de stock fiables + un JAP précoce = quantification précise et programmes MTN résilients**

Session 3: Partage d’expériences des Pays

1.TZ Tanzanie

- Intégration des campagnes et produits de santé
- Utilisation conjointe DHIS2 et eLMIS
- Suivi des stocks en temps réel

2.GH Ghana

- Intégration MTN dans le système national
- Application dédiée aux campagnes MDA
- Logistique inverse institutionnalisée

3.MZ Mozambique

- Visibilité des stocks au dernier kilomètre
- Utilisation du DHIS2 pour les campagnes
- Réduction de la durée des campagnes

💡 **Digitalisation + Intégration + Visibilité des stocks = Meilleure performance des programmes MTN**

Session 4-5-6

4.Cartographie de données et LMIS

- Sources primaires & secondaires MTN
- Flux remontée/redescente des données
- Goulets d'étranglement logistiques
- Redondances entre systèmes parallèles
- Interopérabilité DHIS2 ↔ LMIS MTN
- Objectif : système intégré & orienté décision

5. ESPEN Collect – Suivi Numérique des Campagnes MDA

Fonctionnalités :

- Couverture
- Supervision
- Stocks
- Événements indésirables
- Indicateurs auto

Valeur ajoutée :

- Disponibilité données
- Rapportage accéléré
- Redevabilité
- Prise de décision

6. Données de Stock JRF/JRSM et Prévision des Besoins

Stock au 31/12 = référence annuelle | Qualité des prévisions ≡ qualité du rapportage

- Données épidémiologiques actualisées
- Plans opérationnels réalistes
- Capacité de mise en œuvre documentée

A RETENIR DE LA JOURNEE: 01 Données de qualité · 02 Stocks maîtrisés · 03 Planification JAP · 04 Digitalisation

Données fiables · Stocks maîtrisés · Systèmes intégrés = Programmes MTN efficaces et redevables

RECOMMENDATIONS ET POINTS D’ ACTIONS A COURT TERME

Actions prioritaires

- Soumettre tôt des demandes conjointes complètes et actualisées — données épidémiologiques complètes, conformes aux directives OMS, avec financement confirmé.
- Enregistrer les données de traitement et d'inventaire ligne par ligne à chaque niveau, afin de pouvoir calculer le solde théorique.
- Utiliser le formulaire de déclaration national / le résumé Excel ; investiguer toute formation sanitaire avec >5 % de stocks non justifiés (comptage physique, traçabilité vers les fiches ADDs).
- Remplir le tableau d'inventaire du JRF — déclarer les comprimés administrés, et non les expéditions depuis l'entrepôt.
- Soumettre le JRSM 2027 ≥9 mois avant la DMM ; saisir les dates prévues et appuyer sur « Générer la demande ».
- Désigner un responsable nominatif pour la réconciliation et œuvrer à l'intégration des systèmes parallèles (DHIS2 / eCHIS / ESPEN Collect).

Défis persistants à relever

- Données de traitement et d'inventaire dans des systèmes séparés et non liés ; absence de formule pour le solde attendu ; absence de responsable de la réconciliation.
- Terminologie JRF/JRSM confuse (« en stock », « distribué ») — l'OMS devra réviser les intitulés et publier les définitions sur le portail ESPEN.
- Logistique inverse pour les flacons scellés et ressources humaines dédiées à la chaîne d'approvisionnement limitées au niveau district.
- Contraintes de souveraineté des données sur ESPEN Collect hébergé par l'OMS (hébergement national prévu).
- Reclassification de l'endémicité (ex. Angola) — localités éligibles à la DMM selon les enquêtes mais absentes du JRSM ; à réconcilier bilatéralement.
- Lacunes de surveillance après retrait des partenaires (ex. enquêtes d'évaluation d'impact LF au Mozambique).

Perspectives — Journée 4 : Prévisions pluriannuelles (Projections ESPEN, outil Excel PMR, validation JRSM par IA). Apportez vos données réconciliées de stocks et de traitements.

QUIZ

WHO AFRICAN REGION • ESPEN

Day 3 – Quick Quiz

Four questions to check what we captured today

English • Français • Português

Multiple choice • no marks, just a show of hands • answers revealed at the end

Chaque question est présentée en anglais, en français et en portugais / Cada pergunta é apresentada em inglês, francês e português

SCM Workshop for PC-NTDs • Kintele • 17 June 2026

EN

According to Day 3, what is now the main bottleneck delaying medicine approval (the Joint Application)?

A Shipping and customs delays

B Application readiness and data quality (incomplete/outdated dossiers)

C Lack of manufacturing capacity

D Too many applications submitted too early

FR

Selon le Jour 3, quel est désormais le principal obstacle qui retarde l’approbation des médicaments (la demande conjointe) ?

A Les délais d’expédition et de douane

B La qualité des données et l’état de préparation du dossier (dossiers incomplets/périmés)

C Le manque de capacité de fabrication

D Trop de demandes soumises trop tôt

PT

Segundo o Dia 3, qual é agora o principal obstáculo que atrasa a aprovação dos medicamentos (o pedido conjunto)?

A Atrasos no transporte e na alfândega

B Qualidade dos dados e preparação do dossiê (dossiês incompletos/desatualizados)

C Falta de capacidade de fabrico

D Demasiados pedidos submetidos cedo demais

EN

What is the theoretical balance formula used to identify unaccounted-for tablets?

A Received – Distributed only

B Opening balance + Received = Distributed + Wasted + Remaining

C Distributed × Coverage

D Opening balance – Wasted

FR

Quelle est la formule du solde théorique permettant d'identifier les comprimés non comptabilisés ?

A Reçu – Distribué uniquement

B Solde initial + Reçu = Distribué + Perdu + Restant

C Distribué × Couverture

D Solde initial – Perdu

PT

Qual é a fórmula do saldo teórico usada para identificar comprimidos não contabilizados?

A Recebido – Distribuído apenas

B Saldo inicial + Recebido = Distribuído + Desperdiçado + Restante

C Distribuído × Cobertura

D Saldo inicial – Desperdiçado

EN

Why do large quantities of tablets become “unaccounted for” across the distribution chain?

A The tablets are always genuinely lost or stolen

B Treatment and inventory data are not recorded line-by-line in the same record at each level

C Wastage above 5% is normal and expected

D WHO does not require any stock reporting

FR

Pourquoi de grandes quantités de comprimés deviennent-elles « non comptabilisées » le long de la chaîne de distribution ?

A Les comprimés sont toujours réellement perdus ou volés

B Les données de traitement et de stock ne sont pas saisies ligne par ligne dans le même registre à chaque niveau

C Une perte supérieure à 5 % est normale et attendue

D L'OMS n'exige aucun rapport de stock

PT

Porque é que grandes quantidades de comprimidos ficam “não contabilizadas” ao longo da cadeia de distribuição?

A Os comprimidos estão sempre realmente perdidos ou roubados

B Os dados de tratamento e de stock não são registados linha a linha no mesmo registo em cada nível

C Desperdício acima de 5% é normal e esperado

D A OMS não exige qualquer relatório de stock

EN

For the forward-looking JRSM (medicine request), what is the recommended practice?

A Submit any time after MDA has started

B Submit at least 9 months before planned MDA and press “Generate Request”

C Leave the in-stock column blank

D Enter the current year’s incoming shipments in the pipeline column

FR

Pour le JRSM prospectif (demande de médicaments), quelle est la pratique recommandée ?

A Soumettre à tout moment après le début de la MDA

B Soumettre au moins 9 mois avant la MDA prévue et cliquer sur « Generate Request »

C Laisser la colonne « stock disponible » vide

D Saisir les expéditions entrantes de l'année en cours dans la colonne « pipeline »

PT

Para o JRSM prospetivo (pedido de medicamentos), qual é a prática recomendada?

A Submeter a qualquer momento após o início da MDA

B Submeter pelo menos 9 meses antes da MDA prevista e clicar em “Generate Request”

C Deixar a coluna de stock disponível em branco

D Inserir as remessas recebidas do ano corrente na coluna “pipeline”

ANSWER KEY (facilitator)

Bonnes réponses / Respostas

Q1 — **B**

Application readiness and data quality (incomplete/outdated dossiers)

EN: WHO/AFRO can approve in ~2 weeks when data are complete – the bottleneck is dossier quality. **FR:** L'OMS/AFRO peut approuver en ~2 semaines si les données sont complètes ; le frein est la qualité du dossier. **PT:** A OMS/AFRO pode aprovar em ~2 semanas com dados completos; o obstáculo é a qualidade do dossiê.

Q2 — **B**

Opening balance + Received = Distributed + Wasted + Remaining

EN: If reported balance < theoretical balance, the difference is unaccounted-for stock. **FR:** Si le solde rapporté < solde théorique, l'écart correspond au stock non comptabilisé. **PT:** Se o saldo reportado < saldo teórico, a diferença é stock não contabilizado.

Q3 — **B**

Treatment and inventory data are not recorded line-by-line at each level

EN: They must be on the same line, not just the same page; gaps then pile up to national level. **FR:** Elles doivent figurer sur la même ligne, pas seulement la même page ; sinon les écarts s'accumulent. **PT:** Devem estar na mesma linha, não apenas na mesma página; senão as lacunas acumulam-se.

Q4 — **B**

Submit ≥9 months before MDA and press "Generate Request"

EN: Use the 31 Dec estimate for in-stock; pipeline = confirmed external stock only; enter plan dates. **FR:** Utiliser l'estimation au 31 déc. pour le stock ; pipeline = stock externe confirmé ; saisir les dates. **PT:** Usar a estimativa de 31 dez. para stock; pipeline = stock externo confirmado; inserir as datas.

Daily Summary Teams

✓*Each day, the designated countries will present a brief summary of the key discussions, lessons learned and agreed action points.*

- Day 4: Central African Republic, United Republic of Tanzania (Mainland), Ethiopia

Introduction to Multi Year Forecasting

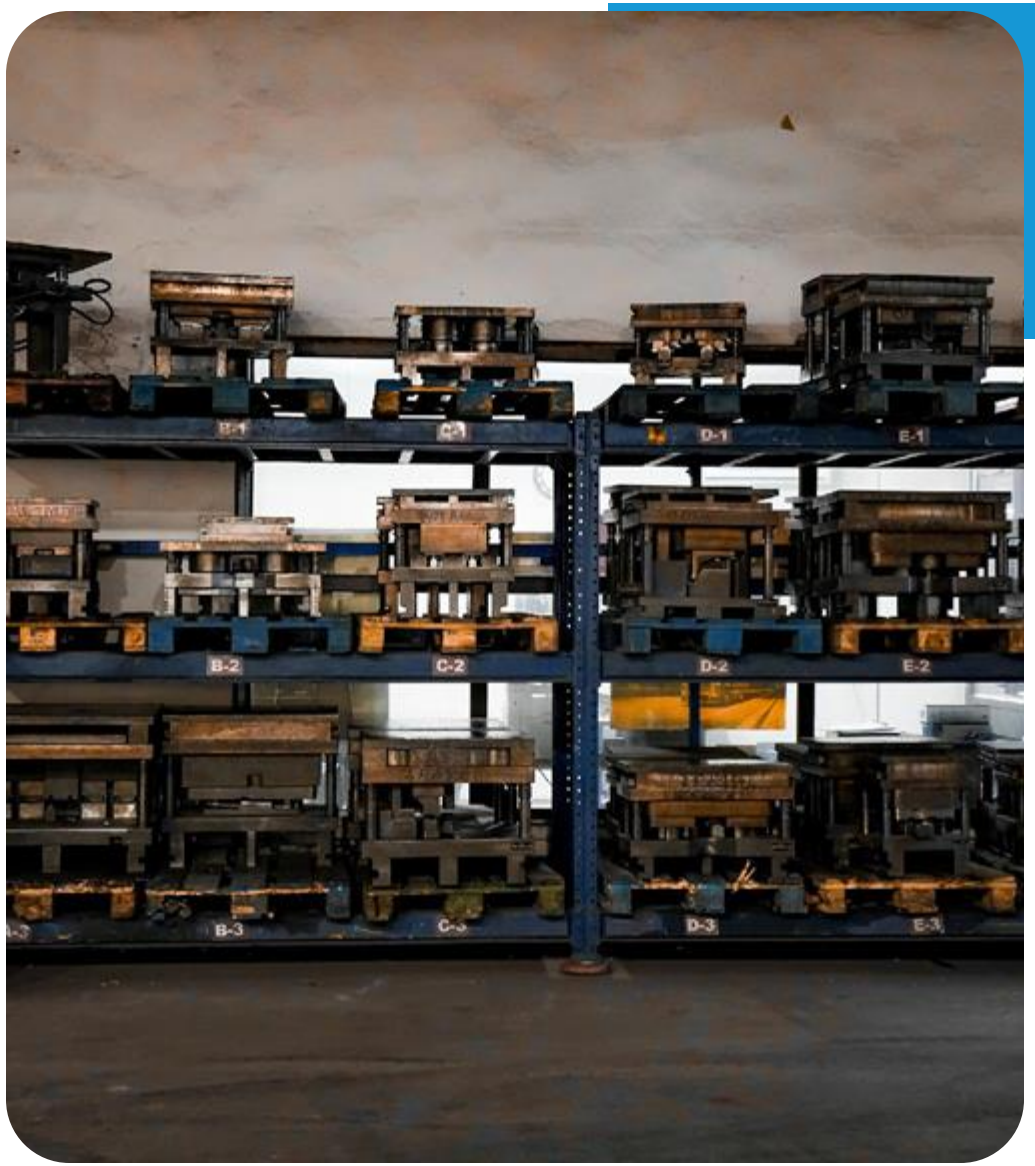
World Health Organization
African Region

Outline

1. Multi year forecasting rationale and benefits

1. Quantification principles and steps

1. Multi Year forecasting versus short term forecasting



Recent Challenges in Predicting Future Demand

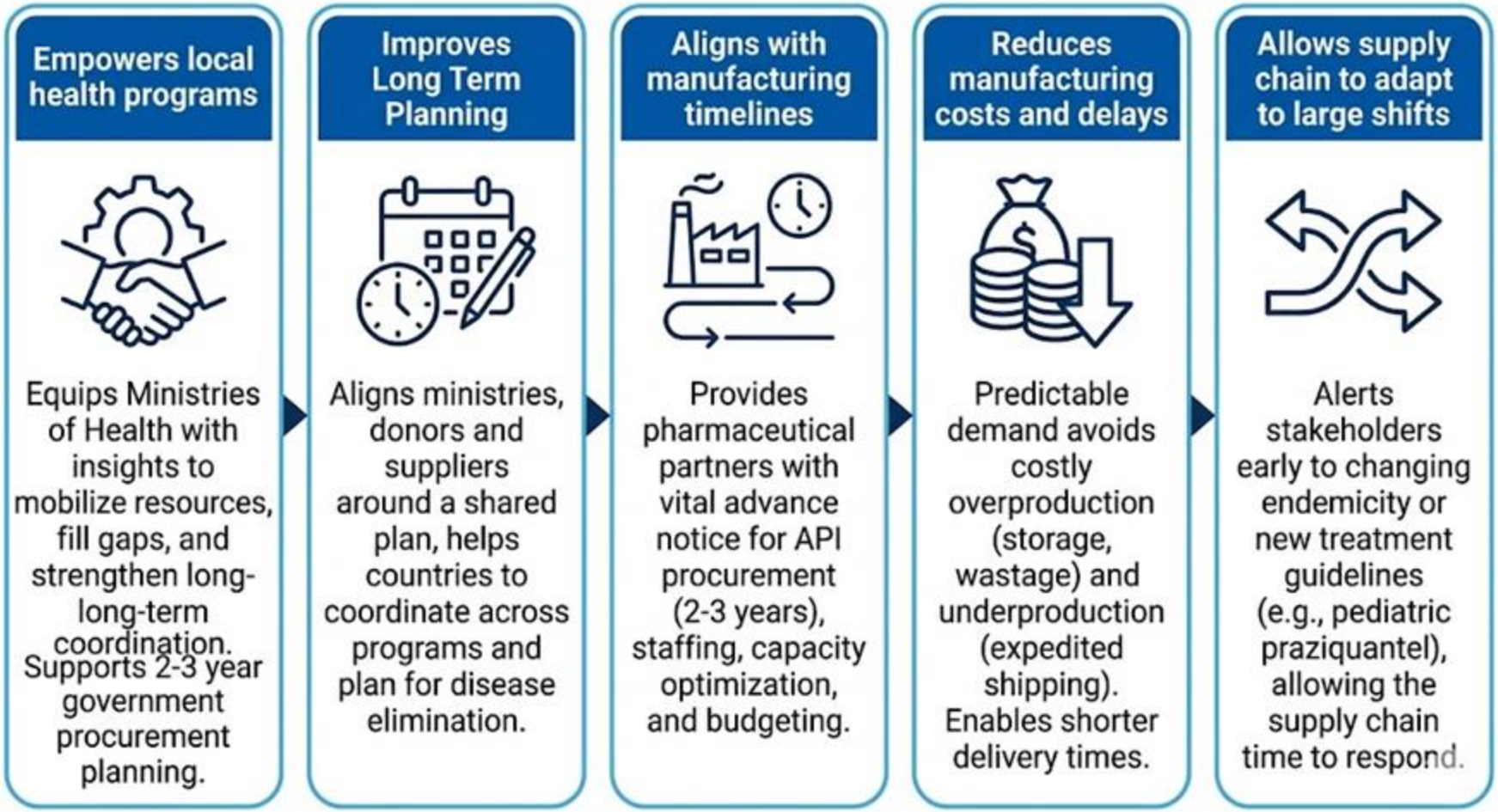
Inconsistent Yearly Demand

- Changing endemicity as countries move towards elimination.
- New treatment guidelines can result in large and rapid shifts in future demand.

Funding Landscape Shifts

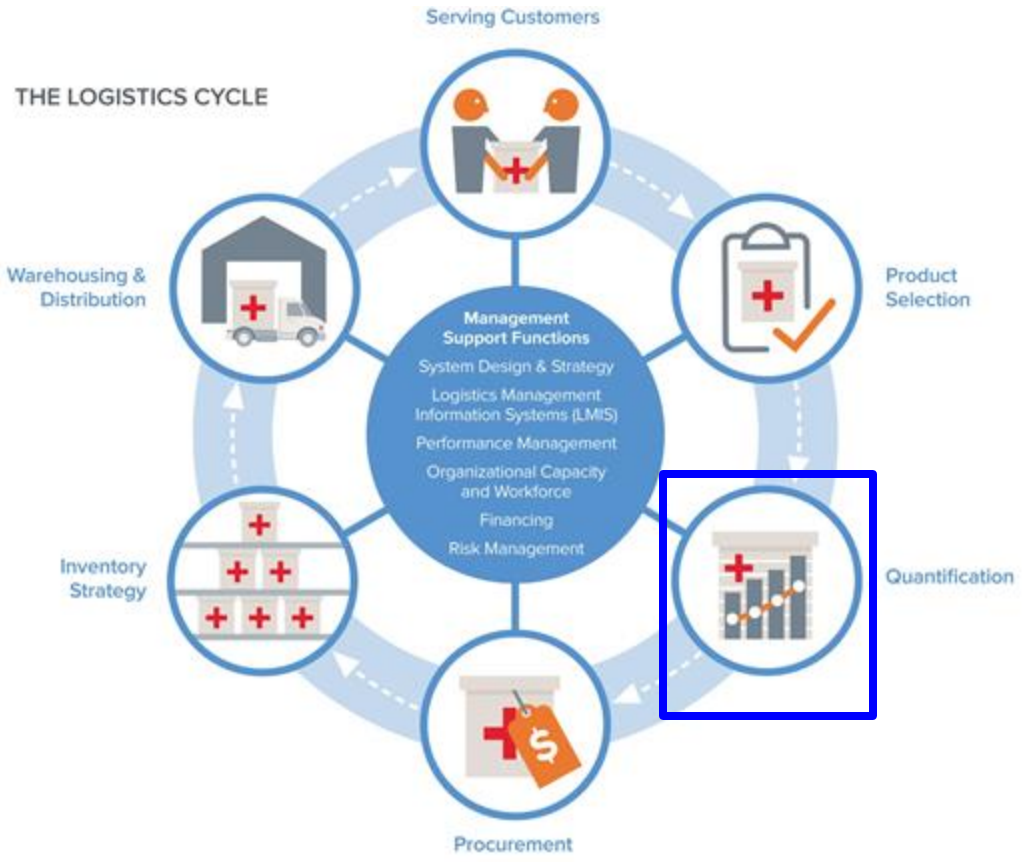
- Reduced donor funding that may affect MDA implementation.
- Increase in integrated campaigns, government funding and local procurement.

Multi-Year Forecasting Provides Benefits for All



Quantification

Third step of the logistics cycle



Quantification

Quantification is the process of **estimating the quantities** and **costs** of the products required for a specific health program (or service) and **determining when** the products should be delivered to ensure an uninterrupted supply for the program. It comprises two parts:

Quantification = Forecasting + Supply Planning

Quantification Steps

1. Preparation

Define the scope of the quantification.

Collect different types of **data** that will be useful for forecasting and supply planning.

- Consumption
- Demographics
- Inventory

2. Forecasting

Organize, analyze, and adjust data.

Build forecasting assumptions.

Calculate forecasted needs for each product.

Reconcile forecasts to **produce a final estimate**.

3. Supply Planning

Determine **what quantities** and **by when** products need to arrive.

Key Considerations:

- Current stock on hand
- Quantities already on order
- Supplier lead times and costs

Different forecasts for different users

	Manufacturers	Donors	Procurers	Governments	Global Health community
Short term forecasts (0-18 month)	*Inform production (shifts, final product customization, ordering of inputs)*	*Funding needs and disbursement*	*Tendering, budgeting, freight/distribution planning, coordination*	*Disbursement of funds, campaign and distribution planning*	*Planning, informing activities and related work*
Medium term forecasts (1-5 year)	*Inform management decisions - production planning (staffing, inputs, API, capacity optimization), supplier relations/negotiations, budgeting*	*Investment decisions*	*Contract negotiations, resource planning, budgeting*	*Planning for program needs (and related costs, resource needs), budgeting, resource mobilization*	*Research, advocacy, planning, etc.*
Longer-term forecasts (5-20 year)	*Strategic forecasts to inform resource planning: - capital expenditures - facility/capacity investments - regulatory efforts - R&D investments*	*Planning, budgeting, advocacy*	*Planning, budgeting*	*Planning, budgeting*	*Research, advocacy, planning, etc.*

Multi-year forecasting complements annual requesting

	JRSM Annual Forecast	Multi-Year Forecast
Purpose	Request exact quantity of medicines to be supplied for the next 12 months	Estimate changes in demand so the supply chain has time to respond
Key Question	*What, how much, and when do we need the medicines?"*	*What will our medicine needs and costs look like in **3-5 years**, and how do we prepare?*
Key Features	Operational, actionable, higher accuracy	Strategic, directionally accurate, supports advocacy and preparedness

They solve different problems but are directly linked. The long-term forecast supports planning and advocacy, and the annual request puts the plan into action.

Medium to Long Term Forecasts

Medium term forecasts at country level can provide several strategic benefits:

Strategic Insight

Forecast potential changes in commodity needs due to changes in epidemiology and treatment guidelines for PC, preventing large and rapid shifts in demand.

Empowerment & Advocacy

Empower NTD Programs with information to plan and advocate beyond specific donation subgroups (e.g. SAC, WRA).

Facilitates transitions to government-led procurement if donor support decreases.

Global Synergy

Shorten preparation time for JRSMs by organizing and updating future data.

Support pharma production planning, enabling faster response to country requests and delivery.

Multi-Year Forecasting Progress So Far

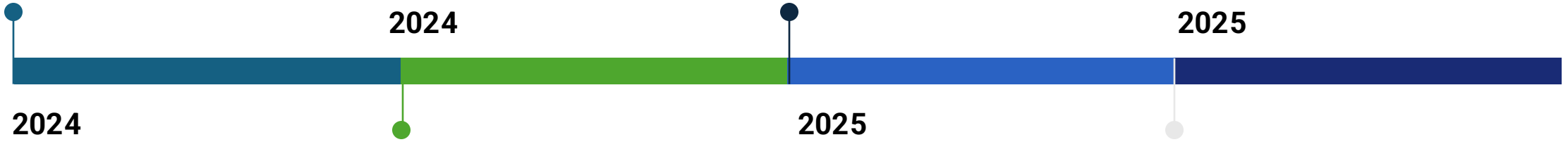
SCTSM in collaboration with ESPEN, WHO, pharmaceutical and implementing partners has developed a multi-year forecasting tool for PC-NTD medicines that are handled by WHO.

July

First version of tool develop in Excel online.

April

Six countries updated their forecasts and presented to stakeholders.
New version of tool under development



September

Seven of the **eight project countries** completed initial forecasts using the new tool and presented at the SCTSM Annual Meeting in Geneva (prior to Supply Chain Forum).

September

All eight countries completed forecasts with new and improved version of tool. Four present at SCTSM annual meeting and four during weekly calls.

World Health Organization
African Region

ESPEN EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Multi-year Forecasting Methodology and Tool

The Excel- based tool uses the same methodology as the Joint Request for Selected Medicines (JRSM). Forecasters consider the factors below to estimate population requiring MDA and medicine quantities for future years.

Endemicity & Elimination Progress

Potential endemicity changes due to upcoming surveys as countries make progress toward disease elimination.

Shifts in Funding

The likelihood of funding for implementation in the changing funding landscape and a shift toward integrated MDAs and increased government funding.

Treatment Guidelines & New Products

Predicting changes in demand due to new products or changes in treatment guidelines, such as the introduction of pediatric praziquantel (PZQ) or treatment by sub-IU level.

Inventory & Consumption Data

Possible leftover medicines based on past coverage rates and accounting for those in the final needs.

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Country Experiences With Multi-Year Forecasting

Expériences avec l'outil de planification pluriannuelle

NTD Supply Chain Workshop

15 au 19 juin 2026

Madagascar

Presented by : Madame Miarinoro RANDRIANASOLO

NTD Supply Chain - Moh

World Health Organization

African Region

ESPEN

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

World Health Organization
African Region

Introduction

MADAGASCAR :

- Île avec une superficie de **587,041 km²**
- Population: **31 725 495 million**
- Accessibilité géographique aux services de santé 58% (<5km)
- 115 DS / 23 regions
- endémique en FL : 87DS avec 04DS en arrêt de traitement , 83DS en cours d'enquête de surveillance
- endémique en SCH : 114 DS
- endémique en STH : 104 DS

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Approche pour la planification pluriannuelle

01

Elaboration des SOP incluant les tâches et les responsabilité, les activités à faire

02

Intégration de la planification pluriannuelle dans le manuel de quantification du MoH et appropriation par le

03

Présentation des résultats aux MoH , partenaires et producteurs pour leur positionnement

Approche pour la planification pluriannuelle

- Planification pluriannuelle organisée une fois dans l'année et mise à jour après la validation de JRSM
- Réalisée à travers un atelier de 3 jours
- Participants: Responsable de données et Responsable de la chaîne d'approvisionnement du service, Responsables des données et responsable des intrants SCH-STH/LF, OMS Pays, DPLMT, ET DLMT, JSI

Méthodologie

- Quantification pluriannuelle basée sur la méthode démographique
- Méthode de quantification et responsabilités de l'équipe définies dans les SOP
- Outil de quantification de 3 ans basé sur excel
- NTDeliver

Données requises pour la quantification

- JRSM2025
- Population totales et cible, taux d'accroissement annuel
- Endémicité SCH-STH et FL et nombre de tour de traitement
- Planification LF (Enquête)
- Situation de stocks (central et périphérique)
- Données historiques de DMM (Portail ESPEN)
- Planification de distribution des districts
- Médicaments utilisés par maladie
- positionnement des partenaires

Hypothèses utilisées dans la planification pluriannuelle

- **Hypothèses de prévisions** : enquête , endémicité attendue , coendémicité, disponibilité du financement, integration des activités, JRSM validé

- **Sessions ou thèmes abordés** : rappel sur la quantification (DPLMT), résultats d'enquête, la planification des programmes, l'outil de prévision, le plan d'approvisionnement

Expériences dans l'Utilisation de l'outil de planification pluriannuelle

Avantages de cet outil :

- Quantification par district (visualisation en avance des planifications de mise en oeuvre)
- outil excel, facile à manipuler
- Réduction des calculs manuels

Difficultés rencontrées avec cet outil :

- SCH avec endémicité et mise en oeuvre en infra district
- Outil trop automatisé ne permettant pas un ajustement (Population…), utilisant des formules complexes
- Incompréhension des données historiques de DMM sur le portail d'ESPEN (efficacité DMM)

Avantages d'une Planification Pluriannuelle

- Vision à moyen terme des besoins
- Estimation des coûts affectés à l'entreposage, à l'acheminement et à la distribution
- Positionnement des partenaires
- Résultats de la quantification reconnus par la DPLMT/MoH

Principaux défis liés à la planification pluriannuelle

- ✓ La qualité des données utilisées : stock, taux d'accroissement de la population, changements démographiques rapides (croissance de la population ou migrations internes)
- ✓ Extension ou réduction des zones endémiques suite aux résultats des enquêtes épidémiologiques (Modification des recommandations de traitement selon l'évolution de l'endémicité après enquête)
- ✓ Visibilité des stocks disponibles au niveau périphérique (difficultés de collecte, de remontée et de comptabilisation des stocks résiduels dans les districts)

Principaux Défis Liés à la Planification Pluriannuelle

- ✓ Les contraintes logistiques et les incertitudes de financement (financements souvent annuels alors que la planification des besoins devrait couvrir 3 ans ou plus)
- ✓ Intégration de la planification pluriannuelles avec les autres programmes du MOH (ex : palu, VIH/SIDA, Tuberculose…) utilisant les différentes méthodes
- ✓ Résultats de la planification pluriannuelle reconnus par le Comité de Gestion Logistique (CGL) pour l'engagement du gouvernement (participation à l'achat de médicaments, au stockage….)

Leçons apprises et propositions de solutions

Défis	Solutions proposées
La qualité des données de stock	Accélérer l'utilisation de DHIS2
Avoir une prévision exacte	-Analyser systématique les écarts de prévision et les causes, les documenter (vision antérieur) -Utiliser les données réelles des MDA précédentes
Prévision SCH	Utiliser l'outil infra district ou mettre en place un outil intermediaire
Extension des zones endémiques après les résultats d'enquête	Constituer un stock de sécurité
Financement incertain	Intégration avec d'autres programmes ministériels


MERCI

Experiences with Multi-Year Forecasting

NTD Supply Chain Workshop

15th to 19th June, 2026

Nigeria

Presented by Adewale Ayodeji

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES
ESPEN

World Health Organization
African Region

Introduction

Country Overview

- **PC NTDs in the country:** Lymphatic Filariasis (LF), Onchocerciasis (Oncho), Soil Transmitted Helminthiasis (STH), and Schistosomiasis (SCH).

- **Number of IUs:** The country has 774 IUs
- **Number Of SDPs for SCH :** 2137 SDPs

Total number of IUs per disease

Disease	# IUs Endemic	Medicines used
LF	41	ALB + IVM
Oncho	260	IVM
STH	429	MEB
SCH	659 (2,137 wards)	PZQ

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Approach to Multi Year Forecasting

01

xxxxxxx

02

xxxxxxx

03

xxxxxxxx

Approach to Multi-Year Forecasting

Hints

- Describe how the multi-year forecasting was conducted in your country in 2025
- Who participated in the process?
- Did you have a workshop? How many days was the workshop?
- What information was required for the workshop?
- What was the format?
- What kind of sessions/topics did you include?

