



**NATIONAL ACCELERATION  
PLAN FOR PAEDIATRIC HIV  
SERVICES – GHANA**  
2016 - 2020

# NATIONAL ACCELERATION PLAN FOR PAEDIATRIC HIV SERVICES

GHANA (2016-2020)



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## FOREWORD

The last decade has highlighted the unacceptably high inequity in access to HIV care and treatment among children and adolescent compared to adults. Despite being the most vulnerable to HIV-related deaths, young children often endure the toughest path to treatment. In 2014, only 32% of children living with HIV received treatment compared to 41% of adults globally. Mortality rate among infected infants are far higher than adults, without access to treatment and care over 30% of HIV infected infants will die before their first birthday and 75% before their fifth birthday.

In 2014, Ghana Health Service/National AIDS/STI Control Programme (NACP) with support from UNICEF and other partners conducted a situation analysis on paediatric HIV care and treatment in Ghana to identify gaps within the delivery of paediatric HIV care and develop a road map for effective implementation of Paediatric HIV services. The analysis identified gaps such as limited task shifting on ART services, poor linkage of paediatric HIV services (Antiretroviral Therapy (ART), Early Infant Diagnosis (EID), and PMTCT with other reproductive and child health, immunization and nutrition services.

It was thus recommended that a National Acceleration Plan for Paediatric HIV Services be developed to address the barriers and bottlenecks identified. At the current pace of service delivery, Paediatric HIV treatment in Ghana will garner only 40% coverage of the target population by 2020; way below the global coverage target of 90%.

The national acceleration plan for Paediatric HIV services is a 5 year (2016-2020) strategic and ambitious plan anchored on the Theory of Change with the aim of putting 90% of estimated number of children and adolescents (0-19) living with HIV in Ghana on treatment by 2020, to drastically reduce HIV/AIDS related morbidity and mortality. The process for development of this plan was very participatory and brought together technical personnel from district, regional and national level as well as national implementing partners. It is expected to significantly contribute towards acceleration of paediatric HIV interventions by 2018 and consolidate the gains made in the context of PMTCT option B+ by 2020.

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February 2016

## ACRONYMS

<b>ACT</b>	Accelerating Children’s HIV/AIDS Treatment initiatives
<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>ANC</b>	Antenatal Care
<b>ART</b>	Antiretroviral Therapy
<b>BNA</b>	Bottleneck Analysis
<b>CBO</b>	Community Based Organisation
<b>CHNs</b>	Community Health Nurses
<b>CHOs</b>	Community Health Officers
<b>CHPS</b>	Community-based Health Planning Services
<b>CHW</b>	Community Health Workers
<b>DBS</b>	Dried Blood Spots
<b>DHIMS</b>	District Health Information Management System
<b>DHMT</b>	District Health Management Team
<b>DNA</b>	Deoxyribonucleic Acid
<b>EID</b>	Early Infant Diagnosis (of HIV)
<b>FHD</b>	Family Health Division
<b>FP</b>	Family Planning
<b>GAC</b>	Ghana AIDS Commission
<b>GDHS</b>	Ghana Demographic Health Survey
<b>GHS</b>	Ghana Health Services
<b>HAART</b>	Highly Active Antiretroviral Therapy
<b>HEI</b>	HIV Exposed Infants
<b>HIV</b>	Human Immuno-Deficiency Virus
<b>HTS</b>	HIV Testing Services
<b>JUTA</b>	Joint United Nations Team on AIDS
<b>MNCH</b>	Maternal, New-born and Child Health
<b>MOH</b>	Ministry of Health
<b>NACP</b>	National AIDS/STI Control Programme
<b>NAP+</b>	National Association of Person Living with HIV

<b>NGO</b>	Non-Governmental Organisation
<b>PCR</b>	Polymerase Chain Reaction
<b>PLHIV</b>	People living with HIV
<b>PMTCT</b>	Prevention of Mother-to-Child Transmission of HIV
<b>RACP</b>	Regional AIDS/STI Control Programme
<b>RCH</b>	Reproductive and Child Health
<b>SITAN</b>	Situational Analysis
<b>SMS</b>	Short Messaging Service
<b>SOPs</b>	Standard Operating Procedures
<b>STI</b>	Sexually Transmitted Infections
<b>UNAIDS</b>	United Nations Programme on HIV/ AIDS
<b>UNICEF</b>	United Nations Children Fund
<b>USAID</b>	United States Aids Agency
<b>ToC</b>	Theory of Change
<b>ToT</b>	Training of Trainers
<b>WHO</b>	World Health Organisation

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## EXECUTIVE SUMMARY

Paediatric HIV treatment has always lagged behind that of adults for reasons such as lack of access to: antiretroviral agents, paediatric antiretroviral formulations, and paediatric HIV management expertise among providers. Children have a higher risk of HIV disease progression and mortality than adults. In 2014, only 32% of children living with HIV received treatment compared to 41% of adult<sup>1</sup>. Mortality rates among infected infants are far higher than among adults, without access to treatment and care about 30% of HIV infected infants will die before their first birthday while 75% before their fifth birthday. Although HIV-related mortality rate is declining among all age groups, among adolescents it is either steady or on the increase, particularly in resource-limited countries. In 2014, it was estimated that 2.6 million children less than 15 years were living with HIV worldwide, of which 2.3million (89%) lived in Sub-Saharan Africa. To address these inequities and treatment gaps, the UN agencies and International donor organizations instituted several initiatives such as the Double Dividend, ACT and ALL IN . The launch of the Double Dividend by UNICEF and WHO in 2013, as a new global initiative providing strategic alignment of MNCH services and paediatric HIV platforms with the aim to fast track the integration of Paediatric HIV and Child survival services.

In 2014, GHS/NACP, with support from UNICEF and other partners, conducted a situation analysis on paediatric HIV care and treatment in Ghana. The purpose of this analysis was to identify the gaps within the current delivery of paediatric HIV care and support system and develop a road map for effective implementation of Early Infant Diagnosis (EID) and to increase paediatric antiretroviral therapy (ART) coverage. The analysis identified gaps such as lack of task shifting on ART services, low paediatric ART coverage, and poor linkage of ART, EID, and PMTCT services with other RCH - immunization and nutrition services.

In view of the findings of the analysis, it was recommended that an Acceleration Plan for Paediatric HIV Services be developed to address the barriers and bottlenecks identified during the assessment. At the current pace of paediatric HIV Services, it can be extrapolated that paediatric ART coverage will increase from 26% to only about 40% by 2020; Ghana will, therefore, fall short of the global target of 90-90-90 (UNAIDS concept).

As part of effort to reverse the low paediatric HIV treatment coverage by putting children in the center of the UNAIDS 90-90-90 global concept, it is imperative to develop a home grown, innovative, bold, and evidence-based strategic interventions to fast track the paediatric ART coverage and services. This national acceleration plan for paediatric HIV services is a 5-year (2016-2020) strategic and ambitious plan grounded in the Theory of Change (ToC) with the aim of putting 90% of estimated number of children and adolescents (0-19) living with HIV on treatment by 2020. This will drastically avert HIV/AIDS related morbidity and mortality. The 10 regions of Ghana are categorized into high and low priority regions based on HIV prevalence and disease burden. The pace of implementation is based on whether a region is high or low priority. High priority regions will have a fast track pace acceleration plan while the low priority regions will have a moderate pace acceleration plan. These strategic approaches are focused on identifying peculiar challenges of adolescents in general and a special emphasis on adolescents as a key HIV population. The national acceleration plan considered 5 crucial game changers for the Ghanaian child and adolescent: 1) Testing of child and adolescent siblings of index patient (0-19), 2) Establishing a national policy on task shifting and task sharing, 3) Integration of child health services, 4) Prioritizing paediatric HIV commodities and 5) Decentralization of paediatric HIV service to beyond the regional hospitals.

