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# Harmonized SHA/NASA resource tracking approaches and experiences in Africa:

The harmonization process and Botswana experience

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*Think-Tank, Session 2*

*February 3, 2022*





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10 min

## WELCOME AND OBJECTIVES OF SESSION 2

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Presented by:

**Teresa Guthrie**

*Health economist -  
NASA expert*





# Aim of these HRT Think Tanks - recap

- ACS support is aimed at enhancing resource tracking processes
  - ▶ **NOT** to review/change the SHA/NASA frameworks or classifications
  - ▶ The ACS team leading this process brought international, regional and country SHA and NASA expertise to the project, in an objective / neutral way that allowed for bridges to be built between the actors
- Ultimate goal to facilitate collective exploration of HRT to improve accountability, planning and efficient allocation and use of resources to attain UHC
- **In these three webinars**, ACS hopes to lay a solid foundation for the use of our approach elsewhere, by:
  - ▶ Sharing in-depth experiences of Namibia and Botswana in harmonized resource tracking (HRT)
  - ▶ Discussing strengths, opportunities, challenges and possible solutions
  - ▶ Building on the collective experience, expertise and knowledge of RT technical experts to further enhance efforts globally
  - ▶ Deepening the awareness of country policy-makers as well as development partners interested in HRT, about HRT options, decisions to be agreed upon by their RT-TWGs, and tools available to them.

In the previous session (27 Jan ,2022) we introduced SHA, NASA, the ACS approach to HRT of these two, and shared the Namibian experience (please refer to Session slides, the reading materials and links to other resources provided)



# Objectives of HRT Session 2

Session coordinator: Laurel Hatt (R4D)

Session technical lead: Teresa Guthrie (ACS)

## **Session objectives:**

- I. To share the Botswana SHA-NASA experience (thanks to the Botswana NAHPA, MOHW, UNAIDS, USAID & WHO country offices, RT-TWG and the Research team)
- II. To gain insight into the ACS HRT steps, data collection, crosswalking and importation to HAPT and RTT
- III. To facilitate your questions/ feedback regarding the Botswana process and ACS approach, as well as sharing your HRT experiences in other countries



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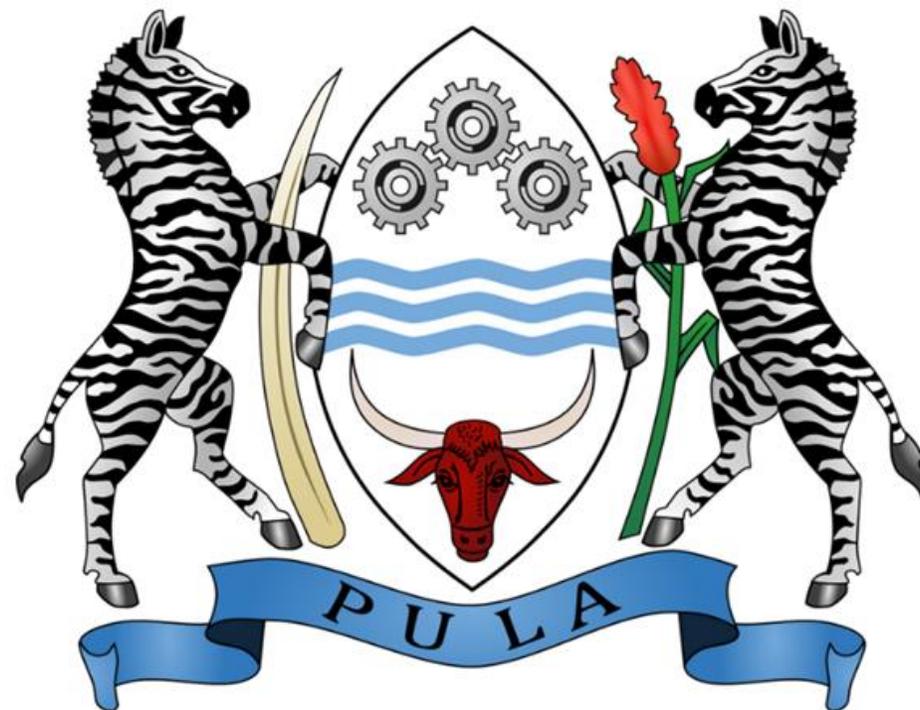
35 min