- A 3-day MYF workshop was conducted, which brought together Implementing Partners (IPs), NTD disease program Managers, supply chain technical team, and M&E Officers
- Prior to the workshop, participants were given a heads-up regarding the required data needed for the workshop, such as information on country-specific values, target population and treatment data, funding commitments, inventory reports, MDAs, and planned surveys.
- The workshop adopted a mixed-methodology approach, including hands-on, discussions, and reviews

Methodology, data, and assumptions used in multi-year forecasting

Hints

- Describe the methodology, what data was required to do the forecast, what assumptions did you need to make, what process did you use to do the forecast.

Methodology

- Participants were trained on the use of the tool during the workshop before breaking out into disease specifics.
- Each group represented a disease program and was supported by its IP.
- The tool was populated using the 2026 JRSM as the base. Information on country-specific values, target population and treatment data, funding commitments, inventory reports, planned MDAs, and surveys was the required data used.
- A few adjustments were made to the number of rounds, and planned MDA considering programmatic direction.

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Assumptions used in multi-year forecasting

LF
Planned surveys: LGAs with 4 effective treatment rounds in 2027 are projected to achieve a 5th effective treatment round in 2028, thereby qualifying them for an Epidemiological Monitoring Survey (EMS) in 2029. These LGAs will not request medicines for treatment until the EMS has been conducted and its outcome is known.

SCH
Planned surveys: In 2026, there are planned impact assessments in Oyo, Lagos, Jigawa, Anambra, Imo, and Ebonyi States, but cannot pre-empt the outcome, as there may not be a significant reduction in worm burden amongst SAC. Therefore, the program opted to retain the current prevalence in some wards pending when assessment outcomes become validated

STH
Planned surveys: In 2026, there are planned impact assessment in Oyo, Lagos, Jigawa, Anambra, Imo, and Ebonyi States, but cannot pre-empt the outcome, as there may not be significant reduction in worm burden amongst SAC. Therefore, the program opted to retain the current prevalence in some communities pending when assessment outcomes becomes validated

Oncho
Planned surveys: IVM is still requested for areas planned to conduct stop MDA survey due to uncertainty and historical context in passing the assessment

Funding: There are financial commitments from implementing partners to support the MDA's intervention in endemic LGAs.

Funding: There is a financial commitment to support impact assessment in the listed States above.

Funding: There is a financial commitment to support impact assessment in the listed States above.

Funding: There are financial commitments by Implementing Partners to support assessment in the areas captured.

Experiences in Using the Multi-year Forecasting Tool

Hints

- How did you find using the Excel MYF tool?
- What were the benefits of such a tool, and are there any tips for other countries on how to use it?
- What were the challenges with the tool?

- Using the MYF tool was beneficial as it provided a structured and standardized approach for estimating medicine requirements, consolidating key programmatic and supply chain data, and facilitating scenario analysis for informed decision-making.
- A key recommendation for other countries is to ensure quality and up-to-date data are available before the forecasting exercise, while ensuring inclusion of all relevant stakeholders.

Benefits or Advantages of a Multi-Year Forecast

Hints

- Describe any positives from the forecasts, and how did it help the program

- It alerts stakeholders early to large changes in demand for medicines
- It improves accuracy for medicine supplies by providing data to inform production planning and understanding demand timing by pharma donors.
- It helps plan for early application for waivers.
- Forecast result can be used as an advocacy package for resource mobilization for procurement of NTD medicines, especially PZQ, for the treatment of the adult population
- The forecast result was part of the advocacy package to the Pharmaceutical Manufacturers Group of Manufacturers Association of Nigeria (PMG-MAN) in ensuring a smooth transition plan from donor dependency to local production.

Key Challenges with Multi Year Forecasting

Hints

- Describe any challenges encountered when forecasting

- Poor data quality from the sub–national level.
- Unpredictable funding support from implementing partners to support MDAs and impact assessment
- Inadequate/non–sustainable counterpart funding from relevant stakeholders.

Lessons Learned and Solutions

Hints

- Explain any lessons learned and possible solutions that could make the forecast better and more accurate next time

01	The MYF tool does not include keys to explain codes for endemicity	Include keys as comments to explain codes for endemicity
02	No specific format for reporting the expiry and inventory date	Include date format for uniformity

Q&A


THANK YOU

World Health Organization
African Region

ESPEN
EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Developing multi-year MDA & M&E projections for LF, Onchocerciasis and STH

A harmonized, deterministic forecasting engine for programme planning and medicine quantification across the WHO African Region, 2026–2035

What this session covers

01	**Background**	Why multi-year, IU-level projections matter for programmes, supply chains and donors
02	**Methodology**	A single deterministic engine; shared logic plus disease-specific decision rules
03	**Assumptions**	Endemicity, effective-coverage thresholds and survey ladders for LF, Oncho & STH
04	**Analytics**	AFRO regional trajectories 2026–2035, key-country highlights and elimination timelines
05	**Wrap-up**	Conclusions and the next frontier: sub-IU projections for schistosomiasis

Why multi-year projections — and why they matter for supply chains

A single, harmonized and reproducible dataset of IU-level annual projections (2026–2035) turns endemicity and treatment history into forward-looking operational intelligence.

1 Medicine quantification & forecasting

Year-by-year 'population to be targeted' feeds donation requests (Mectizan, albendazole, DEC/IDA) and de-risks supply planning.

2 Programme planning & JRSM validation

An independent benchmark to review national submissions and validate the JRSM medicine request.

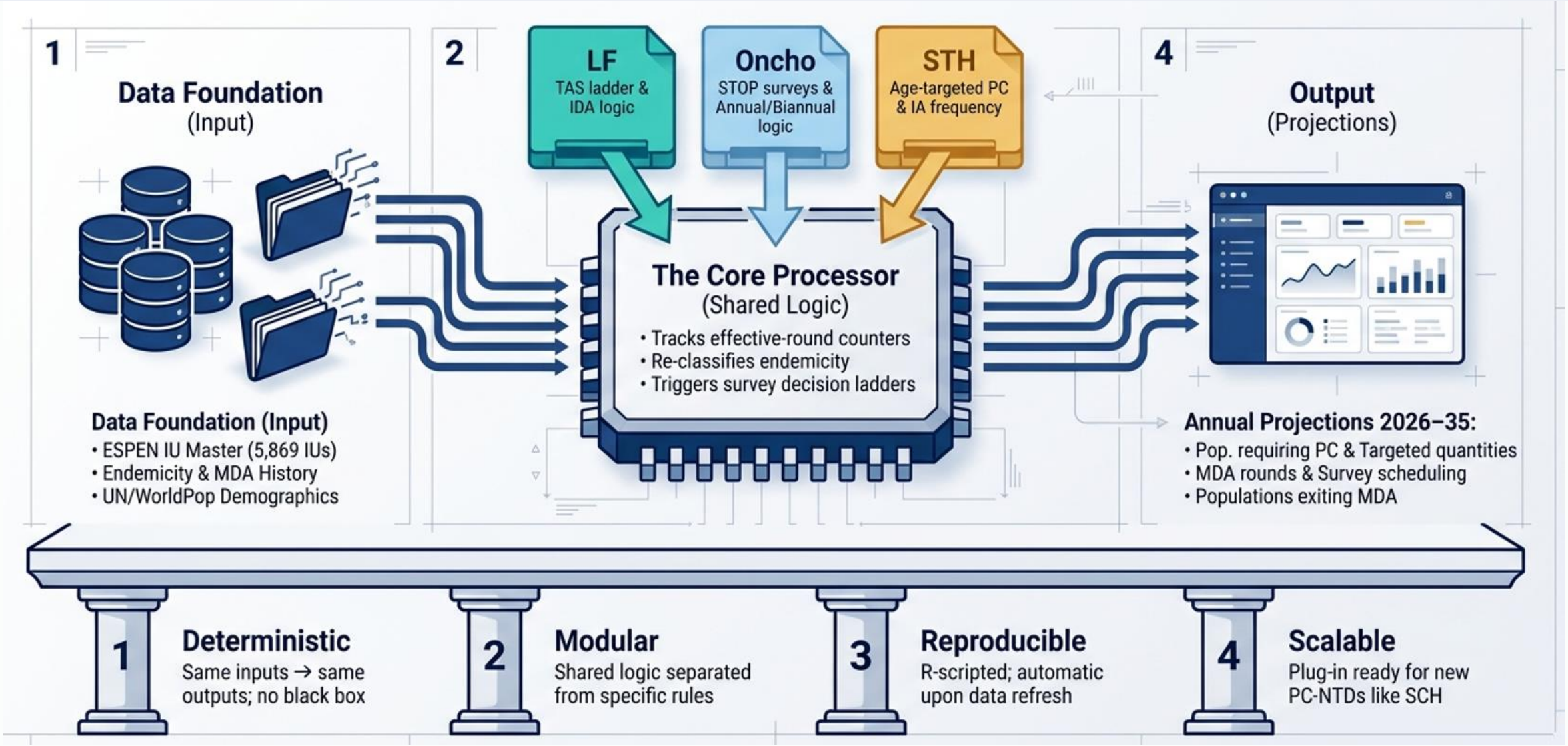
3 Survey & transition scheduling

Anticipates when IUs move from MDA to TAS / stop-MDA / impact assessment — timing of diagnostics and surveys.

4 Regional strategy & donor engagement

Consistent trajectories for regional reporting and resource mobilization, aligned to the NTD Roadmap 2030.

One engine, three diseases: a modular deterministic pipeline



Resolution: *5,869 Implementation Units × 10 years × 3 diseases · ~58,700 IU-year records each*

One engine, three diseases: a modular deterministic pipeline

	Lymphatic Filariasis (LF)	Onchocerciasis (Oncho)	Soil-Transmitted Helminths (STH)
Targeting & Efficacy Thresholds	Total population | **≥65%** epidemiological coverage required to count as an effective round.	Total population | **≥80%** therapeutic coverage required to count as an effective round.	Age-targeted (Pre-SAC, SAC, WRA) | **≥75%** coverage on School-Aged Children (SAC) required.
Treatment Logic & Frequency	Standard IVM+ALB (Eligible IUs accelerated with IDA). Co-endemic loiasis modified to ALB 2×/yr.	Standard CDTI. Higher-transmission IUs scaled to Biannual (2×/yr) MDA to shorten EOT timelines.	Driven by baseline prevalence: ✓ **≥50%** (2×/yr) ✓ **20–50%** (1×/yr) ✓ **<20%** (Scale down frequency).
Survey Ladder & Transition	≥5 effective rounds → Pre-TAS → TAS 1, 2, 3 → Stop MDA / Surveillance.	Pre-STOP evaluation → Full-STOP survey → Stop MDA / Surveillance.	No permanent stop. Biennial Impact Assessments (IA) downgrade prevalence and PC frequency.

LF — stop-MDA pathway driven by effective treatment & TAS

PROGRAMME DECISION PATHWAY

1. **Endemic IU requires MDA** ivermectin + albendazole (IDA where eligible)
2. **Count effective rounds** each round at ≥65% epidemiological coverage
3. **≥5 effective rounds → Pre-TAS/EMS** eligibility assessment to enter TAS
4. **TAS-1 → TAS-2 → TAS-3** pass, then re-survey at ~2-year intervals
5. **Stop MDA → post-MDA surveillance** IU exits treatment, enters surveillance

Target: Elimination as a public health problem (EPHP) by 2030

KEY ASSUMPTIONS

- MDA effective only at ≥65% coverage; sub-threshold rounds do not count toward stop criteria
- IDA (IVM+DEC+ALB) accelerates timelines where eligible — Madagascar, Zambia, Zimbabwe
- Loiasis co-endemic IUs use albendazole-twice-yearly / test-and-treat (no ivermectin)
- Survey ladder mapped to MDA history: Pre-TAS/EMS → TAS1–3 → surveillance
- Population denominators grow with UN/WorldPop projections

Oncho — CDTI toward elimination of transmission (EOT)

PROGRAMME DECISION PATHWAY

1. **Endemic IU requires CDTI** community-directed treatment with ivermectin
2. **Set treatment frequency** annual or biannual by transmission intensity
3. **Count effective rounds** each round at ≥80% therapeutic coverage
4. **Pre-STOP evaluation** epidemiological & entomological eligibility
5. **Full-STOP survey → Stop MDA** then ongoing post-treatment surveillance

Target: Elimination of transmission (EOT) — verification dossiers

KEY ASSUMPTIONS

- Effective treatment requires ≥80% therapeutic coverage
- Biannual MDA assumed for higher-transmission IUs to shorten time-to-EOT
- Ongoing epidemiological/entomological monitoring (OEM) runs alongside MDA
- Stop decision needs sustained effective coverage plus survey criteria
- Co-endemicity with loiasis flagged for safety (severe-adverse-event risk)

STH — age-targeted PC with prevalence-driven frequency

PROGRAMME DECISION PATHWAY

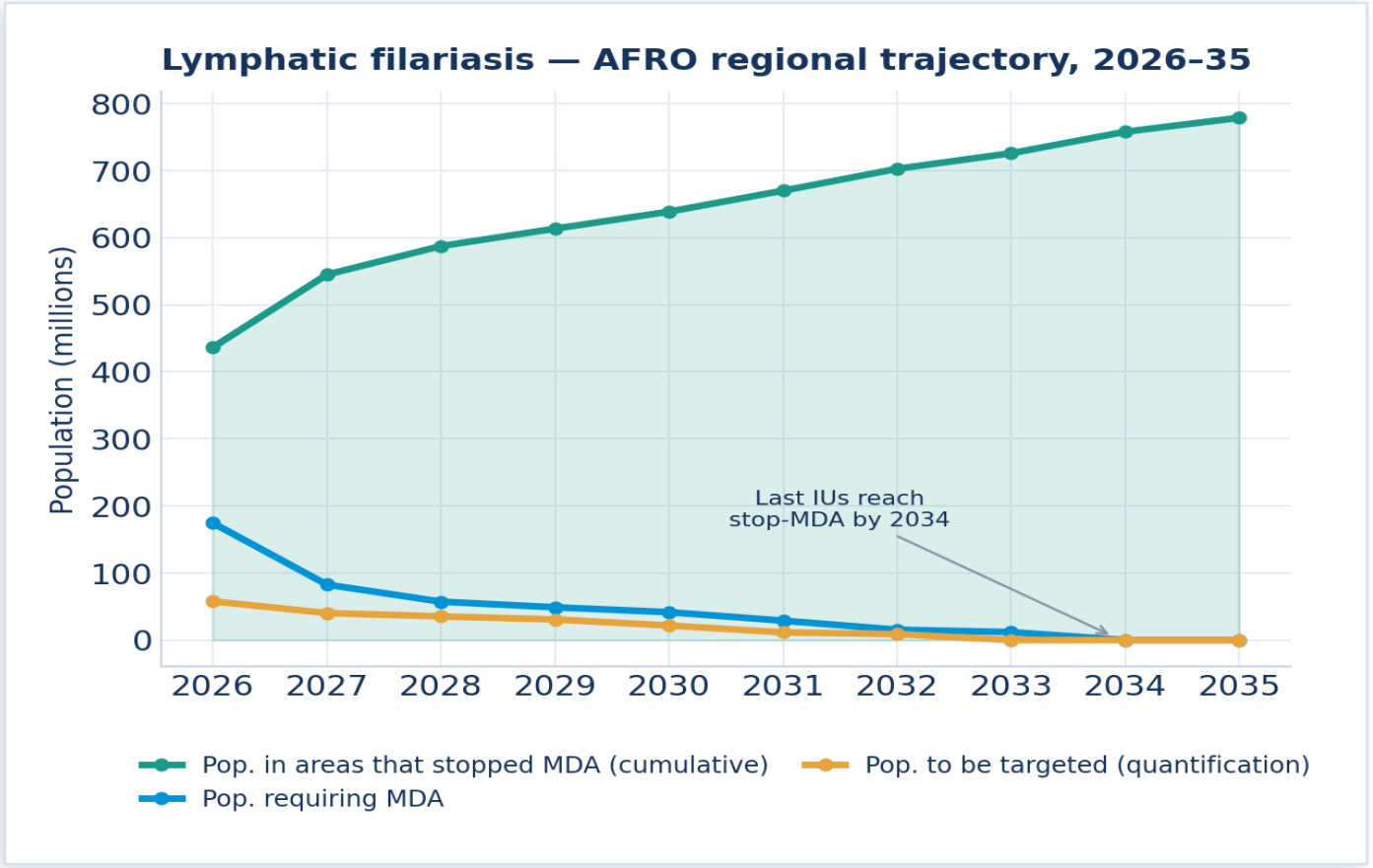
1. **Endemic IU requires PC** albendazole / mebendazole, age-targeted
2. **Treat Pre-SAC, SAC & WRA** denominators built per age group
3. **Set frequency by prevalence** ≥50% → 2×/yr · 20–50% → 1×/yr · <20% → scale down
4. **Impact Assessment (IA)** periodic re-survey to re-classify prevalence
5. **Reduce frequency → surveillance** transition as intensity falls below thresholds

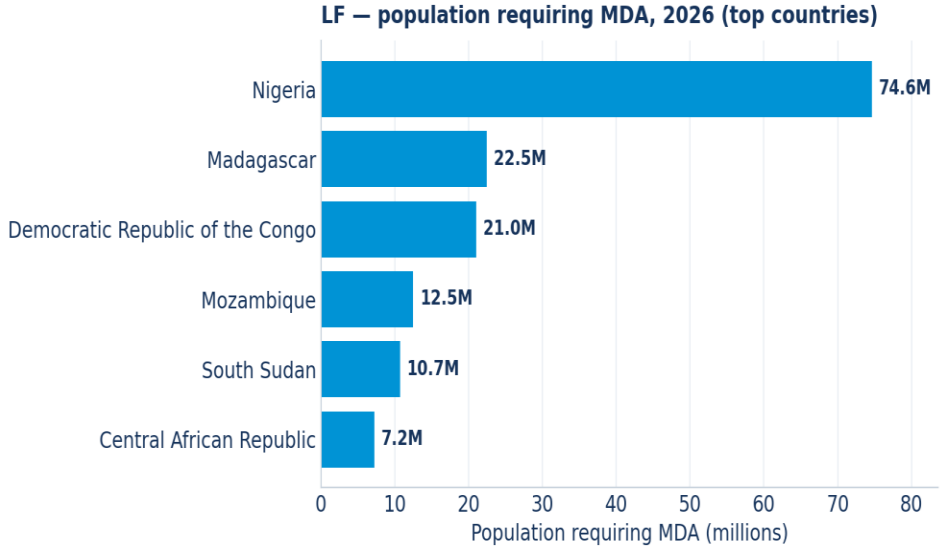
Target: Elimination as a public health problem (EPHP): <2% heavy-intensity

KEY ASSUMPTIONS

- PC delivered to Pre-SAC (1–4), SAC (5–14) and women of reproductive age (15–49)
- Treatment frequency reset by baseline / re-assessed prevalence band
- Assuming a downgrading of prevalence after each IA
- Effective PC assumed at ≥80% coverage (*at least*) on SAC population
- No permanent ‘stop’: IUs step down frequency and enter surveillance
- Biennial impact-assessment cycle drives the alternating target population

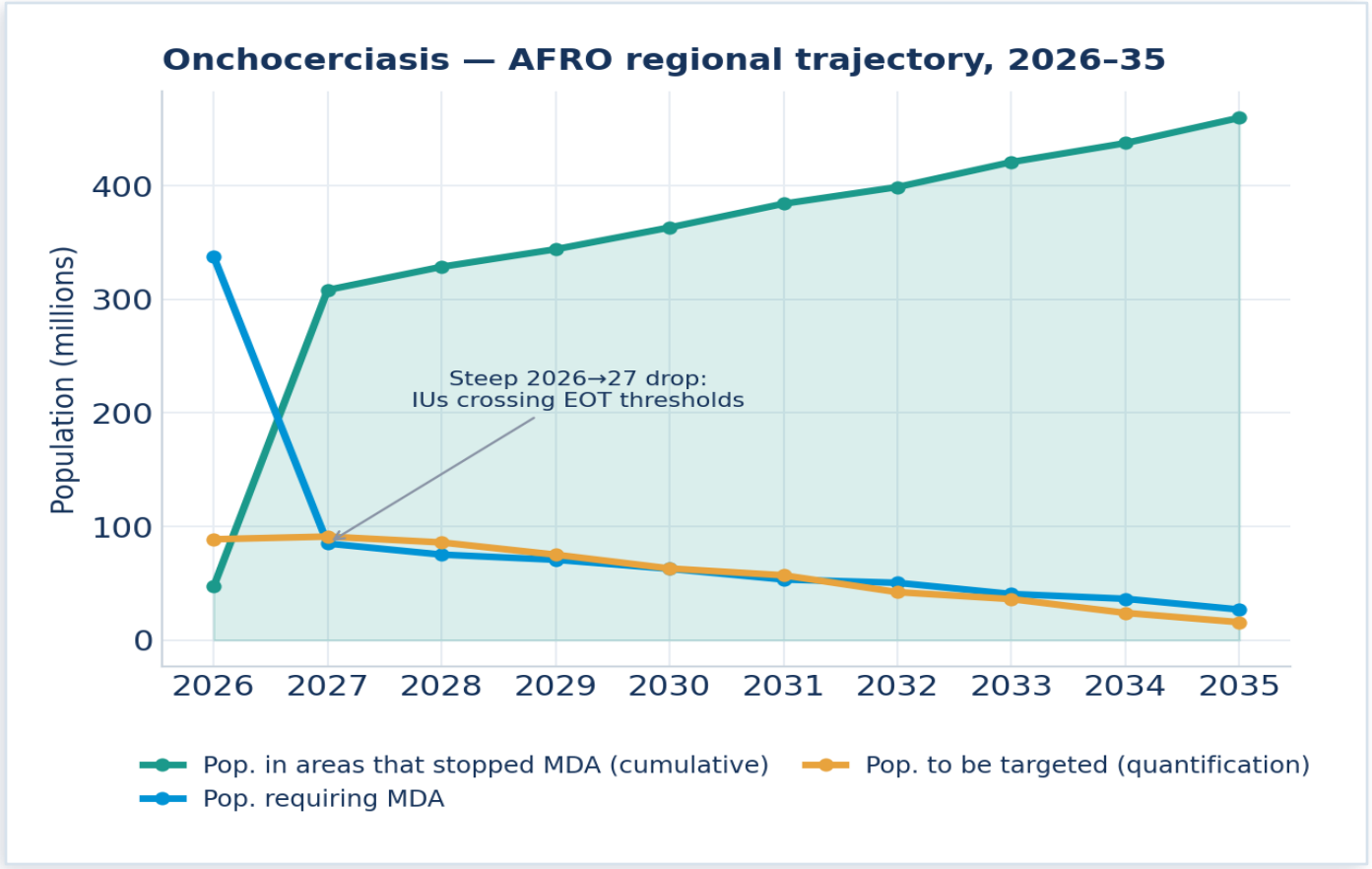
LF — population requiring MDA falls sharply as IUs stop treatment

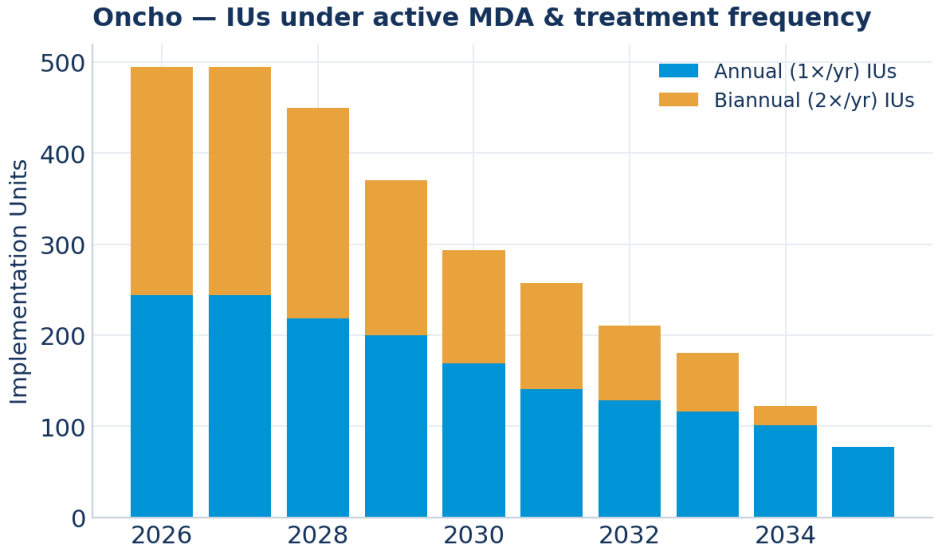




- Pop. requiring MDA: 174M (2026) → ~0 by 2034
- 778M cumulatively living in stopped-MDA areas by 2035
- Nigeria, Madagascar & DRC drive 2026 demand

Oncho — steep 2026→27 decline as IUs cross EOT thresholds

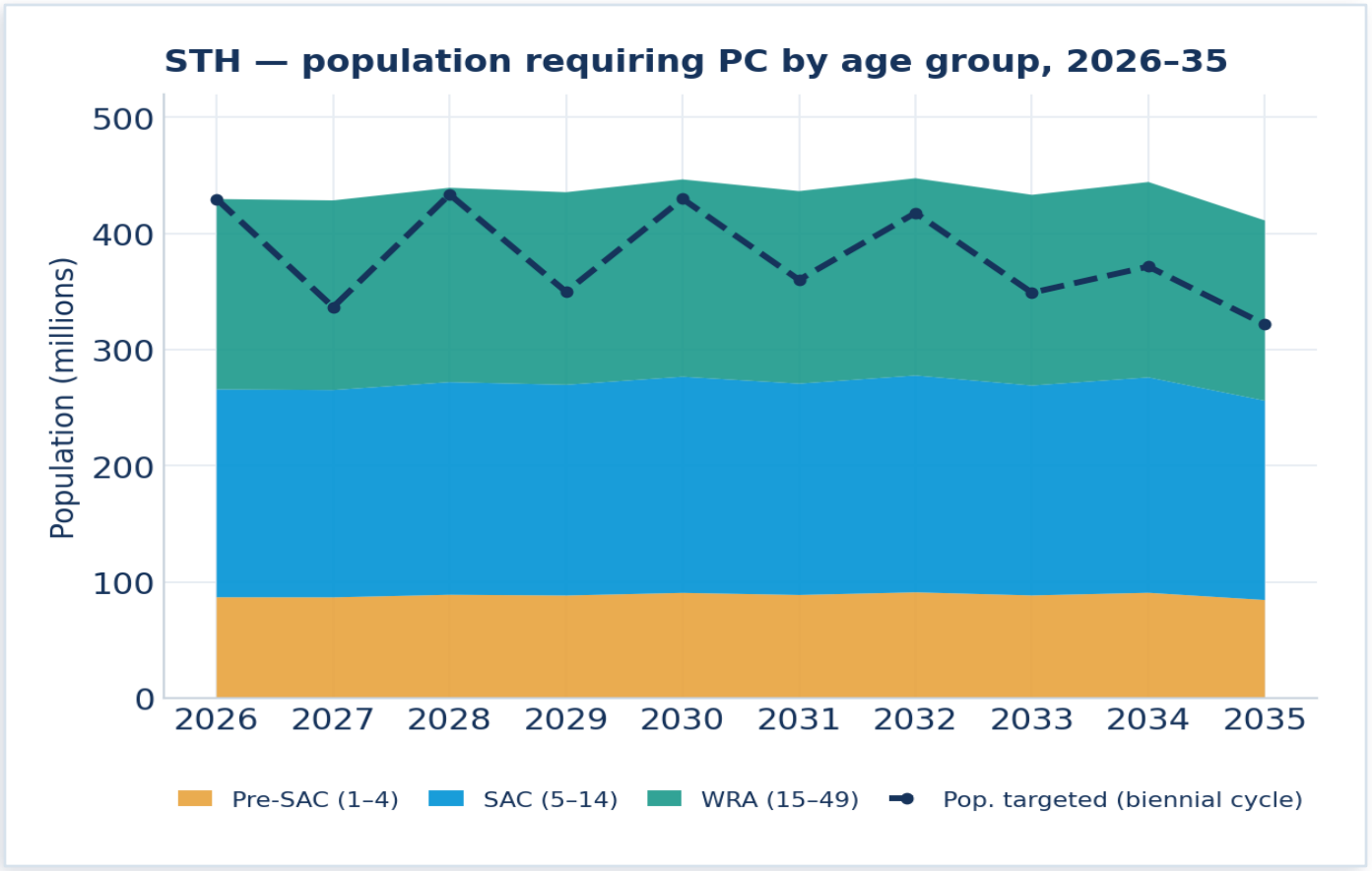


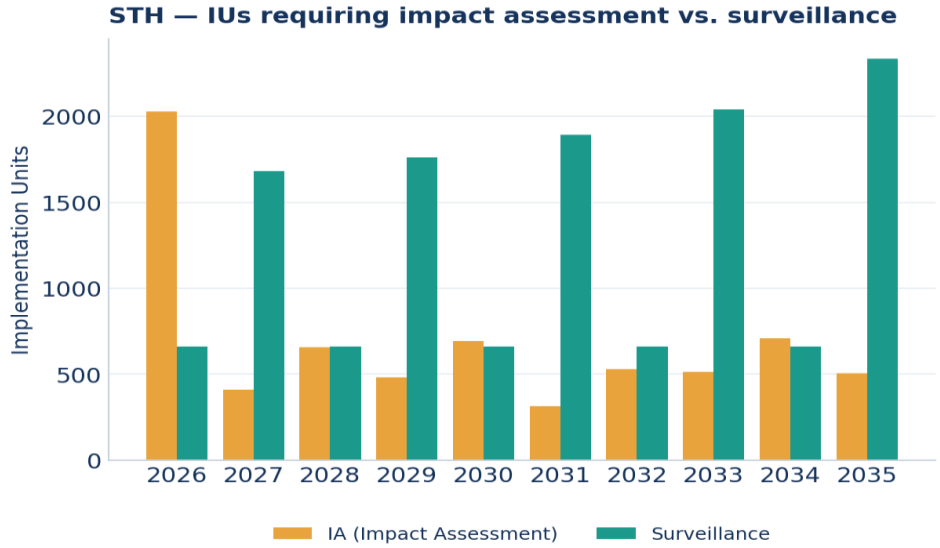


- Pop. requiring MDA: 337M (2026) → 27M (2035)
- Active-MDA IUs fall from ~495 to <80 by 2035
- Biannual IUs front-load ivermectin demand early

Caveat: Progression dependent on scaling up STOP surveys (>60% IU endemic for oncho have implemented >=15 MDA rounds)

STH — sustained PC need; biennial cycle drives medicine demand





- Pop. requiring PC stays high: ~410–450M through 2035
- SAC (5–14) is the largest treated group (~180M)
- Target population alternates with the IA cycle → plan supply biennially

What the projections mean for supply chain & forecasting

Three demand signatures

LF & Oncho demand declines steeply (elimination pathways); STH demand persists and cycles — different procurement logic for each.

Plan biennially for STH

Impact-assessment cycles make even/odd years differ; align albendazole/mebendazole orders to the targeted-population rhythm.

Front-load, then taper

Donation requests for IVM/IDA peak early (2026–28) then fall — quantify the down-ramp to avoid over-stock and expiry.

Last-Mile visibility

Knowing when each IU stops MDA lets ESPEN redirect diagnostics, surveys and TA to the few remaining endemic IUs.

World Health Organization
African Region

WRAP-UP

Conclusions

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

1. A single deterministic engine now produces harmonized, reproducible IU-level projections (2026–2035) for LF, Onchocerciasis and STH across 44 AFRO countries.