The resources required to implement the operational plan were estimated based on an analysis of the full cost required for the programme and are currently projected to be One hundred and Fifty two million, thirty Six thousand seven hundred and Eighty three Dollars (USD 152,036,783) over 5 years.

<sup>1</sup> UNAIDS FACTS SHEET 2015

# CHAPTER ONE

## INTRODUCTION

The inequity in progress towards the achievement of the global goals of AIDS response among children and adolescents living with HIV is an affront to humanity; posterity will not forgive us if we don't act now! In most countries 5-7 times more adults than children and adolescents are benefiting from ART. In 2014, only 32% of children living with HIV received treatment compared to 41% of adult<sup>1</sup>.

As part of effort to address these gaps, the UN agencies, bilateral and International donor organizations have instituted several initiative and platform such as the Double Dividend, ACT and ALL IN. The launching of the Double Dividend by UNICEF and WHO in 2013, as a new global initiative, provides strategic alignment of maternal and child health (MNCH) services with paediatric HIV platforms to fast track the integration of Paediatric HIV and Child survival services. This initiative aims at reducing AIDS-related deaths and new HIV infections among children and adolescents.

Globally, of the 36.9 million people living with HIV in 2014, 2.6 million were children <15year of which 150,000 died from AIDS –related causes and 220,000 children were newly infected with HIV<sup>3</sup>. In 2013, UNAIDS reported 240,000 new HIV infections in children. Thus one new infection every two minutes<sup>2</sup>. The paediatric population remains significantly disadvantaged regarding access to treatment. Active case identification, timely and reliable early infant diagnosis and linkage to prompt treatment remain some of the key challenges that paediatric populations face in resource-limited settings. There is a growing population of adolescents living with HIV. This is known as a “perfect storm” to fuel the HIV epidemic. This group is at high risk for both acquisition and transmission of HIV as they are not being effectively reached by current HIV services. Forty percent of new HIV infections occur in this age group. Moreover, HIV-infected individuals in this age group are less likely to be retained across the HIV continuum of care, to achieve sustained viral suppression, and they are more likely to engage in risk behaviors that increase transmission of HIV in the community. Globally there has been a 30% decrease in HIV-related mortality, however, among adolescents AIDS-related mortality increased by 50%<sup>5</sup>. Of the 2.6 million estimated number of children < 15 years living with HIV globally, sub-Saharan Africa is home to 2.3 million (89%) of them, 190,000 (88%) of global new infection among children, and 130,000 (89%) of AIDS-related death in children<sup>3</sup>. Mortality rate among infected infants is far higher than that in adults. Without access to treatment and care, about 30% of HIV infected infants will die before their first birthday while 75% will die before their fifth birthday. Thus early diagnosis and prompt treatment is critical to enhance the quality of life of infected infants.

Ghana has an estimated population of 25 million people (2010 Census estimate) with a stable HIV prevalence of 1.47% in general population, which amounts to about 250,232 Persons Living with HIV (PLHIV)<sup>4</sup>. About 148, 237 (59%) of PLHIV are females with a prevalence of 1.6% among pregnant women attending ANC. Thus reflecting the typical feminization of the HIV epidemic in sub Saharan Africa. About 21,223 (8% of total infected) are children living with HIV. The country's HIV prevalence reflects a generalized epidemic with high prevalence (3.7%) pockets in the Eastern Region. In 2014 of the estimated 11,356 people newly infected about 1,889 (17%) were children, with an estimated annual AIDS-related death of 9,248, of which 1,259 (23%) were children<sup>8</sup>.

There is an unprecedented global commitment to the control of HIV epidemic and to achieve an HIV free generation. UNAIDS in partnership with other global players have set an ambitious target, 90-90-90, by 2020. By 2020, 90% of all PLWHIV will know their HIV status; by 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; and by 2020, 90% of all people receiving antiretroviral therapy will have viral suppression. Prior to this commitment, UNICEF and its partners launched the double dividend strategy with the aim of accelerating paediatric HIV and child survival integration. The Government of Ghana has demonstrated its commitment in addressing challenges with HIV and AIDS in Ghana. For instance, the national theme for 2015 World AIDS day

<sup>1</sup> UNAIDS FACTS SHEET 2015

<sup>2</sup> [www.childrenandaids.org](http://www.childrenandaids.org)

<sup>3</sup> UNAIDS. 2014 HIV AND AIDS ESTIMATES. UNAIDS; 2015

<sup>4</sup> GAC. COUNTRY AIDS RESPONSE PROGRESS REPORT - GHANA, JANUARY 2012 – DECEMBER 2013 2014.

was “Fast track: Meeting the Health Needs of Children toward an HIV Free Generation;” with funding and technical support from UNICEF and JUTA. Moreover, the Government of Ghana is committed to a National Acceleration plan for Paediatric HIV services (NAPPH), to put children at the center of the 90-90-90 concept.

Ghana is currently among nine countries in West and Central Africa contributing 90% of new paediatric infection in the West and Central Africa sub-region, with a low Paediatric ART coverage of 11%<sup>5</sup>. Despite high immunization coverage of 90% and high ANC attendance, overall HIV testing provided within ANC settings is less than 80% and the number of pregnant women given ARV is less than 70%, and coverage of EID services is barely less than 20%<sup>6</sup>. Thus there are missed opportunities in health delivery and highlights a low of service integration and linkages in health delivery in Ghana.

In Ghana, for one HIV-infected child initiated on treatment, 14 HIV-infected adults were initiated on treatment in 2013<sup>7</sup>. As part of efforts to address the low paediatric HIV treatment coverage by putting children in the center of the 90-90-90 global target it became imperative to develop an, innovative, bold, and evidence- informed strategic interventions to fast track the process. If paediatric HIV treatment coverage continues at the current pace, the country’s paediatric treatment coverage will 40 % by 2020.

The national acceleration plan for Paediatric HIV services is a 5 year (2016-2020) strategic and ambitious plan grounded in the Theory of Change (ToC) with the aim of putting 90% of the estimated number of children and adolescents (0-19 years) living with HIV on treatment by 2020, thereby, drastically averting HIV/AIDS-related mortality and morbidity, improving child and adolescent survival in line with the Double Dividend concept. It shall be implemented in two phases: intensive phase and consolidation phase. During the intensive phase, services will be increased up to achieve paediatric HIV case finding and treatment coverage of 90% by 2018. and consolidated over the next two years.

The resources required to implement the operational plan were estimated based on an analysis of the full cost required for the program and are currently projected to be one hundred and fifty-two million and thirty-six thousand, seven hundred and eighty-three dollars (USD 152,036,783) over 5 years.