# THE BOTSWANA EXPERIENCE OF HARMONIZED SHA/NASA RESOURCE TRACKING

Presented by:

**Mr. Batsile Peloewetse (NAHPA)**  
Chief Programme Planning Officer

**Mr. Boingotlo Tirelo (MoHW - Botswana)**  
Chief Health Officer- Health Policy, Planning  
and Financing

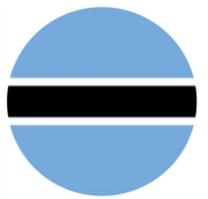


# Stakeholder mandate and role for Health & HIV/AIDS Services



- Ministry of Health and Wellness (MOHW) is the steward in the provision of quality health care, inc. provision of HIV/AIDS services.
- National Aids & Health Promotion Agency (NAHPA) – coordinate, harmonize and facilitate implementation of the National Response (NR) to HIV and AIDS.
- Systems of Health Accounts (SHA) component led by MoHW, Department of Health Policy Research & Development (DHPR&D) – with WHO providing technical support.
- National AIDS Spending Assessment (NASA) component led by NAHPA- Program Planning, Coordination and Support Division (PPCSD) – with UNAIDS providing technical support

# SHA & NASA background



- Government of Botswana (GoB) has adopted National Health Accounts (NHA) in 2000, and the NASA framework around 2006/7
  - ✓ to track overall health expenditures and HIV/AIDS spending respectively
- Botswana has undertaken three rounds of SHA and NASA exercises respectively, as follows:
  - ✓ The first NHA report was published in 2006 for the financial years 2000/1, 2001/2 and 2002/3; the second report was published March 2012 for financial years 2007/8, 2008/9 and 2009/10 and the third report was published in December 2016 for the financial year 2013/14 - thus neither consistent nor regular as required due to the lack of institutionalization
  - ✓ The first NASA report was produced in 2007/8 for financial years 2003/4, 2004/5 and 2005/6; the second report was produced in 2009/10 for financial years 2006/7, 2007/8 and 2008/9 and the third report was produced in 2012/13 for financial years 2009/10, 2010/11 and 2011/12 – thus every three years
- In view of the improved SHA2011 system (particularly the disease specific expenditure analysis), the country decided to discontinue NASA in 2012/13, with the understanding that the enhanced SHA would comprehensively and adequately track the HIV and AIDS spending to drive targeted programming and Global AIDS Monitoring (GAM) reporting requirements
- However, the 2016 SHA2011 exercise report (for financial year 2013/14) did not provide some of the programmatic details required by NASA (in particular the non-health HIV expenditures) – thereby limiting the country's ability to adequately and regularly monitor spending on key National AIDS Strategic Framework (NSF) goals and/or reporting to GAM

# SHA & NASA background cont...



- The MoHW and NAHPA therefore identified the need to institutionalize the SHA and NASA processes for regular and timely monitoring feedback to guide policy and strategic planning, including targeted programming, informed budgeting and efficient resource allocation for impactful responses
- The country's SHA and NASA stakeholders found it necessary to adopt a pragmatic, harmonized SHA/NASA approach to facilitate consistent and regular monitoring for timely feedback, efficiency, including synergy building towards sustenance of the overall health response, hence institutionalization of the harmonised resource tracking system
- Ultimate aim:
  - ✓ Facilitate and enhance the MoHW's integrated service delivery strategy through implementation of the existing HIV and AIDS Basic Services Package (HABSP)
  - ✓ Optimise efficiency gains in a resource constrained environment through regular and consistent monitoring and timely feedback into programming and wise allocation of scarce resources as guided by the OPTIMA HIV exercise report recommendations, hence institutionalization of resource tracking.