2. The outputs strengthen medicine quantification, MDA planning and survey scheduling with clear year-by-year trajectories aligned to the NTD Roadmap 2030.

3. Each disease shows a distinct demand signature — declining for LF and Oncho, persistent and cyclical for STH — with direct implications for procurement and donor planning.

4. By anticipating Last-Mile transitions, ESPEN and partners can target technical assistance, diagnostics and surveillance where they are still needed.

Extending the engine: sub-IU projections for schistosomiasis

Why sub-IU resolution for SCH?

- SCH transmission is strongly focal — prevalence varies sharply within a single IU, tied to local water contact.
- The 2022 WHO SCH guideline shifts treatment decisions to a finer scale and extends PC to all age groups, including adults, in high-prevalence settings.
- IU-level averages mask high-risk communities and lead to over- or under-treatment — sub-IU projections sharpen targeting and praziquantel quantification.
- Same deterministic engine, finer spatial unit: sub-district prevalence surfaces feed the SCH module.

BUILD ROADMAP

1. **Assemble sub-IU prevalence**
   SCH_Epi_Data + geostatistical surfaces
2. **Define decision rules**
   2022 guideline: SAC + adults, prevalence bands
3. **Generate PC projections**
   SCH_SubIU_PC_Projections, 2026–2035
4. **Integrate to CDW & portal**
   CHIP dashboards / ESPEN NTD Portal

THANK YOU

Questions & discussion

Dr Jorge Cano · Surveillance Officer, ESPEN — WHO Regional Office for Africa

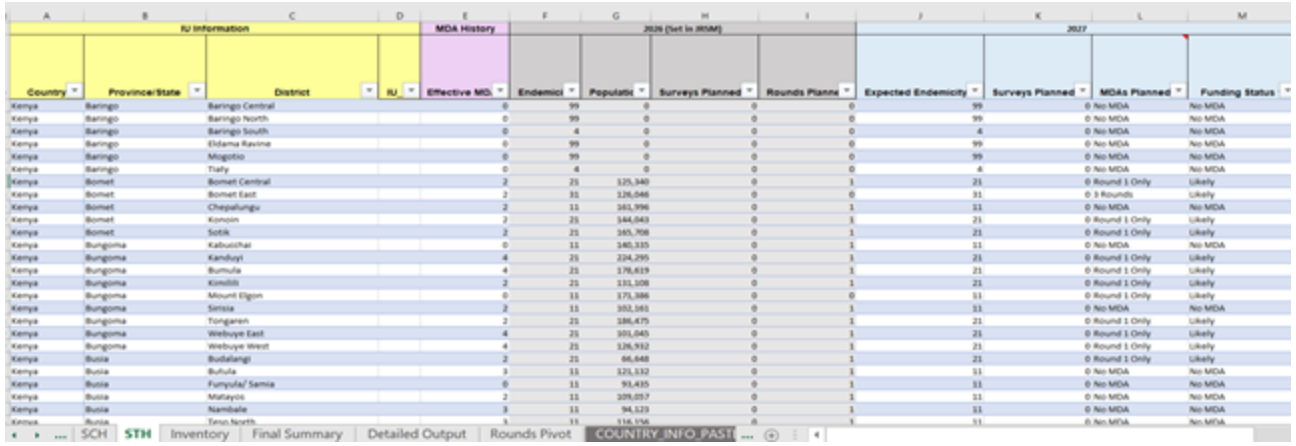
ESPEN NTD Portal · espen.afro.who.int

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Introduction to Multi Year Forecasting Tool

Multi Year Forecasting Tool 1/2



- Currently **Excel tool** that mirrors the JRSM
- Based on most **recent JRSM** to forecast for the next three years
- Uses **demographic method** for forecasting
- Incorporates **schisto workbook v6** if available
- Uses the same assumptions as ESPEN Projections

Multi Year Forecasting Tool 2/2

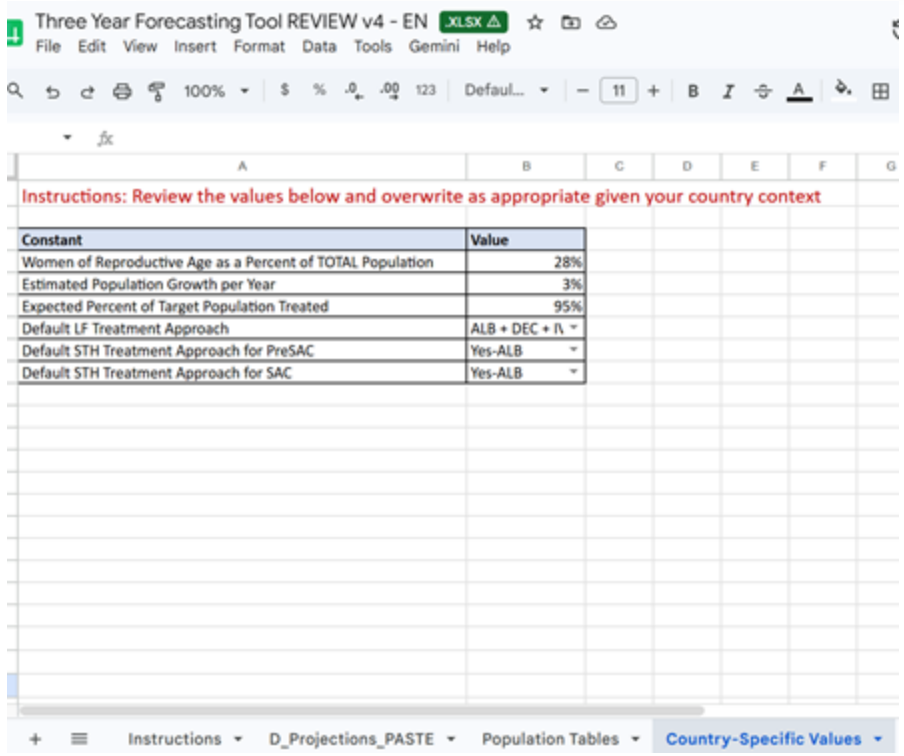
There are 11 tabs in the tool

- 1 instructions tab
- 2 tabs for inputting data from Schisto Community Workbook and JRSM
- 1 tab for country specific variables
- 4 disease specific tabs
- 1 tab for inventory data
- 2 tabs for summary reports of the forecast results

Multi Year Forecasting Process 1/6

- Share the latest JRSM and Schisto Workbook
- Collect the other required data such as inventory and incoming shipments
- Identify all stakeholders required
- Convene a workshop to update the multi year forecasts

Multi Year Forecasting Process 2/6



- Update the Country Specific Tab
- **Women of Reproductive Age (WRA) as a Percent of TOTAL Population**. Default value as per the latest JRSM. Can be updated by country
- **Estimated Population Growth per Year**. Default value as per the latest JRSM. Can be updated by country
- **Expected Percent of Target Population Treated**. Percent of the target population realistically expected to be treated, given past operational issues and in-country conditions. *Please do NOT use this to reflect funding gaps for MDAs*;
- **Default LF Treatment Approach**: Indicate the most common treatment approach your country uses for LF from the dropdown. Can be tailored by IU in the LF sheet.
- **Default STH Treatment Approach**: Indicate the most common medicine your country uses for STH (out of ALB or MBD). Can be tailored by IU in the STH sheet.

Disease Specific Sheets - These sections **should not** be changed

Pulled from **COUNTRY_INFO_PASTE (JRSM);** lists administrative units (IU = Implementation Unit, similar to regions/districts).

Taken from **ESPEN Data Portal;** includes effective round data for forecasting future endemicity. Please do not change

Imported from COUNTRY_INFO_PASTE, reflecting the latest **JRSM** requests.

Instructions: Review the values in the 2028, and 2029 sections, and overw s appropriate to reflect your country's p currently understo

IU Information				MDA History	2026 (Set in JRSM)			
Country	Province/State	District	IU_Id	Effective MDAs	Endemicity	Population	Surveys Planned 0	Rounds Planned
Botanica	NA	Kale		8	1	390251	0	1
Botanica	NA	Daisy		12	1	280534	0	1
Botanica	NA	Thistle		12	0	0	0	0
Botanica	NA	Xerophyte		0	1	0	0	0
Botanica	NA	Lilac		3	19	409245	0	1

Disease Specific Sheets - common sections to review and update as required

Surveys Planned: Automatically displays if an impact survey/assessment is expected based on number of effective rounds. If there is a survey the tool will assume it will be successful and will change the **NEXT** year's endemicity.

If an impact survey is planned leave as is, if it will not be done change to zero. Do not include other surveillance surveys.

Expected Endemicity: Automatically populated based on last year's endemicity or altered if a survey was done in previous year. Endemicity codes are the same as in the JRSM.

MDAs Planned: Automatically displays number of MDA rounds required for each year for that disease based on endemicity. This is used to calculate number of tablets and will calculate by round. Update based on your actual plans. Ensure you put an MDA if it is required regardless of funding.

Funding Likelihood: Input the likelihood of receiving funding for MDA for that IU. The tool will default to high likelihood and should be updated by country.

High - >70% - i.e. confirmed funding from donor, partner or government
Medium - 30-70% - i.e. a donor, partner or government has intention to fund but has not yet confirmed
Low - <30% - unlikely there will be funding
No MDA - this is for if no MDA is required and not about funding.

2027			
Expected Endemicity 1	Surveys Planned 1	MDAs Planned 1	Funding Likelihood
0	0	No MDA	No MDA
1	0	Round 1 Only	High

Multi Year Forecasting Process 3/6

Medicine	Calculation
Praziquantel	2 tabs for SAC, 3 tabs for Adults
Mebendazole	1 tab per person
Albendazole	1 tab per person
Ivermectin	2.8 tablets per person
DEC	2.5 tablets per person

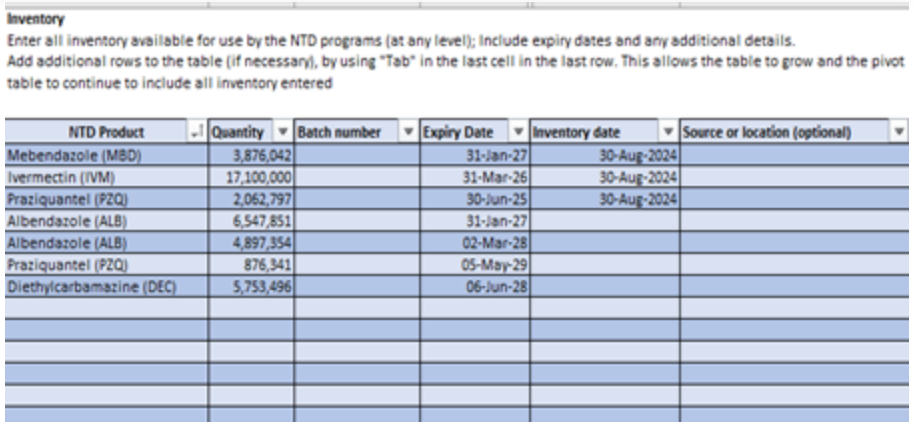
Calculations:

Target Population x Number of rounds x dose

- LF and oncho uses SAC and Adult population, for STH and SCH the populations to be treated must be selected
- For IUs where oncho and LF are co-endemic the tool will only include IVM under oncho.
- For IUs where STH and LF are both treated ALB will only be counted under LF.

Multi Year Forecasting Process 4/6

- Input inventory available at national and subnational level with expiry dates
- Input incoming shipments and expected tablets to be used in the **implementation year** as these will affect requested quantities.
- The tool will use this information to **estimate remaining or leftover medicines** for consecutive years when calculating the final requirements.



Inventory

Enter all inventory available for use by the NTD programs (at any level); include expiry dates and any additional details.
Add additional rows to the table (if necessary), by using "Tab" in the last cell in the last row. This allows the table to grow and the pivot table to continue to include all inventory entered

NTD Product	Quantity	Batch number	Expiry Date	Inventory date	Source or location (optional)
Mebendazole (MBD)	3,876,042		31-Jan-27	30-Aug-2024	
Ivermectin (IVM)	17,100,000		31-Mar-26	30-Aug-2024	
Praziquantel (PZQ)	2,062,797		30-Jun-25	30-Aug-2024	
Albendazole (ALB)	6,547,851		31-Jan-27		
Albendazole (ALB)	4,897,354		02-Mar-28		
Praziquantel (PZQ)	876,341		05-May-29		
Diethylcarbamazine (DEC)	5,753,496		06-Jun-28		

Current Year Expectations	2025		
NTD Product	Current Inventory	Expected Use	Expected Shipments
Albendazole (ALB)	11,445,205	-	-
Diethylcarbamazine (DEC)	5,753,496	1,200,000	-
Ivermectin (IVM)	17,100,000	-	-
Mebendazole (MBD)	3,876,042	1,526,849	4,567,893
Praziquantel (PZQ)	2,939,138	-	-

Multi Year Forecasting Process 5/6

Country:	Botanica				
Funding Likelihood	High				
Include Adults for PZQ?	Yes				
NTD Product		2026	2027	2028	2029
Albendazole (ALB)	Estimated starting balance	11,445,205	8,930,748	4,897,354	0
	Forecast planned MDA	2,646,797	3,309,637	3,055,725	3,111,835
	New shipments needed	0	0	0	3,111,835
	Forecast consumption	2,514,457	3,144,155	2,902,939	2,956,243
	Estimated expiries	0	889,239	1,994,415	0
	Estimated ending balance	8,930,748	4,897,354	0	155,592
Diethylcarbamazine (DEC)	Estimated starting balance	5,753,496	652,267	305,984	307,110
	Forecast planned MDA	5,369,715	6,119,678	6,142,193	6,295,743
	New shipments needed	0	5,467,411	5,836,209	5,988,633
	Forecast consumption	5,101,229	5,813,694	5,835,083	5,980,955
	Estimated expiries	0	0	0	0
	Estimated ending balance	652,267	305,984	307,110	314,787
Ivermectin (IVM)	Estimated starting balance	17,306,478	206,478	603,371	618,456
	Forecast planned MDA	11,773,098	12,067,423	12,369,112	11,495,313
	New shipments needed	0	11,860,945	11,765,741	10,876,858
	Forecast consumption	11,184,443	11,464,052	11,750,656	10,920,548
	Estimated expiries	5,915,557	0	0	0
	Estimated ending balance	206,478	603,371	618,456	574,766
Mebendazole (MBD)	Estimated starting balance	6,917,086	6,917,086	4,567,893	3,854,652
	Forecast planned MDA	0	918,053	750,780	683,666
	New shipments needed	0	0	0	0
	Forecast consumption	0	872,150	713,241	649,483
	Estimated expiries	0	1,477,043	0	0
	Estimated ending balance	6,917,086	4,567,893	3,854,652	3,205,169
Praziquantel (PZQ)	Estimated starting balance	876,341	429,173	456,485	381,170
	Forecast planned MDA	8,583,453	9,129,707	7,623,404	2,486,906
	New shipments needed	7,707,112	8,700,534	7,166,919	2,105,736
	Forecast consumption	8,154,280	8,673,222	7,242,234	2,362,561
	Estimated expiries	0	0	0	0
	Estimated ending balance	429,173	456,485	381,170	124,345

Results also disaggregated by age, disease,rounds and funding likelihood in the detailed output tab

Forecast results

The filters allow view of the requirements based on funding or use of PZQ in adults

Estimated Starting Balance: Calculates an estimated starting balance by considering inventory on hand, expected use and incoming shipments

Forecast planned MDA: Calculates the forecasted consumption (demand) assuming 100% coverage.

New shipments needed: is the estimated quantity that is expected to be ordered and shipped to country (this is not used for purchase orders as this is only a forecast not a request)

Forecasted consumption: Calculates the forecasted consumption assuming the coverage in the country specific values is met (i.e. 80% coverage). This is used to calculate potential leftover for the following year. It is different from the above planned forecast which assumes 100% coverage.

Estimated expiries: This is calculated based on inventory data and expected consumption and will be removed from the balance if medicines will expire.

Estimated ending balance: a final balance for the year is calculated and then carried forward to the next year. This is used to calculate “shipments needed” so that not too much medicine will be supplied to prevent expiries.

Multi Year Forecasting Process 6/6

- Always validate the multi year forecasting results to make sure they are aligned to country implementation plans
- Involve all NTD stakeholders to improve the quality of the forecasts

Multiyear Forecasting Summary

PREPARATORY (SCTSM)

01

1.Paste COUNTRY_INFO worksheet from JRSM

2.Fill MDA history

3.Upload tool for each country onto Sharepoint

4.Paste D_Projections worksheet from SCH Workbook v6 if available

5.Tool pre-populates values based on input from above steps

FORECAST REVIEW (COUNTRY)

02

6.Update country-specific values

7.Review each medication page, making updates directly over the formulas

INVENTORY INPUT

03

8.Update the inventory tab

SUMMARY

04

9.Review summary tabs

Demonstration of MYF Tool

Multi Year Forecasting Demonstration

Country Specific Values

LF inputs – check the following

1. Effective Rounds
2. Surveys – 2027, 2028, 2029
3. Rounds – 2027, 2028, 2029
4. *Age Groups or Target Population (STH and SCH)*
5. Funding – 2027, 2028, 2029

LF Answers

Medicine	Disease	2027		
		Population	Pop * Rounds	Tablets
ALB	LF	1,386,348	1,386,348	1,386,348
IVM	LF	1,386,348	1,386,348	3,881,774

Country Exercise: MYF Tool - LF and ONCHO

Multi Year Forecasting Group Work LF & Oncho

- Please do this assignment in your groups
- Please work in groups of three;
  - Person 1: Displays MYF tool
  - Person 2: Displays Exercise
  - Person 3: Displays MYF methodology

60 minutes

World Health Organization
African Region

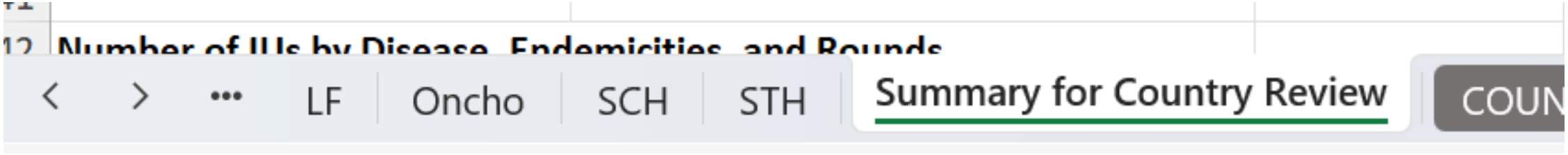
EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

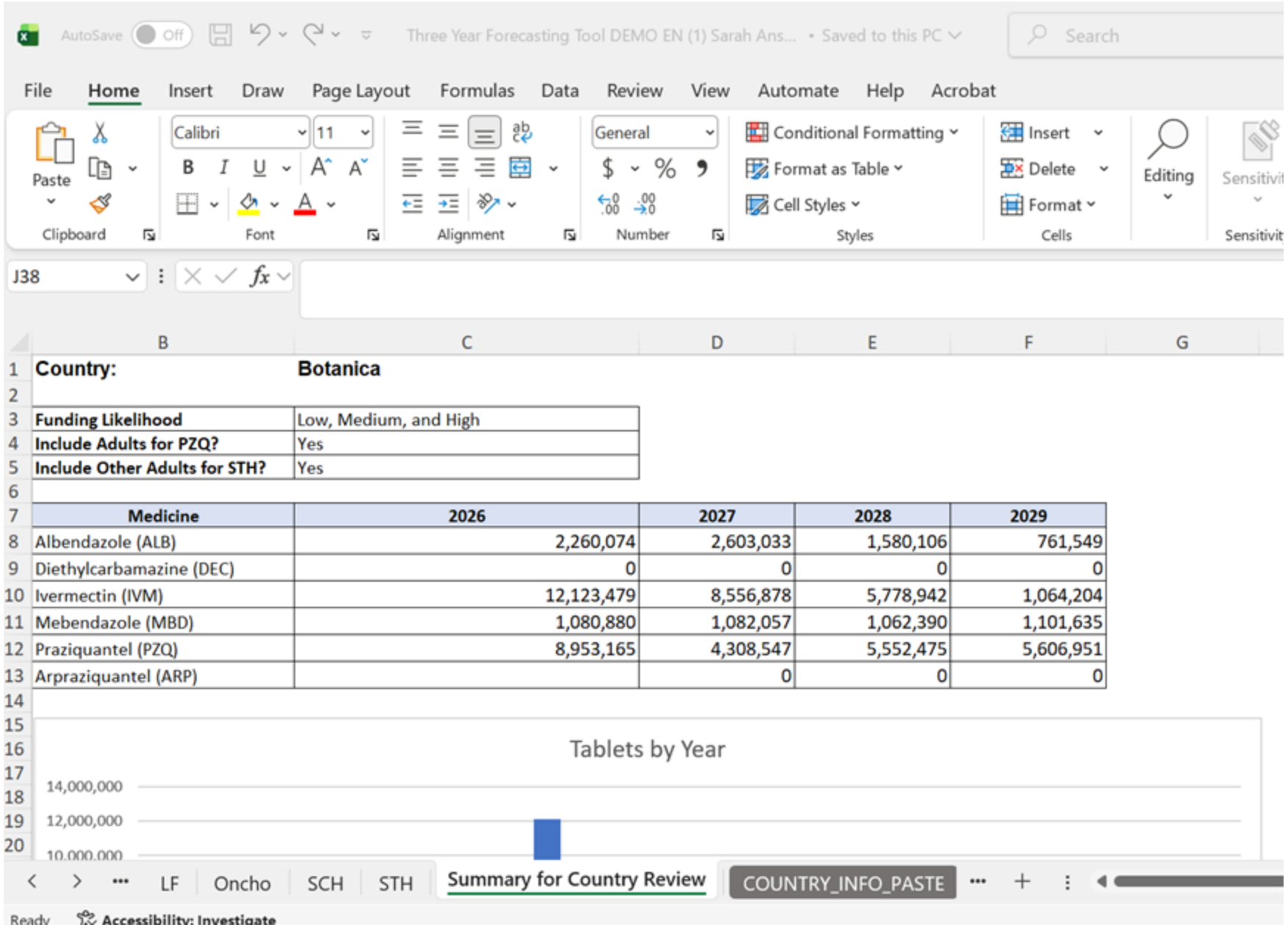
Forecast Output and Validation - LF and Oncho

Validating the MYF

Summary for Country Review Page. This page is used for

- checking your forecast inputs
- validating your forecast outputs





Please open the '**summary for country review**' tab

Validating LF and ONCHO

Number of IUs with MDA and Survey

Disease	2027		2028		2029	
	IUs with MDA Planned	IUs with Survey Planned	IUs with MDA Planned	IUs with Survey Planned	IUs with MDA Planned	IUs with Survey Planned
LF	8	2	5	3	2	3
Oncho	8	2	5	5	3	5

Find this table in the Summary for Country Review

- Do you have the right number of surveys and MDAs per year - count on the exercise sheet and check the table?
- If not right, then go back to the LF or oncho page and filter surveys by year or rounds by year and check the correct IUs are selected to do a survey or MDA

Validating LF and ONCHO Outputs

Treated Population by Medicine and Disease

Medicine		2027			2028			2029		
	Disease	Population	Pop * Rounds	Tablets	Population	Pop * Rounds	Tablets	Population	Pop * Rounds	Tablets
ALB	**LF**	1,386,348	1,386,348	**1,386,348**	697,152	697,152	**697,152**	73,690	73,690	**73,690**
IVM	**LF**	1,386,348	1,386,348	**3,881,774**	697,152	697,152	**1,952,026**	73,690	73,690	**206,332**
IVM	**Oncho**	1,320,539	1,105,571	**3,095,599**	1,035,498	1,035,498	**2,899,394**	380,073	380,073	**1,064,204**

Find this table in the Summary for Country Review

- Do you have the same population and tablets by medicine?
- Does it make sense? i.e. if tablets requirements are reducing are the number of IUs conducting MDAs also reducing?

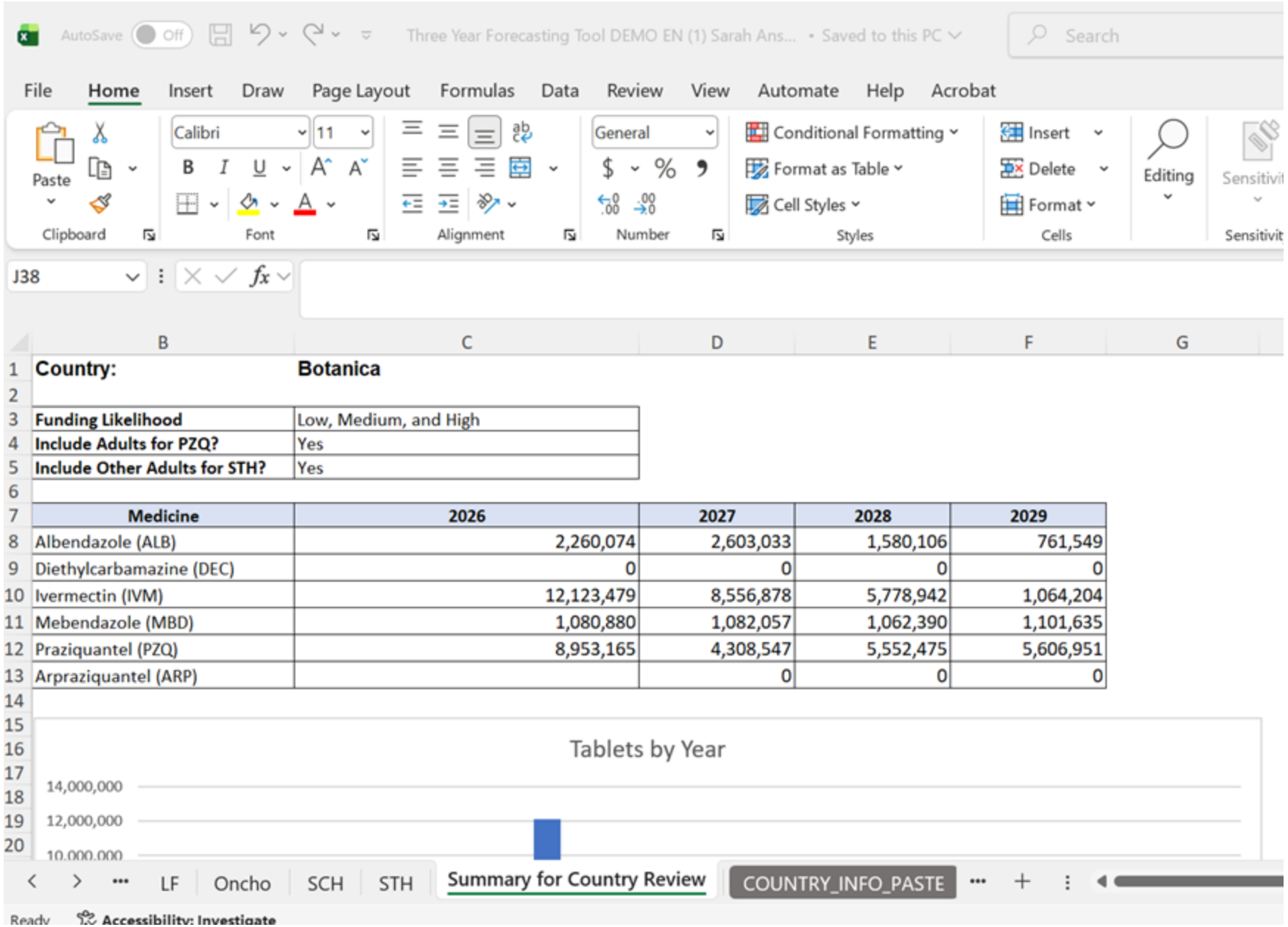
Country Exercise: MYF Tool - SCH/STH

Multi Year Forecasting Group Work SCH & STH

- Please do this assignment in your groups
- Please work in groups of three;
  - Person 1: Displays MYF tool
  - Person 2: Displays Exercise
  - Person 3: Displays MYF methodology

60 minutes

Forecast Output and Validation - SCH/STH



Please open the '**summary for country review**' tab

Validating STH/SCH Inputs

Disease	2027		2028		2029	
	IUs with MDA Planned	IUs with Survey Planned	IUs with MDA Planned	IUs with Survey Planned	IUs with MDA Planned	IUs with Survey Planned
SCH	17	7	13	3	15	2
STH	14	5	15	2	13	1

Find this table in the Summary for Country Review

- Do you have the right number of surveys and MDAs per year - count on the exercise sheet and check the table?
- If not right then go back to the LF or oncho page and filter surveys by year or rounds by year and check the correct IUs are selected to do a survey or MDA
- You can also check the number of IUs by endemicity

Validating STH/SCH Outputs

Treated Population by Medicine and Disease

Medicine		2027			2028			2029		
	Disease	Population	Pop * Rounds	Tablets	Population	Pop * Rounds	Tablets	Population	Pop * Rounds	Tablets
ALB	STH	601,674	394,722	394,722	621,203	547,253	547,253	630,273	630,273	601,674
MBD	STH	283,979	283,979	283,979	293,198	293,198	293,198	297,476	297,476	297,476
PZQ	SCH	1,806,869	1,806,869	4,317,143	1,652,998	1,652,998	4,048,115	1,699,559	1,699,559	4,167,211

Find this table in the Summary for Country Review

- Do you have the same population and tablets by medicine?
- Does it make sense? i.e. if tablets requirements are staying the same year after year are the number of IUs conducting MDAs also the same, should it be reducing?