Table 1: Modeling Acceleration Scenario for Paediatric ART Coverage in Ghana 2008-2020

:: Modeling Acceleration Scenario for Pediatric ART Coverage in Ghana, 2008-2020															
		Historical coverage (baseline trend)					Intensive Phase			Consolidation phase					
		Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pediatric ART Coverage Acceleration Scenarios	Scenario 1- Statu-Quo: ART coverage at 35% by 2018; 41% by 2020 (Baseline rate)	5%	8%	12%	15%	18%	20%	23%	26%	29%	32%	35%	38%	41%	
	Scenario 2- Moderate pace: ART coverage 70% by 2018; 90% by 2020	5%	8%	12%	15%	18%	20%	23%	26%	45%	55%	70%	85%	90%	
	Scenario 3: Accelerated pace: ART coverage at 90% by 2018; 95% by 2020	5%	8%	12%	15%	18%	20%	23%	26%	55%	70%	90%	95%	95%	

## CURRENT SITUATION AND GAP ANALYSIS

**Introduction:** Ghana has been implementing a 5-year multi-sectoral National Strategic Plan for HIV and AIDS from 2011-2015 (NSP 2011-15). The key strategies adapted by Ghana to increase the numbers of persons (adults and children) on ART included scaling up of ART sites, accreditation and certification of ART sites and laboratories, and improvement of referrals from entry points to the treatment centers. Other key strategies employed included strengthening HIV drug and commodity supplies and strengthening of HIV drug resistance monitoring

**Current Situation:** The mid-term review of PMTCT Scale-up Plan captured in the situational analysis for accelerating paediatric HIV treatment, care and support in Ghana, 2015<sup>8</sup> revealed that only 70% of HIV-infected women were on antiretroviral (ARV) prophylaxis, coverage of EID services for exposed babies was less than 20% nationally and Paediatric ART coverage for infected children was 26%. The trend analysis for paediatric HIV care in Ghana from 2009- 2013 (SITAN) showed wide disparities between

<sup>5</sup> GARPR 2013

<sup>6</sup> SITUATIONAL ANALYSIS FOR ACCELERATING PAEDIATRIC HIV TREATMENT, CARE AND SUPPORT IN GHANA, 2015

<sup>7</sup> GHANA 2014 NACP ANNUAL REPORT

<sup>8</sup> Situational analysis for Accelerating Paediatric HIV Treatment, Care And Support in Ghana, 2015

number of children identified as HIV-infected and the number initiated on ART.

HIV care in Ghana from 2009- 2013 (SITAN) showed wide disparities between number of children identified as HIV-infected and the number initiated on ART.

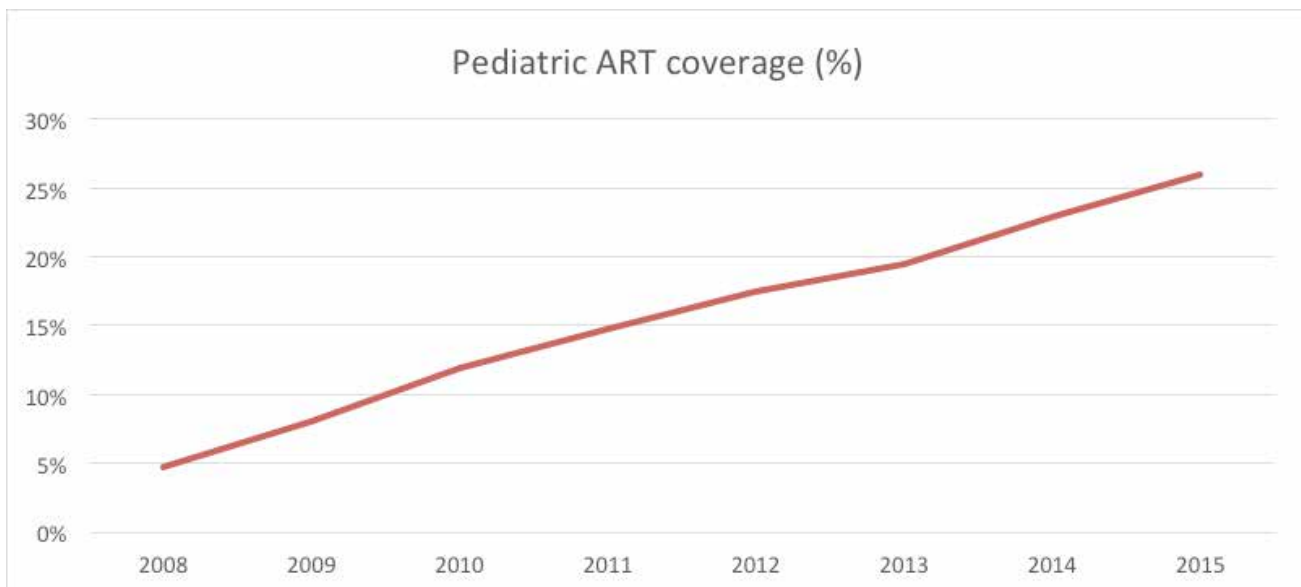


Figure 1: Trend analysis of Paediatric ART Coverage in Ghana: 2008-2015 (Source: PMTCT Situation Analysis Report, Ghana, 2015)

The national target coverage for adults and children were not achieved, however, the gaps in coverage for children relative to adult are very wide. The disparities in annual ART enrolment rate for children and adults in Ghana, over the period 2008-2014, is illustrated in Figure 2.

In 2013, the NACP annual report revealed that for 14 adults initiated on treatment only one child received treatment. This ratio is higher than that reported in studies from other resources-limited settings were 5-7 times more adults where initiated on ART than children.