# Why Harmonized SHA/NASA in Botswana?



## Harmonization in Botswana was aimed to:

- Attain efficiency gains by using less duplicative data collection effort.
- Ensure a single resource tracking data collection process that comprehensively satisfies both broader health and HIV/AIDS stakeholders' data needs.
- Improve consistency between the HIV estimates through the simultaneous production of both SHA and NASA analyses.
- Facilitate institutionalization of resource tracking in a resource constrained environment.

# Botswana's approach to HRT:

## Step 1: Consensus building among key stakeholders



- Dialogue and consensus among key stakeholders.
- Sharing of Namibian lessons in harmonization - to facilitate options (objectives, scope, approach) suitable for the Botswana context.
- Agreements made regarding the scope and approach (details next slide)

***N.B:** Agreements were guided by the separate responsibilities in the production of the overall health accounts (HAs) by MoHW and AIDS spending assessments by NAHPA, reflecting their separate, but related, health and HIV mandates, respectively.*

# Consensus building among key stakeholders....cont.



## Agreements reached by stakeholders:

- **Overall goal:** To develop a comprehensive and sustainable resource tracking process, including capacities for consistent production of harmonized SHA and NASA on routine basis to generate timely data for informed policy development and planning, targeted programming and budgeting, including prudent allocation of resources for impactful response on overall health and HIV/AIDS.
- Institutional home for harmonized SHA-NASA resource tracking will be the MoHW, within the Health Policy, Planning and Financing Division, responsible for leading and coordination of resource tracking processes
  - ✓ Bearing in mind that NAHPA will continue to lead the NASA analysis and report writing aspects, while MoHW lead the SHA analysis and report writing aspects.
- Resource tracking to be conducted annually (with an automated dataset and routine analysis).
- Harmonization would involve **joint** data collection, capturing, cleaning and verification, **but separate and synchronized** SHA and NASA data analyses and reports - *a combined/joint data collection would produce the required efficiency gains through sharing of resources*
  - ✓ Research assistants will initially conduct data collection interviews (rather than self-administered questionnaires).
  - ✓ Research assistants will be empowered to coach the respondents for future data reporting when the processes are fully institutionalized.

# Consensus building among key stakeholders...cont.



- Resource tracking stakeholders agreed to adapt harmonized data collection tools developed by Namibia, with further enhancements and adequate disaggregation using the NASA2020 classifications.
- A single complete verified dataset - cleaned and approved by the Resource Tracking TWG - MoHW houses the data in one of existing HMIS.
- The data to be extracted to HAPT and NASA RTT to meet the different analysis needs of both SHA and NASA.
- Agreement to have separate SHA and NASA reports.

# Technical capacity building



- With the support from ACS team (which included SHA and NASA experts), strengthening technical capacity among government officials and key members of the resource tracking TWG through trainings, benchmarking (for institutionalization of RT in Kenya), coaching and mentorship in
  - ✓ SHA and NASA methodologies
  - ✓ Application of the SHA/NASA Harmonized data collection tools and some aspects of data management.
- Through collaboration between Botswana Government, ACS & UNAIDS, research assistants were contracted and trained to undertake the harmonized SHA -NASA data collection and capturing, with Resource Tracking (RT) TWG from MOHW&NAHPA supervising data collection.
- ACS & UNAIDS NASA experts worked with RT TWG on **NASA data cleaning analysis and NASA report preparation.**
- Quality assurance of data capturing and coding (according to NASA 2020 requirements) was ensured.
- The GoB committed budget for contracting SHA expert to support the RT TWG to undertake the SHA analysis and SHA report generation.

# Application of the Harmonized SHA/NASA data collection tools



- The harmonized SHA/NASA data collection tools were further improved (based on the RT-TWG expertise) and administered by data collection teams covering financial years 2018/19 and 2019/20.
- Engaging and training research assistants to administer the harmonized SHA/NASA tools.
- Assigning government members of the RT-TWG to supervise and provide guidance and back-stopping to the research assistants in the administration of the tools.
- Virtual data collection due to the COVID-19 restrictions, producing challenges of low and non-responses particularly from parastatals and private for-profit entities, requiring extra effort and rigorous follow-up.
- Big data not gathered through the HRT tools, but provided as raw datasets by respondents (such as Medical aid schemes, PEPFAR ER and Global Fund PRs).

