UNAIDS
EVALUATION REPORT

UNAIDS-CDC COLLABORATION ON STRENGTHENING PUBLIC HEALTH CAPACITY AND STRATEGIC INFORMATION SYSTEMS

June 2020 | UNAIDS Evaluation Office

Disclaimer

This report has been authored by Virginia Loo and Paul Janssen. The views expressed in this report are those of the evaluators. They do not represent those of UNAIDS Secretariat, the US Centers for Disease Control and Prevention (CDC) or of any of the individuals and organisations referred to in the report.

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UNAIDS/JC2996

Acknowledgments

In the 2016 Political Declaration on HIV and AIDS: on the Fast-Track to Accelerate the Fight against HIV and to End the AIDS Epidemic by 2030, Member States committed to the realization of the 2030 Agenda for Sustainable Development, including the target to end the AIDS epidemic by 2030. Improving the collection and use of strategic information is essential to fast track the HIV response. The information must be granular and enable programme managers to identify gaps and to invest resources in the most effective HIV prevention, treatment, and care strategies, with a focus on the populations and locations in greatest need.

In this context, UNAIDS and the US Centers for Disease Control and Prevention (CDC) signed a five-year *Cooperative Agreement for the period 2016-2021 on strengthening public health capacity and strategic information systems*. The agreement leverages the comparative strengths of UNAIDS and CDC at country, regional and global levels. It covers nine Fast-Track countries and supports health systems, civil society and other stakeholders collect and analyse granular data on the HIV epidemic and response and use these data to improve HIV programmes.

The UNAIDS Evaluation Office, in collaboration with the Strategic Information Department, commissioned an *external evaluation by the Partnership for Epidemic Analysis (PEMA)*. The evaluation focuses on UNAIDS strategic information work within the scope of the cooperative agreement with CDC, and in the context of broader efforts to strengthen country HIV strategic information. The evaluation was designed for accountability purposes and to enhance organizational learning.

We are grateful to the evaluation team, composed of Virginia Loo and Paul Janssen - who own the findings, conclusions, and recommendations of the evaluation – and to the many stakeholders who participated to the evaluation and provided valuable insights. We acknowledge the support provided by the UNAIDS and CDC country offices in the nine countries of the evaluation, and in particular Côte d'Ivoire, India and Zambia where the evaluators conducted site visits to obtain the diverse perspectives of country stakeholders, including civil society.

Special thanks are owed to the members of the reference group of the evaluation which comprised CDC/Division of Global HIV &TB (DGHT) and UNAIDS staff and provided reviews, technical inputs and quality assurance throughout the evaluation process as well as advice and guidance on the scope and content of the evaluation. We also thank the CDC/DGHT Science Office for their support and review of the inception report.

The evaluation provides actionable recommendations to UNAIDS and CDC for improving collaboration and future planning. We expect the findings and conclusions to contribute to UNAIDS broader work on strategic information at global, regional, and country level, and to also benefit partners of UNAIDS and CDC, especially those working on information systems, at the country level.

The evaluation has been primarily funded by the President's Emergency Plan for AIDS Relief (PEPFAR) through the CDC under the terms of the Cooperative Agreement (GH001971).

UNAIDS Evaluation Office

June 2020

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Abbreviations

BMGF	Bill & Melinda Gates Foundation
CBO	Community Based Organization
CDC	US Centers for Disease Control and Prevention
CDI	Côte d'Ivoire
CoAg	Cooperative Agreement
COP	Country Operational Plan
DHIS	District Health Information System
DQA	Data Quality Assurance
DQR	Data Quality Review
DRC	Democratic Republic of the Congo
FGD	Focused Group Discussion
GFATM	Global Fund for AIDS, Malaria & Tuberculosis
HIS	Health Information System
HMIS	Health Management Information System
HQ	Headquarters
HR	Human Resources
HSS	HIV Sentinel Surveillance
IBBS	Integrated Bio-Behavioral Survey
ICT	Information & Communication Technology
IND	India
KEN	Kenya
KII	Key Informant Interview
KP	Key Population(s)
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MOZ	Mozambique
MTE	Midterm Evaluation
NAC	National AIDS Commission/Council
NAP	National AIDS Programme
NMB	Namibia
OGAC	Officer of the Global AIDS Coordinator
PEPFAR	US President's Emergency Fund for AIDS Relief
PHIA	Population-based HIV Impact Assessment
PLHIV	Person/people living with HIV
PrEP	Pre-Exposure Prophylaxis
PSE	Population Size Estimate
RFP	Request for Proposals
SAF	South Africa
SI	Strategic Information
SID	Strategic Information Department
SNU	Subnational Unit
TNZ	Tanzania
TOR	Terms of Reference
TWG	Technical Working Group
UCO	UNAIDS Country Office
UIC	Unique Identifier Code
UN	United Nations
UNEG	United Nations Evaluation Group
USAID	US Agency for International Development
USG	United States Government
WHO	World Health Organization
ZAM	Zambia

Executive Summary

UNAIDS, the Joint United Nations Programme on HIV/AIDS, and the US Centers for Disease Control and Prevention (CDC) signed a five-year (October 2016–September 2021) Cooperative Agreement to improve strategic information collection and use to achieve UNAIDS Fast-Track and PEPFAR 3.0 targets. Strategic objectives are to support countries to 1) generate (sub)national HIV estimates to identify high incidence locations and populations and programme gaps; 2) develop health information systems that use unique identifiers, include data from community-based services, and identify programme gaps; 3) develop, implement and monitor Fast-Track strategies to reach key populations at the community level[1]. The CoAg supports a variety of relevant activities in nine high-burden countries (Côte d'Ivoire, Democratic Republic of Congo, India, Kenya, Mozambique, Namibia, South Africa, Tanzania, and Zambia).

This mid-term evaluation aimed to assess the relevance, effectiveness, efficiency, sustainability, and equity of the CoAg strategic areas: HIV estimates, HIS strengthening and key population data. The evaluation findings will inform implementation of the next phases of the CoAg and planning for the next five-year agreement between CDC and UNAIDS. The evaluation covered activities in the programme years 2016/2017 and 2017/2018 up to the first quarter of 2019.

Specific evaluation questions (see evaluation matrix) covered the analytical framework interrogating 1) what has been achieved (effectiveness); 2) how outcomes have been achieved (efficiency) and 3) if outcomes will last (sustainability), with coherence, relevance and equity as cross-cutting issues. Evaluation methods were mainly qualitative, including document review and synthesis (see annex) and in-depth interviews (individually or group) with close to one hundred key informants, including but not limited to relevant CDC, UNAIDS and national counterpart staff. Country visits to India, Zambia, and Côte d' Ivoire allowed for observation and interviews with a wider range of stakeholders including civil society. An online survey solicited written submissions from non-case study country stakeholders. The main limitation was the impact of the Covid-19 pandemic on the availability of government officials for the survey and key informants interviews, slightly decreasing robustness of findings on responsiveness and sustainability.

Findings on effectiveness, coherence, equity, and sustainability

Several important achievements put the CoAg well on track towards short- and medium-term outcomes. (See chapters 3.1.1, 3.1.2, 3.1.3 and 3.1.4). The main achievement of the CoAg, according to key informants is the generation of HIV estimates at both national and sub-national level; all nine countries generated granular provincial level estimates, five also at lower geographical units. The second activity area, strengthening health information systems, is mixed in terms of specific activities and achievements: four countries introduced data quality review/assurance activities at district level, progress on case based surveillance and introducing a unique identifier is in various stages in the relevant five countries. Data visualization through the Health Situation Room has been introduced on five new countries. Finally, the CoAg enabled several UNAIDS Country Offices and the UNAIDS SI Department to further their efforts in improving data to promote HIV interventions for key and vulnerable populations.

Although various country activities are generally responsive and effective, there is limited coherence and synergy across the broader CoAg portfolio. (see chapter 3.2). Activities in country workplans mostly respond to opportunities and needs of the local key stakeholders, mainly CDC, UNAIDS and their national counterparts. UNAIDS often successfully convenes these stakeholders, engages other players, mediates priorities and links CoAg activities with wider SI support (HIV estimates) and the national HIV response. However, the CoAg theory of change is not applied to the design of country-level action plans, resulting in in a wide variety of interventions across the 9 countries. UNAIDS and CDC largely work from their corporate result frameworks. CoAg activities generally contribute to one or both of these frameworks, which is fine, but there is scope to better articulating cross-cutting priorities in the CoAg to achieve greater relevance, synergy and impact.

Support to countries for generating and using HIV subnational estimates is the largest and arguably the most effective component of the CoAg, yet there is no overarching and specific capacity building strategy. (See chapter 3.1.1 & 3.4.1). UNAIDS' strength in supporting countries with HIV estimates is widely recognized, as well as UNAIDS' comparative advantage as a neutral broker to convene various stakeholders and interest groups. CoAg countries generally report that HIV estimates have improved and are used both for national strategic planning, as well as PEPFAR (COP) planning. Regional trainings are the main platform to support country teams to develop estimates, with follow up support from UNAIDS country, regional and HQ level. This happens within the CoAg, but also in other countries. Despite the importance of this work, the

[1] A fourth objective, to support the Fast-Track Cities Initiative, is beyond the scope of this evaluation.

CoAg does not elaborate concrete and specific objectives or measures for capacity building around generation of the HIV estimates. Across the CoAg countries, capacity building activities, mainly in the form of regional workshops, are not evaluated for effectiveness.

An important outcome of the CoAg is the strengthened national level partnerships on strategic information, which goes beyond the CoAg funded activities and is therefore not monitored or reported. (See chapter 3.2.2). In several countries UNAIDS has been effective in convening and coordinating technical working groups on strategic information, where CDC and other technical partners have been supporting broader SI goals and agendas. These important *joint* contributions and *joint* efforts by both UNAIDS and CDC are synergetic but not clearly captured in CoAg result framework and therefor run the risk of not being reported and recognized.

Even though the UNAIDS Health Situation Room has established proof of concept and created demand for data visualization, there is little evidence that it is sustainable in its current form. (See chapter 3.1.3.) The CoAg has enabled UNAIDS to increase the scale and scope of the Situation Room, its corporate data visualization tool. Most importantly stakeholders in CoAg countries recognize the usefulness of data visualization beyond HIV (into broader health statistics) and beyond the initial target audience, policy makers, for health managers and service users. While UNAIDS and partner countries experimented with variations in scale, scope and platforms for the Situation Room, alternative tools have emerged. At the same time, there are delays in moving from proof-of-concept to actual use in most CoAg countries, affecting its effectiveness. The planned UNAIDS evaluation of the Situation Room Initiative is an opportunity for a comparative assessment of the various data visualization tools available to support the HIV response.

The CoAg has supported several useful activities in support of HIV services for key populations but made limited progress in strengthening HIV estimates for key populations or including community based services into the routine programme monitoring. (See chapter 3.1.4). UNAIDS is generally recognized for its mandate and capacity to include key populations and civil society in national strategic information strategies. CoAg objectives are to strengthen more granular HIV estimates, including for key populations, and to include community-led HIV services into national health information systems. This has happened to a limited extent. The CoAg supported several activities that were useful, but not directly supporting the CoAg objectives.

The CoAg supports several countries to strengthen case-based surveillance and introduction of unique identifiers, but there is limited involvement of PLHIV and key populations in these processes, to ensure respect for confidentiality. (See chapter 3.3.5). Existing normative guidance from WHO and UNAIDS stresses the importance of confidentiality in these systems, to ensure equitable and rights-based services especially for criminalized and discriminated populations. The evaluation found that there is limited involvement of key populations, despite concerns from community based organisations and important lessons from Kenya on using biometrics for key populations.

Findings on efficiency and implementation

CoAg implementation is as efficient as possible, recognizing that the CoAg involves various countries in a staggered fashion and requires alignment of multiple stakeholders, priorities, and administrative systems. (See chapter 3.3.4 and 3.3.6). The total CoAg expenditure in the first three years was US$ 5,1 million. The 69% absorption rate is explained by external factors including late release, price reductions and the year 2 request from CDC to economize due to uncertainty of funding. The evaluation found that implementation of the CoAg activities is facilitated by UNAIDS human resource capacity in strategic information, and UNAIDS' convening capacity.

Delay in implementation is partly due to the need to engage multiple national counterparts and stakeholders. (See chapter 3.3.1, 3.4.4). Several CoAg activity areas require engagement of multiple stakeholders, not only CDC, UNAIDS and several departments in the Ministry of Health and National AIDS Commission, but also civil society groups. UNAIDS is in a good position to engage stakeholders in planning processes, yet there is tension between tight planning timelines, agreed overall priorities for the entire CoAg, and collaborative and consensual planning of all relevant interest groups. In some cases, limited ownership of counterparts results in diminished perceived relevance of CoAg activities, or even implementation delays.

Compared to the CoAg funding level, the administrative burden is relatively high for CDC country teams as well as UNAIDS Country Offices and HQ. (See chapter 3.3.6) The CoAg reporting system has evolved over time and improved in terms of efficiency and responsiveness. At country level, regular UNAIDS-CDC updates are appreciated, but overall project information flow and reporting is perceived to be burdensome at all levels, partly due to a need to use both UN and US government systems. Financial reporting does not specify expenditure per CoAg activity area, which limits the possibility to monitor cost-effectiveness.

Important lessons are learnt at country level, but there is limited opportunity for cross-country learning in the CoAg design. (See chapter 3.2.3). Several UNAIDS country offices express a desire to share their experiences as well as learn from other CoAg countries. This applies to activity areas including but not limited to operationalizing the Situation Room, introducing unique identifiers in an equitable and ethical manner, and monitoring HIV services for key populations. Suggestions for sharing lessons across countries include communities of practice among UNAIDS SI advisors and using regional SI events as a platform for knowledge management.

Utilisation of evaluation findings

The following recommendations reflect the aim of the mid-term evaluation to identify lessons learnt and inform improved design and implementation of the next phases of the CoAg. All recommendations are addressed at UNAIDS and CDC SI departments.

	Conclusions	**Criteria**
Strategic action items		
1. Strengthen overall coherence of the CoAg.	*(chapter 3.2)* • UNAIDS strength in HIV estimates and convening partners recognized as valuable • CoAg theory of change does not influence design of country-level action plan • Joint & crosscutting SI priorities PEPFAR and UNAIDS not clearly articulated, resulting in variable priorities per country • Selection of funded activities not clear and with variable contribution to cross-cutting CoAg objectives	Relevance (coherence) Effectiveness
2. Adopt concrete and specific objectives for capacity building around generation and use of the HIV estimates.	*(chapter 3.1.1 & 3.4.1)* • UNAIDS strength in HIV estimates and convening recognized • Capacity building methods for national HIV estimates rely on regional trainings, limited follow up capacity • Limited evaluation of national capacities for HIV modelling and data quality assessment across countries	Effectiveness (M&E) Efficiency (cost-effectiveness) Sustainability (capacity)
3.Identify and track objectives which are not tied explicitly to funded activities	*(chapter 3.2.1)* • The value of UNAIDS (besides SI products and effects) is convening & coordinating technical partners; building partnership; and advocacy for broader SI goals • The CoAg objectives do not reflect *joint* contributions and *joint* efforts by both UNAIDS and CDC	Effectiveness Relevance (comparative advantage)
4. Review and refocus the Health Situation Room in the context of lessons and external developments	*(chapter 3.1.3)* • UNAIDS established proof of concept for Health Situation Room, building on an HIV specific dashboard • Use of the Health SR is hampered due to factors including ownership, recurrent cost, in-country coordination • UNAIDS Health Situation room is unlikely to be competitive vis-à-vis alternative dashboards (which are cheaper or more focused on HIV data)	Sustainability (financial) Effectiveness Relevance (responsiveness, coherence)

5. Maintain a focus on key and vulnerable populations, but focus KP activities on HIV estimates and routine surveillance	*(chapter 3.1.4)* • The CoAg has made limited progress with including KP in estimates and projections, or including KP services into routine surveillance • Focus on key populations is important for HIV estimates, routine surveillance, and service quality • UNAIDS has a comparative advantage to engage communities and civil society	Relevance (coherence) Efficiency (value for money)
6. Involve KP in discussions around human rights aspects of case-based surveillance and unique identifier systems	*(chapter 3.3.5)* • Case based surveillance and unique identifiers are an integral part of the CoAg objectives • Little involvement of PLHIV and key populations in designing routine surveillance systems with respect for confidentiality	Equity
Operational action items		
7. Engage national counterparts in planning for FY 2020/21	*(chapter 3.3.1, 3.4.4)* • Limited engagement of national counterparts has led to delays in activity implementation • Joint planning with multiple stakeholders is time-consuming • UNAIDS is valued as a neutral convener	Relevance (responsiveness) Efficiency (timeliness)
8. Streamline project information flow and reporting.	*(chapter 3.3.6)* • The CoAg reporting system has changed over time and improved • Regular in country UCO-CDC updates are appreciated • Expenditure reporting per activity area is not available • The administrative burden is relatively high for CDC country teams as well as UNAIDS Country Offices and HQ	Efficiency
9. Stimulate cross-country learning, e.g. communities of practice among SI advisors or at global/regional SI events	*(chapter 3.2.3)* • There are few opportunities for countries to share CoAg implementation issues, despite a felt need • Countries could benefit from lessons learnt on other countries, e.g. on situation room, Unique Identier Code or key populations service monitoring	Efficiency

1. Background

1.1 Background to the Cooperative Agreement

UNAIDS, the UN Joint Programme on AIDS, and the US Centers for Disease Control and Prevention (CDC) signed a five-year (October 2016- September 2021) Cooperative Agreement (CoAg) to join forces in improving the collection and use of strategic information to achieve UNAIDS Fast-Track targets[2] and PEPFAR 3.0.