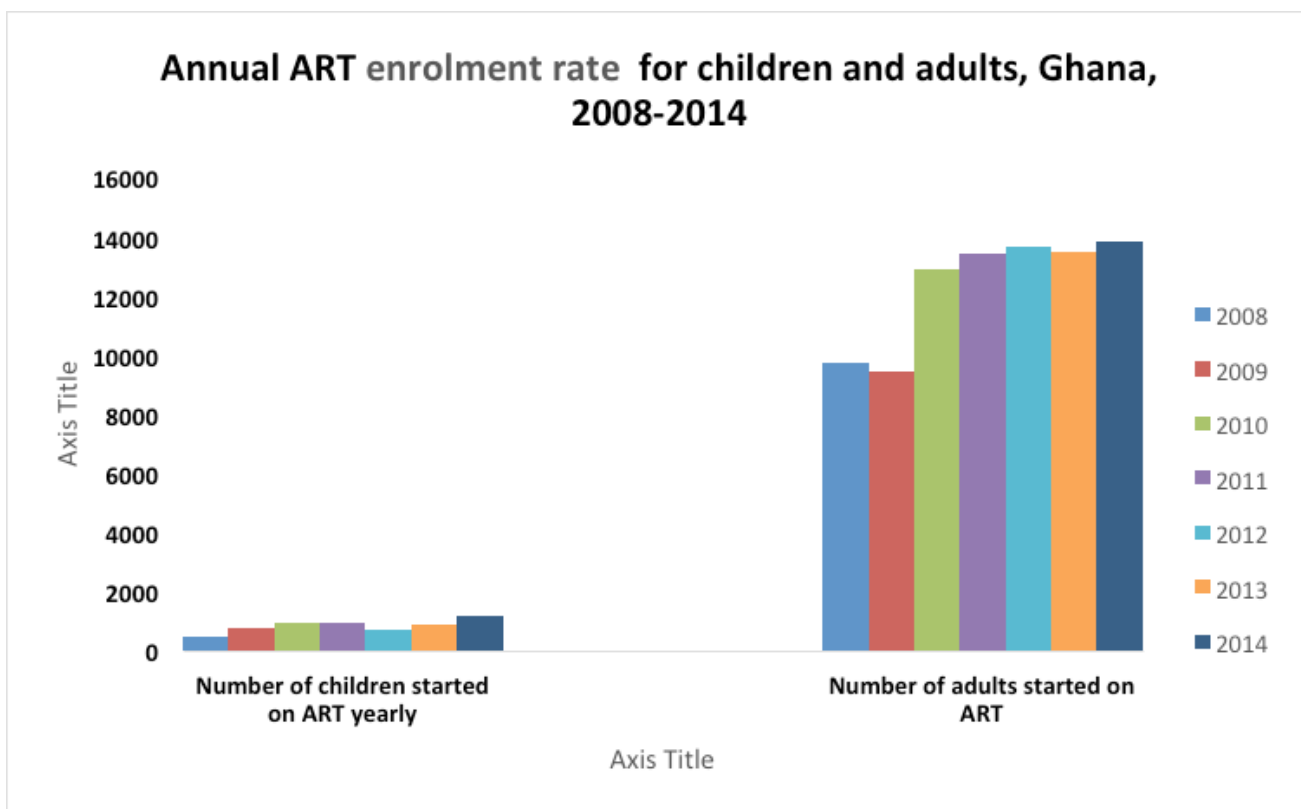


Figure 2: Annual ART enrolment rate for children and adults, Ghana, 2008-2014

Figures 4 and 6 highlight the mean annual number of HIV-infected children <15 years (on the assumption that survival would be increased with access to early treatment for all children < 15 living with HIV) and the annual gap for children on ART. The annual gap for children on ART ranged from 95.3% in 2008 to 77.1% in 2014. There was a decreasing trend but only marginal. In order to achieve the 90:90:90 target for children in Ghana this Paediatric accelerated plan for the next five years (2016-2020) is critical to meet the health needs of children towards an HIV-free generation.

The annual ART (new) enrolment rate and estimated ART gap among children 15 years and annual ART (cumulative) and estimated HIV positive children (< 15 years) in Ghana, over the period 2008-2014 is displayed pictorially below:

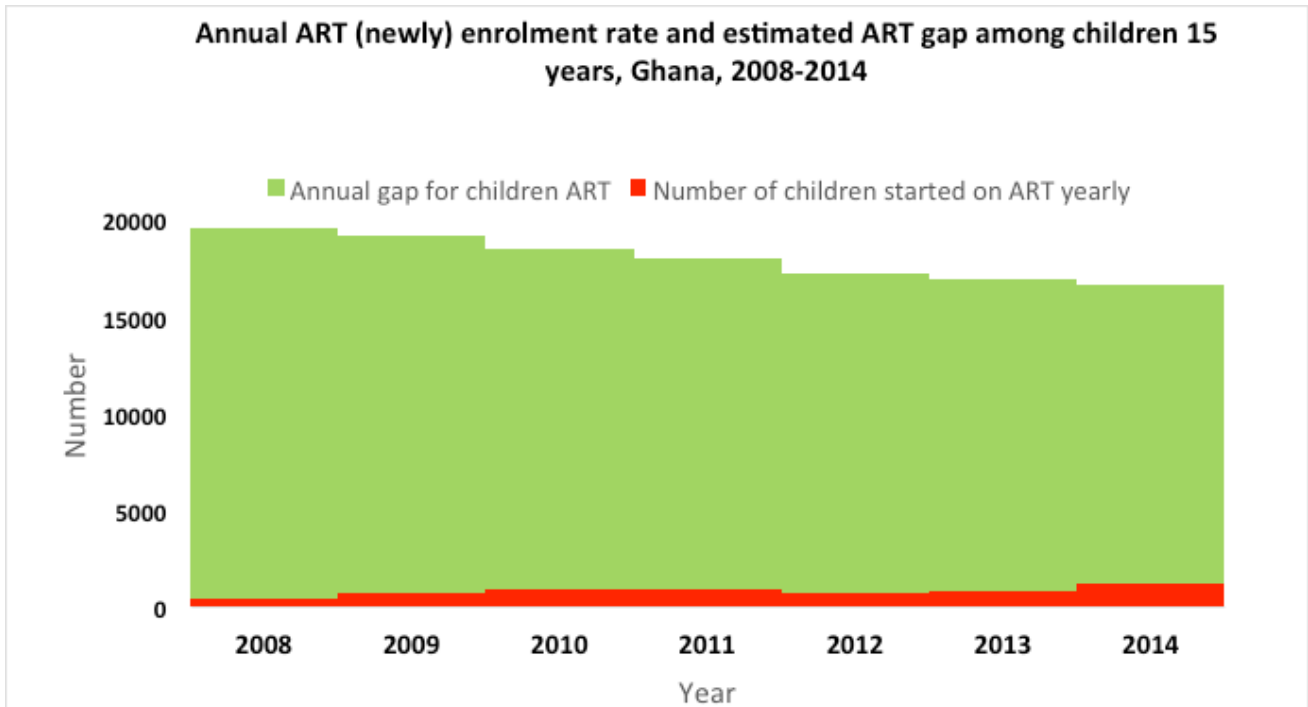


Figure 3: Annual ART enrolment rate and estimated ART gap among children 15years in Ghana, 2008-2014

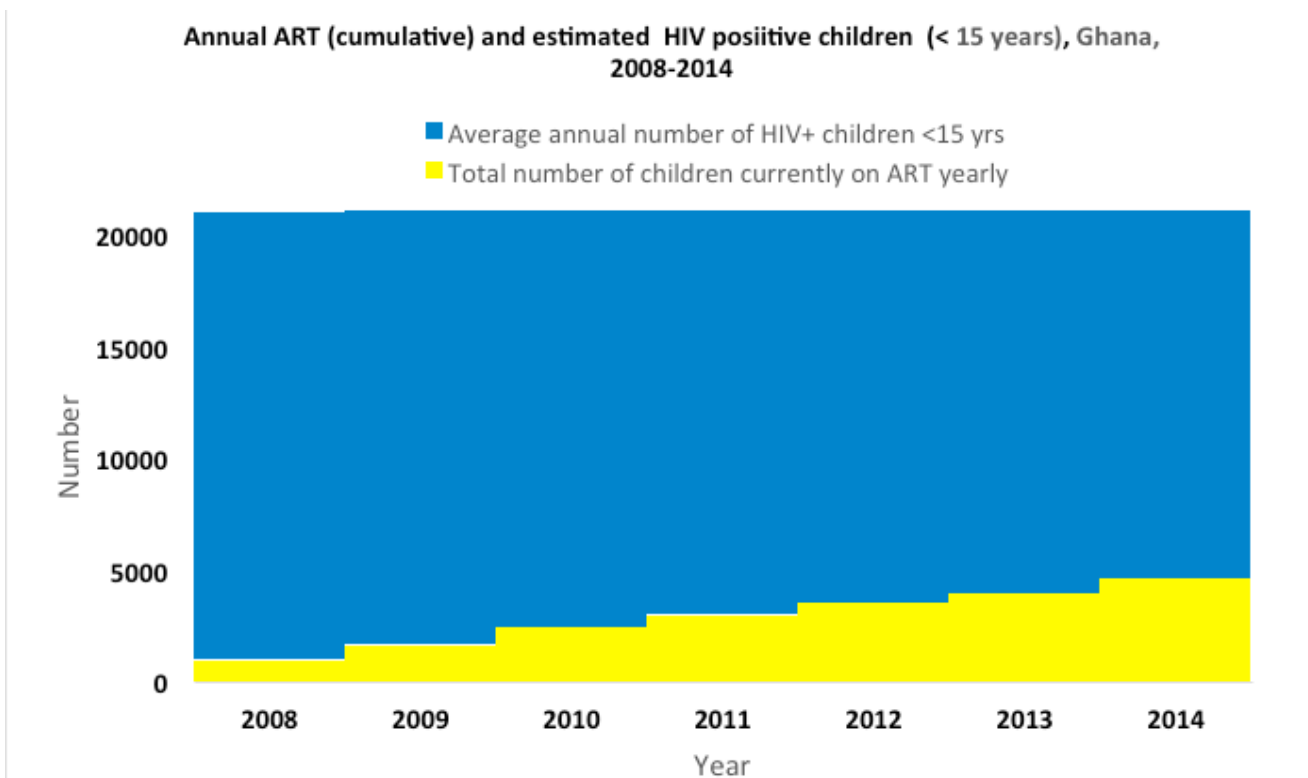


Figure 4: Annual ART and estimated HIV positive children (<15 years) in Ghana 2008-2014

There were regional disparities in the annual ART (new) enrolment rate, estimated ART gap among children 15 years, annual ART (cumulative), and estimated HIV-infected children (< 15 years) in Ghana, over the period 2008-2014.