# Data cleaning, cross-walking and NASA analysis



- All data were verified & cleaned in questionnaires/ survey tools AND the large datasets provided by respondents were restructured for NASA RTT importation.
- All data were checked for accuracy and completeness (all 9 NASA vectors were captured for every transaction).
- Triangulation between data sources was done to eliminate double counting and ensure that full transactions were captured for NASA requirements.
- NASA data were imported to RTT and all analysis undertaken in Excel<sup>®</sup>.
- SHA data pending to be imported into HAPT.
- Estimation of shared costs in the public (& private) sector e.g., salaries & overheads (usually estimated through the SHA distribution keys to attribute these by disease) were not available at the time of NASA analysis.
- A full NASA report has been generated with all the required detail, vectors, matrices and GAM financial matrix (pending shared health costs from SHA).

# Advocacy for Government commitment towards institutionalized HRT efforts



Throughout the process, there has been continuous advocacy for government commitment to routine production and use of health and HIV/AIDS expenditure information → institutionalization, that is:

- ✓ Commitment of public budget earmarked for long-term resource tracking efforts - *a dedicated budget line-item.*
- ✓ Continued commitment of government staff time to drive the routine harmonized SHA/NASA resource tracking exercise - *dedicated human resources.* Some public officers have been equipped to continue with the HRT in future years and hopefully will be dedicated to the process going forward.
- ✓ Additionally important: securing support, particularly technical assistance from UNAIDS & WHO, and continued partner collaboration on a long-term basis.

# Challenges



1. Application of the harmonized SHA/NASA process was negatively impacted by Covid 19, hence virtual data collection, which was a new approach was not easy.
  - Resulted in low response from private for-profit entities particularly the non-health actors.
2. Application of harmonized SHA-NASA data collection tools (as a new approach) and done virtually proved to be highly complex.
3. Large datasets (medical aids, PEPFAR, GF) not gathered through HRT tool required extra effort for restructuring & cross-walking manually.
4. Delays in securing the technical assistance to support the SHA aspects:
  - The single complete verified dataset is yet to be accomplished.
  - Alignment and complementarity of the HIV/AIDS (health-related) estimations in the SHA and NASA are yet to be accomplished.
    - *NASA report incomplete due to missing **shared** public & private sector costs e.g., salaries & overheads attributable to HIV (usually estimated with the SHA distribution keys).*
5. Redeployment and failure to retain HRT-empowered personnel (within public, private and parastatal sectors as well as in the RT-TWG & representatives of respondents).

# Key Lessons drawn



1. The harmonized SHA-NASA data collection yielded efficiency gains through a single data collection process – shared resources.
2. The duration of the two components' aspects (analysis, presentation & validation) vary such that ultimate outputs, including alignment and complementarity, cannot be achieved without delaying the finalization of the NASA report.
  - Also has a bearing on the regularity of assessments to be undertaken (annual might not be feasible).
3. Government commitment and leadership (both MOHW and NAHPA), including multi-stakeholder partnership and collaboration are key to buy-in and success for country ownership (institutionalization) and sustainable routine resource tracking.
4. Collaboration between the government, R4D, WHO, UNAIDS, USAID and other stakeholders demonstrated that aligned and coordinated partner technical assistance can improve the efficiency of support to countries.
5. **The joint RT process requires the team to have both SHA and NASA expertise, and the entire team to be thoroughly trained in both SHA and NASA frameworks**

# Recommendations



1. Government to consider options & tradeoffs regarding incomplete (without the SHA shared contributions) annual HIV reports to GAM. Or delayed reporting to GAM to accommodate completion of SHA and therefore comprehensive NASA reporting every two years.
2. Continue to improve the harmonized tools for their routine application in future resource tracking exercises, including standard data capturing tools at facility and/or service point -> move towards routine reporting of all stakeholders including service providers.
3. Design ways to restructure and crosswalk large datasets in a more automated way, to enable the country teams to repeat the process more efficiently.
4. GoB to augment the HRT expenditure analysis with periodic consumption analyses to estimate more realistic unit costs to inform planning and budgeting.
5. Governments to continue to mobilize development partners' support to augment governments' capacity for sustained HRT institutionalization.