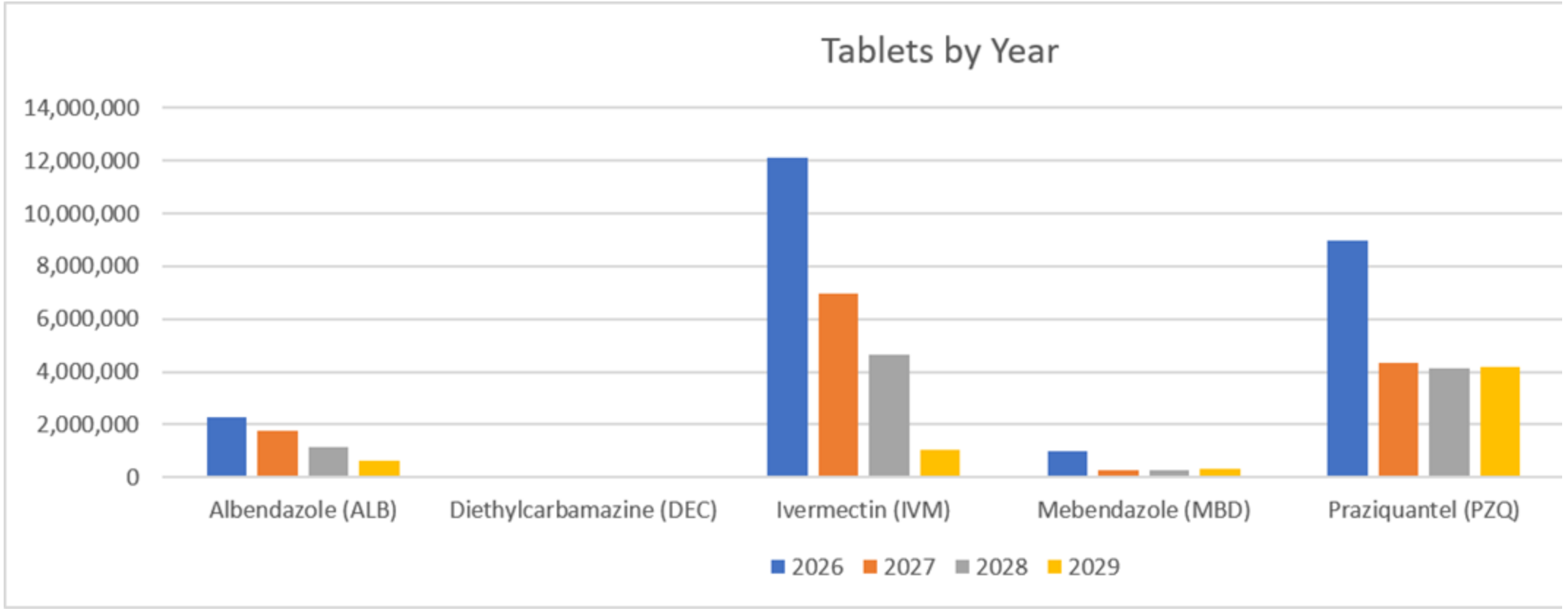
Forecast Outputs - Overall Results Total

Medicine	2026	2027	2028	2029
Albendazole (ALB)	2,271,761	1,781,070	1,159,579	630,273
Ivermectin (IVM)	12,123,476	6,977,373	4,652,063	1,064,204
Mebendazole (MBD)	992,126	283,979	286,766	297,476
Praziquantel (PZQ)	8,953,165	4,317,143	4,110,717	4,176,479

Overall Results by Funding Likelihood

Medicine	2027			2028			2029		
	High	Medium	Low	High	Medium	Low	High	Medium	Low
ALB	1,273,501	0	507,569	357,863	756,118	45,598	0	630,273	0
IVM	3,565,803	0	3,411,570	1,002,016	622,978	3,027,069	0	0	1,064,204
MBD	0	0	283,979	0	286,766	0	0	297,476	0
PZQ	0	0	4,317,143	0	0	4,110,717	0	0	4,176,479

Overall Results by Year



Q&A

World Health Organization
African Region

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

ESPEN JRSM AI Validation tool

EXPANDED SPECIAL PROJECT
FOR ELIMINATION OF
NEGLECTED TROPICAL DISEASES

Advances in Data and Analytics for Sustaining NTD Elimination in Africa - ESPEN JAP Process Assistant

In collaboration with dimagi

Jorge Cano Ortega
Surveillance Officer & Data Analyst
ESPEN

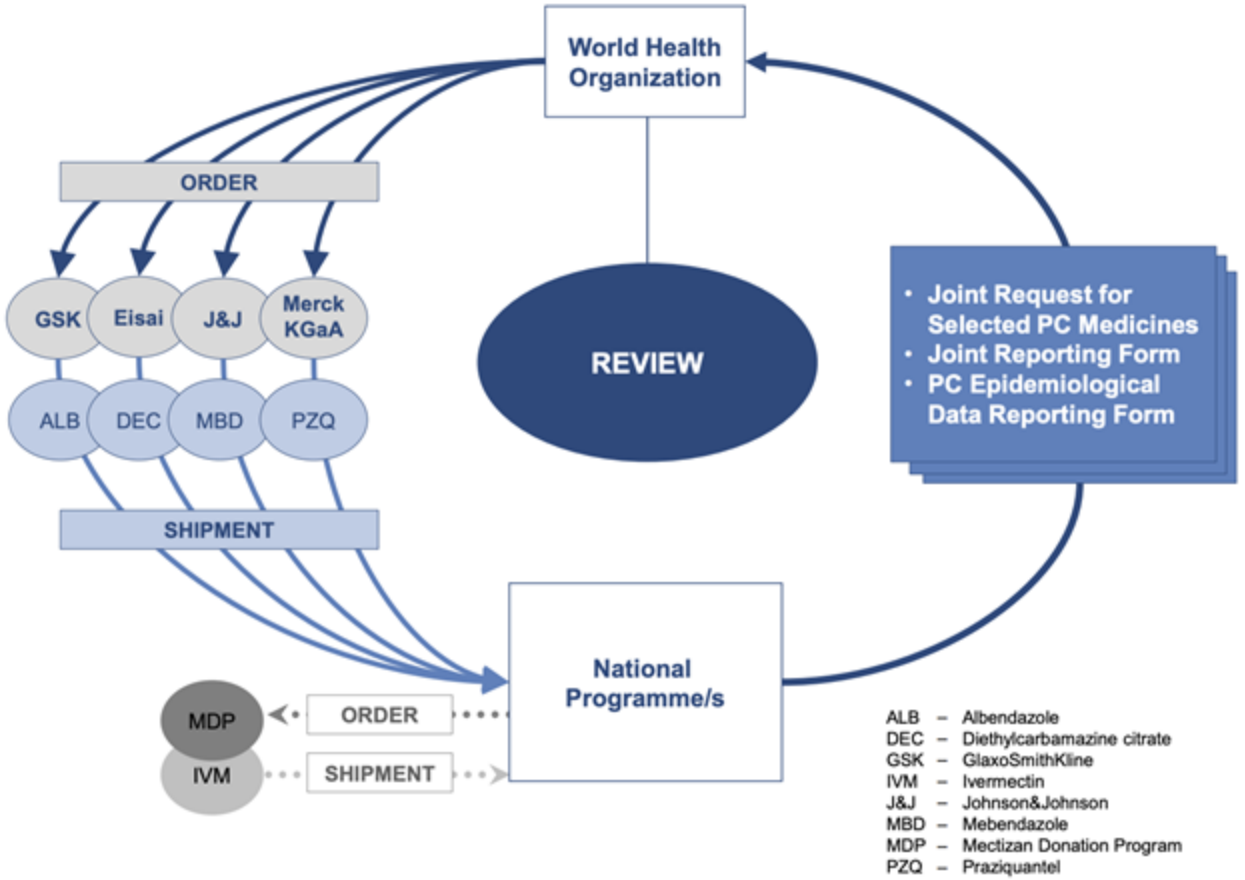
Namrata Tomar
Research and Operations Manager
Dimagi

Agenda

1. Background
2. JAP Process Assistant Overview
3. Development and Release Phases
4. Step-by-Step Walkthrough
5. Next Steps

The JAP is how countries request donated medicines, and report treatment coverage — the PC-NTD data backbone

The Joint Application Package (JAP) Process



Background

Challenge in JAP Data Review

- Evaluating JAP submissions is traditionally a manual, time intensive process for both ESPEN and national teams.
- Reviewers frequently face challenges with formula integrity, version mismatches, and aligning data against historical database baselines.
- When a JAP is submitted with data quality issues, it delays approval process and the arrival of medicines for MDA

Need for JAP Automation

- A critical bottleneck exists in the feedback loop between country submissions and final approvals.
- Streamlining this process is vital to accelerate data-driven treatment decisions for sustaining NTD elimination across Africa.
- Ensure sufficient quantities of donated medicines are shipped on time for MDA implementation

Our Objective

- Introduce an AI-powered JAP Process Assistant to automate validation, flag discrepancies instantly, and provide a collaborative tool for both ESPEN and country teams to radically simplify the feedback loop.

Current State: Manual JAP Review Process

01 JRSM Submission Received

Country submits JRSM via email or portal. Reviewer downloads the Excel workbook.

02 Version & Template Check

Reviewer manually verifies correct JRSM version (4.3, 4.4, 4.5) and template integrity.

03 Demographics Review

Excel comparison: INFO tab (age-group proportions) and COUNTRYINFO (total pop.) vs ESPEN projections & prior JRSM.

04 Endemicity & PC Population

IU-level endemicity codes and pop. requiring PC validated vs latest JRF, approved JRSM & ESPEN baselines (10% buffer).

05 Programme, Consignee & IU Checks

MDA rounds vs endemicity. Surveys vs ESPEN projections. Consignee consistency reviewed. IU splits/merges traced in separate table.

06 Discrepancy Report & Decision

Reviewer compiles discrepancy report. Country provides clarifications. Approval (Green) or rework (Yellow/Red).

Baseline Sources: Latest JRF • Latest Approved JRSM • ESPEN Population Projections • Supply Chain Master Table (inventory)

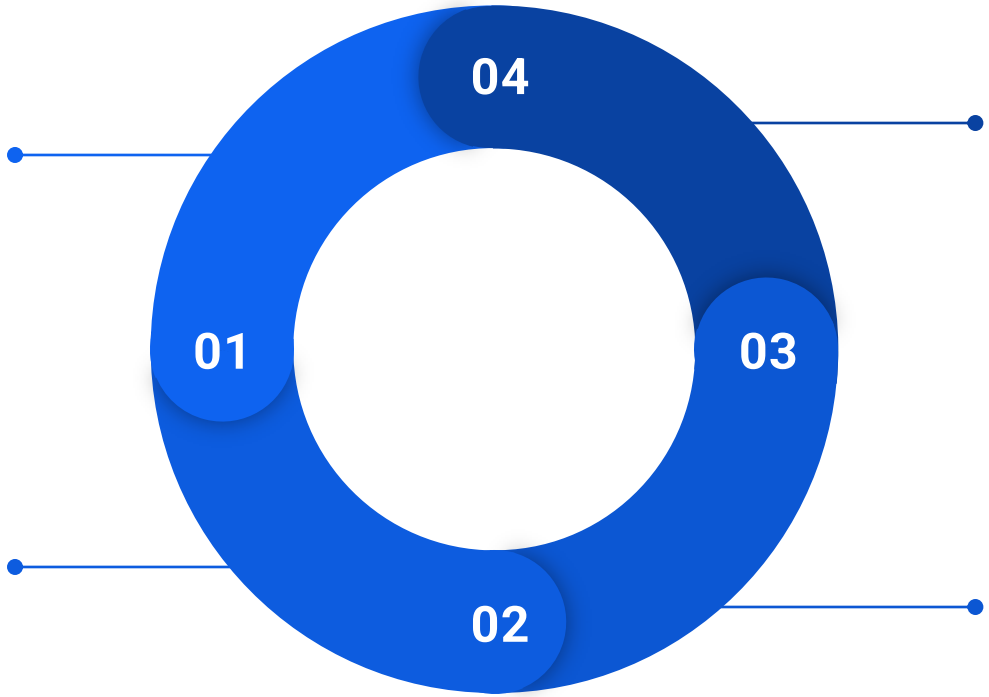
Future State: JAP Process AI Assistant

Step 1: Validation

We check if the file is the right version

Step 2: Confirmation

The tool reports back on the validation results and pauses here. The user must explicitly ask to proceed to move to the advanced computation phase.



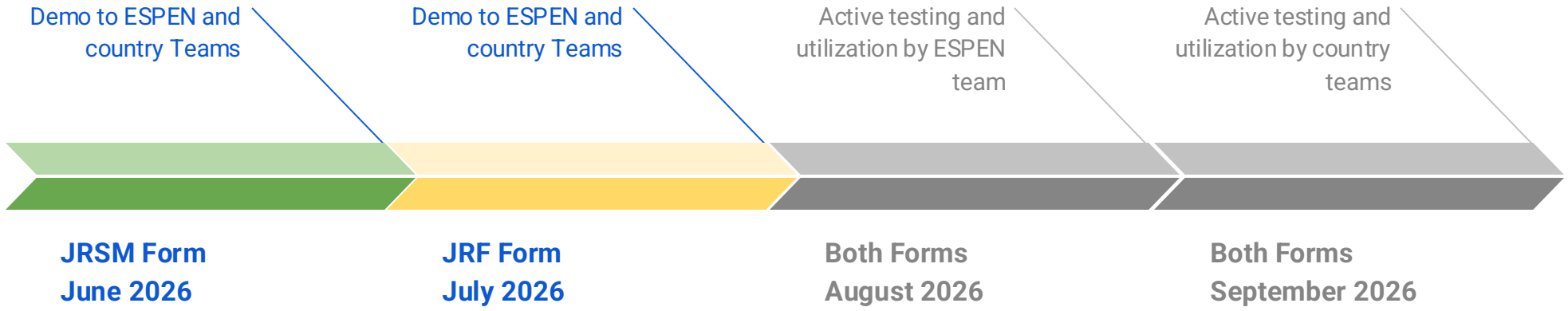
Step 4: Final Output

CSV Exception List + LLM executive summary and draft message to submitter.

Step 3: Computation

We check Formula Integrity. The tool distinguishes between protected and editable cells to ensure no formulas were broken. This is also where we run the heavy comparisons against the database baselines.

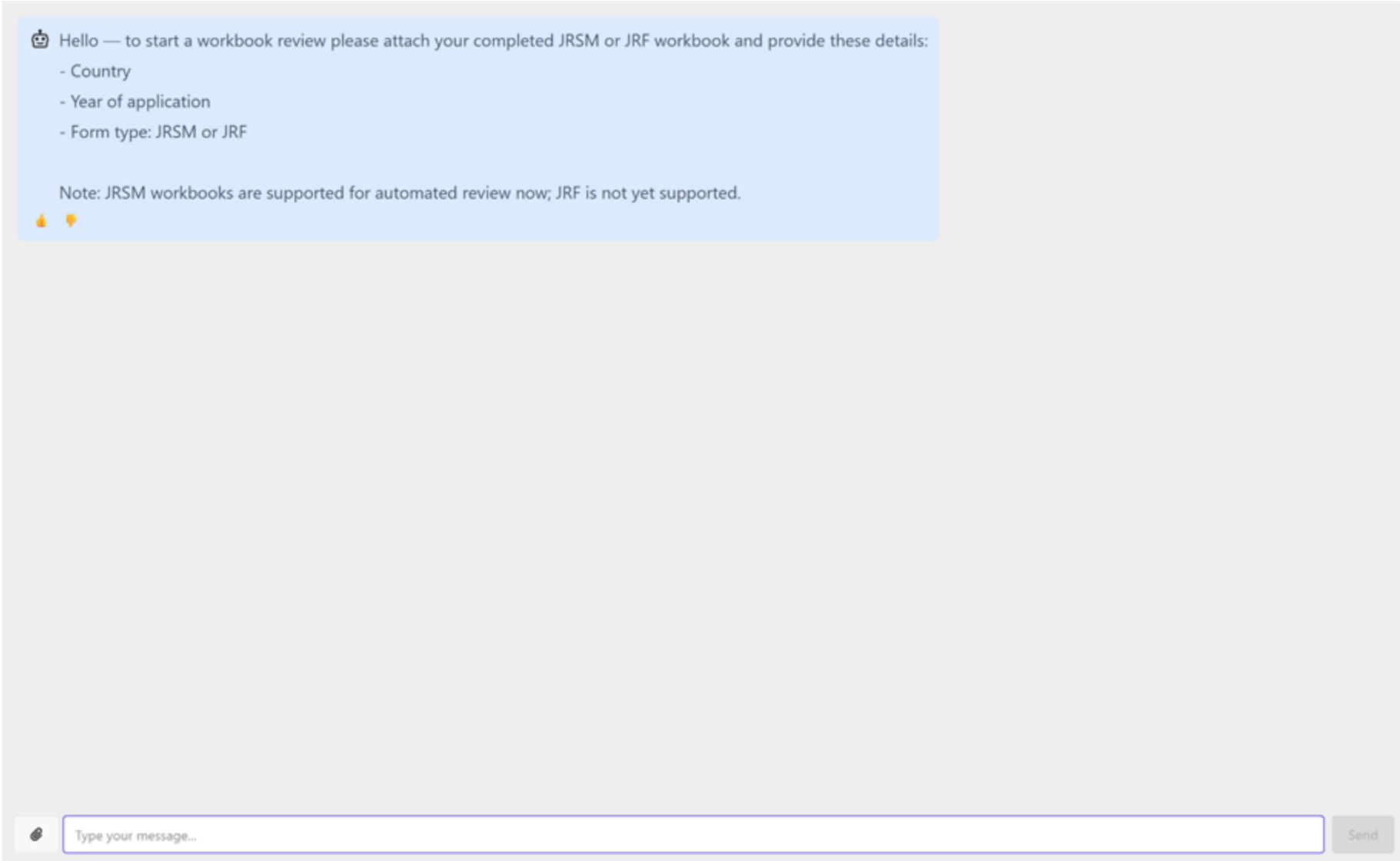
Development and Release Phases



Step-by-Step Walkthrough: Step 1

Access the AI Tool

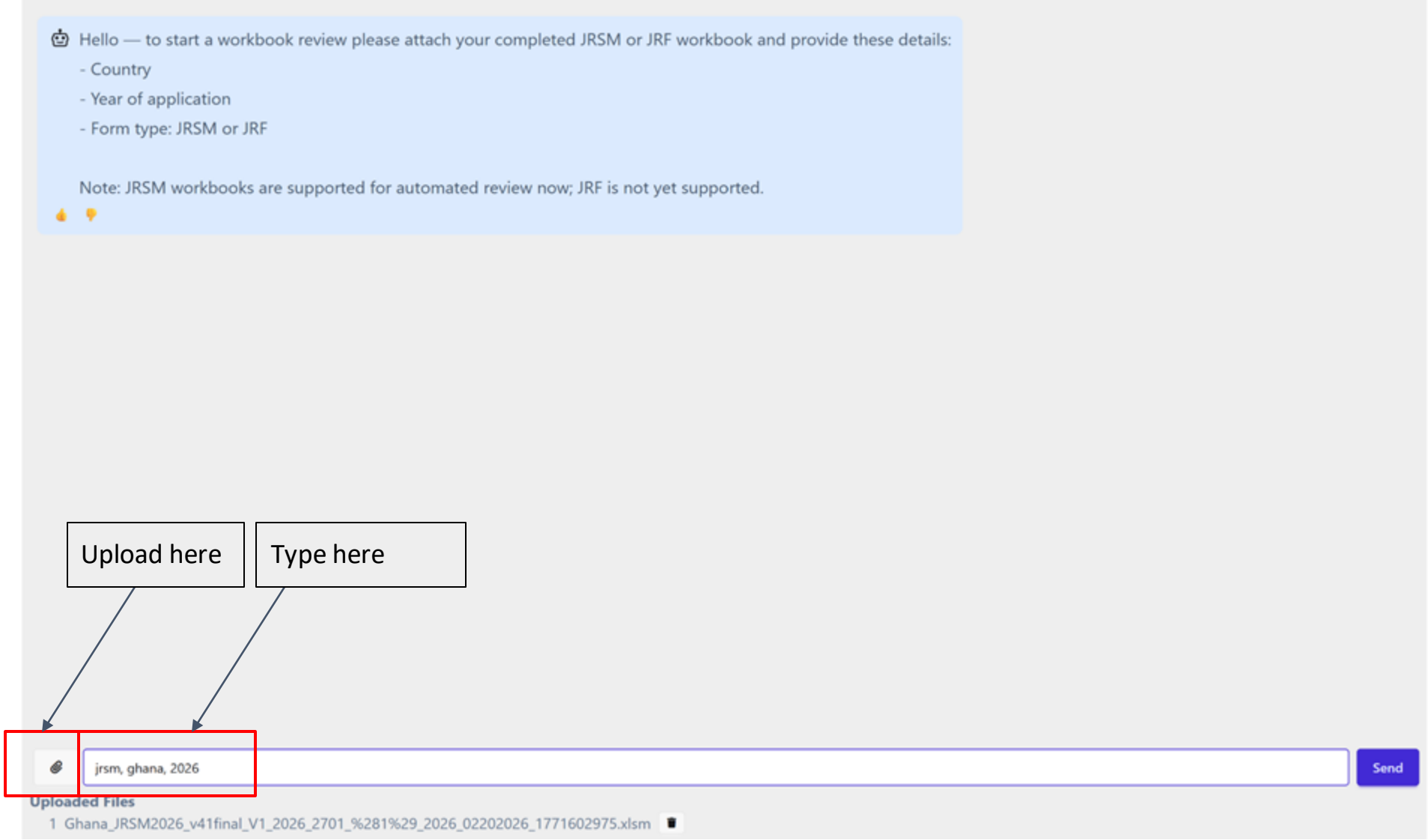
Access the tool by clicking on the following link: https://www.openchatstudio.com/a/ai-assistant-for-ntds/chatbots/861fcbfa-fe73-416a-8ca3-e1a0194bb050/start/



Step-by-Step Walkthrough: Step 2

Specify country, year and form

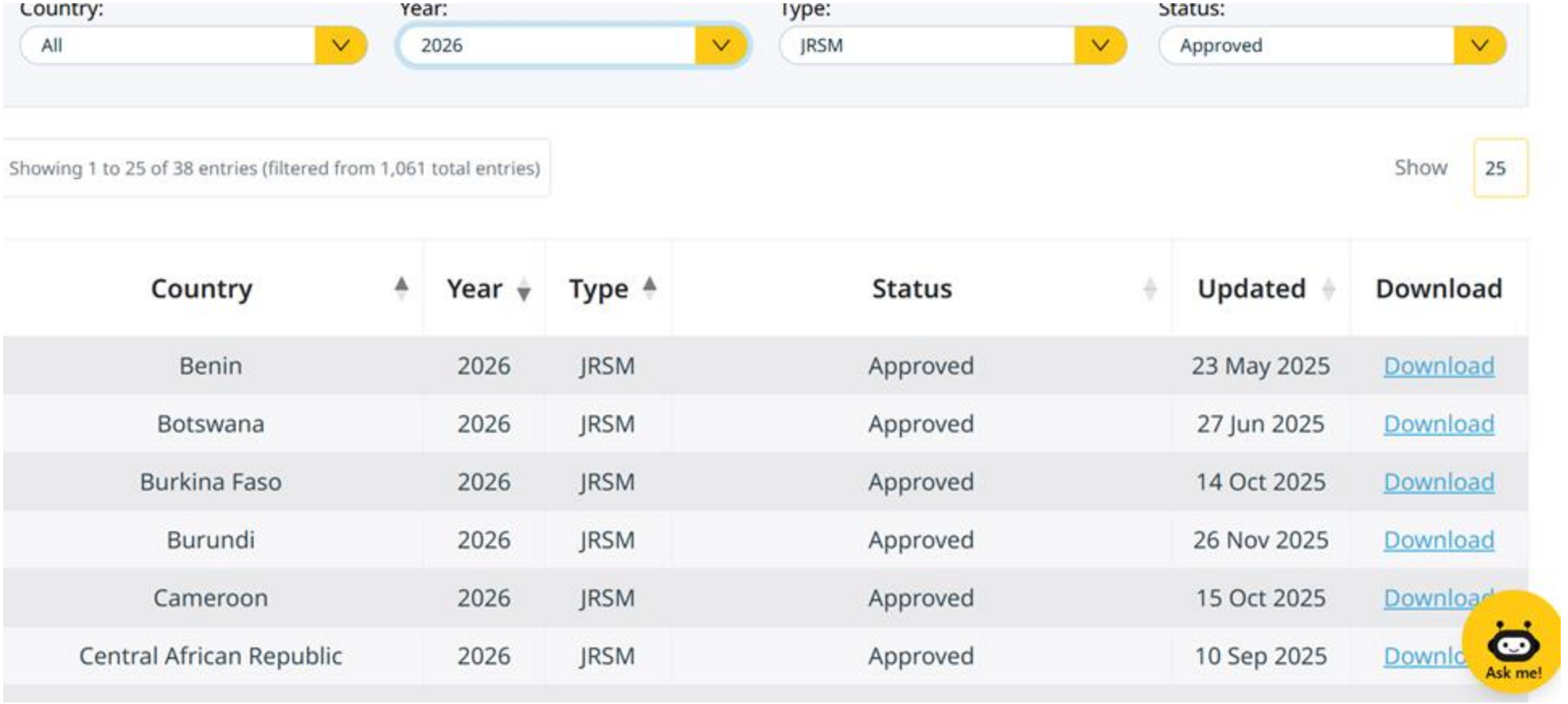
Mention the country, year of application and form type (JRSM) along with upload of the relevant JRSM form in the input field. Supported JRSM versions: 4.3, 4.4 & 4.5



Step-by-Step Walkthrough: Step 2

Select JRSM to test

You can use a previously submitted JRSM form to test by clicking on this link (filter for 2026): https://espen.afro.who.int/tools-resources/data-reporting-tools/jap-search

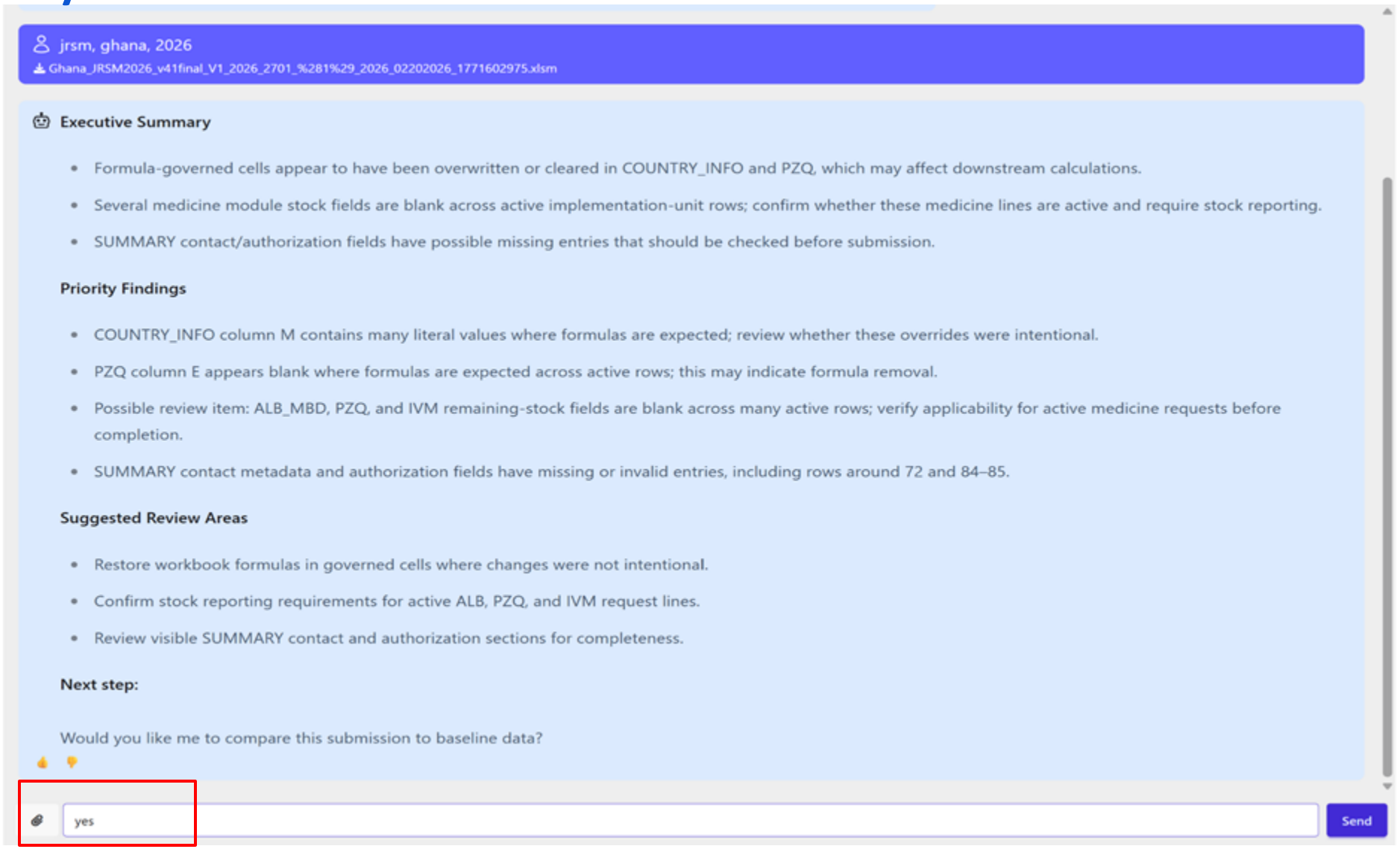


Step-by-Step Walkthrough: Step 3

Review AI summary

The tool generates an AI summary by validating the uploaded JRSM form.

Type ‘yes’ to proceed with the computation phase.



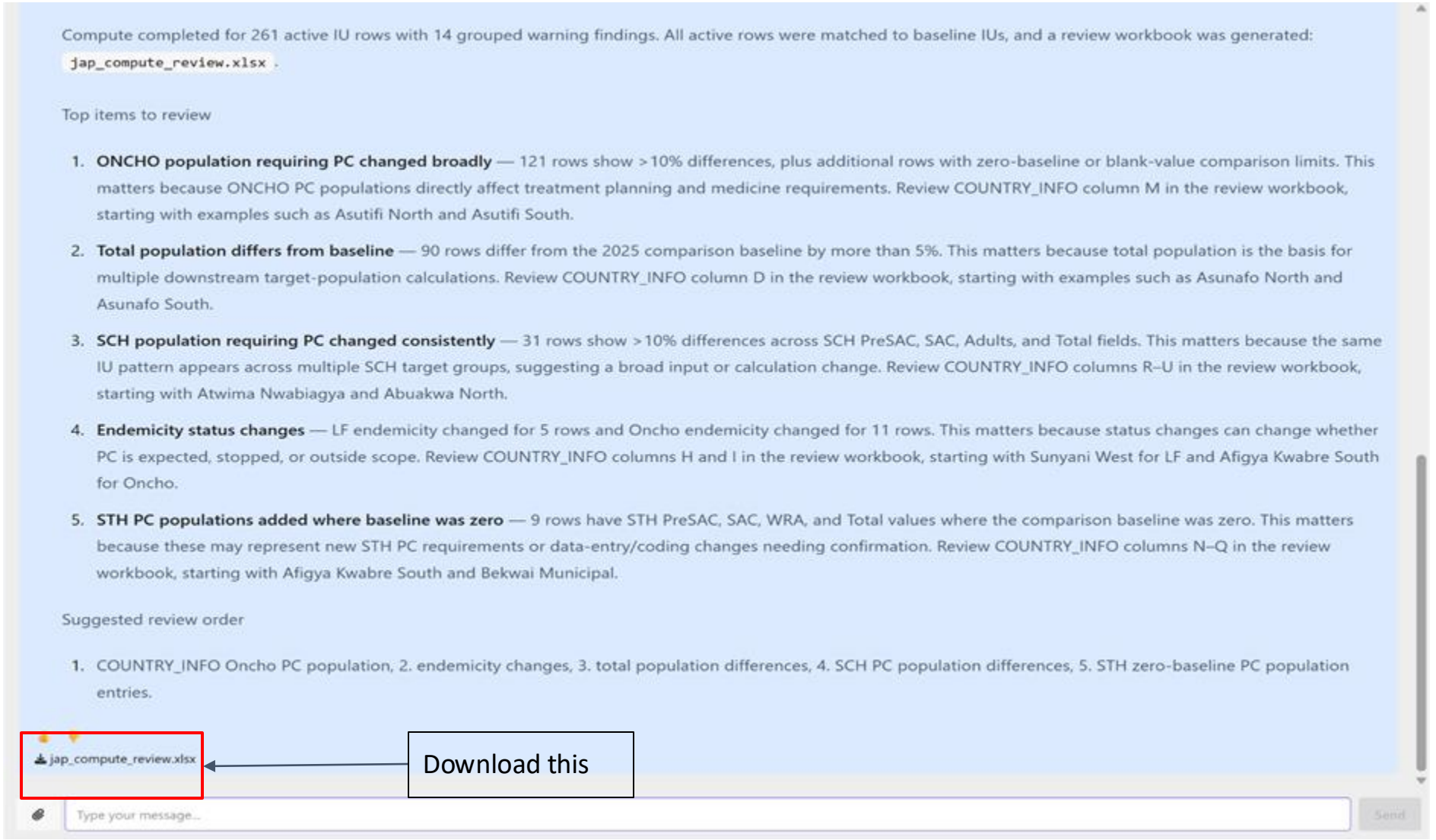
Step-by-Step Walkthrough: Step 4

Download file

The tool runs the final step with the following outputs:

1. An executive summary

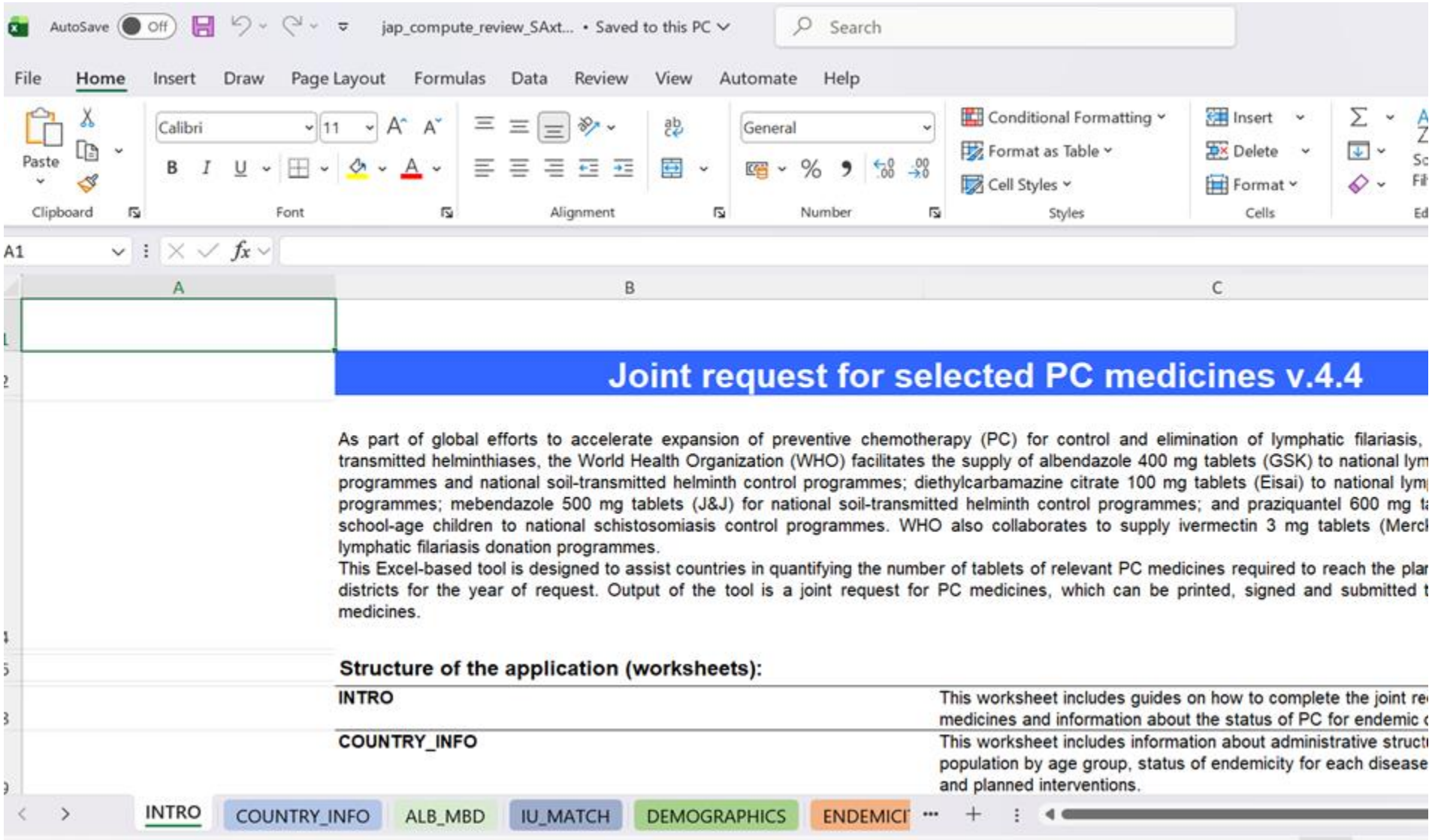
2. A downloadable file with the computation outcome



Step-by-Step Walkthrough: Step 5

Open the workbook

Open the file generated by the tool. You will notice similarities with the original submission along with some new columns and sheets.