Based on analysis of the historical service coverage for paediatric HIV in Ghana, 2008-2014, the current pace will result in only about 40% coverage by 2020. The need for an accelerated plan to achieve 90% coverage by 2018 and to consolidate these gains in 2019-2020 is critical.

## Summary of key bottlenecks and major barriers

**Enabling institutional environment:** The situational analysis for Accelerating Paediatric HIV Treatment, Care and Support in Ghana in 2015 indicated availability of policies, protocols and guidelines that support paediatric HIV treatment care and support in Ghana for service delivery at facility levels and that the National AIDS/STI Control Program (NACP) and Family Health Division (FHD) of Ghana Health Services (GHS) are collaborating on HIV interventions (joint PMTCT planning/monitoring/training). HIV Testing and Counseling (HTC) for children are offered only at the request of clinicians in Ghana.

**The situation analysis identified the following major bottlenecks:** identified lack of task shifting policy to allow non-clinicians to initiate ARVs; poor service linkages between ART, EID, PMTCT services and outpatient departments of hospitals/clinics, or reproductive and child health services such as immunization, nutrition and under five clinics. Other challenges identified were undefined budget line for Paediatric HIV; non-harmonized paediatric HIV program implementation and policy coordination with general child health services; non-inclusion of children in routine HTC; and poor dissemination of paediatric HIV treatment guidelines and policy documents at facility level<sup>8</sup>. Moreover, in some priority regions in Ghana, there was lack of cooperation or conflicting roles between district pharmacists and other service providers (e.g., midwives) on the administration of ARVs to mothers and their babies<sup>2</sup>.

**Coverage of services and quality:** Increasing coverage and uptake of ART is beset with major challenges and key bottlenecks including inadequate funding for the ART program, poor HIV commodity security (resulting in stock out of ARVs and laboratory reagents, and breakdown of key laboratory equipment) and poor data quality hindering efficient use of data for effective program decision making processes<sup>3</sup>.

**Demand for services:** Tracking systems and measures to follow up HIV-infected children in families were non-existent. Lack of integration of HIV services for children and reproductive health services creates the potential for loss to follow up; many referred mothers with babies do not get to the point of referral for services. The Community-Based Health Planning and Services (CHPS) currently do not provide service or oversight of HIV-exposed children within families in CHPS zones.

# CHAPTER TWO

## THE ACCELERATION PLAN

### Introduction

The number of lives saved thanks to the HIV and AIDS response in this century is remarkable. But for the sake of the children and adolescents still affected, and for all future generations, we cannot mistake advancement for attainment. We must do more, and do it faster than ever. That's the only way to achieve an AIDS-free generation<sup>9</sup>. Although the world has recorded tremendous benefit from early HIV diagnosis and initiation on ART, there is a significant inequity to access to treatment between adults and paediatric age group. The paediatric treatment coverage has consistently been unacceptably low over the last three decades of the epidemic. For every 1 child living with HIV initiated on treatment, 14 adults living with HIV were initiated on treatment in 2013 in Ghana<sup>10</sup>. Since in Ghana provision of health services is considered as a human right issue, the gaps in access to care and treatment of children living with HIV are unacceptable. The state and society at large need to rise up to this challenge. Unfortunately, these children have no voice and cannot protest against this level of inequity. To reverse this trend and accelerate access to high quality Paediatric HIV services will require a paradigm shift; a call to embrace ambitious and bold innovative thinking driven by evidence, experience and collaboration between public and private sectors.

The national acceleration plan for paediatric HIV services is from 2016-2020 and shall be implemented in two phases. Phase 1 - the Intensive phase of three years duration and phase 2 the Consolidation phase of two years duration. At the end of phase 1, we would have achieved paediatric HIV epidemic control in Ghana -the rate of mother to child transmission would be less than 2%, zero new paediatric HIV infections, unknown children and adolescents living with HIV would have been identified and enrolled in care and treatment.

### Rationale for Acceleration

- A. Goal: By 2020 HIV-related morbidity and mortality among children and adolescents living with HIV are reduced by 90%
- B. Outcome Results: Children and adolescents living with HIV will have increased access to antiretroviral treatment as part of comprehensive package of HIV testing, treatment, and support.

Indicators	Baseline(2015)	2016	2017	2018	2019	2020
Paediatric ART coverage (%)	26%	45%	55%	70%	85%	90%
Total number of children currently and projected on ART yearly	8545	13990	16046	19402	22490	22507

Table 2: Outcome Indicator and Target

### Guiding Principles<sup>11</sup>

The focus of the child and adolescent health program is to improve population coverage with effective child and adolescent health interventions. Child and adolescent health interventions are defined as treatments, technologies, or key health behaviors that prevent or treat child and adolescent illnesses and reduce deaths in children and adolescents 0-19 years.

Alignment with Existing Documents:

- 1992 Fourth Republic Constitution, which provides fundamental rights to each persons in the Ghana Shared Growth and Development Agenda
- Ghana Child Health policy

<sup>9</sup> Anthony Lake, UNICEF Executive Director

<sup>10</sup> Ghana 2014 NACP annual report

<sup>11</sup> Ghana child Health policy



- The continuum of care is a guiding principle for planning and implementing the child and adolescence health program

### Theory of Change – Acceleration of Paediatric ART in Ghana

- The Ghana National Acceleration Plan for Paediatric HIV services is anchored on the theory of change see appendix 6. It addresses the current inequity in access to Paediatric HIV case finding and linkage to care and programmatic bottleneck as encapsulated in the SITAN report as described. It outlines systematic strategic interventions aimed at ensuring that 90% of Children and adolescence age 0-19 living with HIV in Ghana have access to antiretroviral treatment by 2018 (from the baseline of 26% in 2015) and consolidate that achievement until 2020. The Overall impact of this will be reduction HIV-related morbidity and mortality among children and adolescents living with HIV.
- There are three strategic output that contribute to the above outcome. First, the enabling role of National Government, Regional and District Governments is critical to lead, plan, coordinate, finance and monitor the implementation of Paediatric ART program. Secondly, the capacity of health services at all level needs strengthening to deliver high impact interventions for paediatric HIV case-identification, linkage and treatment, retention in care and transition. And thirdly, promoting the participation of empowered parents, families and communities both as beneficiaries and actors will generate demand for quality services and also support its delivery
- These strategic interventions were selected after a rigorous and participatory process by the Ghana Paediatric Technical working group and other relevant stakeholders. This presumed that other critical assumptions are met, and that the potential risks identified are mitigated through additional interventions.
- Key potential game changers encapsulated in this plan to fast track active case –finding of children and adolescent living with HIV are:

#### ***Design and rollout HIV case-finding among children and siblings (0-19) of clients on ART cohort:***

It is well documented that vertical transmission from women (Parents) Living with HIV accounts for more than 90% paediatric HIV infection. Studies from countries with low HIV prevalence such Togo and Ethiopia have showed that offering HIV Testing Services (HTS) to children and siblings of index ART clients will generate high positive yield<sup>12</sup>. There are about 83,712<sup>13</sup> PLHIV alive and on ARV medication, targeting children and siblings (0-19years) among these client cohort is a strategic game changer in unlocking the active case finding and identification in paediatric acceleration plan. From a right perspective they should be given an option of either facility based or household testing. The family testing matrix form will be a veritable tool to fast track identification of these cohorts. For facility based testing, services should be provided possibly.