# Acknowledgements



## On behalf of the Governments of Botswana:

- ✓ Namibian RT-TWG for sharing their tools and experiences
- ✓ Benchmarking trip to Kenya (for institutionalization learning)
- ✓ UNAIDS for financial and Technical Assistance
- ✓ High appreciation of the technical experts who worked on day-to-day basis with country RT team – patriotism & commitment!
- ✓ WHO Afro for reviewing HRT data collection tools
- ✓ USAID/PEPFAR support
- ✓ R4D through ACS project for leading this work
- ✓ Research Assistants
- ✓ MoHW and NAHPA staff - joint coordination
- ✓ Respondents / organisations that provided data
- ✓ RT TWG Members (owners/ drivers of the process!)

*“The displayed patience, commitment and professionalism among all contributors cannot be overemphasized as demonstrated by the product quality, which would have not been achieved without their invaluable contribution”*

Thank you!



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# THE PROCESS OF SHA/NASA HARMONIZATION: KEY STEPS AND CONSIDERATIONS

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Presented by:

**Jane Alfred**

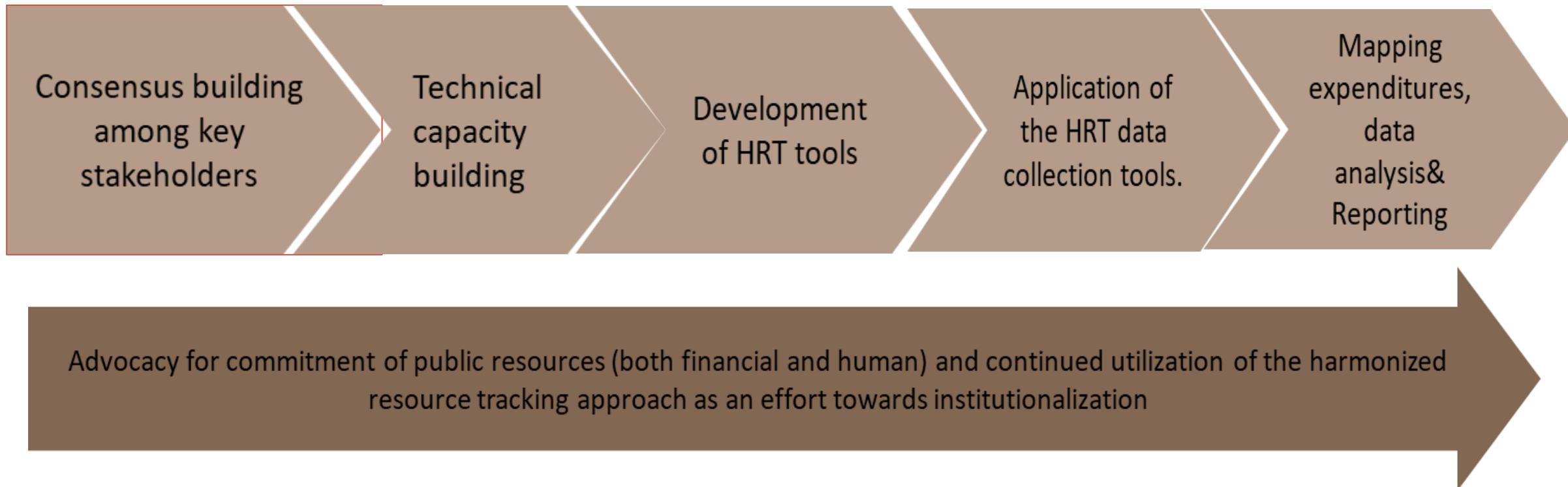
*ACS Technical Lead  
Botswana*





# Key steps in the ACS approach to HRT

- **Overall Goal:** Enhance development of strong and sustained process and capacities for producing SHA and NASA jointly on a routine basis to degenerate timely data for both the health and HIV/AIDS