The Fast-Track approach is an agenda for quickening the pace of implementation, focus and change at the global, regional, country, province, district, and city levels. It involves setting ambitious targets and accelerating the delivery of high-impact HIV prevention and treatment services. It means using innovation to expand services, to better address people's needs and perspectives and focus on the locations and populations with the highest HIV burden. It addresses social and legal barriers and advances human rights and gender equality.

Through this CoAg, UNAIDS and CDC work in select high-burden countries (Côte d'Ivoire, Democratic Republic of Congo, India, Kenya, Mozambique, Namibia, South Africa, Tanzania, and Zambia) to support health systems, civil society and other key stakeholders at national, city and district levels to collect and analyze more granular data on the HIV epidemic and response, and to use these data to improve programme effectiveness through greater focus on populations and geographic areas in greatest need. This is achieved through improving HIV estimates, strengthening health information systems, accelerating HIV responses within high-burden cities, and reinforcing the capacity of community HIV programmes to collect, analyze and use epidemiologic and programmatic data. This collaboration aims at improved strategic information and more focused and effective HIV responses to accelerate action towards ending the AIDS epidemic as a public health threat by 2030.

The four strategic objectives identified for this cooperative agreement collaboration were[3]:

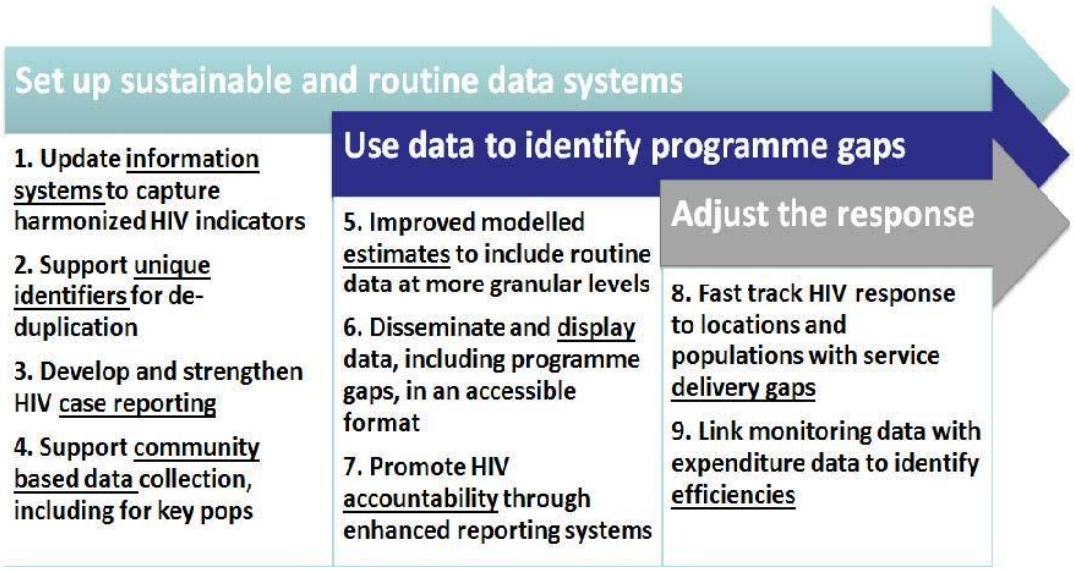
1. Strengthen the capacity of countries to generate national and sub-national HIV incidence and prevalence estimates enabling planners to identify high incidence locations and populations, programmatic gaps and the burden of the disease and new infections by age, sex, and geographic area;
2. Support countries to develop effective and sustainable Health Information Systems that use unique identifiers, include data from community-based organizations providing services, and identify sub-national programme gaps;
3. Build capacity in high-burden districts and cities to develop, implement and monitor robust Fast-Track Action Plans as part of the Fast-Track Cities Initiative;[4]
4. Support countries to develop, implement and monitor Fast-Track strategies to reach key populations at the community level, including improved population size estimates, bio-behavioral surveillance, and enhanced service coverage through innovative interventions.

To fast-track the HIV response requires a systematic shift in how strategic information is collected and used. The figure below presents UNAIDS' shift in strategic information to fast track the HIV response. This shift will promote the availability of high-quality strategic information to drive the development of robust Fast-Track Action Plans for achieving effective and sustainable responses that will end the AIDS epidemic by 2030.

[2] The Fast-Track targets are a set of targets identified for 2020 and 2030 to end AIDS as a public health threat. The targets for 2020 include reducing new HIV infections to fewer than 500,000 and achieving the 90–90–90 targets (90% of people living with HIV know their HIV status, 90% of people who know their status are receiving treatment and 90% of people on HIV treatment have a suppressed viral load). The reduction of HIV incidence is also a Sustainable Development Goal.

[3] Narrative Report Year 2 (17/18).

[4] The third objective is beyond the scope of this evaluation, as per the terms of reference.



Year 1 of the CoAg (2016/2017) focused heavily on the estimates process and ensuring countries have basic underlying understanding of their national HIV epidemics. Funding was provided to five countries (Côte d'Ivoire, India, Kenya, South Africa, Zambia) primarily focused on developing HIV epidemiological estimates. Additional CDC funding contributed to the global HIV estimates activities, supporting the training of over 500 experts to use the UNAIDS supported models.

Year 2 of the CoAg (2017/2018) supported activities to interpret and use the data generated from the estimates at national and lower, more granular geographic areas. More efforts went into data use/situation rooms, action plans, and key populations. An additional four countries were included: Democratic Republic of Congo, Mozambique, Namibia and Tanzania.

Year 3 (2018/2019) maintained support for HIV estimates but also focused on improving the data systems that feed into those estimates. There is more focus on health information systems (HIS), data use, situation rooms and key populations.

The CoAg complements support from other partners to UNAIDS, for example for the Reference Group on Estimates, Modelling and Projections which advises on the development and updating of HIV estimates models (core funding); efforts to improve case-based reporting and incorporate this reporting within countries' DHIS (BMGF) and AIDSinfo and the development of situation rooms (Government of Japan).

The table below shows type of activities supported by country and by year of CoAg implementation. CoAg annual action plans by country define activities under the four areas of work. Countries submit annual specific reports[5].

[5] Narrative report Year 3 (2018/19).

	Year 1 (2016-17)				Year 2 (2017-18)				Year 3 (2018-19)			
	Esti-mates	HIS	data use & cities	KP[6]	Esti-mates	HIS	data use & cities	KP	Esti-mates	HIS	data use & cities	KP
CIV	x	x			x	x	x	x		x	x	
IND	x			x	x	x	x	x	x	x	x	x
KEN	x				x	x	x		x		x	
SA	x				x		x		x	x	x	
ZAM	x			x	x	x	x	x	x	x	x	x
DRC					x	x			x	x		
MOZ						x	x			x	x	
NAM							x			x		x
TAN					x		x	x	x	x	x	x
	Year 1: Initial primary focus on estimates				Year 2: Move into data use, action plans, key populations and data use through situation rooms and city focus				Year 3: Continue supporting estimates, shift focus to HIS, data use, and key populations			

1.2 Purpose and scope of the evaluation

The mid-term evaluation aims to assess the relevance, effectiveness, efficiency, sustainability, and equity of Areas 1 (HIV estimates), 2 (HIS strengthening) and 4 (Key population data) of the UNAIDS CDC CoAg. Findings of the evaluation will inform planning for the next five-year agreement between CDC and UNAIDS. The evaluation covers 2017, 2018 and the first quarter of 2019. The focus is at the global level and in nine Fast-Track countries, where the CoAg was implemented.

1.3 Evaluation questions

Evaluation questions were to adhere with evaluation criteria based on the OECD DAC evaluation criteria, 1) relevance; 2) effectiveness; 3) efficiency; 4) sustainability, and 5) equity (including gender equality and human rights). They also align with PEPFAR Evaluation Standards of Practice (ESoP) (2017, version 3) guidelines, which was also used as a guide to develop draft evaluation questions. Evaluation questions are presented in the inception report, chapter 2.3 and the evaluation matrix (Annex 1).

1.4 Dissemination plan

The mid-term evaluation aims to identify lessons for UNAIDS and CDC to improve implementation of the remainder of the CoAg period, and to inform any future collaboration in the area of strengthening strategic information and other areas of partnership. The final report will be shared with UNAIDS and CDC HQ, Regional, and country offices as well as key Ministry of Health stakeholders for the nine CoAg countries. This final evaluation report is produced in alignment with PEPFAR ESoP requirements and will be posted on a publicly accessible website.

[6] KP = key populations.

2. Scope, objectives and methods of the evaluation

2.1 Approach and design

The approach of this mid-term evaluation is forward-looking, and utilization focused. At the mid-term, the emphasis is learning lessons to be applied in the remainder of the project period and the design of the next phase of the CoAg. The mid-term evaluation uses a mixed methods approach to allow for both qualitative and quantitative evidence, and triangulation of findings.

2.2 Key stakeholders

The key stakeholders of this evaluation are the main parties of the Cooperative Agreement: CDC and UNAIDS at both global and country level. As well as the nine Ministries of Health/National AIDS Programmes and other national stakeholders which have been part of CoAg supported activities.

Stakeholders	Engagement in the evaluation
CDC (HQ and country offices)	• Representation in the Reference Group[7] Briefing evaluation team • Provide information and documentation • Approve inception report/protocol • Quality assurance evaluation report Disseminate results
UNAIDS Office of Evaluation (OEV)	• Commission the MTE (HQ) • Convene the Reference Group • Provide oversight and quality assurance for the entire evaluation process • Provide information and documentation • Follow up on the management response to the evaluation recommendations
UNAIDS (SID and programme staff at HQ, regional/RST and country offices)	• Provide information and documentation • Support MTE (HQ, RST and UCO) • Support the engagement of country stakeholders in the evaluation (UCO) • Disseminate results (HQ, RST and UCO) • Develop a management response to the evaluation recommendations (SIE/HQ with collaboration of RST and country offices as well as CDC)
Ministries of Health/National AIDS programmes (country level)	• Provide information and documentation • Participate in country MTE taskforce[8] • Receive MTE report and disseminate results at country level
SI Technical partners, civil society, and funding agencies[9] (country level)	• Provide information and documentation • Participate in country MTE taskforce • Receive MTE report.

[7] See more on the reference group in chapter 5.2, tracking progress.
[8] In countries that were visited UNAIDS facilitated an ad hoc MTE task force, composed of key stakeholders. See also chapter 4.
[9] Examples of stakeholders include national research institutes, non-governmental organizations implementers; WHO, the Global Fund for AIDS, TB, & Malaria, USAID, the Gates Foundation, JICA.

2.3 Evaluation questions

To produce useful and actionable recommendations, the mid-term evaluation addresses three aspects of each strategic objective included in the scope:

- **What was achieved?** Assessing effectiveness, i.e. achievements against work plan and targets;
- **How it was achieved?** Distilling lessons on efficiency, equity, implementation, relevance; and
- **Will achievements last?** Determining sustainability and ability to effect long-term change of UNAIDS' implementation approach.

The relation between evaluation questions explored and evaluation criteria are indicated below. Annex 1 provides the detailed evaluation questions in relation to each strategic objective.

Key Evaluation Questions	Evaluation criterion
What was achieved?	Effectiveness
For each CoAg activity area:	Impact
Outputs and outcomes of activities at global and country level	
Coherence and synergies between countries[10]	
How it was achieved?	Efficiency
For each CoAg activity, country and overall:	Relevance (responsiveness)
Partnerships, collaboration; Responsiveness	Equity
Financial management and inputs; Capacities and human resources	
Timeliness and delays	
Equity and human rights	
Will achievements last?	Sustainability
Level of Country strategic information capacity	
Ongoing practice, use of results of data products	
Continuity of resources	

2.4 Evaluation methods and data collection tools

Four main methods were employed to carry out the evaluation:

1. *Document Review and Synthesis* – Based on strategic information products resulting from CoAg support; planning and management documents (e.g. work plans, progress reports, budgets, etc.); process and output documents (e.g. training records, workshop agendas, meeting reports, etc). The list of documents reviewed is provided in Annex 2. Data abstraction from document review were maintained in spreadsheets and word processing documents and stored in a secure cloud based shared folder.

2. *Country Case studies* – The evaluation team conducted country visits to three of the nine CoAg countries: India, Zambia, and Côte d' Ivoire, to conduct in depth interviews and discuss the CoAg experience with a wider variety of stakeholders. The sampling was purposive to sufficient implementation duration, coverage of all strategic objectives and geographical spread. A national consultant based in each country was engaged to support the country visit process, conduct additional interviews, and review supporting documents. Stakeholders interviewed included UNAIDS and CDC country teams, government counterparts, technical partners, and civil society representatives. A listing of organization represented by key informants interviewed is provided for each case study in Annex 3. Interview notes were written on paper and then transcribed into electronic documents for collation and synthesis.

3. *Key informant interviews (individually or in a group)* – In countries not visited, additional interviews with key informants were conducted by web conference with representatives of at least the UNAIDS and CDC country offices, and efforts were made to interview national AIDS programme representatives. Interviews were also conducted with Regional and Headquarters based staff with management

[10] In the findings section, a separate chapter discusses coherence between country activities and impact.

responsibilities and consultants who contributed technical support for CoAg funded activities. For a list of all organizations represented by key informants interviewed see Annex 3. Interview notes were written on paper and then transcribed into electronic documents for collation and synthesis.

4. *Online survey of stakeholders* – In an attempt to include additional perspectives from government counterparts, other technical partners in country, and representatives of civil society, selected stakeholders were invited to share their perspectives through a brief written survey. The online survey platform used was Google forms. Surveys and invitations to participate were prepared in English, French, and Portuguese. A copy of the survey form is provided in Annex 4. Data from the interviews were abstracted into Excel and used to corroborate data from key informant interviews.

2.5. Data analysis plan

Findings from all data collection methods were collated into data analysis matrix organized by evaluation area and geography. Achievements were compiled across countries for each topic area and used to identify patterns in strong and weak performance. Key informant interview data were used to explore reasons for strong or weak performance and corroborate the assessment of performance obtained through the desk review. Countries selected for case studies provided opportunities for more in-depth investigation and triangulation of facilitators and barriers to implementation. Validation of selected findings and analysis for case study countries were conducted in stakeholder meetings occurring during the country visits.

2.6 Ethical considerations and data security

To protect the confidentiality of key informant responses, participants were informed of the purpose of the evaluation, how the interview data would be used, and were given assurances that their responses were confidential to the evaluation team and would not be quote them by name or otherwise used their responses in the written report in a way that their comments could be identified. Stakeholders who participated in the online survey underwent the process of written informed consent before starting the survey. Responses to the online survey could be provided anonymously (but identified by country) or email contact information could be provided if the informant was comfortable being contacted by the evaluation team to discuss their experiences and perspective in more depth. Due to problems in internet connectivity, stakeholders from the DRC who were invited to complete the survey asked to submit their response by email. Because of this, their responses were not anonymous. However, all survey participants still gave informed consent and responses were treated confidentially.

To ensure the security of the data collected through the evaluation, interview notes and survey responses were maintained in electronic files that were accessible only to the evaluation team members. Access to electronic files was password protected. No interviews were recorded.

All evaluation team members have been trained on patient data confidentiality and security guidelines and have signed a confidentiality agreement and conflict of interest statement. Annex 5 includes a short biographical statement for each team member and their respective conflicts of interests, if any. As consistent with CDC procedures, the inception report was submitted to and received approval from the CDC/DGHT Science office before data collection was initiated.

2.7 Timeline

Activity	Aug 2019	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May 2020
Coordinating Meeting – clarification	X									
Document collation and mapping		X	X							
Inception report (deliverable #1)		X								
[Reference group and CDC/DGHT Science office approval]						X				
Initial KII (global + CDC/UNAIDS country)						X	X	X		
National consultant recruitment						X				
Online survey administration							X	X		

Online survey analysis and synthesis		X		
Visits India, Zambia and Côte d'Ivoire	X	X		
Country case studies (deliverable #2)		X		
Overall Analysis and Synthesis			X	
Draft report (deliverable #3)				X
Report validation/ consultation				X
Final Report (deliverable #4)				X

2.8 Limitations

Approval of the inception report/protocol was received from the CDC/DGHT Science office in the first week of January 2020. Due to scheduling conflicts of the evaluation team and country PEPFAR COP review schedules, country visits could not be scheduled until the end of February and first half of March. By this time, the COVID-19 pandemic began to effect stay at home orders and restricted travel in many countries. Stakeholders involved in CoAg activities became difficult to interview due to new responsibilities related to the COVID-19 response. For these reasons, perspectives from government stakeholders is limited to five countries (those from the three case study countries: India, Zambia, and Côte d'Ivoire) as well as DRC and Namibia (survey responses). Due to limited triangulation with national counterparts' views, evidence corroborating the evaluation's assessment of responsiveness and sustainability is less robust.

Because the evaluation explored the strength of an ongoing partnership between UNAIDS and CDC, there was some risk that key informants may not feel comfortable being candid when describing this relationship. However, with assurances that experiences and perspectives would not be attributed to specific individuals or countries, the evaluation team received multiple concrete examples to illustrate points of tension in this partnerships and descriptions of how these situations were resolved or addressed.

Key Informants (interviews and survey responses)

	UNAIDS	CDC	MOH	CSO	Tech partner	Other
CIV	3	2	6	2	1	
DRC	1					
IND	4	4	8	1	7	
KEN	2					
RSA	1					
ZAM	3	4	4	2	1	2
MOZ	2	2				
NAM	2	3	1	1		
TZA	2	4				
HQ	9	2			1	

3. Findings and conclusions

3.1 What was achieved?

This chapter describes for each of the main CoAg activity areas 1) what outputs have been achieved against the workplans of the first three CoAg years, and 2) progress towards short- and medium-term CoAg outcomes in that activity area.