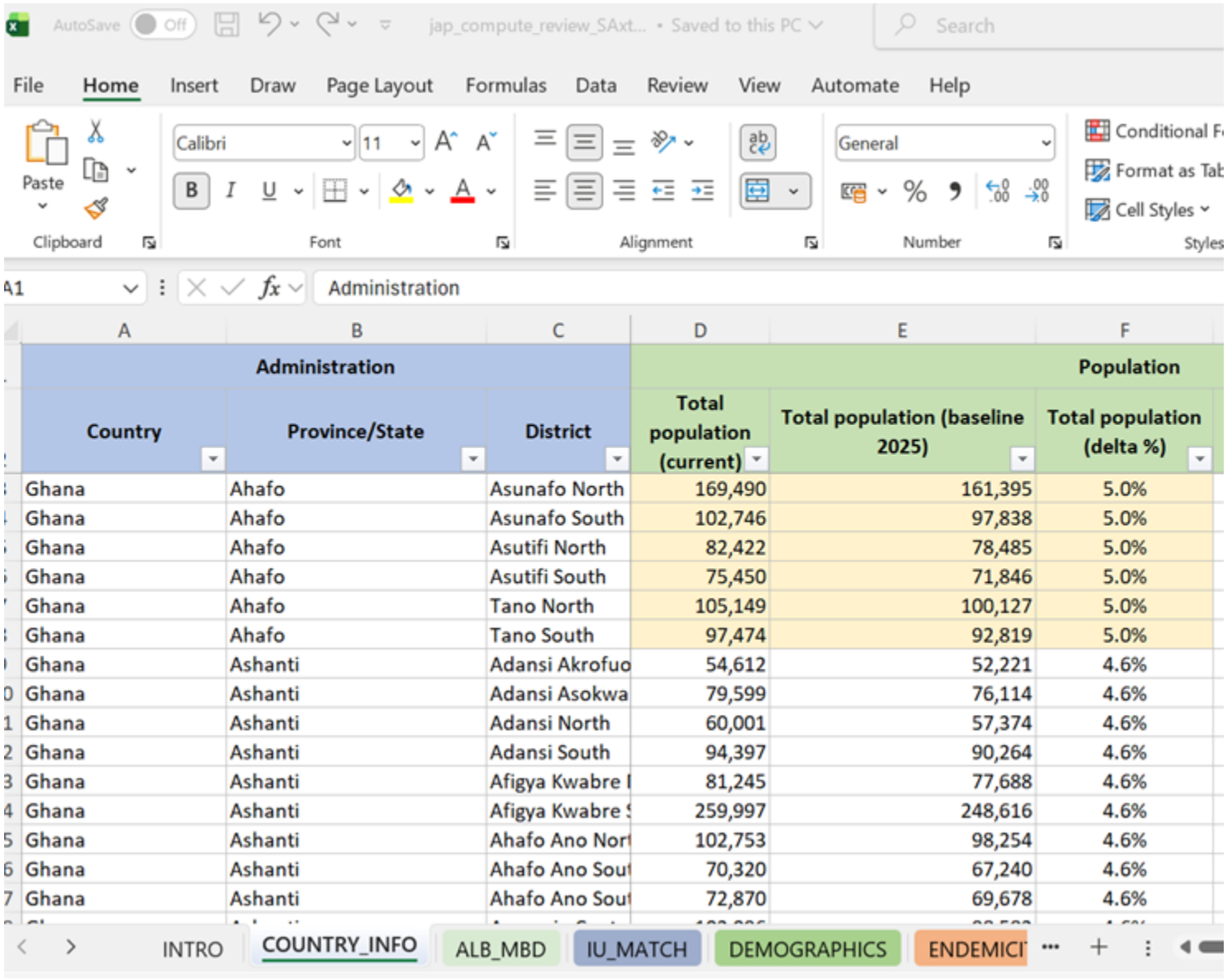


Step-by-Step Walkthrough: Step 5

Review the workbook

Reading the file:

Observe the Population section on the COUNTRY_INFO tab. Herein, you will notice the total as entered alongside a comparison with the baseline as well as the % difference. Similar fields exist for Endemicity and Population requiring PC. These are further shown separately in individual sheets on the same file.



AutoSave Off | jap_compute_review_SAxt... • Saved to this PC | Search

File Home Insert Draw Page Layout Formulas Data Review View Automate Help

Paste | Calibri | 11 | General | Conditional F | Format as Tab | Cell Styles

Clipboard | Font | Alignment | Number | Styles

A1 | Administration

	A	B	C	D	E	F
	Administration					Population
	Country	Province/State	District	Total population (current)	Total population (baseline 2025)	Total population (delta %)
	Ghana	Ahafo	Asunafo North	169,490	161,395	5.0%
	Ghana	Ahafo	Asunafo South	102,746	97,838	5.0%
	Ghana	Ahafo	Asutifi North	82,422	78,485	5.0%
	Ghana	Ahafo	Asutifi South	75,450	71,846	5.0%
	Ghana	Ahafo	Tano North	105,149	100,127	5.0%
	Ghana	Ahafo	Tano South	97,474	92,819	5.0%
	Ghana	Ashanti	Adansi Akrofuo	54,612	52,221	4.6%
0	Ghana	Ashanti	Adansi Asokwa	79,599	76,114	4.6%
1	Ghana	Ashanti	Adansi North	60,001	57,374	4.6%
2	Ghana	Ashanti	Adansi South	94,397	90,264	4.6%
3	Ghana	Ashanti	Afigya Kwabre I	81,245	77,688	4.6%
4	Ghana	Ashanti	Afigya Kwabre S	259,997	248,616	4.6%
5	Ghana	Ashanti	Ahafo Ano Nort	102,753	98,254	4.6%
6	Ghana	Ashanti	Ahafo Ano Sout	70,320	67,240	4.6%
7	Ghana	Ashanti	Ahafo Ano Sout	72,870	69,678	4.6%

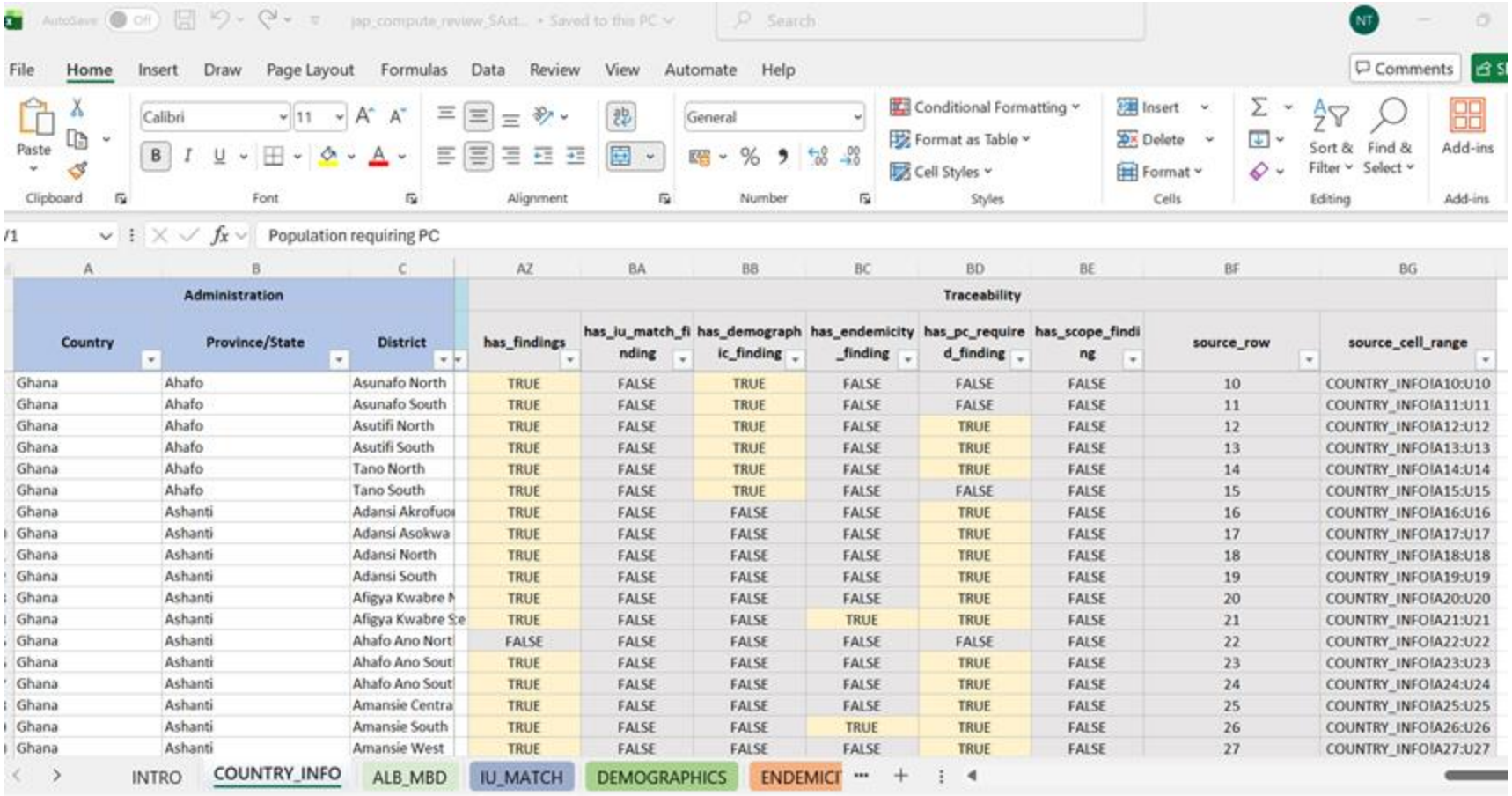
INTRO | COUNTRY_INFO | ALB_MBD | IU_MATCH | DEMOGRAPHICS | ENDEMICI

Step-by-Step Walkthrough: Step 5

Trace AI outputs to original cells

Reading the file:

- Flags row-level evidence for findings, IU match, demographics, endemicity, PC required, and scope
- Shows TRUE/FALSE indicators so missing or incomplete evidence is easy to spot by filtering
- Records the source row and source cell range for verification
- Lets reviewers trace each computed output back to the original workbook cells



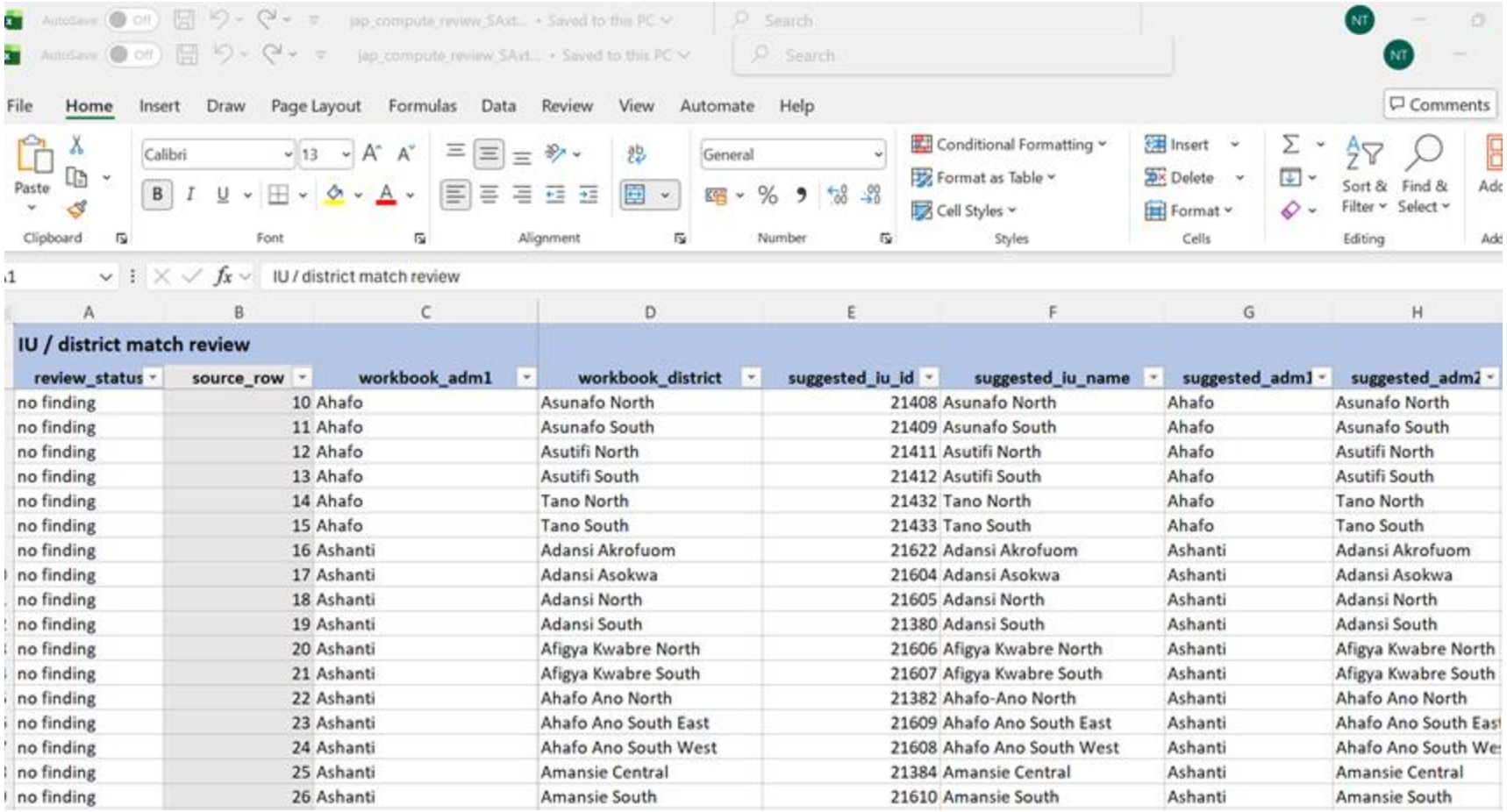
Step-by-Step Walkthrough: Step 5

Review IU lists

Reading the file:

Reviews workbook districts against the JRSM IU directory and shows the suggested IU match.

- Lists workbook ADM1/district values
- Shows suggested IU ID and IU name
- Flags rows needing review when the match is not clear



File Home Insert Draw Page Layout Formulas Data Review View Automate Help

IU / district match review

review_status	source_row	workbook_adm1	workbook_district	suggested_iu_id	suggested_iu_name	suggested_adm1	suggested_adm2
no finding	10	Ahafo	Asunafo North	21408	Asunafo North	Ahafo	Asunafo North
no finding	11	Ahafo	Asunafo South	21409	Asunafo South	Ahafo	Asunafo South
no finding	12	Ahafo	Asutifi North	21411	Asutifi North	Ahafo	Asutifi North
no finding	13	Ahafo	Asutifi South	21412	Asutifi South	Ahafo	Asutifi South
no finding	14	Ahafo	Tano North	21432	Tano North	Ahafo	Tano North
no finding	15	Ahafo	Tano South	21433	Tano South	Ahafo	Tano South
no finding	16	Ashanti	Adansi Akrofuom	21622	Adansi Akrofuom	Ashanti	Adansi Akrofuom
no finding	17	Ashanti	Adansi Asokwa	21604	Adansi Asokwa	Ashanti	Adansi Asokwa
no finding	18	Ashanti	Adansi North	21605	Adansi North	Ashanti	Adansi North
no finding	19	Ashanti	Adansi South	21380	Adansi South	Ashanti	Adansi South
no finding	20	Ashanti	Afigya Kwabre North	21606	Afigya Kwabre North	Ashanti	Afigya Kwabre North
no finding	21	Ashanti	Afigya Kwabre South	21607	Afigya Kwabre South	Ashanti	Afigya Kwabre South
no finding	22	Ashanti	Ahafo Ano North	21382	Ahafo-Ano North	Ashanti	Ahafo Ano North
no finding	23	Ashanti	Ahafo Ano South East	21609	Ahafo Ano South East	Ashanti	Ahafo Ano South East
no finding	24	Ashanti	Ahafo Ano South West	21608	Ahafo Ano South West	Ashanti	Ahafo Ano South We
no finding	25	Ashanti	Amansie Central	21384	Amansie Central	Ashanti	Amansie Central
no finding	26	Ashanti	Amansie South	21610	Amansie South	Ashanti	Amansie South

Next Steps

1. [30 minutes] Explore the JRSM workflow using your own submissions!
2. [10 minutes] Provide feedback for areas such as:

   a. Interaction steps

   b.Output file

   c.Understanding the chatbot message

Please fill this Google survey form after your testing!

Thank You


THANK YOU

Portugese Version

EXPANDED SPECIAL PROJECT
FOR ELIMINATION OF
NEGLECTED TROPICAL DISEASES

Avanços em Dados e Análises para Sustentar a Eliminação das DTNs na África - Assistente do Processo JAP da ESPEN

Em colaboração com dimagi

Jorge Cano Ortega
Surveillance Officer & Data Analyst
ESPEN

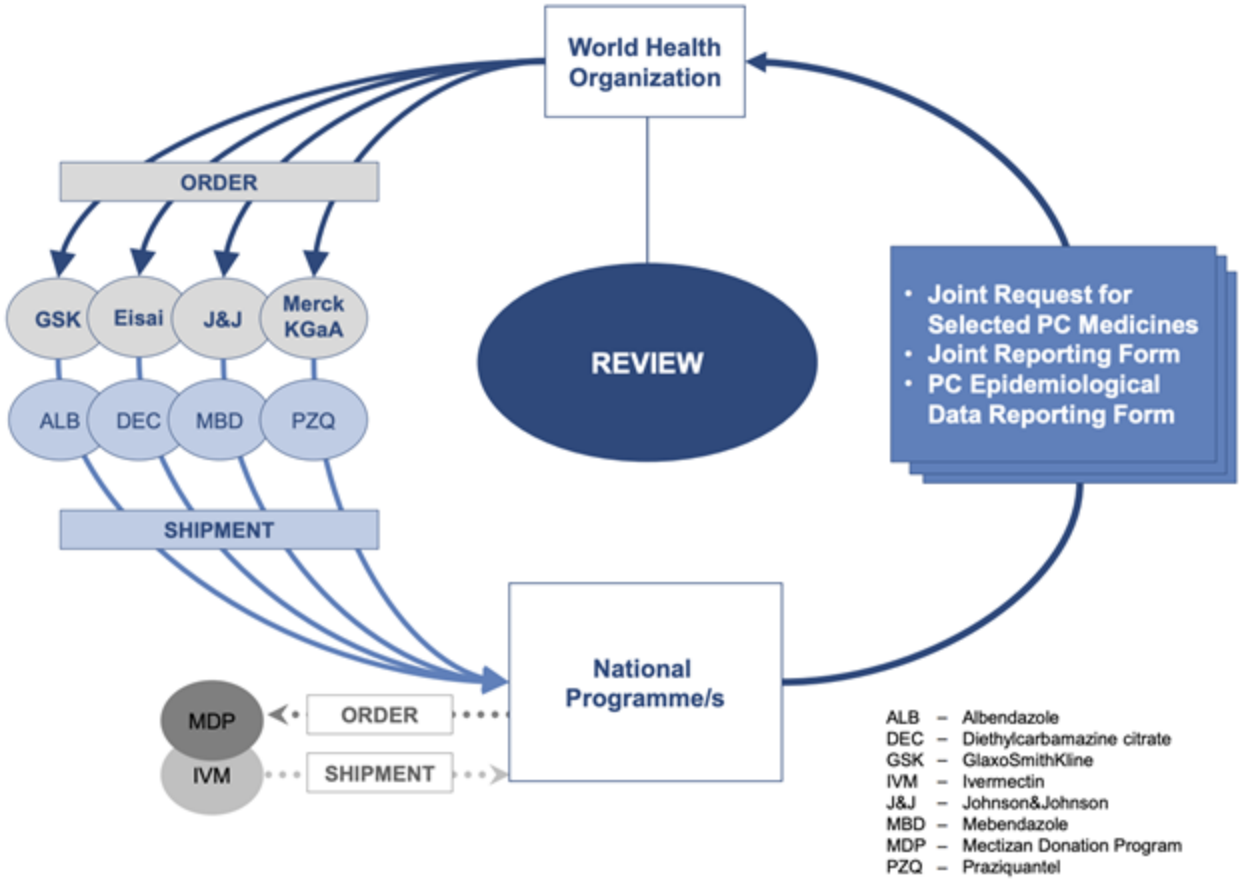
Namrata Tomar
Research and Operations Manager
Dimagi

Agenda

1. Contexto
2. Visão Geral do Assistente do Processo JAP
3. Fases de Desenvolvimento e Lançamento
4. Demonstração passo a passo
5. Próximos passos

O JAP é a forma como os países solicitam medicamentos doados e relatam a cobertura do tratamento — a espinha dorsal de dados de CP-DTNs

O Processo do Pacote de Aplicação Conjunta (JAP)



Contexto

Desafio na Revisão de Dados do JAP

- A avaliação das submissões do JAP é tradicionalmente um processo manual e demorado tanto para a ESPEN quanto para as equipes nacionais.
- Os revisores frequentemente enfrentam desafios com a integridade das fórmulas, incompatibilidade de versões e alinhamento de dados com as linhas de base históricas do banco de dados.
- Quando um JAP é submetido com problemas de qualidade de dados, isso atrasa o processo de aprovação e a chegada de medicamentos para a MDA

Necessidade de Automação do JAP

- Existe um gargalo crítico no ciclo de feedback entre as submissões dos países e as aprovações finais.
- A simplificação desse processo é vital para acelerar as decisões de tratamento baseadas em dados para sustentar a eliminação das DTNs em toda a África.
- Garantir que quantidades suficientes de medicamentos doados sejam enviadas a tempo para a implementação da MDA.

Nosso Objetivo

- Introduzir um Assistente de Processo JAP alimentado por IA para automatizar a validação, sinalizar discrepâncias instantaneamente e fornecer uma ferramenta colaborativa para a ESPEN e as equipes dos países para simplificar radicalmente o ciclo de feedback.

Estado Atual: Processo Manual de Revisão do JAP

01 Submissão do JRSM Recebida

O país submete o JRSM via e-mail ou portal. O revisor faz o download da planilha Excel.

02 Verificação de Versão e Modelo

O revisor verifica manualmente a versão correta do JRSM (4.3, 4.4, 4.5) e a integridade do modelo.

03 Revisão Demográfica

Comparação no Excel: aba INFO (proporções de faixas etárias) e COUNTRYINFO (pop. total) vs projeções da ESPEN e JRSM anterior.

04 Endemicidade e População de CP

Códigos de endemicidade no nível da UI e pop. que necessita de CP validados em relação ao JRF mais recente, JRSM aprovado e linhas de base da ESPEN (margem de 10%).

05 Verificações de Programa, Consignatário e UI

Rodadas de MDA vs endemicidade. Pesquisas vs projeções da ESPEN. Consistência do consignatário revisada. Divisões/fusões de UIs rastreadas em tabela separada.

06 Relatório de Discrepâncias e Decisão

O revisor compila o relatório de discrepâncias. O país fornece esclarecimentos. Aprovação (Verde) ou retrabalho (Amarelo/Vermelho).

Fontes de Linha de Base: JRF mais recente • JRSM Aprovado Mais Recente • Projeções Populacionais da ESPEN • Tabela Mestra da Cadeia de Suprimentos (estoque)

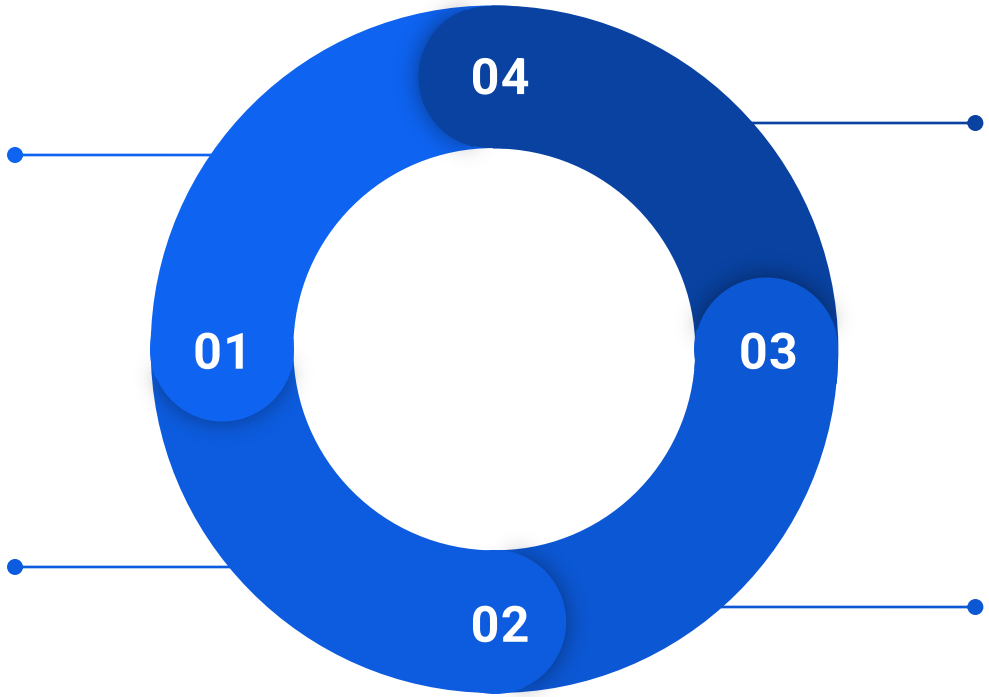
Estado Futuro: Assistente de IA do Processo JAP

Passo 1: Validação

Verificamos se o arquivo é a versão correta

Passo 2: Confirmação

A ferramenta reporta os resultados da validação e pausa aqui. O usuário deve solicitar explicitamente para prosseguir para a fase de computação avançada.



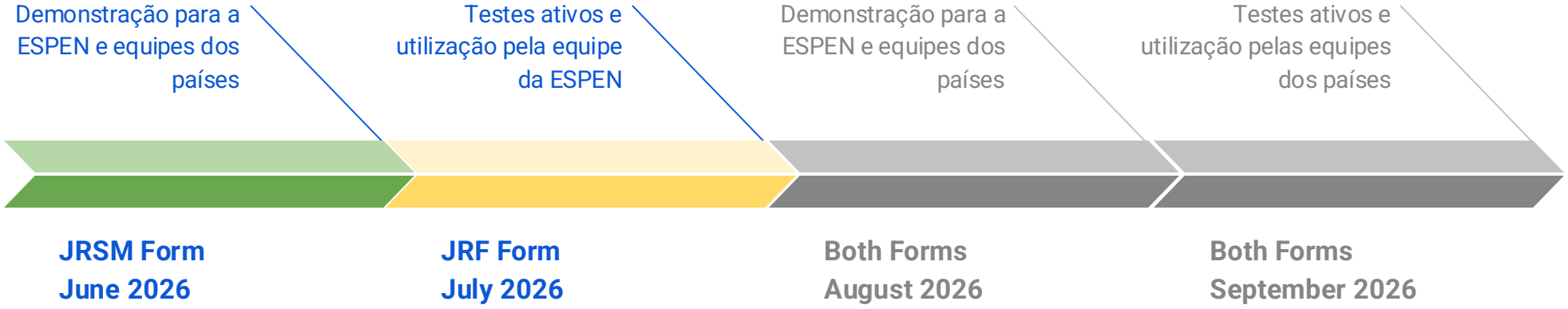
Passo 4: Resultado Final

Lista de Exceções CSV + resumo executivo de LLM e rascunho de mensagem para o remetente.

Passo 3: Computação

Verificamos a Integridade das Fórmulas. A ferramenta distingue entre células protegidas e editáveis para garantir que nenhuma fórmula foi quebrada. É também aqui que executamos as comparações pesadas em relação às linhas de base do banco de dados.