# Consensus building among key stakeholders



- Dialogue with and consensus among key stakeholders critical to:
  - ▶ Facilitate setting of objectives in response to country's resource tracking challenges, context and data needs
  - ▶ Define scope/degree of harmonization



# Technical Capacity Building

- Technical support from both SHA and NASA experts is required for the initial planning & development of HRT approach appropriate to the country-specific context
- Build consistent understanding of the two methodologies key, RT team ability to
  - ▶ Distinguish to what extent are SHA and NASA classifications aligned
  - ▶ What health & HIV outputs can/cannot be generated by the two frameworks
- Training, continuous coaching & mentoring on the application of HRT tools
  - ▶ Technical support to the RT team & Research Assistants
  - ▶ Quality assurance wrt. correct application of tools & coding

# Development of SHA/NASA harmonized tools



- Agreements on the foundation at which HRT tools will be built on
  - ▶ Botswana and Namibia joint tools developed based on the SHA tools
  - ▶ Tools adopted to collect HIV data (health and non-health), with adequate disaggregation using the NASA classifications
- *N.B Session 1 Reflections: **an alternative option:*** Zambia integrate SHA HIV data needs into the NASA tool, then;
  - ▶ SHA tools used for gathering data for all health programmes except HIV
  - ▶ NASA tools used for gathering all HIV data (health and non-health)

# Data Collection: Application of the HRT data collection tools



- Like in the traditional separate NASA and SHA, the structured HRT tools not used to collect standardized data sets (e.g, big data sets from MoHW, GFATM, PEPFAR, etc)
  - ▶ Data sets are restructured in excel sheets direct importation into the Health Account Production tool (HAPT) and Resource Tracking Tool
- HRT tools requires extra effort to identify an collect data from all the multi-sectoral HIV service providers
- Piloting of the HRT data collection tools to test applicability
- Determination to be made on self administered vs engagement of Research Assistants (RAs)
  - ▶ Tools provide to be complex - evidenced by the inability of most respondents to self administer - considerations need to be made to improve response rates as follows



# Data Collection: Application of the HRT data collection tools..... cont

## Option 1: Use of Research Assistants (RAs) to collect data

- Contracting research assistants instrumental to ensure respondents have a good understanding of the purpose, type and structure of expenditure data required.
  - ▶ RAs should be adequately trained on SHA & NASA basics and should work in close collaboration with the respondents

## Option 2: Self Administered HRT tools

- Develop simplified, user-friendly tools for respondents to report their detailed health and HIV expenditures
  - ▶ then persons trained or experienced in SHA and NASA then translate the data into HRT tools - requires adequate disaggregated data are provided

## Option 3: Allowing respondents to simply provide their relevant financial reports

- Respondents simply provide their financial reports with all detail required then persons trained or experienced in SHA and NASA translate the data into HRT tools

**\*\*N.B: A combination of the 3 options can also be considered**

# Data Collection: Application of the HRT data collection tools..... cont



- Continuous TA for quality control needed to support data collection teams
- Ensure a single **complete** dataset to enable consistency in the estimates for HIV (Health)



# Mapping of expenditures, data analysis & Reporting

- Tools automated the cross walking of the data to both the SHA and NASA classifications concurrently, and restructured the data into sheets that could be imported into HAPT and RTT (following presenter goes into the detail)
- In both Namibia and Botswana, the SHA and NASA analyses were done separately (while ensuring alignment between the data was maintained)
- But for Reporting;
  - ▶ In Namibia the NASA findings were included in a chapter in the HA report
  - ▶ While in Botswana it was decided to have a separate full NASA report (to meet HIV stakeholder needs)