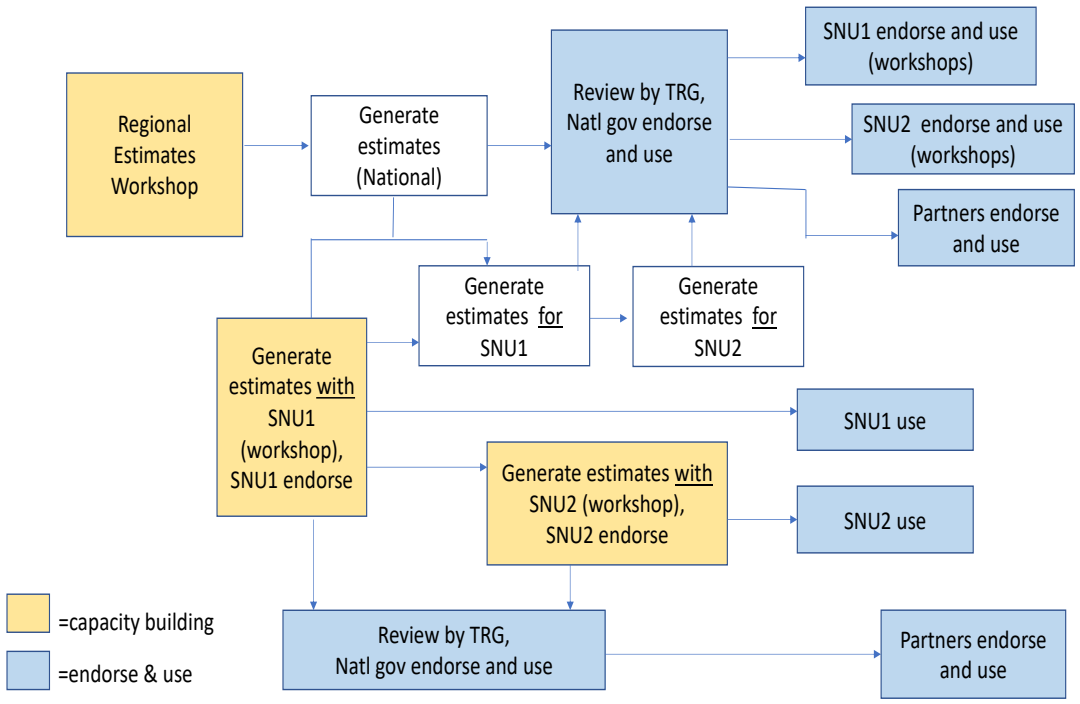
3.1.1 Subnational HIV estimates and projections

3.1.1.1. Outputs against workplan

When asked to describe the main achievement of the CoAg work, the most common response from key informants is the generation of HIV estimates at both national and sub-national level. This component spans a range of activities at both HQ level and country level. At HQ level, the HIV estimates activities includes:

- Managing improvements to the modeling tools (i.e. by Avenir for Spectrum and by Imperial college for Naomi[11]) as per recommendations of the Reference Group on Modeling, Estimates, and Projections;
- Conducting multi-country regional workshops to train country teams on use of Spectrum and Naomi, including the engagement of technical consultants to support workshop facilitation and work with individual country teams;
- Reviewing country estimates reported/submitted and providing technical support to finalize estimates of selected countries.

CoAg countries may use multiple pathways to generate and build capacity around estimates at different levels. At the country level, the HIV estimates outputs can be represented by the following process steps[12]. This schematic illustrates that capacity building is not always part of the pathway to generate estimates or to engage sub-national users of the data (at sub-national units (SNU1 and SNU2) level).



[11] Spectrum is a model used to develop comprehensive national and provincial level estimates of new infections, AIDS deaths and many other difficult to measure indicators. Naomi is a model that disaggregates a set of key variables from the Spectrum estimates down to district level to allow for more granular planning.

[12] Under the CoAg, activities to strengthen health information systems (both aspects which directly impact the quality of inputs used for modeling and those which go beyond) are addressed comprehensively in section 3.1.2.

Countries have achieved various levels of progress, reflecting the complexity of synthesizing data for multi-stakeholder decision making processes. The table below summarizes the process steps employed in each CoAg country to generate estimates at national, and sub-national unit (SNU1 and SNU2) level. Note that in some countries CoAg funding was not used for all process steps.

Outputs such as the production of HIV estimates are well-tracked and almost always achieved through the CoAg. However, in the course of interviews with stakeholders, the evaluation team identified four examples of how estimates were not available in time to meet a key deadline over 3 years of the CoAg.[13] Each situation was variable in the reason estimates were deemed not usable or timely. The variability suggests there was no systematic problem in generating usable estimates which stakeholders feel comfortable endorsing. Rather, the evaluation team assessed that these were normal challenges and what might be expected for a complex, high stakes process of synthesizing data to feed into a multi-stakeholder decision making process.

Progress on subnational HIV estimates and projections

Estimates-related outputs	CDI	DRC	IND	KEN	MOZ	NAM	ZAF	TAN	ZAM
Generation of Provincial/State estimates	C	C	C	C	C	C	C	C	C
Generation of district/health zone estimates	C	S	S	C	C		C	C	C
Workshops for SNU1 stakeholders to review inputs/interpret & use estimates	C	S	C	C	C	S	S	C	C
Workshops for SNU2 stakeholders to review inputs/interpret & use estimates	C	S	S	C	C		S	C	C

P=Planned but not implemented, S= completed for selected areas, C= Completed for all areas

3.1.1.2 Assessing the achievements of short- and medium- term outcomes of the CoAg

Countries have made variable progress towards the stated objective and evaluation question for outcome[14] of the CoAg is availability of more granular data to strengthen planning and programming. The Estimates-related output table above shows the availability of HIV estimates at SNU2 level across CoAg countries. In most CoAg countries SNU2 (i.e. district/health zone/county) level planning requires local HIV estimates to set targets for preventing new infections and track the "Three 95s" targets.

After testing and evaluating several different models,[15] UNAIDS introduced the Naomi model (developed by Imperial College) to countries at scale during the 2020 Regional workshops. This model uses SNU2 level data to apportion the SNU1 (i.e. Provincial or State) HIV estimates across its SNU2 units. The model inputs require high quality SNU2 level data from HIV prevalence surveys (such as PHIA), ANC prevalence data from routine testing, PMTCT programme data, and ART programme data.

In comparison to other tools, the Naomi interface garnered greater trust and ownership by SNU2 level users and made them eager to use them in district plans. Key informants interviewed mentioned the country team's preference for the Naomi model over some other modeling tools tried, due to the relative ease of use and the ability to see the direct effect of inputs on results right away, providing greater understanding of the way inputs are used and the impact of poor quality data or improper treatment/preparation of the inputs. One key informant contrasted Naomi to the previous modeling tool used to generate district estimates, the latter "being something of a black box," into which "inputs were sent off to the modelers, and then some time later countries got back their results without knowing how they were generated." Estimates country teams noted the ease with which Naomi could be used in subsequent in-country training during SNU2 level workshops. In comparison to other tools, the Naomi interface garnered greater trust and ownership by SNU2 level users and made them eager to use them in district plans. Despite being a new tool, key informants did not have specific criticism about Naomi as a tool for generating useful SNU2 level estimates, or issues with use and roll-out in country.

The extent to which the CoAg resulted in the availability of better quality granular (SNU2) programme data used for inputs into the models is addressed in section 3.1.2. Strengthening health information systems.

[13] Specific incidents include: a) technical difficulty in submitting prepared estimates to the GAM (India), b) CDC use of estimates for the COP which were not approved by the government (Kenya), c) dissatisfaction with the quality of the data used in some estimates to be fed into the COP (Zambia), d) dispute over whether estimates used for the COP were approved by the Ministry of Health (DRC)

[14] See annex 1 for evaluation matrix

[15] Four models, including the one which would be named Naomi were reviewed at the Spring 2019 Reference Group meeting. [cite notes from that meeting].

A second indicator and evaluation question for this CoAg objective is partners' perceptions of the reliability of HIV estimates to increase and lead to greater endorsement. This evaluation is limited in its ability to assess the perceptions of national partners, due to the few number of non-UNAIDS, non-CDC key informants and survey respondents in the countries that were not covered by country visits. However, evidence of endorsement of the estimates can take the form of whether values were submitted to GAM, or in the publication of results in publicly available documents or the use of the estimates in planning documents or calculations. The endorsement of the estimates generated vary between national, SNU1 and SNU2 level stakeholders and by other key partners, e.g. PEPFAR or the Global Fund.

Three examples of estimates being rejected by a partner as unreliable come from country case studies and interviews with key informants. In one of the cases, the disagreement involved PEPFAR neglecting to use the government endorsed estimates for their COP planning due to a dispute about the quality of the routine programme data used as inputs (Zambia). A second case, the PEPFAR team wanted to use estimates for their COP which had not yet received approval from the Ministry of Health (Kenya). In a third case, the head of the Ministry of Health refused to endorse the estimates produced at a COP planning meeting, because he felt he had not been properly engaged in the review of the results before it was shared with partners (DRC). One UNAIDS key informant interviewed noted the important role UNAIDS plays in getting all partners to endorse a single set of estimates and to use the same numbers for planning purposes. For this purpose, UNAIDS works to ensure that key technical partners are an active part of the Technical Working Group and the process for generating the estimates is transparent.

Endorsement for the estimates generated also happened: the evaluation team took note of the following examples of evidence that estimates have been used in key planning and budgeting exercises, especially the SNU estimates.

- In Côte d'Ivoire, district estimates were used for both COP and GF proposal planning as well as informed the national strategic plan review and update. The use of the estimates in an online tool (the Shiny90 application) to generate estimates of the number of PLHIV who know their HIV status (the first 90) is also a well appreciated application;
- In DRC, health zone level estimates have been used for COP planning;
- In India, the estimates are publicly shared in published report and used for strategic planning, and the PEPFAR regional operational planning meetings (ROP);
- In Kenya, Naomi county level estimates are owned by the county and used for county level planning by counties, and are used in the COP;
- In Mozambique, district level estimates have been used in target setting and prioritizing and COP planning;
- In Namibia, regional estimates have been used for the PMTCT needs planning and for treatment cascade indicators used in the COP;
- In South Africa, estimates have been used for district level planning and resource allocation;
- In Tanzania, district estimates have been used in COP target setting and resource allocation exercises and for GF proposals to estimate ART need;
- In Zambia, district estimates have been used in scenario modeling such as Goals, TIME, and others. And at district and provincial level SNU estimates have been used for annual plans and budgets for MOH, PEPFAR, and Global Fund.

Endorsement of model results also depends on a general trust that the modeling tools promoted by UNAIDS produce reliable results and is affected when tools are updated and/or estimation results change dramatically. One UNAIDS key informants recounted earlier experiences (about 5 years ago) when the model was updated, and the estimates produced were very different from the previous round. This abrupt shift made in-country stakeholders wary of the results and questioned their continued use of Spectrum. At that time a competing model, OPTIMA was being introduced by the World Bank. While the purpose and use of OPTIMA is not the same as Spectrum, the stakeholder perceived that many countries were debating whether to switch over. This key informant commented that the "viability of the CoAg," i.e. the value of UNAIDS as a partner in the strategic information space, was dependent "on the stability of Spectrum" and the ability for government counterparts to trust in its validity. This underscores the importance of UNAIDS and its partners to prepare government counterparts when large shifts in the estimates are anticipated and to help explain the differences in results. In this regard, the same key informant suggested that UNAIDS should strive for technical excellence but updates to the model should be introduced when changes have been well tested and operate as expected. And if these updates result in big shifts in the estimates that workshop facilitators and Strategic Information advisors are well equipped to help countries explain the results. A related comment made by a CDC key informant was that user trust in modeled results could benefit from a much stronger communication strategy about the inherent uncertainty in the best estimates and the proper use of estimates in planning requires acknowledgement of this uncertainty, so that during implementation if there is evidence

that the estimates are off, that this is considered in the evaluation of performance and when adjusting plans. This key informant recognized how UNAIDS in that country made efforts to do this, e.g. by including uncertainty bounds for the estimates.

A third evaluation question and outcome indicator of the CoAg with respect to the HIV estimates is whether the quality of national and sub-national HIV estimates has improved. While the scope of this evaluation was not intended to scrutinize the use of specific inputs and fit of models in each CoAg country and judge quality directly, it does review the efforts made to improve quality. There are several different types of activities which could increase the quality of the estimates.

1. Improvements in data completeness or quality from routine health information systems (this is encompassed in the analysis of whether more and higher quality granular data were made available for use in programme planning);
2. Utilize data from updated, geographically more comprehensive, or improved methodologies of special surveys;[16]
3. Review and adjust the Spectrum default settings to better fit country context;[17]
4. Adopt and transition to an alternate method of generating incidence estimates (e.g. moving to a model based on case surveillance and mortality data [mostly just feasible in high income countries] using key population data in their models).[18]

Many countries (including those outside of the CoAg) have received extensive technical support from UNAIDS beyond what is provided by the UNAIDS country teams. This support is to review and change which incidence generating tool is used (within Spectrum) as well as some of the default settings in Spectrum which impact the way curves are fit to available data and epidemic context. These decisions may greatly improve the estimates but also cause big shifts in the numbers that require strong process and communication to bring stakeholders along.

In many cases, these system changes and the technical support required, goes beyond what can be accomplished in regional workshop sessions. The UNAIDS HQ SI Department (SID) divides the oversight of generating estimates by region. Each member of the team takes responsibility for reviewing the Spectrum file submitted from each country and working with the country team to check inputs to improve the fit and modeled result. Through multiple rounds of working with countries, the SID staff have a detailed understanding of the strengths and weaknesses of each country's estimates, but resource constraints make it challenging to address all gaps or document which countries have key gaps. There also appears to be limited coordination across regions to assess gaps systematically or to develop/apply criteria to prioritize countries that should receive more attention or resources for the subsequent round of inputs.

3.1.2 Strengthening health information systems

3.1.2.1. Outputs against workplan

The activities assessed in this section include activities designed to improve the quality or availability of routine health facility data. In some cases, these activities are intended to improve the data used as inputs for estimates and modelling or may also apply to other routine health facility data, such as that used for cascade analysis. These activities range from:

- Establishing a process of data quality review, including correcting errors and certifying reported data;
- Developing and rolling out a unique identifier code (UIC) system to minimize double counting individuals diagnosed or on treatment;
- Building case surveillance systems (i.e. individual level data systems to track PLHIV from the point of diagnosis through death, loss to follow-up or discontinuation).

[16] UNAIDS and CDC may support the technical improvements to such SI activities through participation or fostering technical working groups with direct or indirect CoAg support, but the CoAg is not funded at a level to implement such surveys.
[17] This aspect may only need to be done at central level, and once (per major updates to model parameterization), this capacity could be provided through high capacity technical staff from UNAIDS or CDC, or in-country research partners or through external technical consultants such as those used for regional estimates workshops.
[18] This aspect is more relevant for lower burden, non-CoAg countries such as MENA region, Pacific Island countries, etc.

Several CoAg countries have made progress towards a range of HIS strengthening activities. The table below summarizes the planned activities in this area by country and whether outputs were achieved as planned.

Progress on health information system strengthening

Outputs	CDI	DRC	IND	KEN	MOZ	NAM	ZAF	TAN	ZAM
Conducting DQR or DQA activities at district or facility level	P	C	C			C		P	C
Design and testing UIC for use in selected facilities areas	M	M					M		
Design and/or testing implementation of case surveillance system	P						P		P
Use of DHIS2 App to import HIV estimates data for use in routine data analysis				C					C

P=Planned but not completed, M= implemented in a modified or partial fashion from planned, C= completed

Activities related to review of routine data that are used for HIV estimates models had been scaled back and re-budgeted to other funding mechanisms. To the extent that improving the quality of health facility data used as inputs in modelling could contribute to better estimates, second half of Year 1 action plans for UNAIDS HQ included plans to provide "in-country support to countries to review and refine the routine testing data from health information systems" with specific focus on HIV positivity in pregnant women. Outputs of these activities are not featured in the subsequent annual reports (under Global Level progress) and a note in the Year 2 progress report states that CoAg funds allocated to "review…the use of routine data that are used in the models" had been "scaled back and re-budgeted to other funding mechanisms" in agreement with CDC's Epidemiology Surveillance Branch, in order to fully fund estimate generation activities.

At the country level, implementation of activities to improve health information systems were generally slower or more difficult to move forward compared to the generation HIV estimates. In some cases, the plan to implement a change to a health information system e.g. adopt a UIC, introduce a case surveillance component to existing data system, etc. were scaled down or only initial steps were accomplished, e.g. holding a consultation to develop buy-in, convening a meeting or consultation to discuss design elements. Key informants identified several reasons for this. First, changes to health information systems may have implications and stakeholders beyond HIV programmes. As health information systems become integrated across disease areas, stand-alone tools, data platforms, and approaches must be coordinated. These types of projects naturally require more time to obtain agreement and buy-in from decision makers and require compromise. In some cases, PEPFAR was described as choosing a go-it-alone approach to make information system improvements expeditious, meeting the pressures and expectations of OGAC which may be in opposition to a long-term, sustainable approach with health sector-wide benefits. Second, changes to routine health information systems are large scale, requiring a design which works for a variety of facility contexts and capacities. These types of changes also have multiple technical components spanning information technology infrastructure, work-flow management, software design specifications, data analysis and interpretation, patient management, etc. These types of projects require implementation over multiple years, large amounts of funding, and specialized expertise, which may not be possible through CoAg support. Finally, because in some CoAg countries CDC maintains a similar cooperative agreement with WHO, some key informants interviewed raised the question whether WHO were a better partner to lead health information system improvement activities. Examples of WHO's qualifications include having a broader health sector mandate and country offices may already work with Ministry of Health partners outside of the AIDS programme; and WHO's role as convener of the Health Data Collaborative which has supported the use of DHIS2[19] tools and products to better use routine health data for programme management. Other key informants suggested that the in-country UNAIDS expertise, relationships, and capacity vary greatly and may not always translate into a superior fit for task.