### GENERAL OBJECTIVE

To increase the paediatric HIV/AIDS enrollment into care and treatment in Ghana to 90% by 2018.

#### Specific Objectives

- To ensure 90% of Children living with HIV are identified, linked to care and access prompt treatment by 2020.
- To ensure that at least 90% of children on ART are retained and virally suppressed by 2020
- Improve access and the quality to the paediatric HIV/AIDS care, treatment and support services.
- Strengthen the Monitoring and Evaluation of paediatric HIV care and support service

<sup>12</sup> HIV prevalence in paediatric HIV diagnosis in Ethiopia, ICAP Supported sites, 2007-2011 (unpublished data).

<sup>13</sup>

## STRATEGIC OUTPUT 1

### NATIONAL AND SUB NATIONAL CAPACITY STRENGTHENING TO LEAD, PLAN, COORDINATE AND MONITOR AND FINANCE THE IMPLEMENTATION OF PAEDIATRIC HIV TESTING, TREATMENT AND SUPPORT PROGRAM.

The 2014 Ghana Paediatric SITAN report revealed significant gaps in the area of program leadership, coordination, planning, coordination and monitoring and financing of paediatric HIV response across all the tiers of governance such as national, regional and district level. Measures need to be instituted to address the disparity in program coordination, planning and governance at the national and sub national levels. With the dwindling global economy, funding and resources for HIV programs in developing countries has declined, hence it is imperative to introduce innovative approaches to build local capacity for effective and efficient program management. Innovative and smart program management is one of the key pillars for accelerating paediatric HIV service especially at the grassroots where most of the diseased burden is. These smart interventions must have a policy thrust and adopted as a national policy for effective implementation.

#### 1.1 Strategic Pillars 1 -Leadership, Governance, Coordination, Evidence-based Planning

##### Strategic interventions

- Establishing relevant policy framework to back strategic intervention: As part of institutional development and entrenching effective leadership system, it is imperative to develop a well-articulated policy framework that will guide and strengthen program coordination, strategic information, logistic management and service delivery. Most often than not health care workers are weary of taking critical initiative for fear of medico- legal consequence etc. Appropriate policy framework is a critical enabler for fast tracking paediatric HIV services in Ghana. With the ever evolving trend in public health, traditional job descriptions and roles of different cadres of health care workers are changing, however, there are various professional bodies and institutions who do not welcome and recognize these changes. To fast track paediatric HIV service in Ghana will require either the outright repeal or modification of certain obsolete policy statements and the establishment of new policy framework based on global best practices. Accelerating Paediatric HIV service in the context of Ghana health system will require policy framework in the following areas:
- Expanding and institutionalizing task shifting and task sharing policy to cover HIV testing and ART for children (0-19years) at all levels (referral, district, health center, and CHPS levels).
- Integration of paediatric HIV care into all child health and adolescent services at the various levels of care; as well as at the level of policy, programming and supervision.
- Procurement of simplified formulations (dispersible forms of ARVs with simplified dosage regimen in weight bands) for paediatric ARVs for ease of dispensing by HCW
- Provision of simple guidelines and action points on how to initiate and dispense paediatric ARV and disseminate to all levels of the health delivery system
- Continuous supply of Paediatric ARVs: Due to the past history of logistics shortages, there is need to ensure continuous supply of Paediatric ARVs through the current 2-year procurement contracts and front loading measures within the integrated national procurement system.
- Performance based financing (e.g. capitation) to stimulate progress in HIV testing and treatment for children at sub-national levels (including CHPS).
- Testing of children and sibling (0-19years) of index HIV client
- Prioritizing and securing Paediatric HIV commodities management
- Establishing a clinical mentorship scheme: To mentor low cadre of HCW on paediatric HIV services

- Making facility in-charges, district and regional managers responsible and accountable for paediatric HIV care together with other service.
- Adopt a policy to screen all women who present to labor and delivery without a previous documentation of HIV testing. After the patient is notified that testing will be performed she can opt-out, in which case her infant should be tested with a rapid HIV antibody test at birth to rule out exposure to HIV.
- Adopt WHO Option B+ for PMTCT of HIV in Ghana
- Adolescent consent policy and testing of children in paediatric emergency and inpatient wards. Separate written consent for HIV testing should not be required; general consent for medical care should be considered sufficient to encompass consent for HIV testing.
- Children on admission with symptoms suggestive of HIV should be tested. Separate written consent for HIV testing should not be required; general consent for medical care should be considered sufficient to encompass consent for HIV testing with or without parental consent and the child assent.
- Prevention counseling should not be required with HIV diagnostic testing or as part of HIV screening programs in health-care settings.
- In service training scheme
- Adopt recent WHO guidelines (2015) for initiating ART in all children and adolescents (0-19 years) regardless of WHO clinical stage or CD4 count.

Consolidate alignment among key government institutions for effective integration of HIV testing and ART commodities management into MNCH services at all levels

Establish/strengthen the Paediatric and Adolescent ART technical committee to oversee and monitor periodically

Integrate the Paediatric Accelerated Plan into the National HIV Strategic Plan and also as a standalone document, to ensure sound grounding in national planning and policy and generate ownership by actors at all levels.

## 1.2 Strategic Pillar 2: Monitoring and Evaluation, Implementation Science and Knowledge Management.

### Strategic Interventions

- A. Disaggregate national indicators on HIV testing and ART for children and adolescents in 5year age-groups (0-4; 5-9; 10-14; 15-19)- WHO 2015
- B. National dashboard for real-time monitoring of number living with HIV, number on treatment and number virally suppressed in line with the 90-90-90 targets at regional and district levels.
- C. Integrate testing and ART indicators for children and adolescents age groups in HMIS.
- D. Integrate specific indicators for children and adolescents in quarterly ART program review at state level.
- E. Organize bi-annual children and adolescents ART conference to take stock of the status of acceleration plan implementation (end of 2016 and 2018)

## STRATEGIC OUTPUT 2

### STRENGTHEN HEALTH SERVICES CAPACITY AT ALL LEVELS TO DELIVER HIGH IMPACT PAEDIATRIC AND ADOLESCENT INTERVENTIONS FOR HIV CASE

Despite the global effort to scale up treatment, children have largely been left behind. In Ghana ARV uptake for pregnant women is 70% while EID for exposed babies is less than 20% and Paediatric Treatment coverage is barely 26%<sup>14</sup>and several factors allude to this poor scale up of paediatric HIV services. To reverse this unacceptable trend, it requires a paradigm shift in our approach and ability to

<sup>14</sup> Situational Analysis and Defining Strategic Action for Accelerating Paediatric HIV Treatment, Care and Support In Ghana, 2014

identify strategies that are not working, build capacity both at the national and sub national levels to articulate and implement high impact, result oriented interventions aimed at increasing access to high quality paediatric case finding, prompt treatment and support services. Our strategies must be within the context of our epidemiology and best practice. This strategic objective seeks to increase both delivery and uptake of paediatric and adolescent HIV services by addressing availability of testing, treatment and support services.