# Advocacy

- Advocacy for the HRT approach required at all levels
  - ▶ To promote policy relevance of NHAs and NASAs to all stakeholders
  - ▶ Political commitment - commitment of public resources (public & financial) to undertake resource tracking
  - ▶ To secure continuous multi-stakeholder collaboration & buy in for successful and sustainable routinized resource tracking
  - ▶ For development partners to continue technical support until government systems as well set for institutionalization
  - ▶ to ensure thorough dissemination of the HA an NASA findings, ensuring they inform policy decisions and budgetary allocations



# Perspectives

- Country RT teams gained momentum - live demand for continued technical support.
- Bringing SHA and NASA teams was a success
  - ▶ strengthened relationship between MoHW and NAHPA planning units in Botswana
- ACS demand driven approach instrumental
  - ▶ Neutral facilitation role resulting in consolidation partner support
  - ▶ Legitimate facilitation role played by both country technical leads with strong country context & Teresa Guthrie with regional expertise
  - ▶ Cross country learnings between two countries - Namibia experience instrumental in shaping up the Botswana work

**How do we ensure that these gains are not lost and benefit other SSA countries?**



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## DATA COLLECTION PROCESSES AND MANAGEMENT OF DATA

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**Presented by:**

**Claire Jones**

*Former ACS Technical Lead -  
Namibia*



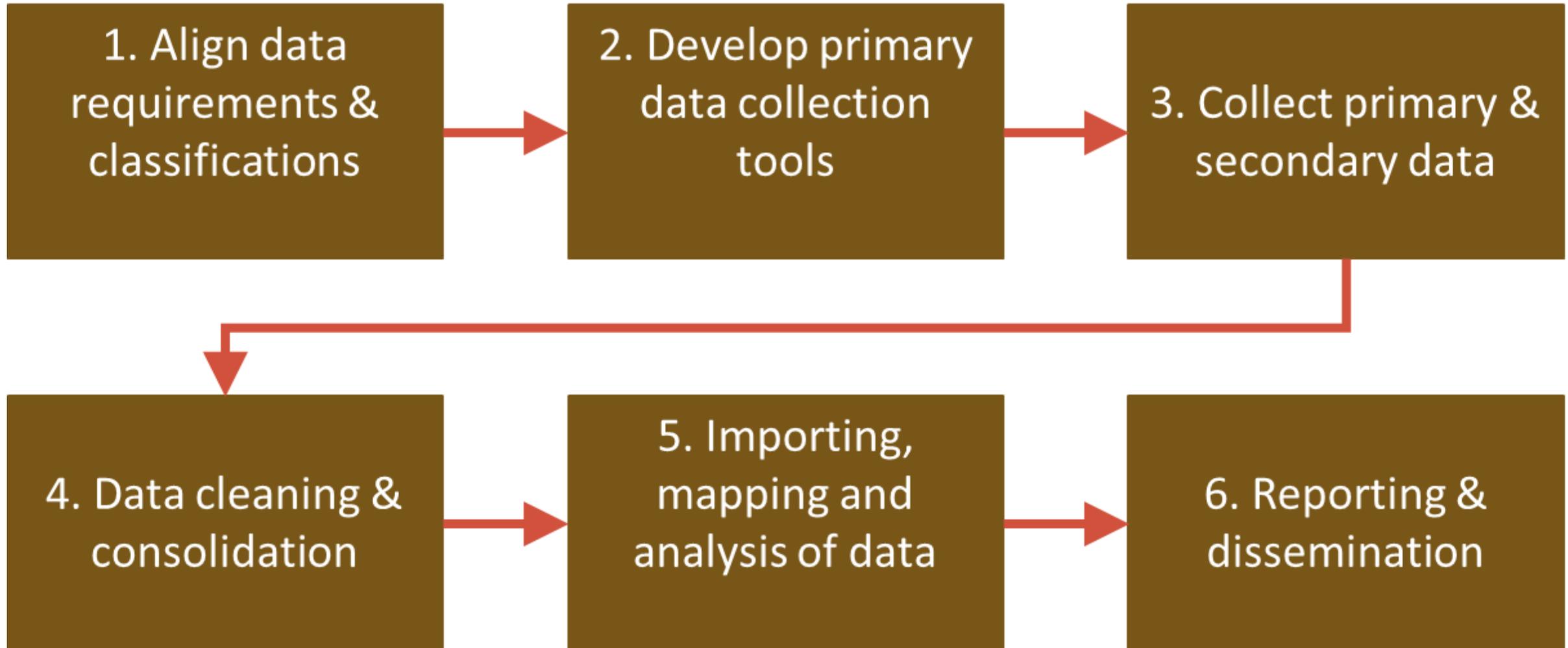
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# HRT Data collection & management process