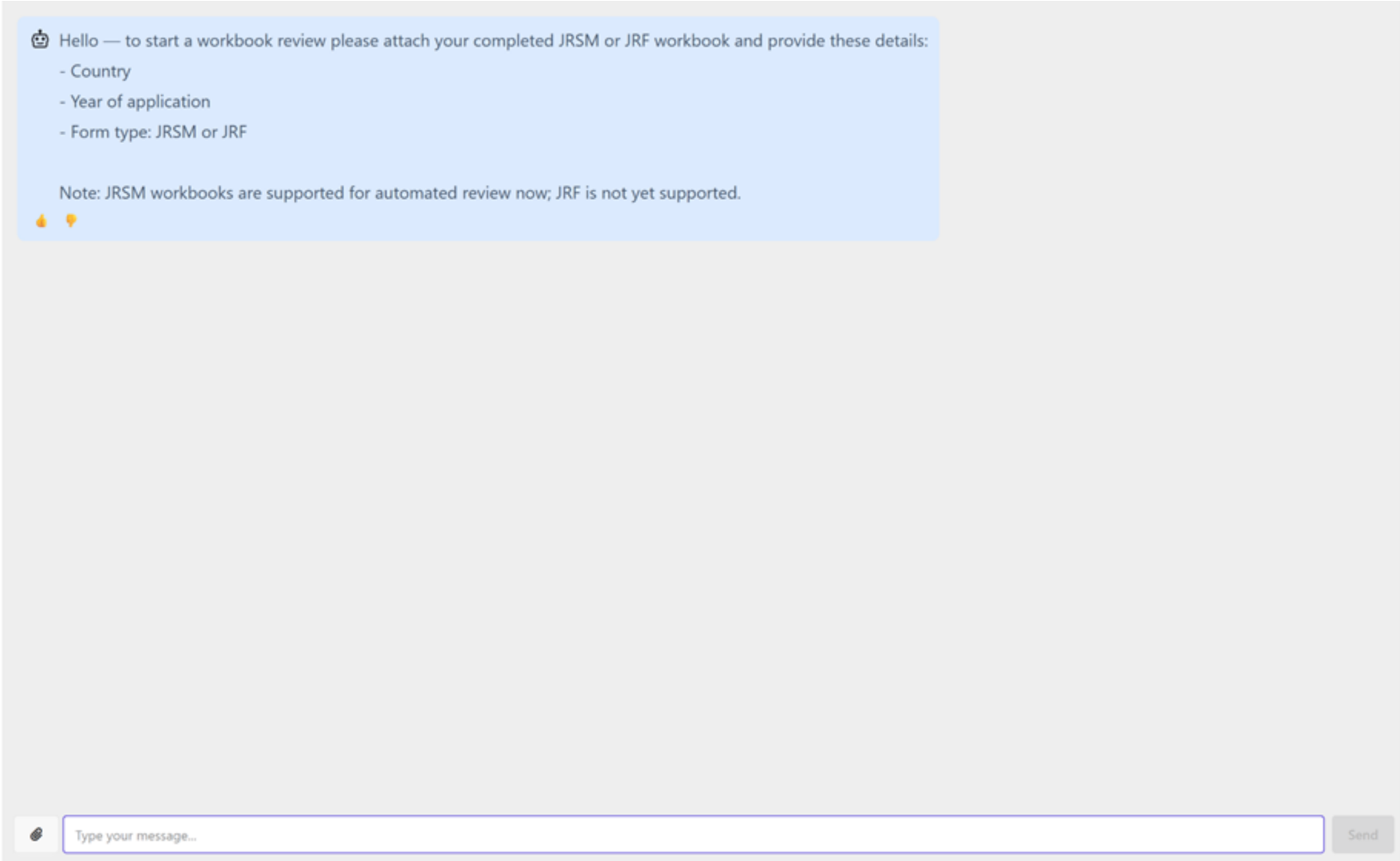
Fases de Desenvolvimento e Lançamento



Demonstração Passo a Passo: Passo 1

Acessar a Ferramenta de IA

Acesse a ferramenta clicando no seguinte link: https://www.openchatstudio.com/a/ai-assistant-for-ntds/chatbots/861fcbfa-fe73-416a-8ca3-e1a0194bb050/start/

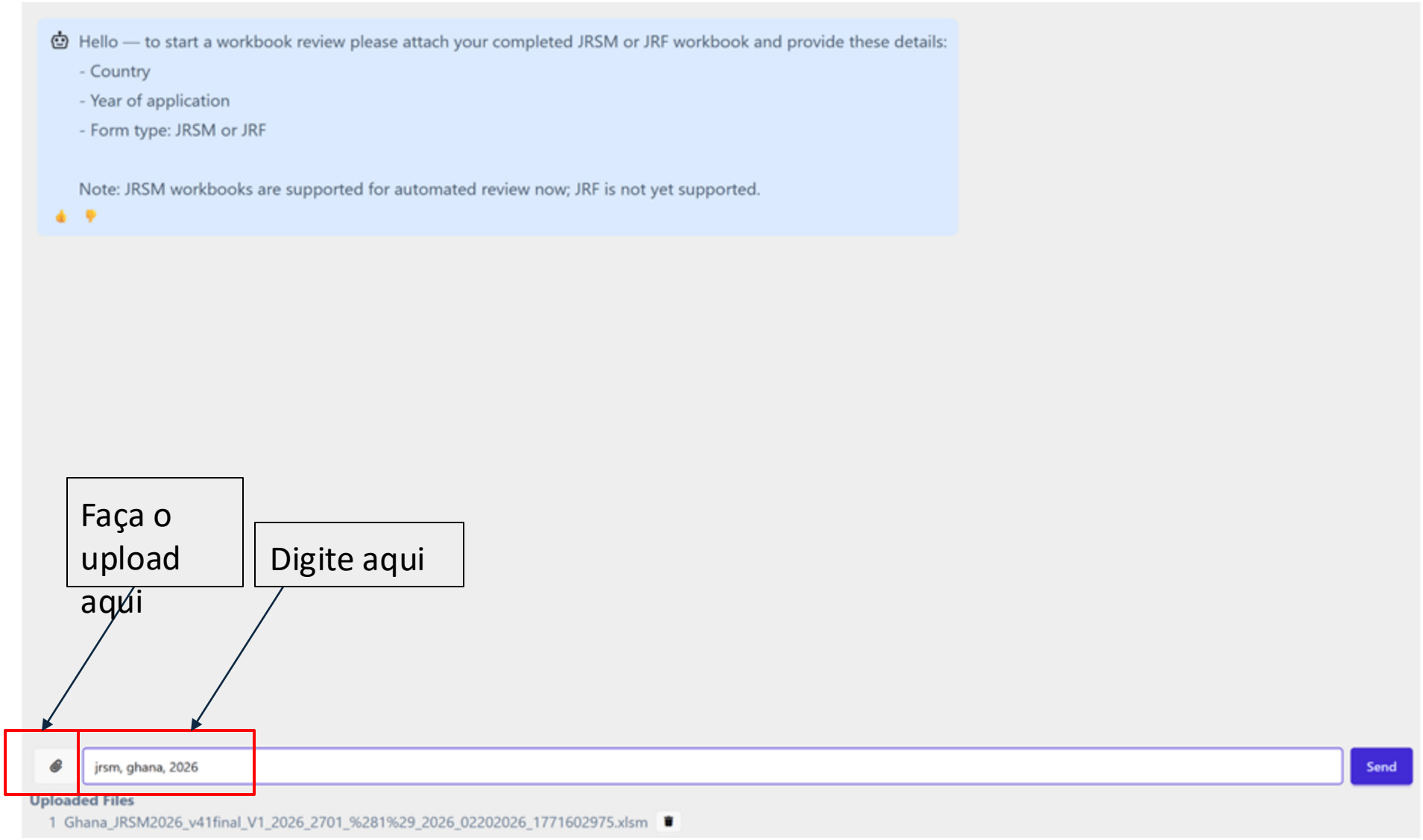


Demonstração Passo a Passo: Passo 2

Mencione o país, o ano de aplicação e o tipo de formulário (JRSM)

Mencione o país, o ano de aplicação e o tipo de formulário (JRSM), juntamente com o upload do formulário JRSM relevante no campo de entrada.

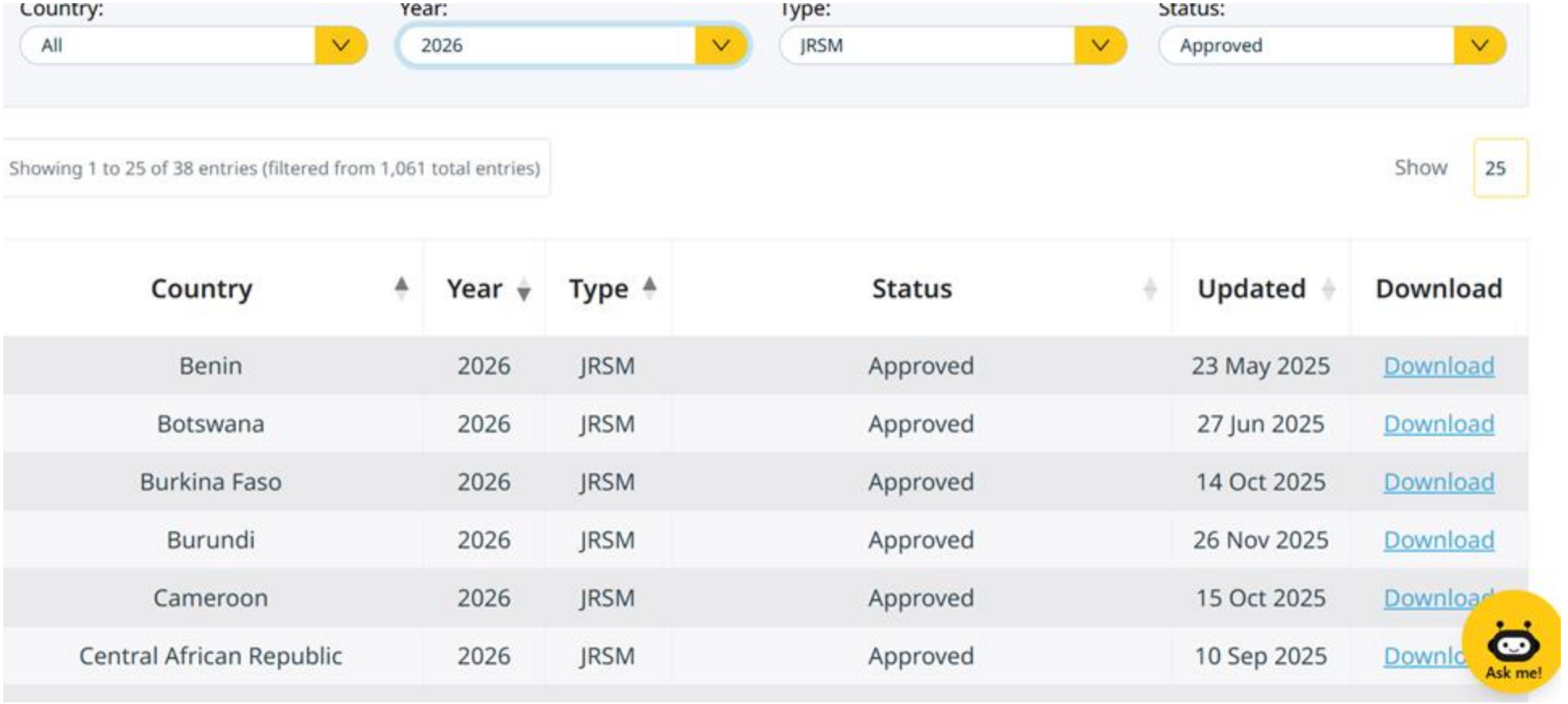
Versões JRSM suportadas: 4.3, 4.4 e 4.5



Demonstração Passo a Passo: Passo 2

Selecione o JRSM para testar

Você pode usar um formulário JRSM submetido anteriormente para testar clicando neste link (filtre por 2026):https://espen.afro.who.int/tools-resources/data-reporting-tools/jap-search

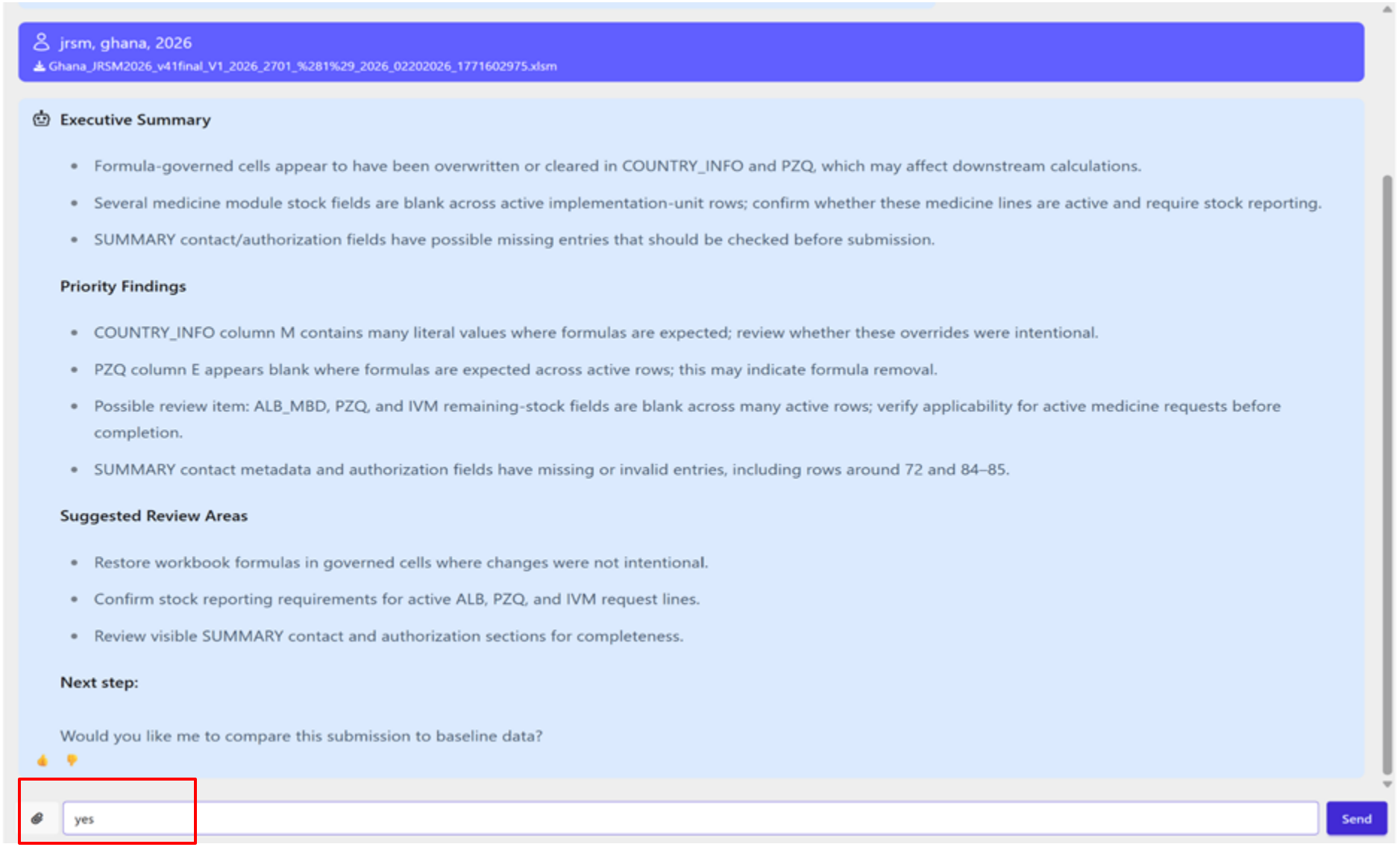


Demonstração Passo a Passo: Passo 3

Revise o resumo da IA

A ferramenta gera um resumo de IA validando o formulário JRSM enviado.

Digite ‘yes’ (sim) para prosseguir com a fase de computação.



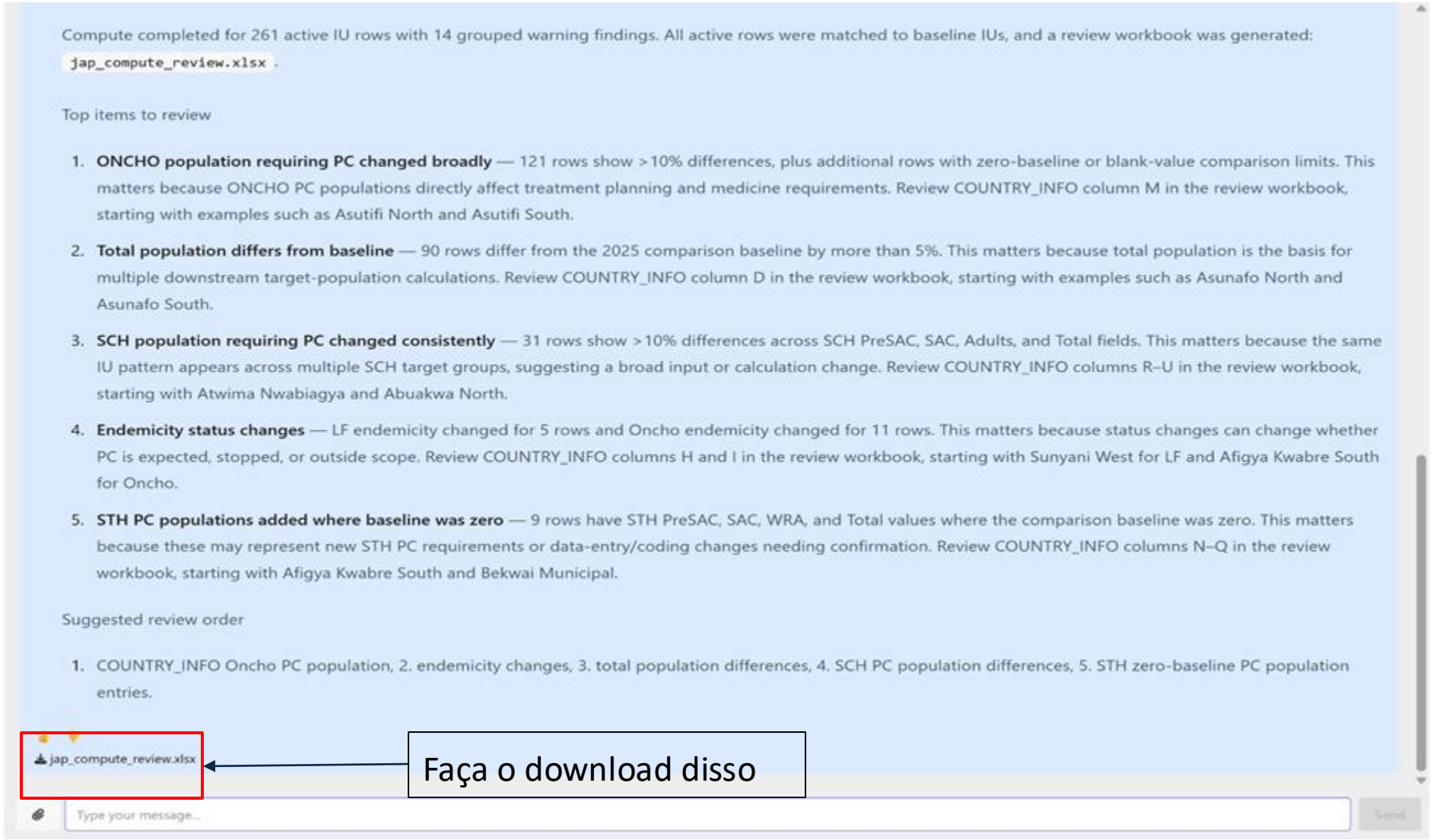
Demonstração Passo a Passo: Passo 4

Baixar arquivo

A ferramenta executa a etapa final com os seguintes resultados:

1. Um resumo executivo

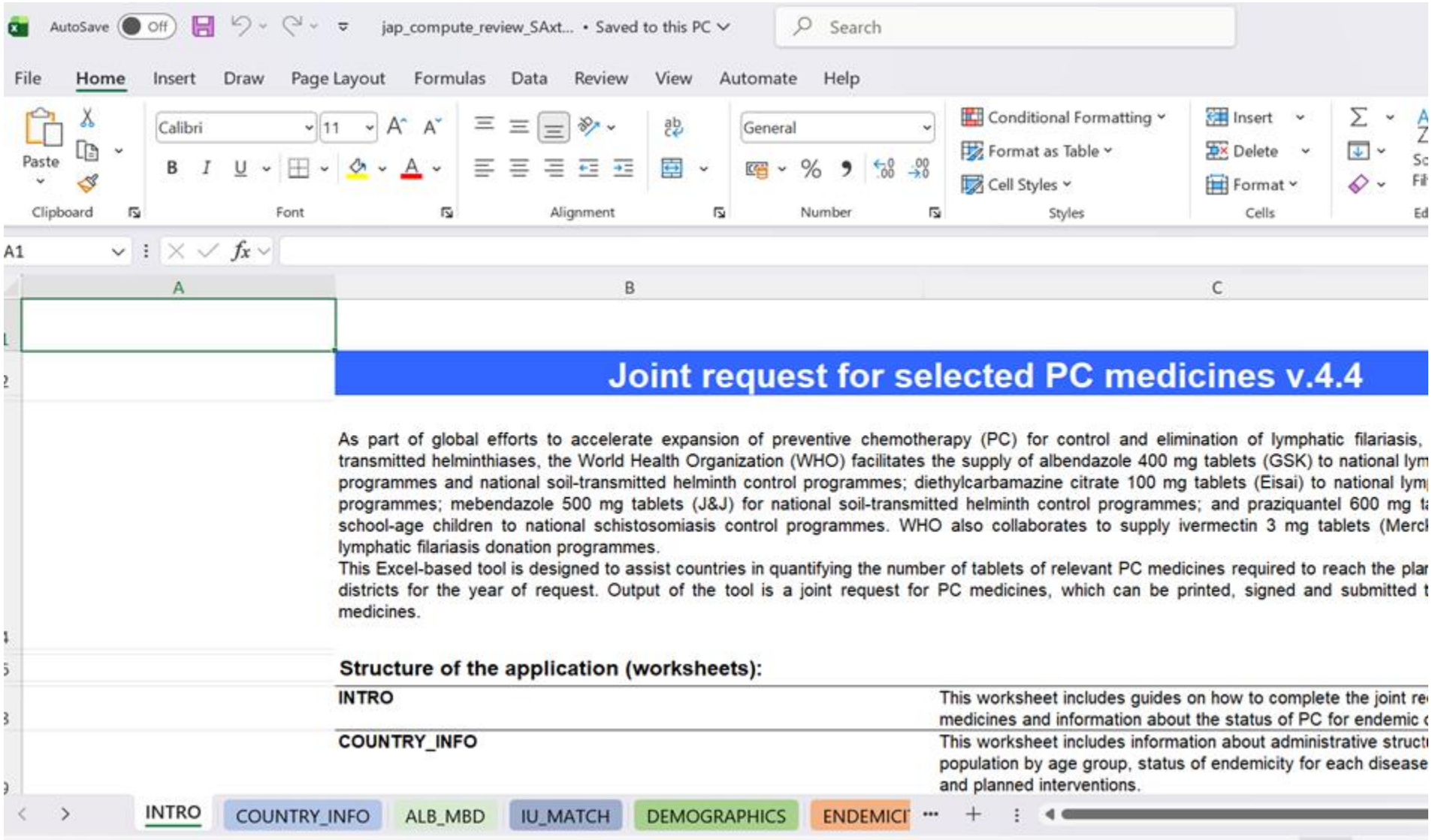
2. Um arquivo para download com o resultado da computação



Demonstração Passo a Passo: Passo 5

Abra a planilha

Abra o arquivo gerado pela ferramenta. Você notará semelhanças com a submissão original, juntamente com algumas novas colunas e planilhas.

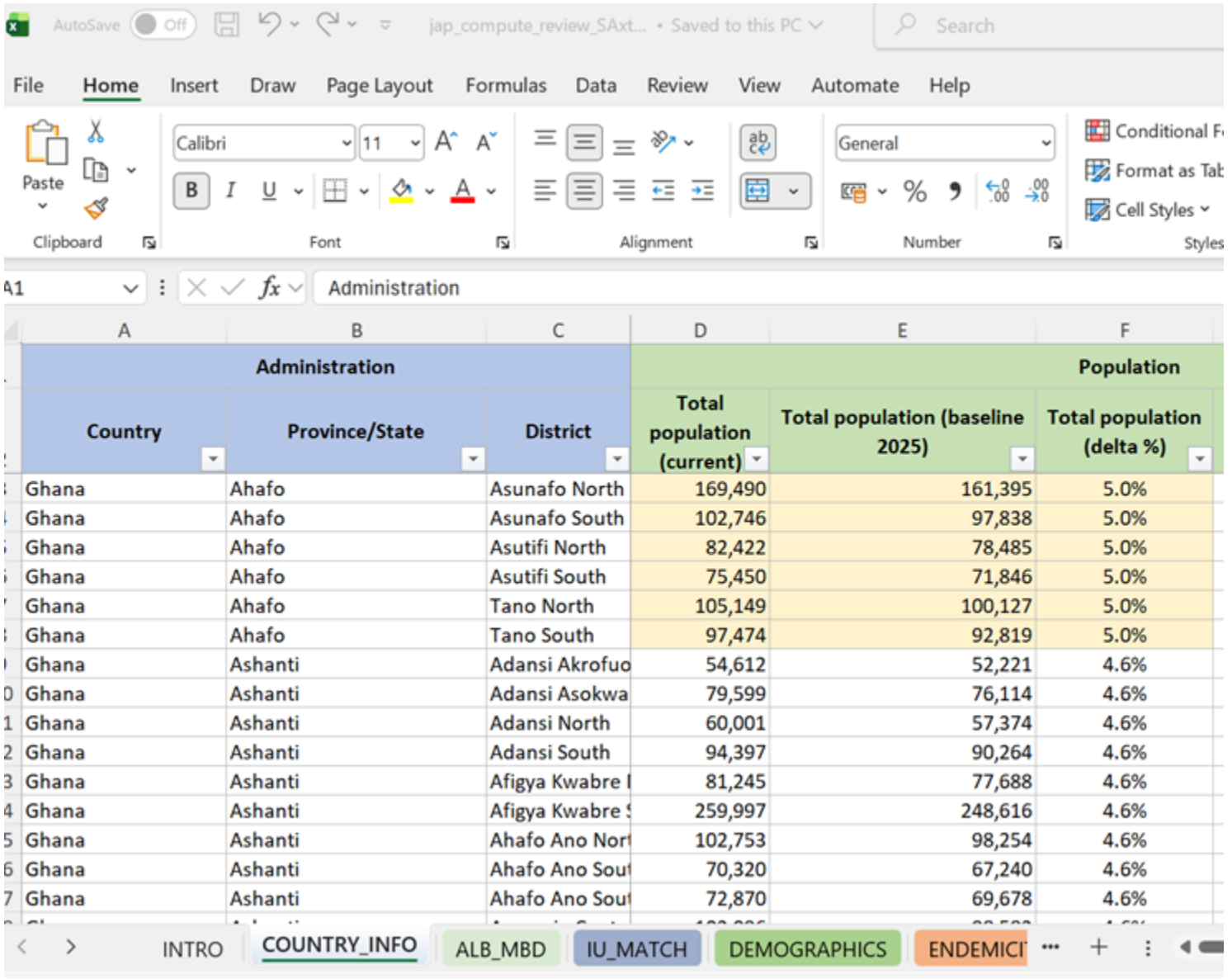


Demonstração Passo a Passo: Passo 5

Revise a planilha

Lendo o arquivo:

Observe a seção População na aba COUNTRY_INFO. Aqui, você notará o total inserido ao lado de uma comparação com a linha de base, bem como a diferença percentual. Existem campos semelhantes para Endemicidade e População que necessita de CP. Estes são mostrados separadamente em planilhas individuais no mesmo arquivo.