Despite working with a limited resource envelope with which to address large and complex system improvements, several countries have been strategic in carving out a specific role for UNAIDS to play in larger projects that complement the work of other partners and provides a value to moving implementation forward. One CDC office described their approach to developing a UIC system was to move forward on a system which would work for facilities directly funded by PEPFAR and simultaneously provide funding for UNAIDS to contribute to the larger effort by government and other partners to develop a UIC system which would work for the health sector overall. This relatively small amount of funding was seen

[19] District Health Information Software 2.

as critical for UNAIDS to have a seat at the table with government-led strategic information initiatives and to provide technical contributions while at the same time providing PEPFAR with a link to the larger UIC effort. At least two countries have used the CoAg funds for the contracting of IT specialists to support the development of the national programme's health information system infrastructure. In one country, a key informant mentioned that this has helped tremendously to afford a highly qualified technical specialist who commands a market rate which is higher than what government procurement allows. In the other country, the experience was less positive, and the UNAIDS contracting mechanism prolonged the hiring of the IT consultant. A third example, for leveraging the CoAg contribution in this area comes from DRC in which the training and tools used to train high burden facilities on data quality review and "certify the active file" were used in one province (Congo Central), and then were taken up by the Global Fund to cover other provinces.

3.1.2.2. Assessing the achievements of short- and medium- term outcomes of the CoAg

The main outcome to assess in this area is whether the CoAg activities generated higher quality data for use in programme planning and management.

Given the course of implementation, most of these activities have not progressed enough yet to see results in higher quality data for use in programming, with the exception of data quality review and assurance (DQR/DQA) activities. Data quality assessment in India took the form of a data validation and verification exercise to prepare for meeting elimination of mother to child transmission certification. Two well-documented publications[20] resulted from this effort describing the methodology and results in detail, including how ANC attendance, testing, and ART coverage of pregnant women could be adjusted to reflect service utilization more accurately. Recommendations resulting from this work can be used to inform a verification and validation process that could be applied to the remaining states, as well as to update the information systems used to calculate the key process and outcome indicators. The team in DRC developed a similar methodology for conducting data quality review of a broader span of routine facility data for HIV programmes. The approach relied on sampling (random and purposeful) of health zones and facilities within health zones. Although the methodology used was documented the results were not available and could not be provided to the evaluation team, and for this reason were not assessed.

Activities related to strengthening health information systems have also demonstrated the value of UNAIDS as a relationship broker in decision making around large-scale strategic information tools and methods. As a multi-lateral organization, UNAIDS is trusted by government partners as being neutral. As structures such as technical working groups are strengthened through the support of UNAIDS and the CoAg, the work of these bodies to provide sound technical advice can go beyond modelling, estimates, and surveillance and extend into other strategic information areas such as routine health information systems.

3.1.3 Health situation room: making data available for use

The Situation Room (SR) is a high-level UNAIDS initiative dating from 2015, conceptualized as a near-real-time, interactive and dynamic dashboard on HIV data for senior political leaders, on the status and progress towards HIV Fast Track goals[21]. Since, it has evolved into a broader 'Country Health Situation Room' bringing together different health data sources (DHIS2 and other) to visualize progress and gaps on key health indicators for programme managers as well as political leaders. The first Country Situation Room was established in Kenya in 2015[22]. While the "back-end" of the SR (the data integration layers and warehousing) follow similar design principles, the user interface or "front-end" is customizable per country and setting. In late 2018/early 2019 the Situation Room changed platform, from Ivedex to Sisense.

CoAg funding supports training and capacity-building of staff at relevant health and HIV departments to roll out the software in selected CoAg countries, while other funds[23] support the purchase of equipment[24]. The Situation Room programme is co-managed from UNAIDS headquarters by the Strategic Information Department (SID) and Information Communication Technology (ICT) teams (for ICT support, data warehousing and integration) and rolled out in 9 countries in total[25]. Regional Support Teams are responsible for the coordination within their regions[26] and UNAIDS Country offices liaise with national counterparts. An external evaluation of the Health Situation Room Initiative is commissioned for 2020. The CoAg supported the roll out of the Health Situation Room beyond Kenya in a further five CoAg countries.

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[20] NACO, 'In-country Data Validation Elimination of Mother-to-Child Transmission of HIV and Syphilis: Maharashtra (2015 – 17) and NACO, 'Report on In-country Data Verification Exercise (Phase I) Elimination of Mother to Child Transmission (EMTCT) of HIV & Syphilis in India'.

[21] 2019, UNAIDS, Case study in Health Situation Room.

[22] RFP SR evaluation 2020.

[23] Japanese Government, EU, SIDA.

[24] CoAg Annual Progress Report Year 2.

[25] Côte d'Ivoire, Kenya, Lesotho, Uganda, Zambia, Namibia, Mozambique, Malawi, and Zimbabwe.

[26] UNAIDS RST ESA recruited a full-time consultant in 2018 (on staff since 2020) with non-CoAg funds.

3.1.3.1. Outputs against workplan

UNAIDS supported five countries to develop an 'Implementation concept paper'. This first step in development of the Health Situation Room determines the scope of the SR (including indicators and users); roles and responsibilities, plus a workplan and budget. The evaluation accessed concept papers for Côte d'Ivoire, Namibia and Tanzania. This step required sustained UNAIDS advocacy at several levels, including at political level (the intended users), National AIDS Commission, relevant ministries (e.g. MoH, MoICT) and their departments (HIS, HIV and other disease programmes, ICT). Typically, as per the concept papers in CoAg countries, the main counterpart for the SR is the Ministry of Health; indicators include but are not limited to HIV estimates and routine data; and intended users vary from high level politicians, health managers at all levels to the wider public. In Tanzania, the supra-ministerial National AIDS Council (TACAIDS) is the counterpart, but the MoH is interested to host the SR and use it as a broader health dashboard.

The Situation Room is launched in three countries. The second step is the 'launch' of the SR, usually a high-level affair attended by the UNAIDS Executive Director and the head of State or Minister, for example the Zambia launch in 2018 was done by the President, and included installation of screens in several high level offices. The launch typically involves demonstrations of the SR to select intended (high level) users.

The main investment of the CoAg has been in training in the five roll out countries (not in Kenya). After (in some cases before) the official launch, the CoAg supported training on the use of the SR, e.g. training of trainers and trainings for prospective users, as per the concept paper. In Year 2[27], Côte d'Ivoire reported training for decision makers, while other countries were finalizing the selection of health indicators to be visualized (the 'business matrix'), intended users and access to DHIS data, and final selection of software and licensing (Mozambique, Zambia, Tanzania & Namibia). In year 3[28], training continued, for example in Mozambique for the National AIDS Commission, but most activity was around regional meetings for national SR teams (SR regional training in Johannesburg and CDC Africa meeting in Ethiopia), data quality improvement and further finalization of the SR indicators and software systems. The Tanzania team has planned training for provincial health managers in year 4 (beyond the scope of this evaluation).

There have been some delays along the way in most CoAg roll out countries. One of the external reasons was that the platform for the SR changed in 2018 from Ivedix to Sisense. Although the new platform is more user-friendly and allows laptop/tablet use, this change required some retraining resulting in delays, as reported in Côte d'Ivoire. Other reasons for delay are shifting or unclear ownership, for example between the National AIDS Commission, UNAIDS' primary counterpart and the Ministry of Health. Inclusion of additional user groups (most recently it has been suggested to use the SR for community-led monitoring) requires renegotiation of the scope, indicators, and/or format. The indicators to be included in the 'business matrix' remain under discussion in Zambia and Côte d'Ivoire, and finalization awaits MoH approval. Finally, ownership and quality of 'input' data can cause delays. For example In Namibia, no national data can leave the country to be warehoused externally (or be shared in cloud-based storage as required for the concept), and in Mozambique, quality assurance of DHIS2 and other input data had to be addressed first.

[27] CoAg Annual Progress Report Year 2.
[28] CoAg Annual Progress Report Year 3.

3.1.3.2. Assessing the achievements of short- and medium- term outcomes of the CoAg

Progress on Health Situation Rooms in CoAg countries

	Concept paper	Launch	Counterpart	Indicators	Fully operational[29]	Use[30]
KEN	NA	2015	NAC/Min of ICT	Health[31]	Yes	Yes?
ZAM	agreed	2018	MOH	Health	No	No
CIV	agreed	2018	MOH	Health	No	No
MOZ	agreed	2018	MOH	Health	No	No
TAN	drafted	Planned	TACAIDS[32]	Health/Social	-	-
NAM	agreed	Planned	MOH	pending	-	-

An important outcome of the CoAg is interest by Ministries of Health, and their commitment to use a data dashboard for monitoring and planning. The Health Situation Room has established proof of concept, and a demand for data-driven programming.

The evaluation found a limited extent to which the SR was operational as of mid-term (and indeed at present, early 2020). 'Operational' is defined here as country technical teams *independently* managing indicator selection, training of subnational users and all other operational functions such as revising indicators and user accounts (while recognizing that UNAIDS hosts the data integration layer). For example, in Zambia the ICT team reported not to be able to create extra user accounts or revise indicators, without the help of UNAIDS HQ or IT consultants. Kenya and Zambia teams report that they want to use the SR to support community (client) monitoring of health services, but this has not yet been operationalized. Despite progress made, the evaluation could not establish examples of the SR already being used in roll out countries, i.e. that intended users (be they the President or local health managers) access the SR regularly and use this information to make resource allocation or programmatic decisions. The UNAIDS Regional Office and the SR mid-term review[33] both mention reports from Kenya that not just national, but also regional health managers are using the SR, however the UCO reports that county level use is not yet happening but planned for the next CoAg phase. In Zambia, senior officials in Ministry of Health and NAC report to be keen to use the SR, but the screens provided at the 2018 launch are not yet working. Meanwhile, policy makers and parliamentarians who need information on HIV or other health indicators currently directly contact MOH or NAC, who then consult DHIS2 or Spectrum data. In Côte d'Ivoire, the SR is not yet used by the MOH department of health information, nor by the National AIDS Programme. The latter report to actually prefer the DHIS2 dashboard function which is already available.

Key informant interviews and observation confirm that important lessons are being learnt on data visualization in general, and the Health Situation Room too in particular. These lessons reflect similar challenges described in the 2019 mid-term review.

- Lessons on *ownership* include that if the SR scope widens to health, the National AIDS Programme may lose interest, as described for Côte d'Ivoire and Zambia, whereas if the NAC maintains ownership, the capacity/willingness to broaden the SR may be limited, as described for Tanzania. Similarly, when national ICT teams take the lead in the development, continued engagement of programme technical people, i.e. the intended users, needs to be ensured, a lesson from Zambia;
- Lessons on *scope* are that as the scope widens from HIV to health (or even broader), and the range of users from senior political leaders to managers and communities, the development process becomes longer and more complex, the costs increase, ultimately affecting timeliness and sustainability;
- Lessons on *relevance* include that the SR needs to 'compete' with other dashboards, including the DHIS2 visualization dashboard (developed and supported by WHO and others) and the PEPFAR HIV indicator dashboard (developed by Palantir and supported by PEPFAR). Competing dashboards have resulted in discussions about the relative value for money of the Health Situation

[29] See definition in text below.
[30] See definition in text below.
[31] Potentially, SR at the (sub)county level can also be used for monitoring UHC, interest in the Min of ICT
[32] TACAIDS is the multisectoral body under the PM; MOH is interested to use it broader than HIV.
[33] Greenall M, A case study on the Country Health Situation Rooms, 2019.

Room, and the comparative advantage of UNAIDS to support dashboards for indicators beyond HIV.

In conclusion, the Health Situation Room roll out supported by the CoAg resulted in recognition of the usefulness of dashboards by all stakeholders, official launch in three of five roll out countries, capacity building of several cadres of health managers, but also ongoing debate to finalize the scope, target audience and modalities of use in all five countries. Although the SR is not yet being used in CoAg countries, important lessons are learnt that benefit scale up of data visualization dashboards.

3.1.4 Key population strategic information, services planning and monitoring

Although the main focus of the CoAg is strategic information, i.e. more granular estimates and robust health information systems, an overall concern is to fast track strategies to reach key populations[34] at the community level, at city and other sub-national levels. This work includes improved population size estimates, bio-behavioral surveillance and enhanced service coverage through innovative interventions[35]. It later also included incorporating key population service statistics into DHIS routine surveillance, in order to contribute to planning and target setting.

The CoAg initially included activities in support of Fast Track City plans, but this component was moved out of the CoAg (and in some countries continued with support of USAID). Fast track city activities[36] are beyond the scope of this evaluation. That said, UNAIDS Tanzania reports that fast track city plans are still supported under the CoAg to the extent that they are focused on improving strategic information use in those cities, and that activities are proposed for year 4[37].

3.1.4.1. Outputs against workplan

Five CoAg countries undertook a variety of activities in support of key population services, reflecting various country priorities and opportunities. DRC, Mozambique, and South Africa did not include key population activities in their workplans.

1. In India, UNAIDS supported a white paper and piloting of key population mapping and population size estimations, as well as in-depth analysis of HSS and IBBS data. A UNAIDS consultant led the process of developing a white paper on the methods followed in India for mapping and size estimation of key populations, which was accepted and approved by the Government of India. With technical assistance from UNAIDS, CDC and WHO and leadership of NACO the methodology, guidelines and training material for fresh mapping and population size estimates (PSE) of key populations was piloted in select districts, with roll out being planned for later (beyond the CoAg). Another UNAIDS consultancy supported in-depth analysis of HSS and IBBS data, resulting in an IBBS technical report as well as a series of scientific papers on various programmatically relevant themes, published as a special supplement in the Indian Journal of Public Health.[38] CoAg support in expanding the scope and volume of analysis of surveillance and estimations data is greatly acknowledged by the national programme[39].
2. In Zambia, the CoAg result framework includes activities to develop a plan of action with particular focus on key populations and to convene workshops on key population service gaps[40]. In the first year (2016/17) the CoAg supported a UNODC assessment of HIV services in prison settings, as part of UNODC earlier and ongoing programming in prisons under the umbrella of the UN Joint Programme in Zambia. In year two, the CoAg supported the Population Council to undertake one-day sensitization workshops on key population services in seven urban districts[41] with District AIDS Councils, advocating with health workers, social welfare officers, police, and other decision-makers.
3. In Côte d'Ivoire, key population activities started in Year 2 (2017/8), with a mapping of key population services provided by NGOs that are funded by PEPFAR or Global Fund. In Year 3, Alliance Côte d'Ivoire (principle recipient for the Global Fund) was supported to undertake a situational analysis on programmatic mapping (i.e. microplanning for key population outreach), harmonization of service protocols and data collection tools, and capacity building of the NGOs' M&E staff to use these newly developed tools. This should enable them to analyze and use this data for programmatic decision

[34] The CoAg and UNAIDS define key populations as men who have sex with men, transgender people, sex workers, people who inject drugs and prisoners & other incarcerated people.
[35] CoAg Annual Progress Report Year 1.
[36] Kenya supported 3 fast track city plans with a focus on informal settlements and Namibia supported 3 city plans with focus on young people, males, and key populations.
[37] Dar-es salaam, Mbeya, Mwanza, Arusha. Source: Year 4 proposal.
[38] Indian J Public Health 2020;64, Suppl 1.
[39] Country visit and CoAg annual progress report.
[40] CoAg Result Framework Zambia.
[41] Livingstone, Kitwe, and Solwezi and later in Lusaka, Kabwe, Choma and Ndola.

making (e.g. microplanning for outreach activities). An evaluation is planned in 2020 by Alliance Côte d'Ivoire in collaboration with the National AIDS Programme on the use of harmonized tools.

4. In Namibia, UNAIDS commissioned in year 2 a 'social protection assessment', identifying barriers to social services for PLHIV, to inform the national policy on social protection. This assessment used a UNAIDS methodology[42]. In year 3 UNAIDS supported NANASO (Namibia CSO Network) and key population organizations to develop M&E systems for key population services, in order to report to the National AIDS Programme in the context of a planned social contracting system.
5. In Tanzania, in year 3 (2018/19) a UNAIDS consultant undertook a mapping of service providers for key populations and their service protocols and organized a meeting to start standardization of service indicators, in line with national monitoring systems.
6. In Kenya, planned activities for year 1, to discuss the use of biometrics and key population size estimates, never happened. After objections from community groups about using biometrics in IBBS were settled, further key populations activities were left out of the year 2 workplan.

At global level, the UNAIDS Strategic Information Unit implemented two distinct sets of activities related to key populations, with additional funding from the CDC Prevention Unit:

1. The CoAg funded a consultant to develop guidelines for PrEP target setting for national and COP planning, building on earlier development work on PrEP target setting tools and a pilot in Thailand. The PrEP target setting guidelines will be piloted in Vietnam (for key populations) and a Sub-Saharan African country (for adolescent girls and young women), before being finalized.
2. The CoAg also funded a literature review and synthesis on the relationship between urogenital schistosomiasis and HIV transmission. This resulted in a 2019 UNAIDS reference guide[43] and papers presented at three international HIV and SRH conferences.

3.1.4.2. Assessing the achievements of short- and medium- term outcomes of the CoAg

The CoAg enabled several UNAIDS Country Offices and the UNAIDS SI Unit to further their efforts in promoting HIV interventions for key and vulnerable population, but the contribution of these activities (whilst important in and of themselves) to "strengthening public health capacity and strategic information systems" is variable. The two intended outcomes of the CoAg related to key populations are 1) to include data from community-based services into routine surveillance, and 2) to fast-track strategies to reach key populations at the community level, including improved population size estimates, bio-behavioral surveillance and enhanced service coverage through innovative interventions. The table below provides an overview of outputs under these outcomes.