# Alignment of data requirements & classifications



- Review both lists of SHA and NASA classifications and agree on level of disaggregation for each (for Botswana, all NASA classifications were used in the tools – 6th digit)
- Create a ‘common consolidated list’ for all classifications with recognizable names, which cross-walked to their full NASA or SHA code and name
- Align/ match SHA and NASA classifications where possible (using UNAIDS & WHO guidance)
- Expand classification lists to incorporate additional level of disaggregation, as required Insert these additional classifications into HAPT

# Development of data collection tools



- Agreed-upon level of disaggregation to be reflected in data collection tools
  - ▶ Used SHA tools (surveys) as starting point, incorporating HIV classifications and categories & ensuring each transaction is individually mapped to all classifications
  - ▶ Details on NASA specific classifications were only requested when HIV was selected as disease
  - ▶ All response options linked to common consolidated classifications as included in cross-walk
  - ▶ Included automated SHA and NASA mapping

# Collection of data - primary data



- Primary data can be collected by data collectors who administer the questionnaires or by respondents completing surveys themselves
- Important for respondent/data collector to fully understand SHA and NASA data requirements & categories
- Thorough reviews of completed surveys required to ensure completeness and accuracy of data in the survey tools
- Response rates are affected by complexity of the questionnaires / surveys and level of detail required

# Collection of data - secondary data



- SHA and NASA often rely on non-standardized datasets for spending data
- Collection of non-standardized (raw) data assists in improving response rates and ensuring comprehensiveness of data
- Possible need for follow-up and consultations to ensure necessary level of detail is obtained
- Data to be mapped as individual transactions – ensuring every vector/category is available for every transaction
- Data to be converted to and mapped against cross-walked SHA/NASA classifications
- Data set restructured for importation to HAPT and RTT

# Data cleaning and consolidation



- Effective data management critical with enormous volumes of data and duplicate datasets
- Data quality reviews – completeness, accuracy, validity and ensuring the correct SHA and NASA codes have been applied
- Strongly advise that all revisions to completed tools/surveys and datasets are made before importing

# Importing, mapping and analysis



- Correctly structured data to be imported into both the HAPT and the RTT (only HIV-related data for RTT)
- Any additional mapping done in HAPT or RTT must be mirrored in the analysis tool of other methodology
- Results extracted from HAPT and RTT to be compared in detail to ensure consistency and accuracy of mapping decisions
  - ▶ Recurrent health HIV spending to be equal
  - ▶ Capital spending on HIV
  - ▶ Healthcare-related HIV spending
- The differences must be explained carefully in the report/s so as not to confuse or undermine the accuracy of either report

# Reporting and dissemination



- Typical bivariate statistical tables to be generated using both HAPT and RTT
- Relevant variables to be extracted to compute key SHA and NASA indicators
- Additional analysis as per usual SHA or NASA reports
- Options of reporting:
  - ▶ Combined SHA/NASA report
  - ▶ Separate SHA and NASA reports
  - ▶ Additional policy briefs with additional in-depth analyses



# The combined data collection tools - practical demo

- Donor tool
- Employer tool
- Govt tool (although most ministries provide their raw data)
- Insurance tool (also usually provide raw data)
- Universities:
  - ▶ for their health and wellness services
  - ▶ for research
- NGO tool - practical demo now



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## DISCUSSION AND QUESTIONS

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**Presented by:**

**Laurel Hatt (R4D)**

*Senior Program Director*

**Teresa Guthrie**

*Health economist - NASA expert*



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