## 2.1 Strategic Pillar 1: Integration and Linkages

### Strategic Interventions and Key activities

- Improve the design of the family matrix in the ART folder to increase efficiency of case-finding among new on ART cohort.

Case finding among children, siblings and adult cohort on ART has been identified to be high yielding. To effectively offer HIV testing services to children and siblings of index client, a family matrix is necessary. The development, design and rollout of family matrix tool of people living with HIV will be a strategic audit/ inventory tool. This tool should be administered and updated in the facility at the point of enrolment for new client or during subsequent visit by the 'Model of Hope' and at the community level during support group meeting of people living with HIV or the leadership of National Association of Person Living with HIV (NAP+). Documentation from national health insurance scheme may provide a platform to verify each PLHIV family tree. Presently there is a family matrix in all the index folders but need to be reviewed and updated. The design and roll out of the family screening matrix form should be completed within the first quarter of 2016.

- Design and rollout HIV case-finding among children and siblings (0-19years) of clients on ART cohort

It is well documented that vertical transmission from women (Parents) Living with HIV accounts for more than 90% paediatric HIV infection. Studies from countries with low HIV prevalence such Togo and Ethiopia have showed that offering HIV Testing Services (HTS) to children and siblings of index ART clients will generate high positive yield<sup>15</sup>. There are about 83,712 PLHIV alive and on ARV medication<sup>16</sup>, targeting children and siblings (0-19years) among these client cohort is a strategic game changer in unlocking the active case finding and identification in paediatric acceleration plan. From a right perspective they should be given an option of either facility based or household testing. The family testing matrix form will be a veritable tool to fast track identification of these cohorts. For facility based testing, services should be provided possibly on weekend so that children would not miss school; transport reimbursement and light refreshment should be provided based on their socio economic profile.

For household testing, the Community-based Health Planning and Service (CHPS) could play a critical role. Community Health Officers (CHOs) liaising with health personnel at health centers and district hospitals can undertake home visits to households in their zone. The link between district health structures needs strengthening such that CHOs could be involved in the care of families within the health delivery system before meeting these families in the communities.

This plan acknowledges the Network of people living with HIV as strategic partners and drivers of this process and should be involved from the planning to the implementation stage. They shall be involved in the enlightenment and sensitization of its members.

The following step would fast track paediatric and adolescent case finding of children and siblings of index clients:

- Adapt and produce the index-case family screening matrix to Ghana context.
- Include the new index-case family screening matrix in all ART files.
- Develop IEC materials (including audio/video/animated) for educating and raising awareness among adults on ART about importance of family testing

<sup>15</sup> HIV prevalence in paediatric HIV diagnosis in Ethiopia, ICAP Supported sites, 2007-2011 (unpublished data).

<sup>16</sup> Ghana SITAN 2014.

- Organize orientation session in all ART facility on the use of the family screening matrix and establish HTS and linkages to care for family of index-HIV positive patient.
  - Conduct systematic family screening of the index-ART patient (using the new form) and link all eligible children to HTS (all children <19 years not tested for HIV in past 12 months).
- A. Conduct systematic screening of all ART patients during scheduled visit (refill, clinical review, etc)
  - B. Counsel the parent on ART and the parent/guardians of children on ART about family testing, offer the options of facility-based or household-based testing, and address concerns raised.
  - C. Provide the family testing appointment form and schedule family testing visit in collaboration with the HTC services team.
  - D. Institute an incentive mechanism to reduce barriers to access (e.g. week-end family services, VIP treatment, i.e., fast tracking family testing appointments, etc.)
- Conduct family testing (according to national algorithm) and ensure parental counseling and linkage to ART services for all HIV positive children and adolescents.
- A. Re-organize and re-enforce HTC services in the health facility to create conducive environment for family testing (week-end for family HTC; fast-track patient flow and HIV results for family testing, etc.)
  - B. Organize and train the outreach team to conduct HTC services at household level.
  - C. Involve the Community based volunteers (CBVs) in family and contact tracing at the community level, through the existing surveillance system.

**Institute systematic HIV testing (PITC) for all children 0-19 years in emergency, inpatients of health facilities inpatients and malnutrition clinic (0-19years) through trained counsellors at all levels.**

To increase coverage and mop up all children 0-19 years, a test and treat option will be adopted for all children in the emergency and inpatients of health facilities. This policy is already captured in the National HIV policy of Ghana and will need to be strictly implemented to accelerate paediatric HIV coverage. Therefore to fast track paediatric case identification in Ghana, all children (0-19years) admitted in health facilities through the emergency and inpatients units shall be offered HIV testing services in accordance with the national testing algorithm irrespective of their presenting complains or parent's HIV status. Consent to admission should be considered as consent by guardians for children to receive HTS. These services shall be provided by the trained counsellors in these health facilities to test all children newly admitted on a daily basis. The counsellors shall facilitate the immediate enrolment into care of all identified positive children and refer for prompt treatment. Siblings (0-19years) of the index child will also be provided access to HTS.

**Integrate child health records and maternal antenatal records to reduce drop-out from EID (including at CHPS level).**

Despite the high immunization coverage of about 90% and excellent ANC coverage, EID uptake is still suboptimal among HIV exposed infants<sup>17</sup>. To optimize the uptake of EID services and to minimized missed opportunity at all levels including the CHPS, the maternal antenatal card should be pinned to the child health record card so health care workers can directly link the mother's status to that of the child. All health care workers (HCW) should be mandated to inspect these two documents at service provision sites. The Director General of Ghana Health Service will provide such directives for all HCW and subsequently provide a national policy to integrate the child health records and maternal antenatal record as a single document to facilitate linkage of maternal HIV status to that to the child; to enable care provider to identify exposed infants.

DBS sample should be collected for all exposed infants who are yet to access EID services. It is critical this is done at all levels of the health system where immunization services are provided, including the CHPS.

<sup>17</sup> Ghana SITAN Report 2014

## **Integrate HIV testing into household level interventions for CMAM and ICCM at CHPS level**

- Train CHOs/CHNs to assess HIV status for sick children (as part of integrated community case-management of childhood illnesses) and refer the child and parent/caregiver to nearest health facility to attend HTC services.
- Establish mechanism to allow CHOs/CHNs to perform HIV testing at household level.
- Use the existing surveillance system to involve the Community based volunteers (CBVs) in family and contact tracing at the community level.

## **Integrate and secure HIV testing commodities (kits for the children and adolescents) for inpatients PITC (push-system) at all levels:**

The current HIV testing commodity distribution matrix prioritized adult testing services, PMTCT and blood safety screening over paediatric HIV testing. Commodity security is indispensable for effective and efficient case identification, the SITAN report, identified incessant stock out of testing commodities including DBS bundle kit and RTKs in supported facilities as one the reasons for low EID coverage and poor paediatric case identification. Several factors have been alluded to for the incessant stock out of HIV testing commodity this include weak commodity supply chain management. To reverse this unacceptable trend, testing commodity should be prioritized in favor of the underserved and vulnerable population such as the paediatric age group. It is recommended that the following steps be taken for effective integration:

- A. Strengthen the current Push system of commodity requisition in all the regions. Currently some regions are not pushing commodities to district and lower levels.
- B. Integration of all health commodity under the supervision of the District pharmacist
- C. Improve coordination between the work function of the District pharmacist and midwives/CHOs to ensure availability of ARVs for children.