Key population related outcomes and outputs years 1-3

Expected Outcomes	Outputs (years 1-3)	Country
HIS includes CBO services	KP service mapping & service indicator standardization[44] Reporting systems (incl. UIC) developed/agreed with NGOs (with respect for confidentiality)	TAN
	M&E plan, including reporting system & indicators for NGOs on KP services	NAM
	KP activity stalled because of difficulties on biometrics in the IBBS	KEN
Fast track key population strategies	TA for NGOs on mapping/microplanning	CIV
	Key population services mapping	TAN
	Consultancy on IBBS analysis, focus on migrants, PWID & TG	IND
	Consultancy to develop & pilot national PSE guidelines for KP	IND
	Assessment & report on social protection services and HIV	NAM
	UNODC assessment of prison HIV services	ZAM

[42] HIV-sensitive social protection assessment report, MOHSS, 2018; KII UCO.
[43] No more neglect: Female genital schistosomiasis and HIV - Integrating sexual and reproductive health interventions to improve women's lives, UNAIDS, 2019.
[44] Report pending – with support from UNAIDS according to CDC.

Expected Outcomes	Outputs (years 1-3)	Country
	District AIDS Committee sensitization on KP (3x)	ZAM
	KP activity stalled because of difficulties on biometrics in the IBBS	KEN
	PrEP target setting guidance	Global
	Report on genital schistosomiasis	Global

Two countries made progress towards the first relevant CoAg objective 'to support [countries to] use unique identifiers, include data from community-based organizations providing services, and identify sub-national programme gaps.' The evaluation found that progress is made in Tanzania and Namibia to include key population service data into the DHIS2, which in future could inform national estimates and projections. In Tanzania, CDC reports that a government-led technical working group on key populations and a KP Forum (CSO) both discuss how to include routine data into DHIS2. Tools and systems (including unique identifiers) are developed and agreed, but not yet implemented. In Namibia, a system is agreed with NGOs that combines PEPFAR/GF reporting indicators, to be piloted as part of a new social contracting system for key population services. Similarly, in Côte d'Ivoire, the CoAg supported implementing partners of PEPFAR and Global Fund to harmonize their M&E systems, however CSOs do not report to MoH, but to their funders. In Côte d'Ivoire, the focus of NGO capacity building is on improving service protocols and harmonizing M&E, not on reporting service statistics to the Ministry of Health.

The India technical assistance on IBBS and PSE and the support for NGO reporting to the MoH (Tanzania and Namibia) contributes to the second CoAg objective and is encouraging. In India, the support focused on analysis of the IBBS with a focus on PWID, transgender people and migrants, resulting national population size estimation guidelines for key populations[45], led by NACO. The draft PrEP target setting guidelines have the potential to contribute to planning service delivery for key populations.

There is little evidence (yet), nor a clear theory of change of how other supported key population activities contribute to improved quality or coverage of services for key populations. For example, advocacy for key population services took place in Zambia, Namibia, and Côte d'Ivoire, and globally. In Zambia, the prison assessment helped UNODC with their ongoing policy dialogue with the prison authorities. The Population Council advocated successfully with District AIDS Committees and local decision makers, resulting in commitment to key population services in a challenging national context where homosexuality, drug use and sex work continue to be classified as criminal offense. Similarly, service mapping for key populations took place in Tanzania and more specific, social service mapping for PLHIV in Namibia, both informing UNAIDS advocacy with relevant ministries. The technical report and articles on HIV and female urogenital schistosomiasis have been effectively used for advocacy at global and regional levels. The prevention work, PrEP target setting and research on HIV and schistosomiasis, though useful and effective, does not seem to fit well in the theory of change of the CoAg.

3.2 Coherence

A key issue explored in this evaluation is if there is evidence of impact of the CoAg at a level that is more than the sum of the achievements and outcomes at country level.

3.2.1 Country achievements and synergies at health system level

In some CoAg countries, the portfolio of CoAg supported activities appear to be an unrelated list, without specific focus on a higher-level outcome to which multiple activities contribute. Within a country, CoAg planning occurs on a year to year basis, due to the PEPFAR funding cycle. The uncertainty of award amounts in subsequent years, and the variability between award and disbursement creates challenges for providing resource-based support to medium or long-term projects that have the potential to make significant impact at health systems level. Some multi-year activities have occurred unintentionally when a delay in an activity resulted in carry-over funding for implementation into the new year. Because funding amounts are modest and uncertain, some UNAIDS staff mentioned that it can be difficult to sustain momentum among implementing partners or retain some technical experts/consultants.

[45] White Paper on Population Size Estimation in India, 2018, NACO.

While there is a perceived dynamic in the relationship between PEPFAR and national government counterparts, CoAg activities do not appear skewed to respond to PEPFAR demands to the detriment of a nation-wide benefit. The evaluation team also explored whether the pressure for the CoAg to produce strategic information specially catered for PEPFAR-use had led to conflicts with UNAIDS's attempts to promote a national strategic information agenda. Both UNAIDS country directors and strategic information officers acknowledged this pressure, but also described their role in advocating for approaches which apply comprehensively to national priorities. In countries where domestic funding comprises a large proportion of AIDS spending, PEPFAR may have a stronger incentive to align with national government. Several UNAIDS team members also pointed out that even in countries where PEPFAR funding is critical, many national government counterparts have strong voices to challenge demands from PEPFAR. One UNAIDS SI advisor described an experience of working closely with the Ministry of Health counterparts to review and prepare data for a COP planning meeting. And at the meeting itself, as the PEPFAR team described how there would be 'X number of PEPFAR areas,' the ministry representative countered strongly, that 'there were not X number of PEPFAR areas, but there would be X number of areas with PEPFAR supported sites,' and that the ministry would ensure that within those areas, other partners would provide support to other sites, to ensure proper service coverage in all priority areas.

Perhaps the greatest synergy resulting from the CoAg are not the result of directly funded activities, more than how the CoAg has contributed to UNAIDS role as a facilitator of partnership between technical agencies in country. Of particular note is UNAIDS's effort to build, engage, and promote national Technical Working Groups. These groups have been supportive of developing more robust estimates, explaining what the estimates mean and how they can be used, and in many countries have provided similar technical oversight and inputs to a range of surveillance activities, and analysis and use of routine health facility data. One UNAIDS country director also described the importance of having the TWG develop a consensus list of SI priorities. Such a list was cited as the basis from which the activities included in the CoAg annual plan was derived. And because the CoAg funds were insufficient, the TWG priority list was also the basis for planning the allocation of other sources of SI funds available in country. By discussing and agreeing on SI priorities, a TWG (with the support of UNAIDS and CDC) can also look for synergies across SI activities, regardless of funding source. For example, how can GF supported data quality reviews in high burden facilities focus on PMTCT data, which will fill a key limitation in the HIV estimates supported through the CoAg. How can the capacity building plan for district level managers to use estimates in planning, build on training these managers received on cascade analysis six months earlier?

3.2.2 Country outcomes and broader regional/global results

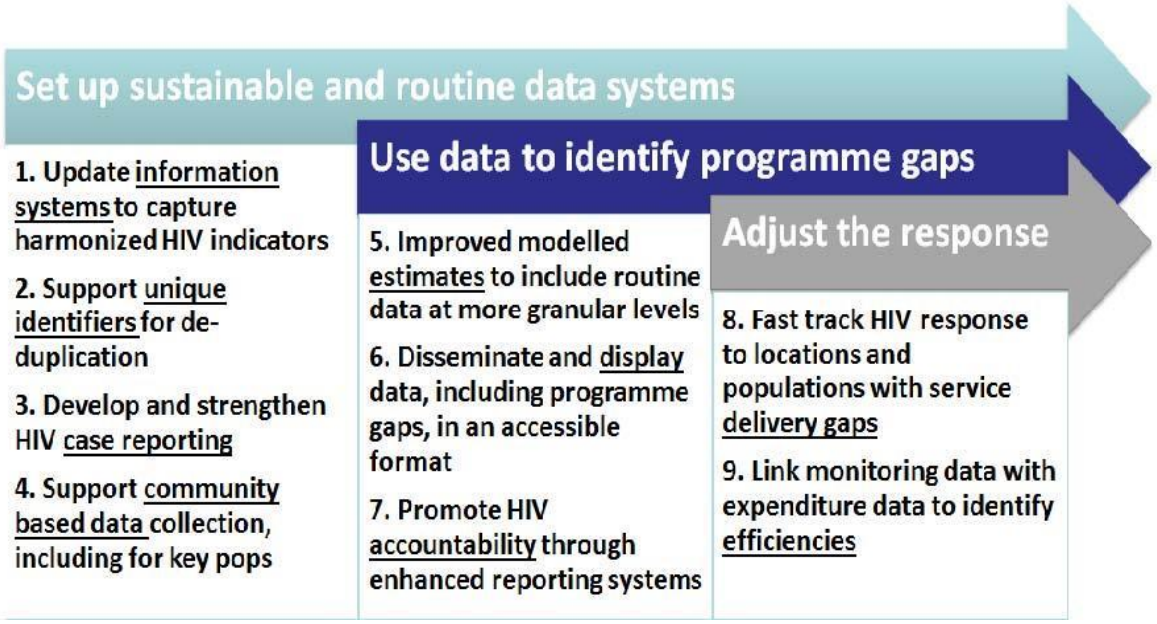
Global level CoAg activities, such as regional workshops for the estimates, naturally have some consistency because they are designed and implemented by a central body (UNAIDS HQ staff). Biennial workshops which bring country teams from across the region together also build a cohort of experts in the region engaged in the estimates process. Similarly, a meeting hosted by the Kenya country team to have a consultation of the UNAIDS Estimates, Projections and Modeling Reference Group and Avenir Health to test a newly developed incidence fitting model, included the participation of 4 other country teams in the Nairobi meeting in an effort to extend the learning experience. Kenya's proposal to become a type of Modelling Technical Support unit in the region also points to the potential for cross-country learning and resource sharing, in terms of technical knowledge.

However, opportunities for inter-country sharing have been ad hoc and sporadic. In several interviews with key informants, CDC staff expressed lack of awareness of how the CoAg functioned in other countries, including the type of activities and the amounts of funding allocated.

Some staff have knowledge of the experience in other countries due to their normal rotation of duty station during the period of the CoAg. When giving recommendations about the design of the cooperative-agreement, one CDC key informant proposed having a face-to-face meeting of all CoAg countries, particularly for CDC teams to share experiences and lessons learned, and potentially inviting a UNAIDS HQ representative to attend. There is some advantage for separate meetings for UNAIDS and CDC organizationally. These meetings could occur either face-to-face or virtually to share good practices and successful approaches, including those to build partnership with the other organization. But more importantly, an inter-country meeting may also provide an opportunity for both organizations to strategize on a coherent SI agenda that guides the CoAg activities in country.

3.2.3 A CoAg theory of change

The CoAg does not have a specific Theory of Change, but project documents refer to the broader UNAIDS SID Theory of Change. This TOC starts with the strengthening of health information systems and routine data; analyzing the data to inform planning and programming (by generating estimates and data dashboards); and then adjusting programming accordingly. This TOC encompasses a broad array of strategic information activities that may not be centered on the HIV estimates, including the improvement of the quality of numerator data (i.e. number accessing HIV services) which is needed for robust cascade analysis and data related to supporting services for key populations.



The UNAIDS TOC incorporates all CoAg supported activities and could support synergies, but at the country level it is not used to select or prioritize activities. In interviews with key informants, neither did UNAIDS nor CDC country level staff interviewed reference a theory of change when explaining how activities were selected, how action plans were developed, or what medium term outcomes were expected and tracked. This is a missed opportunity to build more strongly toward higher level outcomes. In some cases, the availability of new streams of PEPFAR funding, e.g. community led monitoring has created a large shift in the portfolio of the CoAg in countries. While UNAIDS country offices are appreciative of the opportunity for additional funding, the coherence of the CoAg becomes diluted and diverts resources from earlier identified priorities. This lack of coherence also occurs at the global level. Small amounts of funding for SI to support prevention were added to the action plan to support PrEP target setting and urogenital schistosomiasis normative work, but do not relate to other activities at the global level or even within the CoAg countries.

In practice, the established annual schedule for generating HIV estimates dictates the main components of the CoAg action plans with remaining funding allocated toward activities based on requests from government counterparts, Technical Working Group (TWG) or priorities of PEPFAR implementation sites. Putting the HIV estimates central to the CoAg is understandable, as it reflects the most productive and most valued aspect of the CoAg activities as articulated by a wide range of stakeholders. Yet, it would offer a very narrow perspective on how SI is used to improve programmes, because a country may have other strategic information priorities beyond improving their estimates. Many country action plans do in fact already include a wide range of SI activities which are not directly related to the generation or use of the estimates and stakeholders value the flexibility offered by the CoAg funding to meet the broader strategic information priorities defined by the national Technical Working Group or national programme. Using the UNAIDS TOC, or an adapted version might create more synergy and coherence.

3.3 How was it achieved?

This chapter aims to identify lessons on implementation of the CoAg.

3.3.1 Responsiveness of CoAg activities to country stakeholders' needs

UNAIDS and CDC informants explain that in most countries, the annual workplans are developed by UCO and CDC jointly, with 'light' review from the UNAIDS SID and CDC regional office. As mentioned above under coherence, there is a tendency to add activities to the workplan that may deviate from the overall CoAg Theory of Change, but which reflect UNAIDS or CDC priorities. UCOs may propose activities related to strategic information or key populations with variable relation to HIV estimates or HIS. For example, Tanzania UCO included costing of the national M&E plan, Namibia a social protection assessment. CDC may accept these or not - some CDC country offices don't invest much time in reviewing the workplan as long as the basics (i.e. HIV estimates) are covered, because the value is too small. Other CDC offices do review and may refuse proposed activities, as was the case with to support for electronic medical records in one country. UNAIDS respondents from Regional Support Teams and SID indicate that their prior review of draft country workplans may improve coherence and add value, for example to fill gaps in epidemiological data underlying the workplan, even though they recognize the transaction costs involved.

Government counterparts, typically the National AIDS Commission or the MoH HIV Unit, are involved in annual planning, but typically at a late stage, i.e. to sign off on the workplan. The Tanzania UCO recognized that counterpart involvement takes time (often because there are multiple counterparts and diverse interests and priorities), but that timely planning gets around this[46]. A regional UNAIDS staff member recognized that CDC tends to work with strict deadlines for planning, leaving little room for meaningful involvement in planning and prioritization, risking limited government ownership. Similarly, UNAIDS recognizes government buy in as a challenge for the Situation Room, as this is initiated by UNAIDS. That said government respondents in the case study countries and the (limited[47]) survey responses generally express that the CoAg activities reflect their needs.

The evaluation did not find examples of community representatives or CSOs being involved in annual workplanning and prioritization. That said, there is evidence that civil society organizations are involved in the conceptualization and planning (and of course implementation) of specific CoAg activities.

3.3.2 Timeliness

An important reason for reported implementation delays is the need to collaborate with multiple country counterparts. Tanzania UCO reported that iterative process of developing an annual workplan is time-consuming and requires good planning[48]. Counterparts may not be available for CoAg activities, for example Côte d'Ivoire reported that NAP staff were working on a Global Fund concept paper in year 1, and in year 2 not regularly available for coordination meetings, and occupied with their GF funding requests[49]. In some cases, the counterpart was not able to undertake activities as planned, which may nor may not have been anticipated. For example, in Côte d'Ivoire the NGO support work was initially contracted to the NAP but had to be re-contracted to Alliance Côte d'Ivoire due to lack of capacity (which subsequently needed UNAIDS Regional Support Team approval)[50]. In Kenya and South Africa, the governments were slow and/or late in recruiting consultants[51]. And finally, delays may happen because government counterparts have no ownership or interest in the CoAg activities. For example, in Côte d'Ivoire the MoH reported not to be interested in the proposed HIV specific unique identifier system and prefers to develop one for broader health and social services first. The same is reported for South Africa, where the MOH wants to develop a UIC Policy first[52]. Other examples are reported for the Situation Room, where countries are reluctant to share data (Mozambique) or to use an out-of-country data warehouse (Namibia).

Delays in fund disbursement can also delay implementation, as elaborated under 3.3.6.

[46] Annual progress report, lessons learnt
[47] As mentioned as a limitation, the response rate of government counterparts to the survey was limited. These findings reflect KII, including government staff in 3 countries and the Namibia/DRC survey responses.
[48] CoAg Annual Progress Report Year 2
[49] CoAg Annual Progress Report Year 1&2
[50] CoAg Annual Progress Report Year 2
[51] CoAg Annual Progress Report Year 1&3
[52] CoAg Annual Progress Report Year 2

3.3.3 Collaboration

3.3.3.1. Collaboration between UNAIDS and CDC.

CDC informants value UNAIDS as a partner for several reasons, including staff at global, regional and national levels with skills in generating HIV estimates and projections, as input for PEPFAR programming. At country level, an important value of UNAIDS for CDC is that the as a multi-lateral, United Nations has no outside agenda and is a trusted partner of government. This position makes UNAIDS a natural convener of working groups, advisory platforms and partners with competing agendas and interests. One CDC staff indicated that the value of the CoAg recognizes the challenges CDC has had with the relationship with the counterpart government. In other countries, the CoAg provides a reason for more CDC–UNAIDS collaboration per se. Some regional UNAIDS respondents confirm the tendency of CDC (and PEPFAR) to prioritize PEPFAR supported services and geographies over nationwide systems and strategies. For example, in Côte d' Ivoire and Zambia the case-based surveillance serves mainly for deduplication and reporting to PEPFAR. However, the evaluation found that UNAIDS country offices are generally able to push back if needed and implement CoAg activities in a manner that supports broader national strategic information capacities.