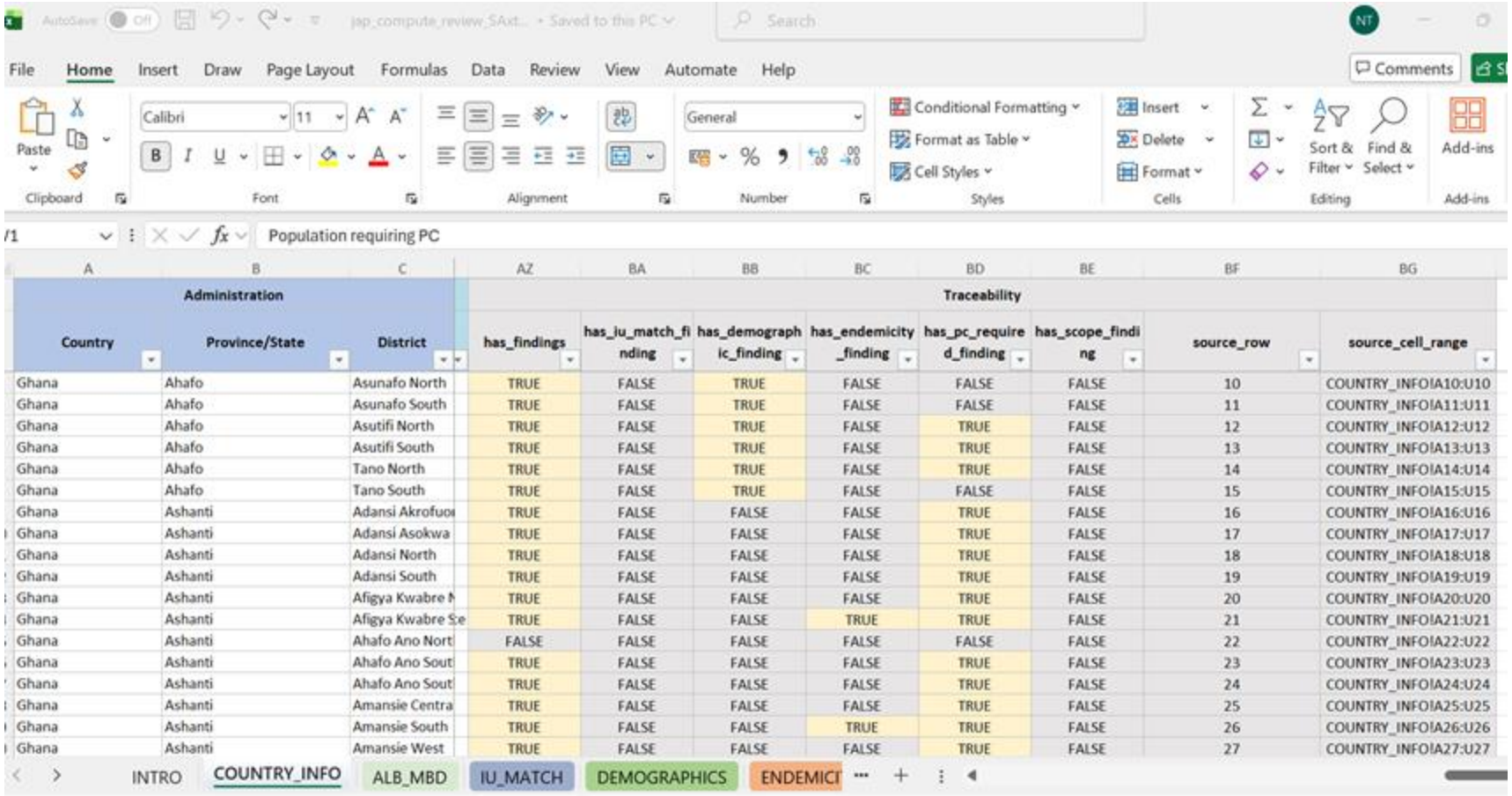


Demonstração Passo a Passo: Passo 5

Rastreie os resultados da IA até as células originais

Lendo o arquivo:

- Sinaliza evidências no nível da linha para descobertas, correspondência de UI, dados demográficos, endemicidade, CP necessária e escopo
- Mostra indicadores VERDADEIRO/FALSO para que evidências ausentes ou incompletas sejam fáceis de detectar por meio de filtros
- Registra a linha de origem e o intervalo de células de origem para verificação
- Permite que os revisores rastreiem cada resultado calculado de volta às células da planilha original



Administration			Traceability								
Country	Province/State	District	has_findings	has_iu_match_finding	has_demographic_finding	has_endemicity_finding	has_pc_required_finding	has_scope_finding	source_row	source_cell_range
Ghana	Ahafo	Asunafo North	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	10	COUNTRY_INFO!A10:U10
Ghana	Ahafo	Asunafo South	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	11	COUNTRY_INFO!A11:U11
Ghana	Ahafo	Asutifi North	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	12	COUNTRY_INFO!A12:U12
Ghana	Ahafo	Asutifi South	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	13	COUNTRY_INFO!A13:U13
Ghana	Ahafo	Tano North	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	14	COUNTRY_INFO!A14:U14
Ghana	Ahafo	Tano South	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	15	COUNTRY_INFO!A15:U15
Ghana	Ashanti	Adansi Akrofuo	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	16	COUNTRY_INFO!A16:U16
Ghana	Ashanti	Adansi Asokwa	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	17	COUNTRY_INFO!A17:U17
Ghana	Ashanti	Adansi North	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	18	COUNTRY_INFO!A18:U18
Ghana	Ashanti	Adansi South	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	19	COUNTRY_INFO!A19:U19
Ghana	Ashanti	Afigya Kwabre N	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	20	COUNTRY_INFO!A20:U20
Ghana	Ashanti	Afigya Kwabre Se	TRUE	FALSE	FALSE	TRUE	TRUE	FALSE	21	COUNTRY_INFO!A21:U21
Ghana	Ashanti	Ahafo Ano Nort	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	22	COUNTRY_INFO!A22:U22
Ghana	Ashanti	Ahafo Ano Sout	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	23	COUNTRY_INFO!A23:U23
Ghana	Ashanti	Ahafo Ano Sout	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	24	COUNTRY_INFO!A24:U24
Ghana	Ashanti	Amansie Centra	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	25	COUNTRY_INFO!A25:U25
Ghana	Ashanti	Amansie South	TRUE	FALSE	FALSE	TRUE	TRUE	FALSE	26	COUNTRY_INFO!A26:U26
Ghana	Ashanti	Amansie West	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	27	COUNTRY_INFO!A27:U27

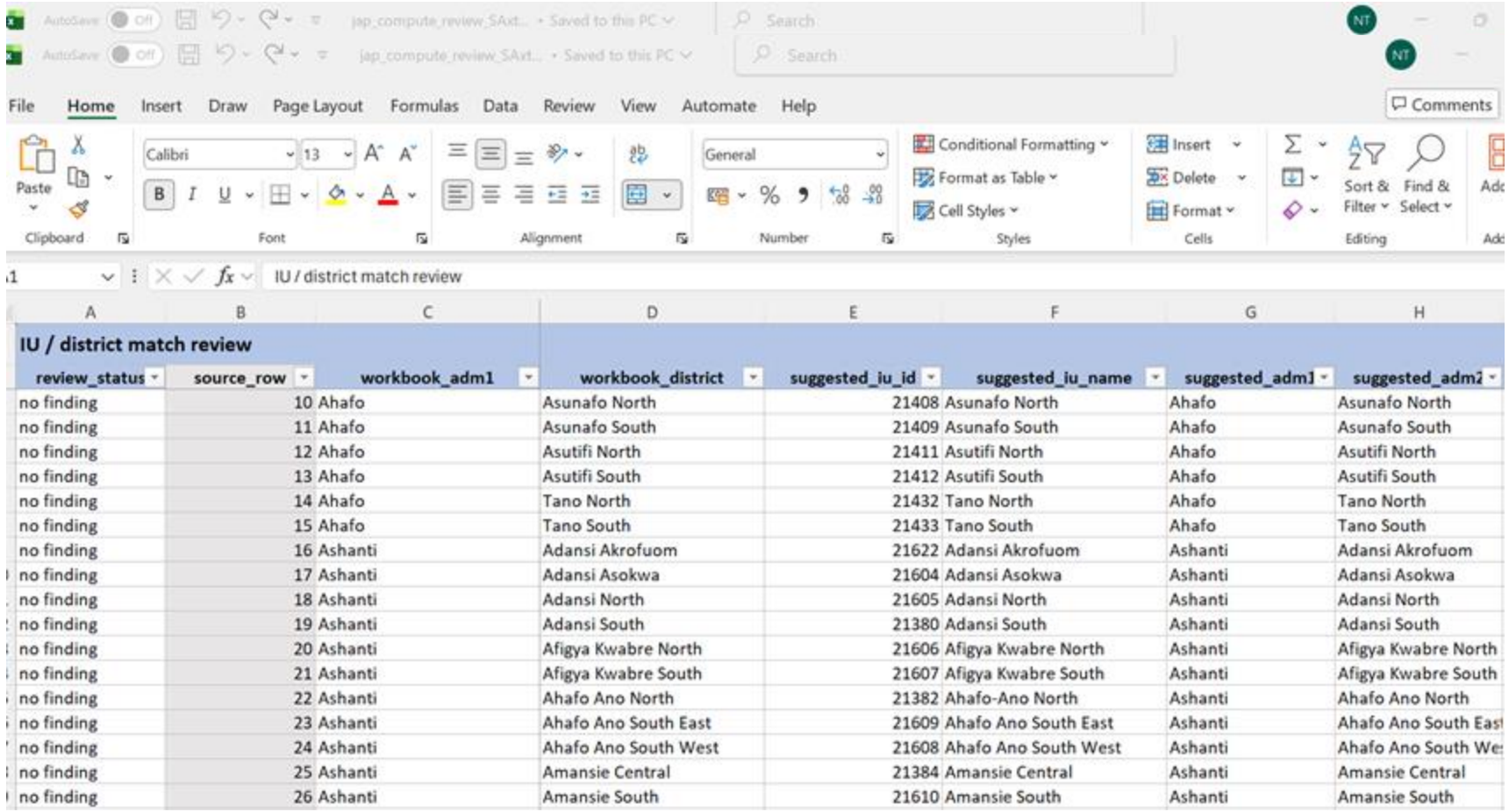
Demonstração Passo a Passo: Passo 5

Revise as listas de UI

Lendo o arquivo:

Revisa os distritos da planilha em relação ao diretório de UI do JRSM e mostra a correspondência de UI sugerida

- Lista os valores de ADM1/distrito da planilha
- Mostra o ID da UI sugerido e o nome da UI
- Sinaliza as linhas que precisam de revisão quando a correspondência não é clara



IU / district match review							
review_status	source_row	workbook_adm1	workbook_district	suggested_iu_id	suggested_iu_name	suggested_adm1	suggested_adm2
no finding	10	Ahafo	Asunafo North	21408	Asunafo North	Ahafo	Asunafo North
no finding	11	Ahafo	Asunafo South	21409	Asunafo South	Ahafo	Asunafo South
no finding	12	Ahafo	Asutifi North	21411	Asutifi North	Ahafo	Asutifi North
no finding	13	Ahafo	Asutifi South	21412	Asutifi South	Ahafo	Asutifi South
no finding	14	Ahafo	Tano North	21432	Tano North	Ahafo	Tano North
no finding	15	Ahafo	Tano South	21433	Tano South	Ahafo	Tano South
no finding	16	Ashanti	Adansi Akrofuom	21622	Adansi Akrofuom	Ashanti	Adansi Akrofuom
no finding	17	Ashanti	Adansi Asokwa	21604	Adansi Asokwa	Ashanti	Adansi Asokwa
no finding	18	Ashanti	Adansi North	21605	Adansi North	Ashanti	Adansi North
no finding	19	Ashanti	Adansi South	21380	Adansi South	Ashanti	Adansi South
no finding	20	Ashanti	Afigya Kwabre North	21606	Afigya Kwabre North	Ashanti	Afigya Kwabre North
no finding	21	Ashanti	Afigya Kwabre South	21607	Afigya Kwabre South	Ashanti	Afigya Kwabre South
no finding	22	Ashanti	Ahafo Ano North	21382	Ahafo-Ano North	Ashanti	Ahafo Ano North
no finding	23	Ashanti	Ahafo Ano South East	21609	Ahafo Ano South East	Ashanti	Ahafo Ano South East
no finding	24	Ashanti	Ahafo Ano South West	21608	Ahafo Ano South West	Ashanti	Ahafo Ano South West
no finding	25	Ashanti	Amansie Central	21384	Amansie Central	Ashanti	Amansie Central
no finding	26	Ashanti	Amansie South	21610	Amansie South	Ashanti	Amansie South

Próximos Passos

1. [30 minutos] Explore o fluxo de trabalho do JRSM usando suas próprias submissões!
2. [10 minutos] Forneça feedback para áreas como:
   a. Etapas de interação
   b. Arquivo de saída
   c. Compreensão da mensagem do chatbot

Por favor, preencha este formulário de pesquisa do Google após os seus testes: Google survey form

Obrigado

French Version

EXPANDED SPECIAL PROJECT FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES

Progrès en matière de données et d'analyses pour la pérennisation de l'élimination des MTN en Afrique - Assistant au processus JAP de l'ESPEN

En collaboration avec dimagi

Jorge Cano Ortega

Surveillance Officer & Data Analyst

ESPEN

Namrata Tomar

Research and Operations Manager

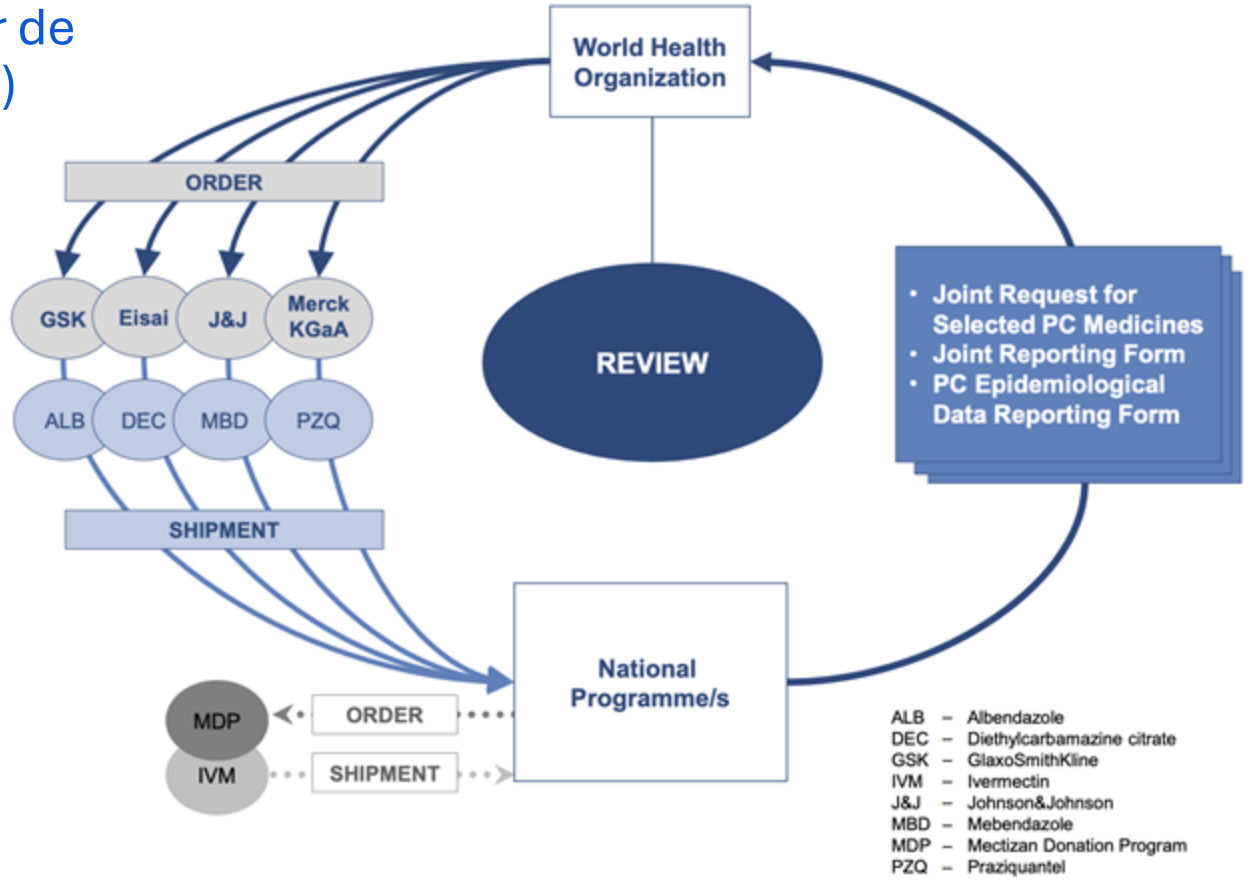
Dimagi

Ordre du jour

1. Contexte
2. Aperçu de l'Assistant au processus JAP
3. Phases de développement et de lancement
4. Présentation étape par étape
5. Prochaines étapes

Le JAP est le moyen par lequel les pays demandent des dons de médicaments et rendent compte de la couverture thérapeutique — l'épine dorsale des données sur les MTN-CP

Le processus du dossier de demande conjointe (JAP)



Contexte

Défi lié à la révision des données du JAP

- L'évaluation des soumissions JAP est traditionnellement un processus manuel et chronophage, tant pour l'ESPEN que pour les équipes nationales.
- Les réviseurs sont fréquemment confrontés à des défis liés à l'intégrité des formules, aux incohérences de versions et à l'alignement des données par rapport aux références historiques de la base de données.
- Lorsqu'un JAP est soumis avec des problèmes de qualité des données, cela retarde le processus d'approbation et

Besoin d'automatisation du JAP

- Il existe un goulot d'étranglement critique dans la boucle de rétroaction entre les soumissions des pays et les approbations finales.
- La rationalisation de ce processus est vitale pour accélérer les décisions de traitement basées sur les données afin de pérenniser l'élimination des MTN à travers l'Afrique.
- Garantir que des quantités suffisantes de médicaments donnés soient expédiées à temps pour la mise en œuvre du TMM.

Notre objectif

- Introduire un Assistant au processus JAP optimisé par l'IA pour automatiser la validation, signaler instantanément les écarts et fournir un outil collaboratif pour l'ESPEN et les équipes des pays afin de simplifier radicalement la boucle de rétroaction.

État actuel : Processus de révision manuel du JAP

01 Réception de la soumission du JRSM

Le pays soumet le JRSM par e-mail ou via le portail. Le réviseur télécharge le classeur Excel.

02 Vérification de la version et du modèle

Le réviseur vérifie manuellement la version correcte du JRSM (4.3, 4.4, 4.5) et l'intégrité du modèle.

03 Révision démographique

Comparaison Excel : onglet INFO (proportions par groupe d'âge) et COUNTRYINFO (pop. totale) par rapport aux projections de l'ESPEN et au JRSM précédent.

04 Endémicité et population de CP

Les codes d'endémicité au niveau de l'UI et la pop. nécessitant une CP sont validés par rapport au dernier JRF, au JRSM approuvé et aux références de l'ESPEN (marge de 10 %).

05 Vérifications du programme, du destinataire et des UI

Tournées de TMM par rapport à l'endémicité. Enquêtes par rapport aux projections de l'ESPEN. Cohérence du destinataire révisée. Les divisions/fusions d'UI sont retracées dans un tableau séparé.

06 Rapport d'écarts et décision

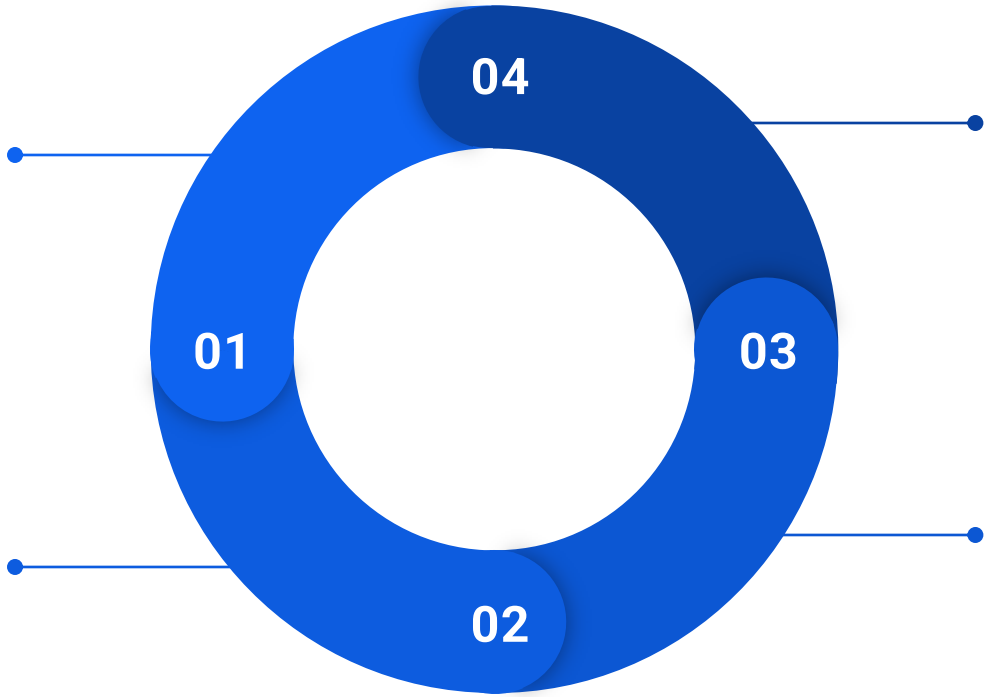
Le réviseur compile le rapport d'écarts. Le pays fournit des clarifications. Approbation (Vert) ou retravail (Jaune/Rouge).

Sources de référence : Dernier JRF • Dernier JRSM approuvé • Projections démographiques de l'ESPEN • Tableau principal de la chaîne d'approvisionnement (inventaire)

État futur : Assistant IA au processus JAP

Étape 1 : Validation - Nous vérifions si le fichier correspond à la bonne version.

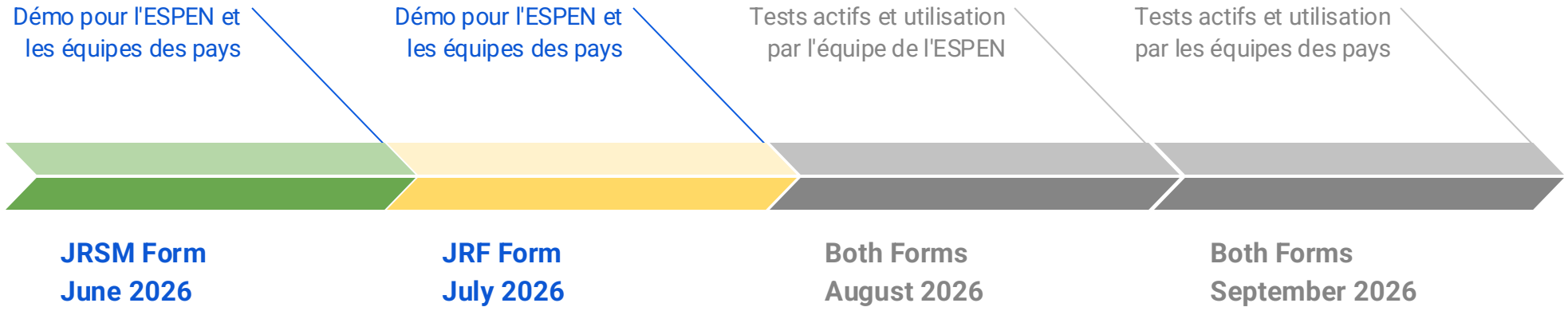
Étape 2 : Confirmation - L'outil rend compte des résultats de la validation et fait une pause ici. L'utilisateur doit explicitement demander de continuer pour passer à la phase de calcul avancé.



Étape 4 : Résultat final - Liste d'exceptions CSV + résumé analytique du LLM et brouillon de message destiné au soumissionnaire.

Étape 3 : Calcul - Nous vérifions l'intégrité des formules. L'outil fait la distinction entre les cellules protégées et modifiables pour s'assurer qu'aucune formule n'a été brisée. C'est également ici que nous effectuons les comparaisons complexes par rapport aux références de la base de données.

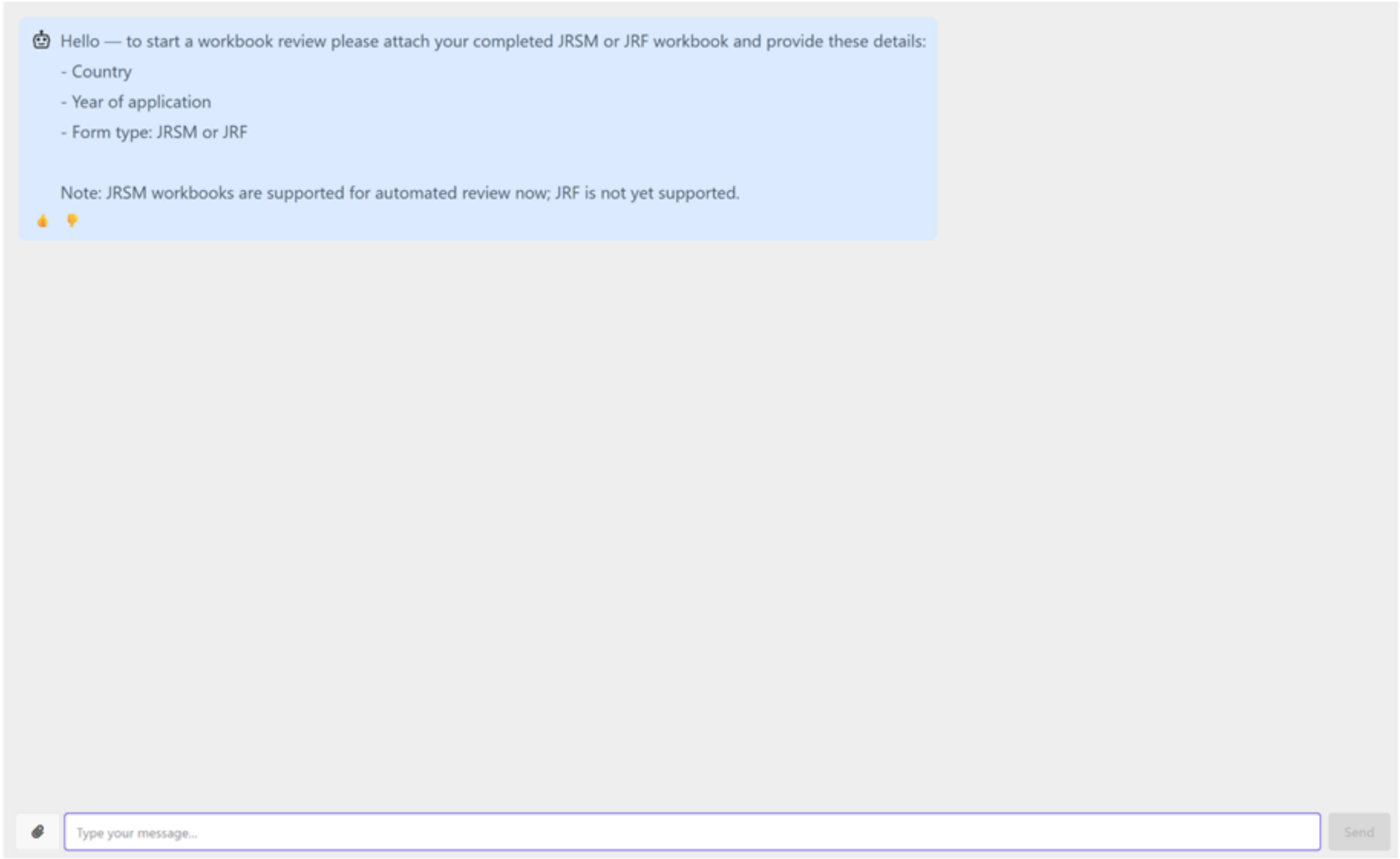
Phases de développement et de lancement



Présentation étape par étape : Étape 1

Accéder à l'outil d'IA

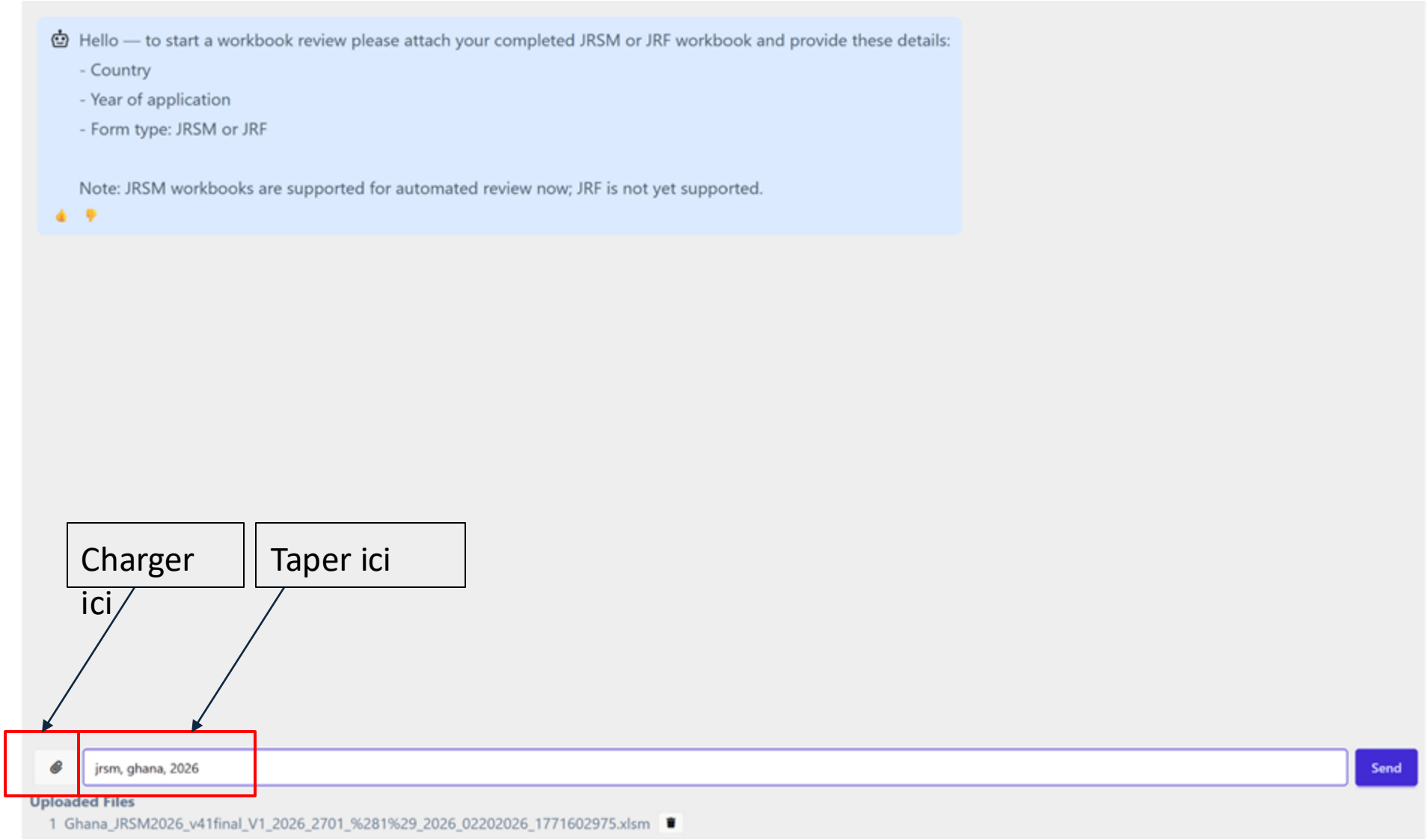
Accédez à l'outil en cliquant sur le lien suivant : https://www.openchatstudio.com/a/ai-assistant-for-ntds/chatbots/861fcbfa-fe73-416a-8ca3-e1a0194bb050/start/



Présentation étape par étape : Étape 2

Spécifier le pays, l'année et le formulaire

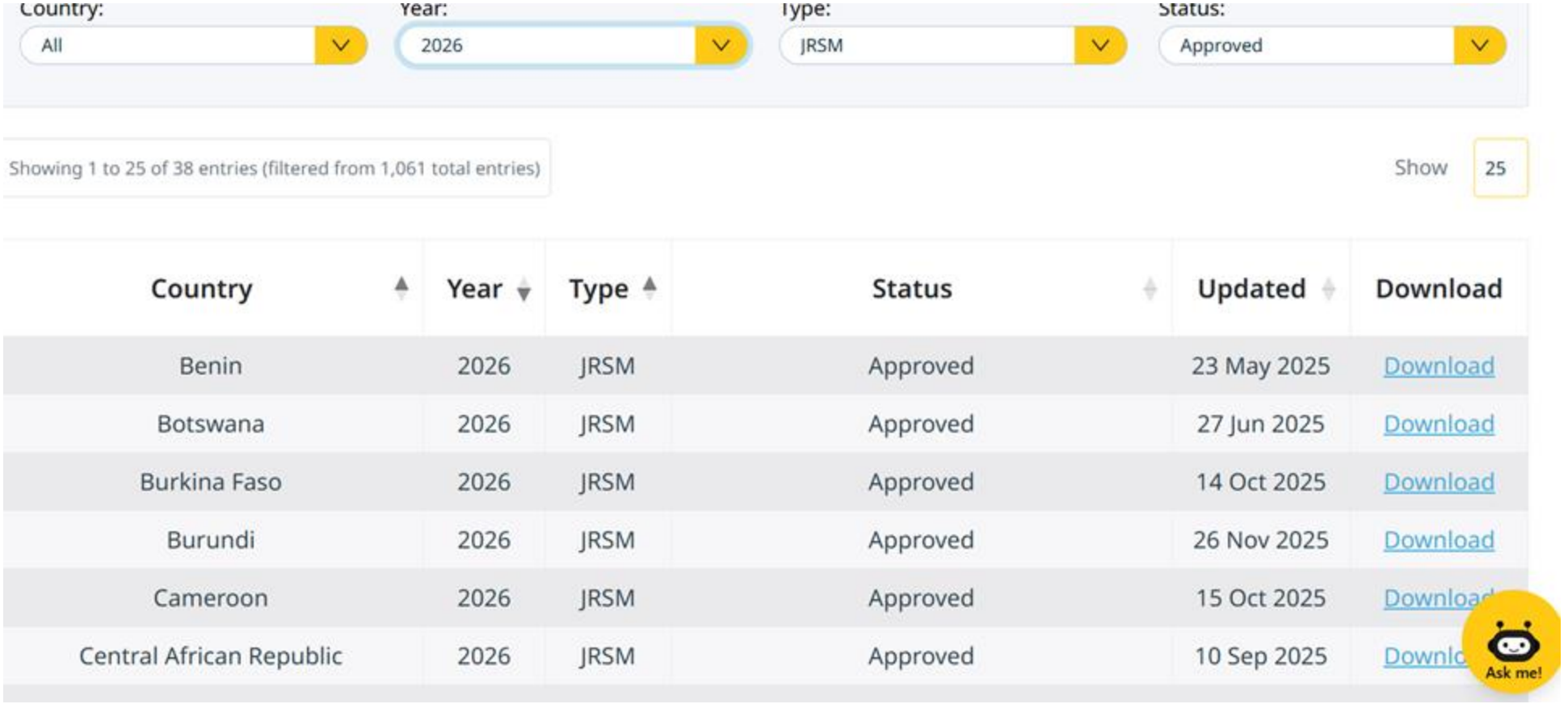
Mentionnez le pays, l'année de la demande et le type de formulaire (JRSM), et téléchargez le formulaire JRSM correspondant dans le champ de saisie.
Versions JRSM prises en charge : 4.3, 4.4 et 4.5