For UNAIDS, the value of the CoAg is the opportunity to supply critical data to guide spending by one of the largest global donors, and so promote allocation of resources down to the district level[53]. The CoAg gives a formality to the existing technical relationship between UNAIDS HQ SI and the CDC HQ SI staff, providing more context and reason to meet and collaborate on technical issues. Finally, as a standing mechanism it makes it easier to move money from CDC to UNAIDS, especially at HQ level. For UNAIDS country offices, the value of the CoAg is also more than the funding. The CoAg helps UNAIDS country offices to engage CDC and to provide quality inputs into the National strategic framework, COP planning, GF proposals, etc. That said, CoAg funds are also an opportunity to undertake priority activities in the area of strategic information or key populations. For example, in Namibia the CoAg funds allowed roll out of the UNAIDS HQ social protection assessment tool, and Tanzania UCO to undertake a costing of the TACAIDS M&E workplan. CoAg funding can also leverage additional support, for example the HIV Fast Track cities initiative started under the CoAg was picked up with larger USAID funding in countries like Kenya and Zambia.

Representatives of CDC and UNAIDS mention that collaboration has improved through the CoAg. To be true, a certain amount of pre-existing collaboration is often the reason that CDC country offices buy into the CoAg in the first place. But in most cases, joint implementation increased understanding of each other's' work and priorities. For example, in Kenya UNAIDS involvement in COP planning helped increase collaboration[54]. Regular scheduled meetings between CDC and UCO, as in DRC (for coordination) and Namibia (for monthly routine surveillance data cleaning), are seen to improve collaboration and help reporting on progress. Accountability can be a source of tension, for example in Kenya, CDC reports that UCO is reluctant to report to CDC, because the reporting requirements are not fully understood or accepted. This results in too much time managing the CoAg, which is not efficient given the size of the award. The evaluation noted that the good collaboration between CDC and UNAIDS technical staff at headquarter level greatly facilitates collaboration at country level.

In some cases, CDC expectations about the CoAg or the collaboration with UNAIDS are more than realistic, but this seems to be mostly amicably settled. In Côte d'Ivoire, CDC expectations about UNAIDS contracting a preferred provider did not consider UNAIDS' rules for contracting and due diligence, resulting in some frustration about the long process. In Zambia, CDC may have had unrealistic expectations about UNAIDS' influence on government partners to ensure their timely responses to CDC requests for additional information to inform COP planning.

3.3.3.2 Collaboration with others

The CoAg enables both UNAIDS and CDC country offices to collaborate better with government counterparts. The key counterparts for both UNAIDS and CDC in CoAg countries are the National AIDS Commission and Ministry of Health, and their relevant departments. Typically, UNAIDS facilitates and convenes multiple stakeholders, while ensuring that the MOH/NAC are in the lead. For example, in DRC UCO and CDC meet regularly, only occasionally are government and NGOs attending, but MOH/NAC are involved in all activities and send out all invites for CoAg supported events.

UNAIDS has an important mediation function between CDC and government. For example, when USG used estimates for the COP planning that were not yet officially endorsed in Kenya, UNAIDS was able to facilitate the National AIDS Programme to re-engage with USG. Another example is the change in the global

[53] UNAIDS SID KII
[54] UCO KII

timelines for generating national and district HIV estimates to accommodate the PEPFAR/COP development process. UNAIDS shifted the regional workshops and Global AIDS Monitoring (GAM) submission deadlines in year 3, but acknowledge the additional stress felt by many country teams. Key informants interviewed in one country described how this change in schedule created tension between CDC and the Ministry of Health. The UNAIDS country office found itself having to mediate this conflict. This situation underscores the fine balance between meeting CDC's needs as the source of the CoAg funding and ensuring country ownership and buy in to the work.

In convening technical working groups and platforms under NACO's ageis, UNAIDS also brings other technical partners to the table and the CoAg activities. For example, in India, UNAIDS reports it was able to foster close collaboration among strategic information partners, led by NACO, with NIMS[55], NARI[56], WHO and CDC. Similarly, in Mozambique UNAIDS facilitated a NAC-led National HIV Multisectoral Technical Working Group, with strong buy in for the planned activities and weekly project monitoring meetings[57]. UNAIDS DRC reports that the CoAg brought together key donors (Global Fund, PEPFAR, CDC) and UNAIDS Cosponsors (WHO, UNFPA, UNICEF and WFP)[58]. UNAIDS tends to involve community representatives where relevant, especially in activity areas like key population programming, and in DRC UNAIDS claims being successful at getting civil society involvement in the COP planning process.

The evaluation found that there is little collaboration between CoAg countries, even though several UNAIDS staff have moved between CoAg countries in the course of the years. UNAIDS SID staff suggest that it might be useful to have a regional component to the CoAg, to share experiences between countries, for example on strategic information related to key populations[59]. Also, CDC staff suggested to share experiences, possibly through an annual meeting, preferably of CDC offices with UNAIDS SID.

3.3.4 UNAIDS Capacity

3.3.4.1 Are skills and capacity of UNAIDS staff sufficient to deliver on the objective of the CoAg?

As mentioned before, informants from CDC and counterpart governments agree that one of the assets of UNAIDS is skilled human resources in strategic information, especially for HIV estimates and projections. Country teams and SI advisors are regularly trained on the HIV estimation systems. UNAIDS SI department recognizes that this is the area of comparative strength of current UNAIDS staff, more so than strategic information areas that go beyond HIV, e.g. UIC for general health services. Looking forward, they therefor see the HIV estimates work as a core component and strength of the CoAg[60].

3.3.4.2 Human resource management

UNAIDS has faced some human resource management challenges in several countries. For example, India and Mozambique faced problems filling the SI Advisor position, requiring short term interim arrangements with high transaction costs[61]. On the other hand, in South Africa the transition of SI advisor went smoothly. In Côte d'Ivoire, CoAg management required recruitment of a full-time consultant, which significantly improved implementation according to several informants.

3.3.5 Gender, equity, and human rights

Although equity concerns are clearly reflected in the *design* of the CoAg, there is little evidence that gender, equity, and human rights are incorporated in the *implementation* of the CoAg. The design of the CoAg reflects the Sustainable Development agenda principles of "leaving no one behind" and to "to reach the furthest behind first". More granular information is meant to identify HIV service gaps and needs, especially for remote and vulnerable population groups. The strategic information systems promoted and supported through the CoAg are meant to help disaggregate national and subnational data on gender, age, behavioral characteristics etc., to identify those left behind and to fast track the HIV response. The evaluation found mixed evidence on how gender, equity and human right concerns translate into the implementation of the CoAg. On the one hand, several countries have made use of opportunities to engage with key population services (Tanzania and Côte d'Ivoire engagement with KP service providers) or addressed equity concerns related to access (Namibia social protection assessment). On the other hand, these activities are marginal to the CoAg and there is little evidence how equity and rights, or for that matter community involvement are integrated into HIV estimates, and routine surveillance work. For example in Zambia the Unique Identifier

[55] National Institute of Medical Statistics
[56] National AIDS Research Institute
[57] CoAg Annual Progress Report Year 2
[58] CoAg Annual Progress Report Year 2
[59] UNAIDS SID KII
[60] UNAIDS SID KII
[61] CoAg Annual Progress Report Year 2&3

protocol developed as part of the CoAg does not address human rights or confidentiality aspects (whereas the WHO guidelines on UIC insist they should), and community representatives in Côte d'Ivoire express concerns about the biometric system promoted for case based surveillance. It is encouraging that in South Africa, there are plans for a community dialogue on UIC.

3.3.6 Financial management and resource inputs

3.3.6.1 Award, expenditure, and absorption

The total award in the first three years was US$ 7,4 million, of which US$ 5,1 million was spent, i.e. an absorption rate of 69%. The table below provides an overview of the award and expenditure per country, and for the activities supported through the UNAIDS SID unit. UNAIDS considers a low absorption rate is a risk because it could be seen as an indicator of performance. However, absorption is reported to depend on many external factors, for example late release of the award, activities turning out cheaper, or proposed activities not being accepted by the counterpart government[62]. When CDC knew that CoAg funding for year 3 would be less than anticipated, UNAIDS was also asked to economize and carry over year 2 funding.

Awards and expenditures per country[63]

	Year 1			Year 2			Year 3		
	Award	**Exp**	**%**	**Award**	**Exp**	**%**	**Award**	**Exp**	**%**
CIV	100.000	99.999	100%	350.000	193.413	55%	270.787	230.019	85%
DRC	50.000	50.000	100%	323.432	238.988	74%	84.444	76.218	90%
IND	200.000	199.999	100%	550.000	259.295	47%	250.000	200.262	80%
KEN	100.000	93.686	94%	200.000	144.099	72%	102.327	81.708	80%
RSA	250.000	249.997	100%	350.000	177.882	51%	249.950	91.619	37%
ZAM	650.000	626.099	96%	300.000	284.723	95%	224.768	185.590	83%
MOZ				300.000	83.686	28%	456.314	181.241	40%
NAM				100.000	93.699	94%	51.462	8.926	17%
TZA				200.000	139.989	70%	276.329	77.405	28%
ESB[64]	560.000	558.908	100%	300.000	-	0%	300.000	298.810	100%
PREV[65]	200.000	162.954	81%	15.000	15.000	100%	37.047	13.554	37%
Totals	**2.110.000**	**2.041.642**	**97%**	**2.988.432**	**1.630.775**	**55%**	**2.303.428**	**1.445.352**	**63%**

[62] UNAIDS SID KII
[63] Source, UNAIDS SID
[64] ESB = UNAIDS SID for estimates work
[65] PREV = UNAIDS SID for PrEP target setting and schistosomiasis report.

One of the challenges for monitoring CoAg activity areas is that the UNAIDS financial reporting system (ERP) does not specify CoAg activity areas, therefore spending per activity area is hard to determine[66]. Although the evaluation team was provided annual narrative progress reports to CDC and semiannual progress reports to UNAIDS SID from the country offices, UNAIDS does not seem to translate the ERP reports in expenditure reports to CDC.

The selection of countries to receive an award is not systematic. Country engagement was mostly based on which CDC country offices are interested in using the CoAg to funnel funds to UNAIDS country offices, and depends on the money available from the COP. The CDC SI unit reports to regularly advertise the opportunity to CDC country offices; the evaluation found no examples of UNAIDS country offices themselves actively soliciting support from CDC at the country level. Recognizing the high transaction cost of managing relatively small grants, UNAIDS SID managers mention that it may be more efficient to focus the CoAg around a smaller number of common activities and select countries more strategically. They do not actively push countries to engage in the CoAg.

3.3.6.2 Financial management

A challenge for financial management of the CoAg is the unpredictability of the award, and the award disbursement. A first aspect of this is that there is a mismatch of financial years between CDC (October - September) and UNAIDS (January-December). This also affects reporting and implementation, because the first quarter of the workplan is when UNAIDS country offices are winding down their year. Second, the *actual* award per country depends on the funds available to CDC in the COP, which is finalized after the start of the year. Therefor the award can be higher or lower than the budget for the workplan agreed for the year. Third, the awards are made in two, not regular or predictable installments. Finally, in some cases CDC country offices use the CoAg as a "pass through" mechanism, i.e. using the CoAg to fund additional activities, which may add to the award halfway the year. This happened in Côte d' Ivoire where UNAIDS was requested to contract a service provider for ICT support. This practice is discouraged by UNAIDS SID, as the focus of the project goals gets diluted, and it increases reporting requirements for the UCO SI Advisor.

Avoiding delays in implementation at country level requires well trained and sensitized staff at HQ, regional and country level. Delays in disbursement are reported by several countries offices and by the UNAIDS SI department. Disbursement of funds is from CDC to UNAIDS HQ and subsequently to UNAIDS Country Offices. Regarding CDC awards to UNAIDS, in the first two years CDC disbursement was late, resulting in a very low absorption in year 2 and a carryover of 34%[67]. Having a dedicated project officer has helped resolve some of the challenges and administrative requirements to release the CDC disbursement[68]. Delayed disbursement from UNAIDS country offices happened because contracted activities over a US$ 15,000 require UNAIDS RST internal review, even if HQ has already approved the workplan. This resulted in delays in Zambia and Côte d' Ivoire (where there were questions about the 'pass through' contracting procedure) and subsequent delays in implementation. Several country offices also reported that they solved the problem of late disbursement. For example, South Africa reported late release in year 1, but anticipated this in subsequent years with no further impact on activity implementation. And Tanzania reported that they learned how to submit release requests on time. Still, CDC informants express concern about delays in fund release to countries, as it affects implementation. Also, several country level implementing partners mentioned that the UNAIDS disbursement rules (release in tranches) can result in implementation challenges. Some one-off activities require upfront full payments, for example trainings. For the situation room training in Côte d'Ivoire, organizers had to split the training in two separate events, or invited fewer participants than planned for, to avoid having to advance from other budgets.

The financial management of the CoAg is challenging for the UNAIDS SI department and the transaction costs are relatively high compared to other constructions. UNAIDS SID (and CDC) acknowledge that managing the CoAg funds is very intensive for the relatively small amount of funds. Especially in the first years it was very time-consuming, despite having a fulltime project officer who is also responsible for planning and reporting. There have been four different project officers since the beginning of the CoAg, and one former project officer suggests that it is important to provide early and appropriate financial management training. The evaluation found that other funding for UNAIDS SID, for example grants, are administered through the UNAIDS resource mobilization unit, rather than by SI team. This relieves the management burden on the SID team; however, the advantage of the CoAg is that the SID team has more control and oversight over how the money is spent. UNAIDS is considering how future CoAg funding could be managed differently from an external perspective (e.g. grant vs. CoAg) and internal perspective (e.g. managing fund through the resource mobilization unit vs. within SI).

[66] UNAIDS SID KII
[67] CoAg Annual Progress Report Year 2
[68] UNAIDS SID KII

3.4 Will achievements and outcomes last?

Sustainability is explicit in the stated objective of the CoAg as described in project documents, particularly with respect to strengthening health information systems, but also in terms of strengthening capacity of countries to generate HIV estimates. This evaluation explored the sustainability of how and what the CoAg produced as a general implementation principle applied to all CoAg activity areas in three modes: capacity building, investment in low-cost, low maintenance tools, and government ownership and buy-in

3.4.1. Capacity Building

Capacity building of in-country staff and more specifically of government counterparts is a critical implementation strategy for CoAg activities. The feasibility of implementation depends on having a sufficient number of trained people who can carry out technical SI tasks e.g. generating district level estimates for all SNU2 in a country. But in-country capacity, especially within government counterparts also leads to sustainability in the absence of external funding or technical support. Effective capacity building requires purposeful design, from articulating clear learning objectives and outcomes of capacity building, selecting the right type of person to receive capacity building, ensuring technical and pedagogical competence of trainers, delivering training in an effective format, designing user-friendly tools and guidance, and providing sufficient follow-up or refresher training and ongoing support to apply skills. These components should be routinely assessed to determine whether the learning objectives have been met and whether the format of capacity building was cost-effective. There were four main modes of capacity building supported through the CoAg:

- Regional Workshops (both inter country and intra country, e.g. for Provincial health officers, or district health officers) in which teams representing different geographic areas are trained simultaneously. Multiple regional workshops with the same agenda may be held to ensure coverage of a larger area. (All CoAg countries);
- Consultative meetings with technical experts. These involve presentations or panel discussions around technical topics, bringing high level international expertise to consult on specific challenges faced by in-country teams, usually to address methodological issues and innovations. (India, Mozambique, and Kenya);
- Supporting in-country working groups responsible for strategic information activities, e.g. Technical Working Group for Epidemiology and Surveillance, and Modeling. This includes revitalizing or restructuring a group of technical staff to be responsible for developing and maintaining expertise in HIV strategic information and providing technical oversight. (India, Mozambique, South Africa, and Kenya);
- Engagement of national research institutes to work in partnership with the government to support modeling and analysis. (South Africa – University of Cape Town; India – ICMR and AIIMS).

By far, the greatest amount of resources has been invested in the regional workshop style of capacity building, both at global and country level. The achievements of regional workshops are described by UNAIDS and CDC offices in terms of production of outputs such as the HIV estimates, a district plan, or a report (e.g. district profile, technical brief, etc.) The assessment of skills and ability for participants to replicate these outputs independently is not systematically evaluated or integrated into workshop design and adaptation. Key informants could give examples of how a regional workshop format and materials is appreciated by government stakeholders, evidenced by the adoption and scale up of these workshops by other partners. For example, the facility level data quality review for high burden districts in DRC was adopted as the government standard for all districts and funded through the Global Fund. And in South Africa, training to do cascade analysis (HAST 90-90-90) was eventually adopted by NDOH to use in all focus districts.

While government stakeholders may appreciate capacity building products resulting from the CoAg the efficacy or the cost-effectiveness are not necessarily shown. Because these workshops tend to be resource intensive (both in terms of staff time to organize and conduct and in terms of cost for travel and accommodation of participants) investment in evaluation of capacity building could be critical for creating a leaner, more focused, or more continuous process for effective capacity building. A related aspect of assessing cost-effectiveness is whether UNAIDS administrative processes provides the most value for money to rent meeting venues in country, or travel/accommodation of government staff, including administrative overhead, etc. One CDC key informant noted that UNAIDS does not get a cost-effective rate for renting venues because it is an international organization, but as the convener of the estimates workshops in country it pays for costs like the meeting venue.