Présentation étape par étape : Étape 2

Sélectionner le JRSM à tester

Vous pouvez utiliser un formulaire JRSM soumis précédemment pour tester en cliquant sur ce lien (filtrer pour 2026) :https://espen.afro.who.int/tools-resources/data-reporting-tools/jap-search

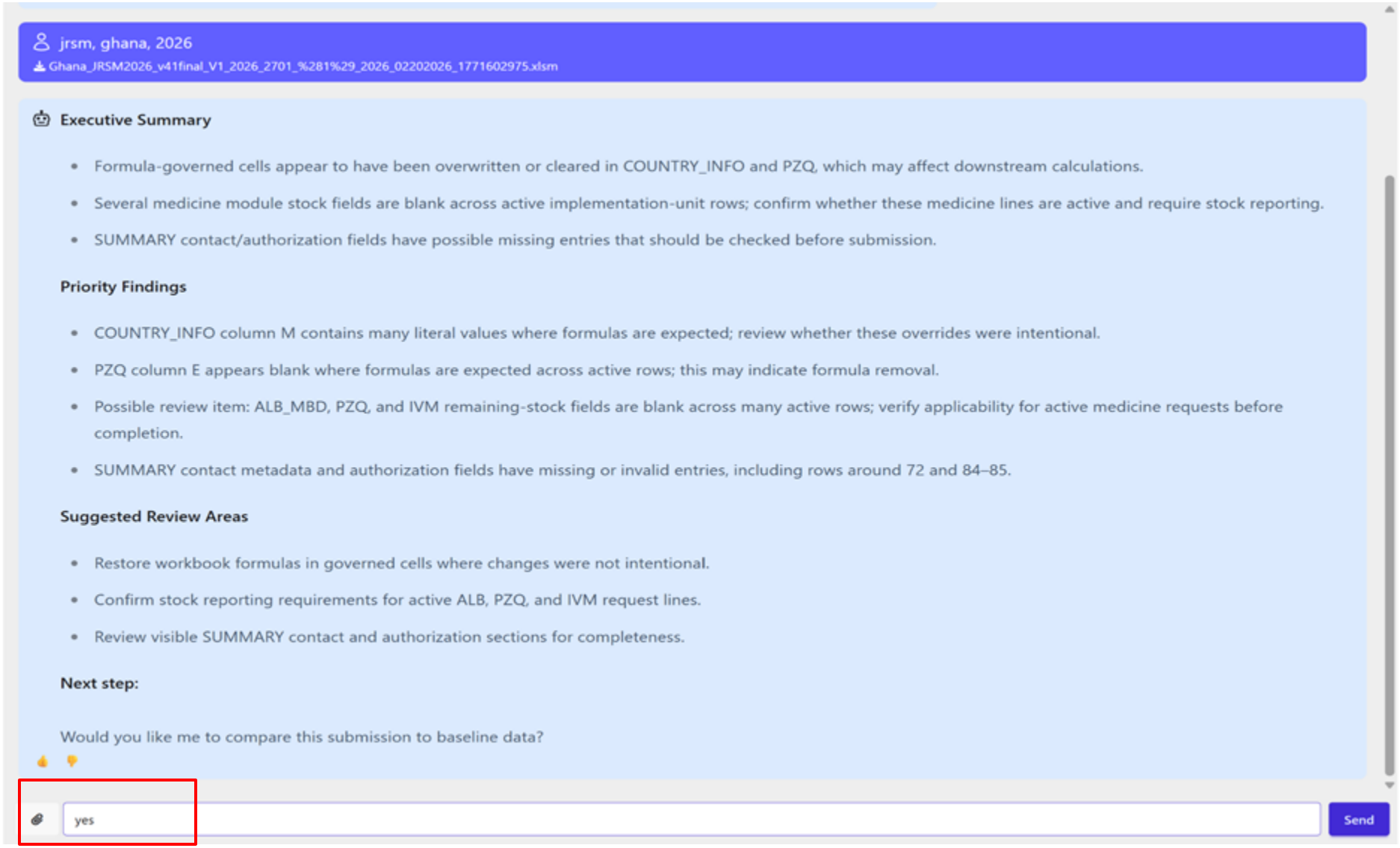


Présentation étape par étape : Étape 3

Examiner le résumé de l'IA

L'outil génère un résumé par l'IA en validant le formulaire JRSM téléchargé.

Tapez « yes » (oui) pour passer à la phase de calcul.



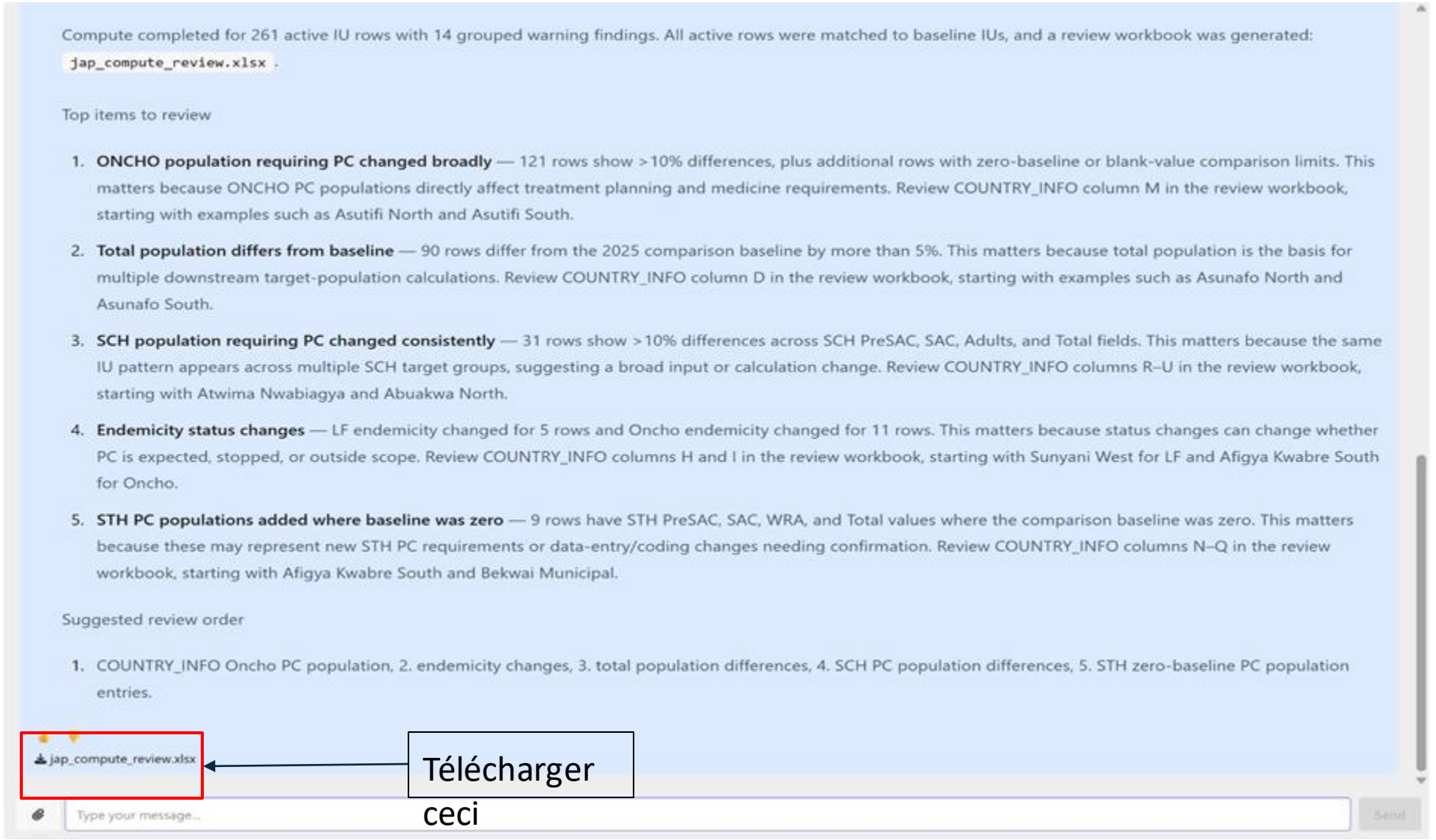
Présentation étape par étape : Étape 4

Télécharger le fichier

L'outil exécute la dernière étape avec les résultats suivants :

1. Un résumé analytique

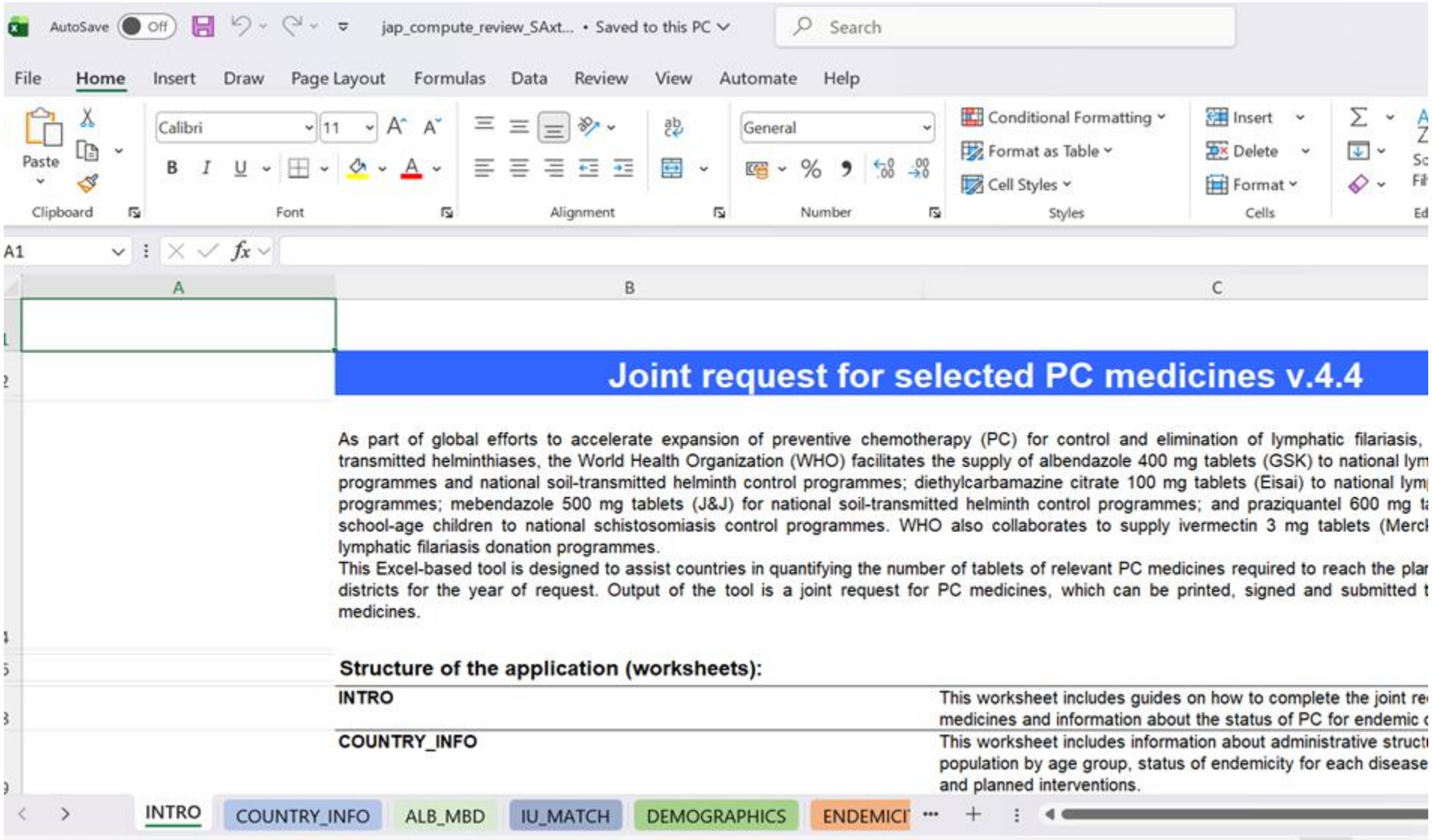
2. Un fichier téléchargeable contenant les résultats du calcul



Présentation étape par étape : Étape 5

Ouvrir le classeur

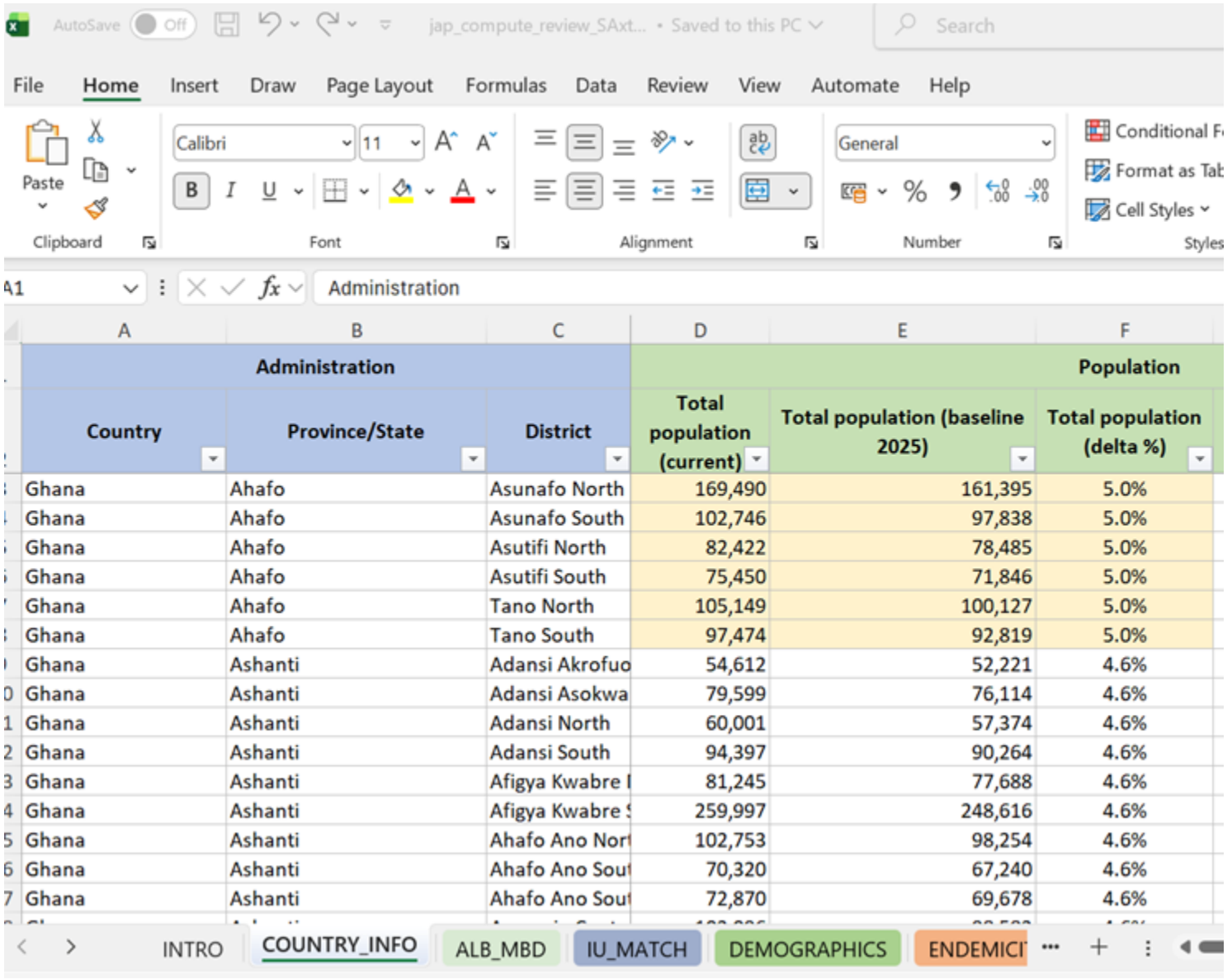
Ouvrez le fichier généré par l'outil. Vous remarquerez des similitudes avec la soumission originale, ainsi que de nouvelles colonnes et feuilles.



Présentation étape par étape : Étape 5

Examiner le classeur

Lecture du fichier : Observez la section Population dans l'onglet COUNTRY_INFO. Vous y remarquerez le total tel que saisi, accompagné d'une comparaison avec la référence ainsi que de la différence en %. Des champs similaires existent pour l'endémicité et la population nécessitant une CP. Ceux-ci sont présentés séparément dans des feuilles individuelles au sein du même fichier.



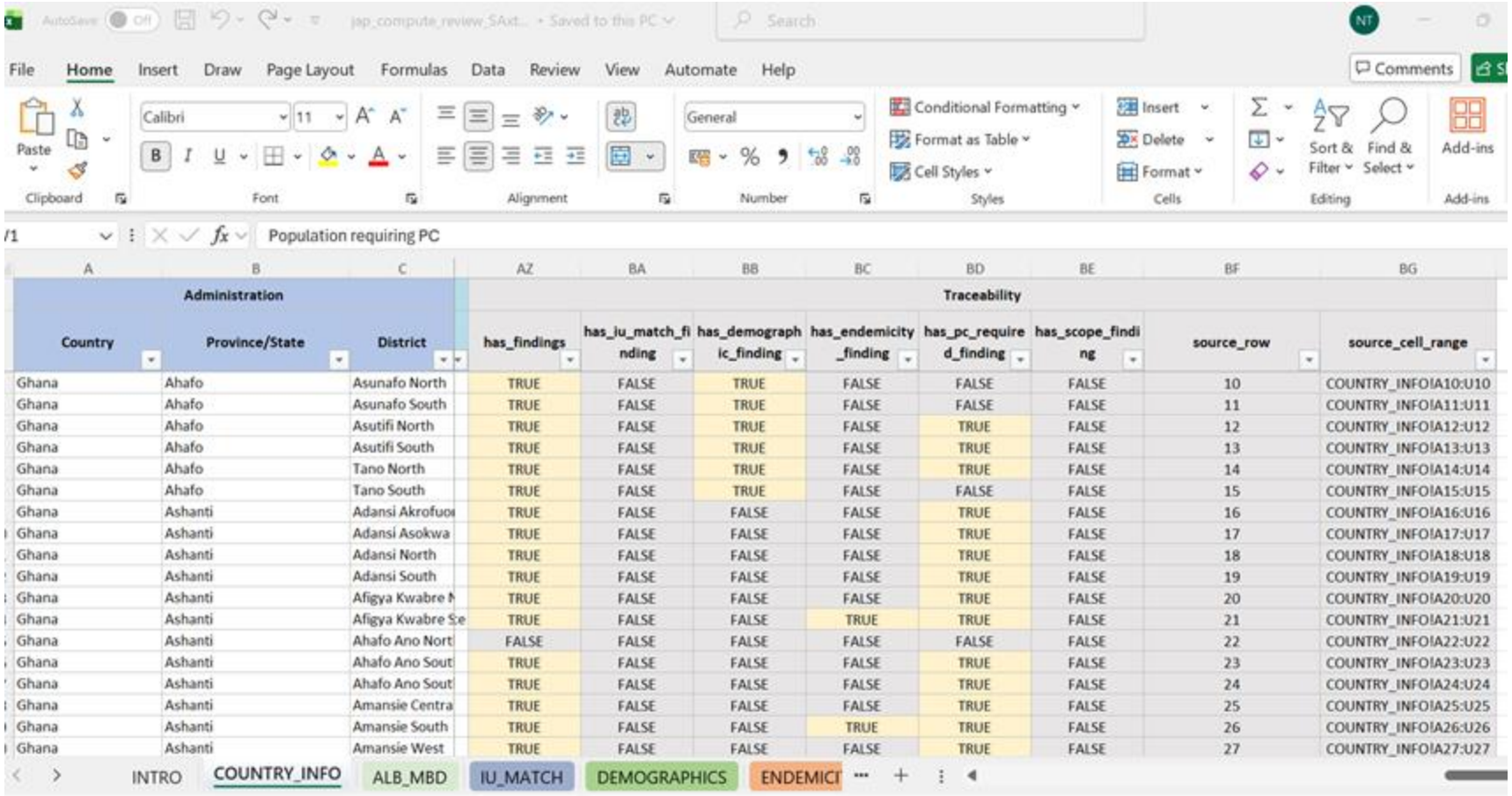
	A	B	C	D	E	F
	Administration					Population
	Country	Province/State	District	Total population (current)	Total population (baseline 2025)	Total population (delta %)
	Ghana	Ahafo	Asunafo North	169,490	161,395	5.0%
	Ghana	Ahafo	Asunafo South	102,746	97,838	5.0%
	Ghana	Ahafo	Asutifi North	82,422	78,485	5.0%
	Ghana	Ahafo	Asutifi South	75,450	71,846	5.0%
	Ghana	Ahafo	Tano North	105,149	100,127	5.0%
	Ghana	Ahafo	Tano South	97,474	92,819	5.0%
	Ghana	Ashanti	Adansi Akrofuo	54,612	52,221	4.6%
0	Ghana	Ashanti	Adansi Asokwa	79,599	76,114	4.6%
1	Ghana	Ashanti	Adansi North	60,001	57,374	4.6%
2	Ghana	Ashanti	Adansi South	94,397	90,264	4.6%
3	Ghana	Ashanti	Afigya Kwabre I	81,245	77,688	4.6%
4	Ghana	Ashanti	Afigya Kwabre S	259,997	248,616	4.6%
5	Ghana	Ashanti	Ahafo Ano Nort	102,753	98,254	4.6%
6	Ghana	Ashanti	Ahafo Ano Sout	70,320	67,240	4.6%
7	Ghana	Ashanti	Ahafo Ano Sout	72,870	69,678	4.6%

Présentation étape par étape : Étape 5

Retracer les résultats de l'IA jusqu'aux cellules d'origine

Lecture du fichier :

- Signale les preuves au niveau des lignes pour les résultats, la correspondance des UI, la démographie, l'endémicité, la CP requise et la portée
- Affiche des indicateurs VRAI/FAUX (TRUE/FALSE) pour que les preuves manquantes ou incomplètes soient faciles à repérer par filtrage
- Enregistre la ligne source et la plage de cellules sources pour vérification
- Permet aux réviseurs de retracer chaque résultat calculé jusqu'aux cellules



Administration			Traceability							
Country	Province/State	District	has_findings	has_iu_match_finding	has_demographic_finding	has_endemicity_finding	has_pc_required_finding	has_scope_finding	source_row	source_cell_range
Ghana	Ahafo	Asunafo North	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	10	COUNTRY_INFO!A10:U10
Ghana	Ahafo	Asunafo South	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	11	COUNTRY_INFO!A11:U11
Ghana	Ahafo	Asutifi North	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	12	COUNTRY_INFO!A12:U12
Ghana	Ahafo	Asutifi South	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	13	COUNTRY_INFO!A13:U13
Ghana	Ahafo	Tano North	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	14	COUNTRY_INFO!A14:U14
Ghana	Ahafo	Tano South	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	15	COUNTRY_INFO!A15:U15
Ghana	Ashanti	Adansi Akrofuo	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	16	COUNTRY_INFO!A16:U16
Ghana	Ashanti	Adansi Asokwa	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	17	COUNTRY_INFO!A17:U17
Ghana	Ashanti	Adansi North	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	18	COUNTRY_INFO!A18:U18
Ghana	Ashanti	Adansi South	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	19	COUNTRY_INFO!A19:U19
Ghana	Ashanti	Afigya Kwabre N	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	20	COUNTRY_INFO!A20:U20
Ghana	Ashanti	Afigya Kwabre Se	TRUE	FALSE	FALSE	TRUE	TRUE	FALSE	21	COUNTRY_INFO!A21:U21
Ghana	Ashanti	Ahafo Ano Nort	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	22	COUNTRY_INFO!A22:U22
Ghana	Ashanti	Ahafo Ano Sout	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	23	COUNTRY_INFO!A23:U23
Ghana	Ashanti	Ahafo Ano Sout	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	24	COUNTRY_INFO!A24:U24
Ghana	Ashanti	Amansie Centra	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	25	COUNTRY_INFO!A25:U25
Ghana	Ashanti	Amansie South	TRUE	FALSE	FALSE	TRUE	TRUE	FALSE	26	COUNTRY_INFO!A26:U26
Ghana	Ashanti	Amansie West	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	27	COUNTRY_INFO!A27:U27

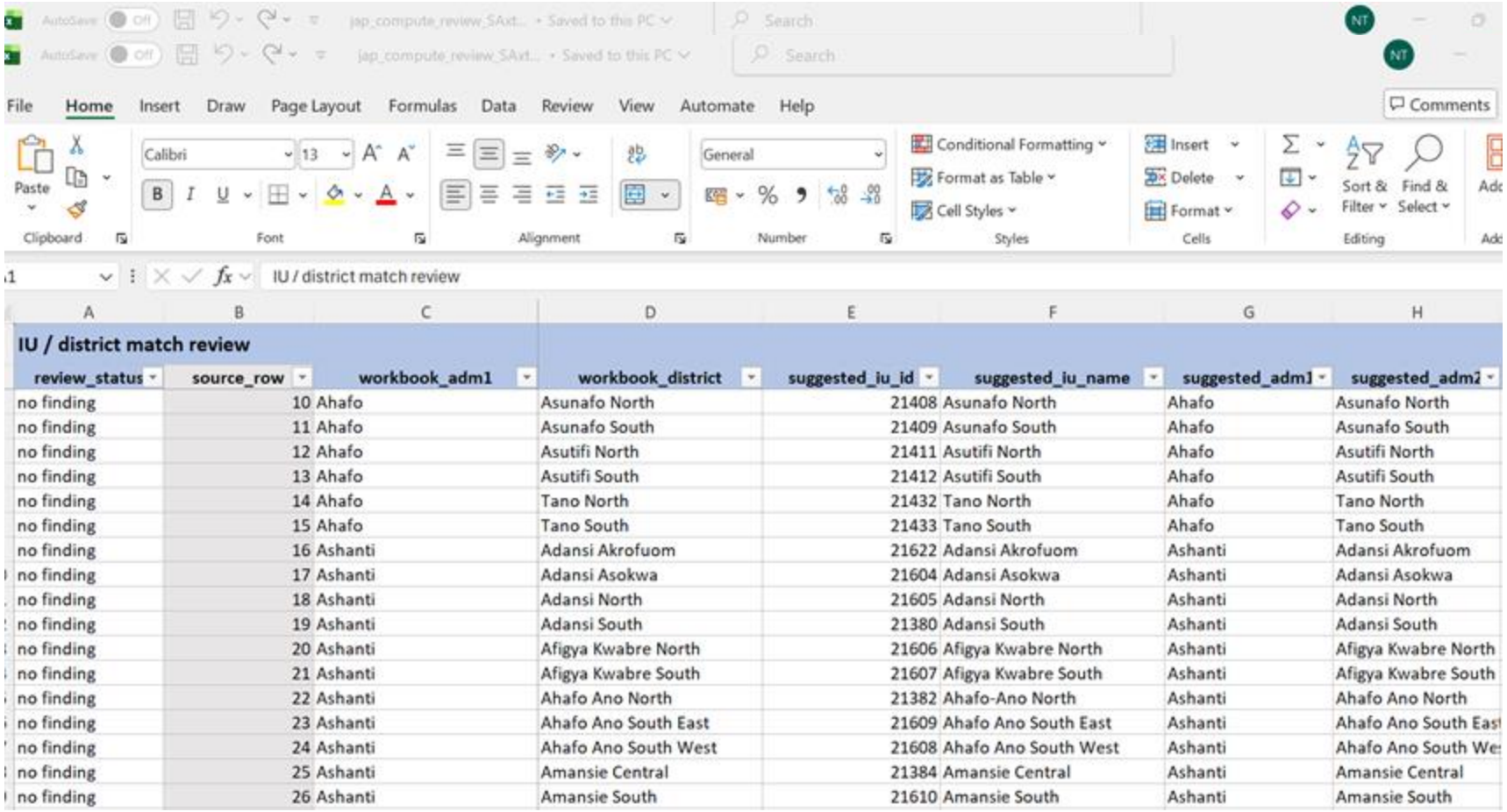
Présentation étape par étape : Étape 5

Examiner les listes d'UI

Lecture du fichier :

Compare les districts du classeur au répertoire des UI du JRSM et affiche la correspondance d'UI suggérée.

- Répertorie les valeurs ADM1/district du classeur
- Affiche l'ID d'UI et le nom d'UI suggérés
- Signale les lignes nécessitant une révision lorsque la correspondance n'est pas claire



IU / district match review

review_status	source_row	workbook_adm1	workbook_district	suggested_iu_id	suggested_iu_name	suggested_adm1	suggested_adm2
no finding	10	Ahafo	Asunafo North	21408	Asunafo North	Ahafo	Asunafo North
no finding	11	Ahafo	Asunafo South	21409	Asunafo South	Ahafo	Asunafo South
no finding	12	Ahafo	Asutifi North	21411	Asutifi North	Ahafo	Asutifi North
no finding	13	Ahafo	Asutifi South	21412	Asutifi South	Ahafo	Asutifi South
no finding	14	Ahafo	Tano North	21432	Tano North	Ahafo	Tano North
no finding	15	Ahafo	Tano South	21433	Tano South	Ahafo	Tano South
no finding	16	Ashanti	Adansi Akrofuom	21622	Adansi Akrofuom	Ashanti	Adansi Akrofuom
no finding	17	Ashanti	Adansi Asokwa	21604	Adansi Asokwa	Ashanti	Adansi Asokwa
no finding	18	Ashanti	Adansi North	21605	Adansi North	Ashanti	Adansi North
no finding	19	Ashanti	Adansi South	21380	Adansi South	Ashanti	Adansi South
no finding	20	Ashanti	Afigya Kwabre North	21606	Afigya Kwabre North	Ashanti	Afigya Kwabre North
no finding	21	Ashanti	Afigya Kwabre South	21607	Afigya Kwabre South	Ashanti	Afigya Kwabre South
no finding	22	Ashanti	Ahafo Ano North	21382	Ahafo-Ano North	Ashanti	Ahafo Ano North
no finding	23	Ashanti	Ahafo Ano South East	21609	Ahafo Ano South East	Ashanti	Ahafo Ano South East
no finding	24	Ashanti	Ahafo Ano South West	21608	Ahafo Ano South West	Ashanti	Ahafo Ano South We
no finding	25	Ashanti	Amansie Central	21384	Amansie Central	Ashanti	Amansie Central
no finding	26	Ashanti	Amansie South	21610	Amansie South	Ashanti	Amansie South

Prochaines étapes

1. [30 minutes] Explorez le flux de travail du JRSM en utilisant vos propres soumissions !
2. [10 minutes] Fournissez des commentaires sur des aspects tels que :
   a. Étapes d'interaction
   b. Fichier de sortie
   c. Compréhension du message du chatbot

Google survey form: Veuillez remplir ce formulaire d'enquête Google après vos tests !

Merci

End of Day 4