Case study Regional Workshops for HIV estimates

The Regional workshops put on by UNAIDS – HQ every two years represent a large investment of staff time, consultant fees, and travel/accommodation expenses for teams that may be as large as 8-10 people per country.[69] Key informants express admiration for the ability of UNAIDS to coordinate and organize these meetings, which have taken place for more than 15 years. During the regional workshops country teams receive a refresher of the components of the model and a review of updated model features, then engage in working sessions to update the model inputs using data brought to the workshop. During these sessions, country teams receive technical support from workshop facilitators which may include the model developers, regional and HQ staff, as well as technical consultants.

Following the workshop, country teams refine their inputs and curve fitting to generate the estimates and then submit them for review by UNAIDS – HQ. This process places the ownership over finalizing the estimate squarely on the country team and is part of the capacity building process. UNAIDS HQ staff provide detailed feedback on the estimates which countries must consider and respond to. This review process offers UNAIDS HQ a detailed view of the quality of the estimates, but there is no regular stock-taking of the type of capacity for using the modeling tools at the country level. When asked to describe the level of capacity of CoAg country teams to generate the estimates independently of UNAIDS support, one UNAIDS HQ staff member felt confident that all countries had this capacity. While interviews with key informants in CDC and UNAIDS country offices, offered a more mixed perception of national counter-part capacity.

Without a regular assessment of capacity of country teams, the effectiveness weighed against cost of the regional workshop style of training cannot be assessed. One key informant noted that sometimes updates to the model are completed just before the regional workshops, resulting in bugs that have to be worked out during the meeting, creating a challenge to effective learning. Another key informant proposed that the concentrated period over which the workshops occur and then are followed-up to finalize the country estimates may also rush a process of reviewing inputs that it may be more effective to design a process in which country teams worked on different aspects of the modelling on a more ongoing basis, using a combination of remote learning tools and webinars. The main remote learning tool available to support country teams is a regularly updated document which contains basic guidance for using Spectrum. Titled a Quick Start Guide, the document is not comprehensive but reviews the options available to users for customizing their estimates file and providing 'tips' for considering which options to apply. Training materials such as an organized step-by-step manual for the whole process (not just using the software), illustrative examples, practice exercises, self-learning slide sets, or video tutorials have not been developed. During this period of social distancing and the uncertainty of allowed travel due to COVID-19, one key informant suggested this would be a useful experimentation period for testing new approaches to capacity building.

One constraint of the current regional workshop design is that it is organized primarily by geographic region (and language), rather than by epidemic conditions which impact the model structure and default values or by the level of capacity/experience of the country team. The ability to assess and develop technical capacity of individual participants during the workshop could result in more regional expertise to draw upon to provide in-country technical support moving forward. For example, key informants from the Kenya UNAIDS office describe interest in the Kenya country team developing status as a regional hub for modeling from which other countries could draw on. A more formalized assessment of modeling capacity with respect to the use of Spectrum and Naomi may be useful for certifying consultants available through this type of hub and the aspects of the modeling which they may be best suited to advise and support.

In-country consultation meetings between national and international technical experts not only improved the fit of the models used to better match the country context but have provided the country modeling teams with greater understanding and skills in using these tools. This is another form of capacity building supported through the CoAg. In particular, receiving specific technical advice for adjustments to Spectrum or Naomi models by Avenir and Imperial College, respectively have been greatly appreciated by country teams in India, Kenya, and Mozambique. The consultation held in Kenya to test a new model, included the participation of teams from four other countries to extend the benefit of this high-level technical engagement. Key informants from countries which have received this in-country consultation described the administrative process of contracting with Avenir Health as administratively cumbersome to be repeated by each country requesting their services. One suggestion was that such a contract be issued centrally through UNAIDS-HQ, but drawing down from country-office accounts, and allocating the corresponding number of consultant days based on country annual plans.

[69] CoAg funding provides a significant source of support but is not the only source.

A third common form of capacity building used by UNAIDS in several CoAg countries has been the consistent development and support of a national technical working group responsible for modeling and estimates. They often play an active role in technical oversight of other activities related to surveillance and knowing the epidemic. This type of capacity building may be an implementation strategy for developing a resource group to support a broader portfolio of strategic information activities, it also furthers the objective of sustainability in that it develops in-country expertise that is available to government as well as other implementation partners in the country. Significant investments of time and effort were described by UNAIDS country office key informants in India, Mozambique, South Africa, and Kenya. Although many of these bodies pre-existed the Cooperative Agreement, during the period of the CoAg UNAIDS country offices report sustained or strengthening of TWG member engagement and expertise. In the case of Mozambique, the availability of small amounts of CoAg funding to support TWG activities were perceived to incentivize engagement of members and strengthen the technical recommendations made by the group for both modeling and providing coordinated oversight to planned/ongoing surveillance activities. In India, a strong National TRG structure led by NACO, supported by UNAIDS and engaging the premier research institutes in the country has enabled methodological developments and large-scale adoption of more sustainable surveillance methodologies (e.g. programmatic mapping, BBS-lite). This mode of capacity building makes use of the 'working side-by-side' interaction between UNAIDS staff and TRG members to introduce or reinforce technical advice and approaches and develops a peer rapport necessary to shape technical perspectives of government counterparts through discussion and constructive debate.

A related body in India, the National Working Group for Estimates, is a promising concept. This TWG has also developed an extensive documentation process to minute deliberations of the working group to effectively manage the technical decisions and work plans made by the group and ensure continuity for what is perceived as an ongoing estimates process. This type of documentation is also critical for capturing institutional knowledge in the case of membership turnover. Currently this documentation is available only to National Working group members, but with some investment in organizing or cataloguing decisions-made, could become a useful training tool.

UNAIDS has effectively used CoAg financial resources to support the engagement of research institutes in generating HIV estimates. This final type of capacity building explored in the evaluation is engagement of in-country research institutes to support CoAg activities. While increasing technical expertise is not the aim of this type of capacity building, for example, in South Africa, a majority of CoAg funding is used to support the University of Cape Town further develop and run a specialized epidemic model called Thembisa. Since 2017, this model generates the government endorsed national and provincial level HIV estimates.[70] Similarly, in India, the Indian Council of Medical Research (ICMR) and All India Institutes of Medical Sciences (AIIMS) includes statistical, epidemiological, and community health specialists who are members of the national working group and serve as the facilitators and organizers for the estimates workshops conducted for state and district level stakeholders. Under the aegis of NACO, these institutes have regional assignments and work with the same areas over multiple rounds of the estimates exercise. This helps to establish rapport with sub-national participants and allows them to informally assess the degree of local capacity and geographic areas which need more support. In-country (or sub-regional) technical support was cited by CDC Mozambique as an important factor for more effective and sustainable capacity building and implementation which requires eventual transfer of knowledge and maintenance of systems to government counterparts. Language competency, understanding of local contexts that impact implementation, and more continuous in-person availability all contribute to greater effectiveness and sustainability.

In-country capacity was not systematically documented or monitored as part of CoAg activities, therefor the sustainability of skill transfer is not clear. For example, skills for generating estimates, interpreting, and using data, or conducting data quality reviews/assessments were not assessed pre- and post- training participation, and personnel at national or sub national area were not evaluated for level of skills. In interviews with stakeholders, qualitative descriptions of stakeholder capacity were described, e.g. "many districts can interpret their estimates and use them effectively in planning, but there is still a lot of training needed." Similarly, capacity for country teams to generate estimates independently is not assessed systematically. Some key informants reported that all countries would have the capacity to use the current modelling tools to generate their estimates without UNAIDS support. Others felt that their country teams were heavily dependent on UNAIDS technical support to generate robust estimates.

[70] The district level estimates are not generated through Thembisa because the modeling tool requires too much person-time to fit. In 2018, the University of Cape Town created a user-friendly interface to enable other modelers to use their software. A consultant was engaged to use these tools to derive estimates in 5 districts. But this was determined not to be sustainable. Instead, South Africa uses the Thembisa outputs at provincial level in Naomi to derive HIV estimates at the district level, in a similar way that other countries use Spectrum outputs.

3.4.2 Using lower-resource tools and approaches for sustainability

Within the scope of the CoAg, the Situation Room is the main example of the adoption of tools that do not always follow design principles promoting sustainability. As a general principle, sustainability comes into play in the choice of strategic information platforms or tools countries adopt to perform ongoing data management, analysis and visualization. General principles of design favor non-proprietary software, platforms which are the same or interoperable with those supported by the national government and have hardware or connectivity requirements consistent with resource available widely in different parts of the country. As discussed in detail in chapter 3.1.3, an alternative approach for the Situation Room project design would have been to develop a data dashboard tool which is compatible with existing non-proprietary/open source software, including functionality already built into DHIS2.

In contrast, UNAIDS has advocated for more sustainable approaches with respect to developing a UIC system that could be used beyond HIV programmes, or comprehensively across all facilities, rather stand-alone systems for HIV or even use in selected donor supported facilities. Electronic information systems also require a sufficient number of IT staff who are trained to maintain and fix hardware and software problems. Due to the resource requirements of training users of the information systems who may have other types of job responsibilities (e.g. patient care) the tools selected should have user-interfaces appropriate for the typical type of person using the system. Other routine strategic information activities (such as data review and analysis or producing reports tracking the progress of the response) must be feasible to carry out given the staff available. Analytic and visualization tools that automatically generate basic reports and/or facilitate sharing of analytic products with end-users promise greater sustainability of processes to use and apply strategic information.

3.4.3 Government ownership of CoAg activities

Sustainability of the CoAg impact will require continued efforts to align activities and approaches with government priorities and to actively work to obtain broad buy-in from government stakeholders. As described in the sections on specific activities as well as the section on CoAg responsiveness to country stakeholders' needs (Section 3.3), when there is country-buy in for an SI product implementation occurs much more smoothly and products are more likely to be used. Similarly, when government has endorsed a product or approach (e.g. training methodology) there have been several examples when funding outside the CoAg has been leveraged to sustain the activity or scale it up and is integrated into a government owned process.

4. Utilization of evaluation findings

The following recommendations draw on the findings and conclusions presented in chapter 3, backed up by the evidence generated through this evaluation. The first set of 'strategic action itemss relate to the overall design of the next CoAg, which is currently being negotiated between UNAIDS SID and CDC. A further set of 'operational' action items aim to improve CoAg implementation for the rest of the current CoAg as well as any future collaboration.

4.1. Strategic Action Items

1. Strengthen overall coherence of the CoAg

In the next 5-year agreement, efforts to strengthen the overall coherence of the CoAg will help to align the strategic focus of the CoAg to address current joint priorities of UNAIDS and PEPFAR; provide stronger selection criteria for activities to contribute to cross-cutting objectives and optimize UNAIDS areas of strength; reinforce good design principles of supported activities.

Key steps in the process would include:

- Articulating the joint UNAIDS-PEPFAR SI priorities at global and country level;
- Updating the theory of change for the CoAg;[71]
- Define explicit principles of work to guide the design and selection of CoAg activities;
- Providing re-orientation to country teams from CDC, UNAIDS, and government for the updated theory of change, and guidance for the selection and design of activities.

2. Adopt concrete and specific objectives for capacity building around generation and use of the HIV estimates

The CoAg will continue to expend a proportion of its resources on supporting the capacity building of country teams to generate HIV estimates. Given this resource expenditure, the productivity and sustainability of the CoAg results would benefit from a more rigorous approach to designing and evaluating the effectiveness of its capacity building methods. This includes a centrally driven assessment and tracking of skill development/technical support provided, and investment in pedagogical tools to support face-to-face and distance learning. Key steps in the process include,

- Conducting a systematic assessment of key skills related to generation and use of estimates for all countries;
- Developing a globally coordinated set of capacity building priorities (based on assessment) and tied to allocation of global and country level resources;
- Investing more in global resources in training tools and guidance to help users, moving beyond the Regional Workshop as a mode of knowledge and skills transfer.

3. Identify and track objectives which are not tied explicitly to funded activities

The value UNAIDS provides to the CoAg cannot be measured only as the direct result of budgeted activities. In addition to tangible SI products and effects, the CoAg can define objectives related to UNAIDS' role in convening & coordinating technical partners; building partnership; and advocacy for broader SI goals (for projects which span multiple-years and go beyond HIV programming). Finally, in the spirit of partnership, the CoAg may define objectives that reflect joint-contributions and efforts by both UNAIDS and CDC.

[71] A revised theory of change would both acknowledge the HIV estimates as an area of strength for UNAIDS, and emphasizes the use of the estimates to support programme planning and strengthening. The proposed theory of change could focus on generating the data needed for robust cascade analysis at national and subnational level, which is consistent with both the UNAIDS promotion of reaching the "Three 95s," and reflects a newly added Spectrum 2020 output feature which takes service delivery data as inputs to generate HIV cascades. The positioning of routinely generating HIV cascades as a fundamental application of the HIV estimates is also consistent with the recently released WHO Consolidated SI Guidelines for HIV programmes in the health sector which UNAIDS and PEPFAR are partners.

A proposed theory of change could be:

Improving the quality and granularity of strategic information needed by district programme managers to use regular cascade analysis to address programme gaps; through a) improving the model fit and use of inputs for generating HIV estimates used as cascade indicator denominators; b) improving the quality of cascade indicator numerators generated from routine facility data; c) enabling essential disaggregation (e.g. by age, gender, key populations, geographic location, etc.) of cascade indicators for addressing programme gaps

4. Review and refocus the Health Situation Room in the context of lessons and external developments

Building on the proof of concept established by the Situation Room and the increased availability of alternative technologies, the CoAg can increase focus and coherence in the following ways:

- Ensure that the upcoming Situation Room evaluation (late 2020) includes site visits for observation of the actual operationalization and use of the Situation Room, and assessment of barriers (including in non CoAg countries);
- UNAIDS at HQ level could more narrowly define the scope of the Situation Room, learning from the ongoing experiences in different contexts. Given the mandate and comparative advantage of UNAIDS, the focus of future dashboard may usefully be more targeted towards district HIV programme managers as users, and more focused on strategic information needed for regular cascade analysis to address programme gaps (see recommendation #1);
- Increase collaboration with partners in data visualization, including with PEPFAR on the Palantir HIV dashboard and WHO on the DHIS2 dashboard and visualization function.

5. Maintain a focus on key and vulnerable populations, but focus activities on HIV estimates and routine surveillance/programme data

Building on UNAIDS experiences within and outside the current CoAg, and UNAIDS' comparative advantage to engage communities and civil society, the CoAg should maintain a focus on those populations with the least access to HIV services. In order to increase the coherence and value for money of the CoAg, UNAIDS could support national counterparts through normative, convening and policy support for

- including key populations in HIV estimates and projections, through better population size estimates, biobehavioral surveillance, disaggregation of epidemiological data, etc.
- including key population service statistics into Health Information Systems and routine surveillance
- including key populations in discussions around human rights aspects of case-based surveillance and unique identifier systems

6. Involve key populations and PLHIV in discussions around human rights aspects of case-based surveillance and unique identifier systems

Case based surveillance and unique identifiers are an integral part of the CoAg objectives. UNAIDS has a comparative advantage to engage community representatives in the development of systems that respect human rights and confidentiality.

4.2. Operational Action Items

7. Engage counterparts in planning for FY 20/21

Recognizing that UNAIDS is valued as a neutral convener, and that an important requirement for timely and effective implementation is increased engagement of national counterparts, UNAIDS Country Offices should start to engage relevant counterparts in planning for the last year of the CoAg. This could involve

- Organizing a country level review of the CoAg progress using this evaluation as a starting point
- Engaging existing CoAg partners in the planning process and consider additional stakeholders as relevant for the focus of the CoAg, for example key population representatives, Global Fund, USAID, WHO.

8. Streamline project information flow

Building on the gradually improving reporting system at national and HQ level, UNAIDS SID and CDC could clarify the roles and expectations for reporting (including formats) and lighten the administrative burden of the CoAg reporting. This would include:

- Quarterly country-level progress meetings between UNAIDS and CDC country office, using brief slide deck presentations of progress and barriers, and using the workplan as basis. These presentations could also be used to update UNAIDS SID;
- Annual country and global progress reports as per the current format, but with addition of information on *actual* award and expenditures per country and per CoAg activity area.

9. Stimulate cross-country learning

Recognizing that important lessons have been learnt across core activity areas in the CoAg, and that these can feed into future design as well as immediate implementation practice, UNAIDS SID together with regional offices could improve sharing and learning. This could include but not be limited to

- Using the dissemination of the CoAg mid-term evaluation and the upcoming Situation Room evaluation as an opportunity to engage CoAg countries in a learning and sharing exercise;
- Annual events to share experiences, timed to inform planning of the next workplan;
- Establishing communities of practice or similar knowledge platform for UNAIDS SI Advisors on specific topics, e.g. UIC, data dashboards, etc.

Annex 1. Evaluation matrix

Key Evaluation Measures	Detailed evaluation questions	Data Source	Collection method
What was achieved? (*effectiveness*) Outputs and outcomes of activities at global and country level	1. How well were CoAg activities implemented as planned (at global and country level)? 2. To what extent did CoAg activities reach expected short and midterm outcomes (at global/regional and country level)? 3. How has country level capacity to generate higher quality and more granular strategic information changed? 4. To what extent has routine data generation (health information systems by type) improved in availability and quality? 5. To what extent has the quality of national and sub national HIV estimates improved? 6. To what extent have partners' perception of the reliability of HIV estimates increased and led to greater endorsement? 7. To what extent are data generated being used to make programmatic decisions and adjust the HIV response? 8. To what extent has the implementation of the Situation Rooms improved use of data for M&E and planning? 9. To what extent has strategic information increased engagement and investment in targeted key population services?	• Cooperative Agreement (budget, workplan, result framework) • Progress reports global & country • CoAg outputs • Project staff CDC & UNAIDS • Country Counterparts • Development partners • Data users • Service providers/users • providers/users	• Documentation review • Key Informant Interviews (global) • Key Informant Interviews (countries) • Online Survey • Observation in country
How it was achieved? (*efficiency, equity, and relevance*) Inputs Timeliness Processes Equity of implementation Responsiveness	1. What are the lessons learned on moving towards timelier implementation of CoAg activities and the availability of data? 2. Are the skills and capacity of UNAIDS at country level sufficient to deliver on the objective of the CoAg? 3. To what extent are existing capacity building approaches efficient to support sustainable generation of HIV estimates in Fast Track countries (e.g. regional workshops) ? What are the alternatives? 4. How have the lens of gender and human rights been incorporated into the implementation of the CoAg (globally and at country level)?		

Key Evaluation Measures	Detailed evaluation questions	Data Source	Collection method
Facilitators and barriers	5. To what extent are country level CoAg activities responsive to country needs and contexts? (e.g. to MoH, service providers' & communities' needs)?		
	6. To what extent has the CoAg strengthened and improved the collaboration/partnerships between UNAIDS and CDC?		
Will it last? (*sustainability*) Level of Country SI capacity Ongoing practice Use of results of data products Continuity of resources	1. To what extent has implementation been planned with the intention of sustaining benefits from CoAg support beyond the funding period? Was it successful?		
	2. To what extent has in-country expertise in national programme, health system, and community increased?		
	3. Have CoAg activities contributed to greater Institutionalization of SI functions within the national government?		
	4. To what extent have the technologies adopted through CoAg support remained relevant and are they easily maintained?		
	5. Were additional domestic funding sources secured to take over after the end of the CoAg?		
	6. What are the lessons learned for a sustainable approach to country support?		
	7. What are the lessons learned for making UNAIDS more effective in increasing the commitment of national actors to addressing information and service gaps for key populations?		

Annex 2. Documents reviewed

Global

1. Anonymous, 'PrEP Target-Setting for Key and Priority Populations - Estimating the Number at Risk' (draft), undated
2. CoAg Annual Report 2016-17 & narrative Year 3 CDC Continuation Application
3. CoAg Annual Report 2017-18 & narrative Year 3 CDC Continuation Application
4. CoAg Annual Report 2018-19 & narrative Year 4 CDC Continuation Application
5. CoAg Budget 2018-2019
6. CoAg Country Progress Updates to UNAIDS (PowerPoint Presentations)
7. CoAg Country Result Frameworks (Evaluation and Performance Monitoring Plans)
8. CoAg Notices of Award 2016, 2017, 2018
9. Greenall M., 'From data and reporting to impact and accountability - a case study on the Country Health Situation Rooms', 2018
10. Kavanagh MM et al, 'Biometrics and public health surveillance in criminalized and key populations: policy, ethics, and human rights considerations', Lancet HIV 2018, Published Online, October 7, 2018 http://dx.doi.org/10.1016/ S2352-3018(18)30243-1
11. UNAIDS Country Office Expenditure Reports
12. UNAIDS, 'No more neglect - Female genital schistosomiasis and HIV - Integrating sexual and reproductive health interventions to improve women's lives', 2019
13. UNAIDS, 'RFP-2020-01 - Independent evaluation of the country health situation room programme', 2020
14. UNAIDS, Overview all years CoAg awards and expenditures (excel sheet 28.4.2020)
15. WHO, Technical Brief -Using unique patient identifiers for person-centered HIV patient monitoring and case surveillance', 2017

Côte d'Ivoire

1. Alliance CI 'Report - Validation workshop', 2019
2. Alliance CI, 'Minutes of technical working group for harmonizing data collection tools' 2019
3. Alliance CI, 'Progress report 2018-2019', 2019
4. Alliance CI, Harmonized tools for KP service provision (several tools), 2019.
5. DIIS, 'Analyse situationnelle sur la notification et l'identification unique des cas de VIH en Côte d'Ivoire', 2018
6. DIIS, 'MOU - Mise en place d'un système de notification et d'identification unique des cas VIH en Côte d'Ivoire', 2018
7. DIIS, 'TOR for the consultant to support the implementation of the case notification and UIC system', 2019
8. DIIS, 'Training workshops for the trainers and for the regional and district level focal points on the use of the SR (Ivedix platform)', undated
9. DIIS, 'Training workshops for the use of the new SR platform (Sisense) for the trainers and the SR focal points at the region and district in Bassam, Bouaké and Daloa', undated.
10. Ministry of Health, 'Plan stratégique national de la surveillance du VIH et des IST 2020-2024'
11. Ministry of Health, HIV Estimates for 2017, 2018 and 2019
12. UNAIDS, Situation Room launch ceremony report', 2018
13. UNAIDS, 'final report for 2 UNAIDS HQ staff to support the review of the SR for 3 days', 2019
14. UNAIDS, 'HIV Situation Room - note conceptuelle de mise en œuvre pays', 2016

15. UNAIDS, Interim report UNAIDS consultant, 2019
16. UNAIDS, Terms of reference for UNAIDS CoAg consultant

Democratic Republic of Congo

1. Ministry of Health, 'Rapport de la mission conjointe de la revue de la qualité des données dans la province de Kongo-centrale', 2018

India

1. NACO, 'White Paper on Population Size Estimation in India', 2017
2. Delhi AIDS Control Society, 'HIV& AIDS situation and response analysis report, Delhi State', 2018
3. NACO, 'Expert Consultation on HIV Surveillance and Estimations in India, 2016', 2018
4. NACO, 'Expert Consultation on Newer Methods of HIV Surveillance and Estimations in India', 2018
5. NACO, 'In-country Data Validation Elimination of Mother-to-Child Transmission of HIV and Syphilis: Maharashtra (2015 – 17)
6. NACO, 'India HIV estimations 2015, 2017, 2019'
7. NACO, 'Report on In-country Data Verification Exercise (Phase I) Elimination of Mother to Child Transmission (EMTCT) of HIV & Syphilis in India,' (undated)
8. NACO, 'Mapping and Population Size Estimates Operational Guidelines'
9. NACO, 'In-depth analysis of IBBS and HSS data in 2 states'
10. NACO, 'HIV Estimations – Factsheets 2017'
11. NACO, 'India Epidemic Fact Sheets'
12. NACO 'Sankalak'
13. NACO, 'National Data Analysis Plan Policy Briefs'
14. NACO, 'National Data Analysis Plan Report 2015'
15. NACO, 'Status of National AIDS Response 2017'
16. NACO, 'Technical Report on National IBBS 2015'
17. NACO, 'Technical Report on HIV Sentinel Surveillance 2015'

Kenya

1. NAC/Ministry of Health, 'Kenya HIV estimates report 2018'
2. NAC/Ministry of Health, 'Kenya HIV County profiles 2018'
3. PEPFAR, Country Operation Plan 2018, 2019

Namibia

1. 'Municipality of Gobabis HIV/AIDS Strategic Plan', 2018
2. 'Municipality of Windhoek HIV/AIDS Strategic Plan 2017-2022'
3. Min of Health and Social Services, 'HIV – sensitive social protection assessment report', 2018
4. UNAIDS, 'HIV Situation Room – Country implementation concept note Namibia' (draft), 2016

Tanzania

1. Matiku S., 'Consultant's report on the process of costing the Tanzania national HIV monitoring and evaluation plan 2018/19 – 2022/23', 2018
2. TACAIDS, 'Harmonization and mapping of activities and indicators of key populations service organisations in Tanzania', undated
3. TACAIDS, 'HIV estimates 2019, Tanzania'
4. UNAIDS, 'HIV Situation Room – Tanzania implementation concept note' (draft), 2018

South Africa

1. Health Department, ‘Concept paper and presentation “Facility Training Workshop on Best practice HAST 90-90-90 SOP meeting”, 2018,
2. U of Capetown, Thembisa press release on results (June 2019)
3. U. of Capetown, District epi data and data dictionary (2019)
4. U. of Capetown, Provincial model protocol (2018)
5. HAST 90-90-90 data review SOP (ppt) and protocol

Zambia

1. Anonymous, ‘Strategy for Implementing HIV Case-based Surveillance’, 2017
2. Ministry of Health, ‘HIV Case-based Surveillance presentation’, undated
3. Ministry of Health, ‘Protocol for HIV case-based surveillance utilizing electronic medical records in Zambia, 2019
4. Population Council, ‘Enhancing the capacity of district HIV/AIDS committees to effectively coordinate key populations interventions at sub-national level in Zambia – workshop report’, 2019
5. UNAIDS, ‘Handover notes Henry Damisoni, SI Advisor UCO,’ 2017
6. UNODC, ‘Report on the compliance assessment of the implementation of the recommended comprehensive package of HIV services in 10 high volume prisons in Zambia’, 2018.

Annex 3. Key informants (by organization)[72]

UNAIDS HQ/Regional

Peter Ghys	Director SID
Mary Mahy	Team Lead, Epidemiology, SID
Nita Bellare	former Project Manager, SID
Malachy Harty	Project Manager, SID
Keith Sabin	Senior Advisor, SID
Taavi Erkkola	Senior Advisor, SID
Ian Wanyeki	Advisor, SID, RST ESA
Amala Reddy	Regional SI Advisor, RST ESA
Ehounoud Pascal Eby	Regional SI Advisor, RST WCA
Jerry Jacobson	Consultant, PrEP Target Setting

CDC HQ

Elizabeth Tangel Chehab	Project Officer, DGHT

UNAIDS Country Offices

DRC
Kenya
Namibia
Mozambique
South Africa
Tanzania

CDC Country Offices

DRC
Kenya
Namibia
Mozambique
Tanzania

Côte d'Ivoire Visit

UNAIDS (3)
CDC
Direction de l'Informatique et de l'Information Sanitaire
PNLS (National AIDS Control Programme) (3)
Direction Générale de la Santé (DGS) (2)
SEJEN (IT firm)
Alliance CI (2)
Alternatives CI

India Visit

UNAIDS (4)
CDC (3)
NACO (6)
WHO – India (2)
AIIMS
ICMR-NIMS (3)
Humsafar Trust

Zambia Visit

UNAIDS (3)
CDC (3)
PEPFAR
MOH (4)
NAC
Population Council (3)
CBS Southern Province (3)

[72] Names and affiliations of some key informants are anonymized but available with the evaluation team.

Annex 4. Online survey instrument

Instructions:

The survey is being conducted as part of the mid-term evaluation of the UNAIDS-CDC (CoAg) Cooperation Agreement on Public Health Capacity Building and Strategic Information. The main activities supported by this CoAg in your country include:

- [List of activities supported by the CoAg, specific to the country]

We very much value your views that will help us make recommendations to improve the work of CoAg from here before.

Your participation is voluntary, and your responses will remain confidential and will only be used for the purposes of this evaluation. To protect your privacy, you can submit your answers anonymously. However, you can also include your name and email address with your response, if you agree to be contacted if the evaluators want you to develop your experiences and perspectives. Whether you provide your name or not, the information you provide in your survey responses will NOT be used in reports in a way that can be used to identify you (i.e., your responses will not be assigned to you by specific mail name). You can choose not to participate and withdraw at any time.

Consent:

I understand the purpose and use of the comments I provide through this survey and I agree to participate. In accepting, I confirm that I have read the above information and that I am at least 18 years old. (Choose 1)

__ I agree to participate

__ I don't want to participate at the moment (end of survey)

Thank you for sharing your candid perspective and detailed answers to the following questions.

Key results:

1. On a scale of 1 to 5 where 1 means low value and 5 means high value, what is the value of CoAg's activities in terms of improving/strengthening strategic information for HIV programmes in the country?

   Low value 1 2 3 4 5 High value

2. In your opinion, what was the most significant results/s of CDC-UNAIDS support for strategic information in your country during the first half of the project period (2016-2019)?

3. What activities do you think CoAg has had the greatest impact on the national strategic information system of 2016-2019? Please explain how or why these activities have made the impact.

4. Can you share examples of how CoAg activities have resulted in MORE GRANULAR DATA (e.g. at the district level or for special population groups) to inform programme management?

5. Can you share examples of how CoAg activities have resulted in the collection or use of data to increase coverage of underserved communities or locations in the country?

Lessons learned and Recommendations:

6. One of the objectives of the CDC-UNAIDS CoAg is to RENFORCER THE CAPABILITIES of national counterparts to develop and use strategic information. In the context of the SI activities listed in the introduction, please share lessons learned on what makes capacity building in the SI field more effective in your country.

7. On a scale of 1 to 5 where 1 means little relevance and 5 means high relevance, how would you rate the RELEVANCE of CoAg (2016-2019) activities in relation to the needs and context of the country? (Please refer to the list of activities described in the introduction.)

   Little relevance 1 2 3 4 5 high relevance

8. There are 4 major areas of SI included in the scope of the Global CoAg. These are then translated into selected specific activities, usually integrated into the national UNAIDS workplace developed in the country. Are there lessons learned to ensure that CoAg's activities are RELEVANT to the needs and contexts of countries? (Please refer to the specific activities listed above.)

9. Are there lessons learned from CoAg activities on strengthening partnerships between organizations in the country engaged in strategic information for the HIV programme?

10. One of UNAIDS' main objectives is to improve gender equity and human/human rights in countries. In your opinion, are there lessons learned on how CoAg activities can contribute to gender equity and protect human rights?

11. Are the achievements sustainable? How do you think the CDC and UNAIDS can ensure that improvements in strategic information systems last BEYOND THE PROJECT PERIOD (i.e. after 2021)?

We may contact respondents for more information on achievements and/or lessons learned.

___ I don't want to give my name or my contact information.

___ I would like to be contacted by a member of the evaluation team.

___ If you would like to be contacted, please provide your name and email address:

_____

Thank you for your participation!

Annex 5. Evaluation team bios and conflicts of interest statements

Core evaluation team

Virginia Loo

Dr. Virginia Loo holds a Ph.D. in epidemiology. As a strategic information consultant since more than a decade, she conducted evaluations of national HIV programmes and donor portfolios; built evaluation capacity for ministries of health and local implementers; supported ministries in developing performance frameworks and setting targets; wrote global and national level data use and M&E guidelines to strengthen national HIV programmes; and developed regional and national level materials/provided training in surveillance/M&E methods. Before 2007 she was strategic information specialist at Avahan India AIDS Initiative (BMGF funded) and at the HIV Care and Treatment Branch, Global AIDS Programme, CDC in three African countries. Clients include WHO, UNAIDS, World Bank, Asian Development Bank, DFAT, UNICEF, FHI360, and various Ministries of Health/Departments of Health.

Paul Janssen

Paul Janssen MD MPH has 25 years' experience in HIV programme design, implementation and evaluation. He supported HIV programmes in 25 countries in Asia Pacific, Africa and Caribbean regions. Paul managed and supported community-based HIV services for key populations across Asia. He advised several national AIDS programmes on national strategic plan development, including M&E and capacity building strategies. Paul led major evaluations including the Nigeria national HIV programme and participated in both independent UNAIDS evaluations and the USG-supported Linkages evaluation. Paul teaches strategic information at the KIT international MPH course. He is a trained mediator, excellent communicator and enjoys working in cross-cultural and multi-professional teams.

National consultants

Yujwal Raj (India)

Dr. Raj, MBBS, MHA, Ph.D. has been a technical expert in the area of strategic information for HIV for more than 12 years, including 8 years working in key positions with the Strategic Information Management Unit of the National AIDS Control Organisation of India. Since 2015, he has worked as an international consultant providing trainings on bio-behavioural surveys, population size estimates, epidemic modeling; and conducting programme evaluations and data verification/validation exercises. His clients include a range of development partners and non-governmental organisations: WHO, UNAIDS, UNDP, PEPFAR, FHI360, PATH, and JSI.

Fatoumata Traoré Touré (Côte d'Ivoire)

Dr. Traoré Touré MD PhD has over 15 years national and global experience with health systems, strategic information, project management and evaluation. She worked until recently on USG funded projects with FHI360 (including as Country Representative) and JSI (Measure Evaluation Project) in Côte d'Ivoire, and earlier at WHO HQ as epidemiologist. She has ample experience in research studies and programme evaluations of PEPFAR-funded programmes, as Director Research in FHI360. in the Measure Evaluation Project, she was member of the SI team and supported MOH with the DHIS and M&E Systems. Dr. Traoré is bilingual French and English.

Robie Jean Wallace-Siamwisa (Zambia)

Ms. Robie Siamwisa, MA Urban Studies from Boston University, has been living and working in Zambia since more than 30 years. She has undertaken technical consultancies since 1983 for various Zambian ministries, including the National AIDS Programme, multilateral and bilateral donors, and international and local NGOs. Her areas of expertise are HIV, health and education, with a focus on community involvement, research and strategic planning. She was associated with the Policy Project from 1997-2005 as Senior Research Associate and Country Director. She supported the national strategic planning for HIV and TB in 2006 and 2010, including the Global Fund proposal development and CSO engagement strategies.

None of the team members is currently employed by either UNAIDS or a USG (funded) organization. The core evaluation team and national consultants for Côte d'Ivoire (Dr. Traoré) and Zambia (Ms. Siamwisa) declared the absence of a conflict of interest.

Dr. Raj is a member of the National Technical Working Group on HIV estimates in India and has participated in workgroup meetings and supported the HIV estimates process in India during the period of the CoAg being evaluated. However, he has been determined to have much stronger technical skills and experience in the full range of areas covered by India CoAg supported activities compared to the alternative consultant candidates identified. For this reason, he has been selected to be the national consultant for the India case study. To mitigate the conflict of interest related to the estimates portion of the India portfolio, Dr. Raj did not participate in interviews and assessments related to the work for which he had direct engagement. The core evaluation team member who took the lead on the India case study (Dr. Loo) has extensive experience working in India and was able to interview stakeholders independently and objectively assess performance of the estimates related activities without the involvement of the national consultant.

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