## **2.2 Strategic Pillar 2: Decentralization and Capacity Building:**

### **STRATEGIC INTERVENTIONS AND KEY ACTIVITIES.**

#### **Establish ART services for children (0-19years) in all district facilities, health centers, and links with CHPS for retention monitoring**

As at the end of 2013 only 179 health facilities were providing ART services which included 17 private self-financing facilities including paediatric HIV service<sup>18</sup>. There is a great disparity between the number of facilities providing PMTCT services, Maternal and Child Health Services and those providing EID services. This is grossly inadequate to serve the care and treatment needs of the projected number of people living with HIV including children in Ghana. There is an erroneous perception that paediatric HIV services is a specialized care that require a highly trained paediatrician to provide and can only be provided at the tertiary and secondary health facility. Current delivery of comprehensive ART services in Ghana is anchored around physician prescribers, thus facilities without physicians cannot provide comprehensive ART service including paediatric services. Facilities with physicians are mainly the tertiary and secondary health facilities; this implies that once a child is identified or suspected to be living with HIV, s/he will have to travel to a district hospital to access care and treatment. This distance already constitute barrier to service utilization and retention in care. To fast track and accelerate access to paediatric HIV care and treatment, require immediate facility assessment and decentralization of ART services to all district health facilities, health centers and established effective referral system with CHPS. It is worthy of note that private health facilities play a pivotal role in health care delivery in Ghana (especially in the cities and big towns) hence they should be included in the decentralization plan. Prior to decentralization of ART services, minimal infrastructural upgrade will be required and capacity building / training of facility staff. Onsite training has been shown to be cost effective over residential training. A well delineated cluster system could be employed using the hub and spoke method to link

<sup>18</sup> 2014 NACP annual report

CHPS to the nearest health facility providing ART services. To strengthen this linkage, a monthly cluster coordination meeting should be organized between the hub and the spoke (referring CHPS). The mode of service delivery should be in the context of a family-centered and adolescent friendly approach.

#### **Adolescents sensitive job-aids for adherence counseling/support and transition to adult care:**

Adolescent age group is one of the underserved populations. There is a general dearth of Information Education Communication (IEC) materials and job aids that are sensitive to this age group. These resources will provide age appropriate, sensitivity and specific information that will promote health education, improve health seeking behavior, and invariably enhance adherence to care and treatment and ultimately client retention in care and treatment.

#### **Organize mentorship for quality improvement of paediatric ART care at district-level facilities and health centers:**

This strategic intervention is aimed at building the capacity of health care workers at the various levels and equipping them with the requisite skills and expertise to provide paediatric HIV services at the district-level, facilities and health centers. The SITAN report identified significant training needs and capacity gap at the district-level facilities and health centers which have constituted a barrier for service decentralization and task shifting. Quality assurance will be implemented in two categories that cut across all domains of service delivery in the provision of:

1. Assessment and Accreditation
2. Establishment of a clinical mentorship scheme

To close this gap, the following steps should be taken:

- A. Identify staff core competence
- B. Develop an integrated training module which will comprise of paediatric HIV, MNCH and PMTCT training modules
- C. Establish a clinical mentor scheme, which shall comprise of experienced clinicians whose responsibility will entail on-site clinical mentoring, routine supportive supervision or through telephone consultation or social media platform. They shall be properly linked to health facilities within their cluster

### **STRATEGIC OUTPUT 3**

#### **PARENTS, FAMILIES AND COMMUNITIES EMPOWERED TO DEMAND FOR AND SUPPORT DELIVERY OF QUALITY HIV TESTING, TREATMENT AND SUPPORT FOR CHILDREN AND ADOLESCENTS.**

“Just and lasting change occurs when communities own their future”<sup>19</sup>. Health service generally should be people oriented and people focused. The demand for increase uptake of paediatric and adolescent HIV service shall be driven by both the local community and the community of people living with HIV. Paediatric HIV service will be offered in the context of the people. There are various myths, belief system and perception that constitute barrier for service demands and utilization. The linkage between demand of paediatric HIV services and service utilization is a critical enabler to the Paediatric HIV acceleration plan. The community including household should be offered adolescent friendly and paediatric focused HIV prevention, adherence, and treatment information. Community support system is critical to address issues around paediatric case identification, treatment and retention in care. The already existing CHPS that provide a veritable platform to support community and household service but paediatric HIV case finding and referral are not part of their current terms of reference. Paediatric HIV case finding and linkages should be integrated into the routine responsibility of the CHPS. The roles of the CHPS in the delivery of community and household services need to be well delineated. The wide coverage of mobile telephone system and deep penetration of social media service provide an opportunity yet to be fully tapped in community mobilization, sensitization, adherence information and service coordination.

<sup>19</sup> Taylor-Ide D and Taylor CE. Just and Lasting Change. When Communities Own Their Futures. Baltimore, MD. The Johns Hopkins University Press, 2002

### 3.1 Strategic Pillar 1: Community Mobilization:

#### Strategic Interventions and Key activities

##### **Engage community leaders to increase community awareness and male engagement for family HIV testing and ART.**

Community leaders are the custodian of the community belief system. Disclosure and stigma is common in settings with limited male involvement. Strong measures to increase male involvement is imperative.

##### **Engage networks of PLHIV (e.g. Model of Hope) in facility-based demand creation for family testing and retention in care**

Since active case finding, linkage to care/ treatment and retention are key objectives of this plan, it is imperative that we galvanize and harness the expertise of the Network of People living with HIV, e.g., the Model of Hope to drive the process of client tracking, follow up for family centered HIV testing by the community health workers. It is recommended that a special funding mechanism be established to support their activities. Credible and experienced members of NAP+ support group or CBOs need to be identified and assigned to cover designated clusters within their constituencies. There should be a well-defined reporting line for effective coordination, accountability and transparency.

##### **Organize week-end family testing days with incentives (e.g. reimbursement family transport) for families with a member on HIV care**

Considering the possibility of disrupting school attendance for children and sibling of index client, it is recommended that special arrangement be made to offer them access to HTC services during weekend with incentives such as transport reimbursement for families that opt for facility based HTC services. This will remove the bottleneck caused by the routine hospital schedules and transportation.

##### **Organize sessions for caregivers of adolescents on ART to promote support mechanism for adherence and retention on ART during their transition to adult care**

##### **Establish and support the operation of adolescents' peer mentors/support group for adherence and support (e.g. teen clubs).**

As part of effort to address the peculiarity of the adolescent age group, this plan recommends the establishment of an adolescent peer mentors / support group that will provide the right and appropriate environment for experience sharing, support system to strengthen adherence and retention in care and treatment.

### 3.2 Strategic Pillar 2: Promotion of Innovative Demand Creation:

#### Strategic intervention and Key activities

- Build capacity of parents to disclose HIV status and ART care to children and adolescents. Disclosure to children and adolescents of their HIV statuses is a very sensitive subject in the management of children and adolescents. Providing appropriate age-specific information is key to adherence and retention in care and treatment. The objective of this is to build the capacity of caregivers and parents to know how to provide age appropriate information to their children. Caregivers and parents will be provided the appropriate job aids, IEC materials and hands on mentorship that will facilitate the process.
- Design and rollout mHealth approaches (e.g. SMS, Whatsapp, Agoo) to increase retention of children and adolescents on ART via parents. There is a wide coverage and penetration of mobile phone technology and social media platform in Ghana. Harnessing this platform will be a potential game changer for demand creation, increase access to health education, information and coordination of service delivery. This platform can bridge the traditional barriers caused by distance and weak coordinating mechanism.



## CHAPTER THREE

### IMPLEMENTATION ARRANGEMENTS FOR ACCELERATION OF PAEDIATRIC ART SERVICES IN GHANA

The implementation of the National Acceleration Plan for Paediatric HIV services (NAPHS) services will commence as soon as it is endorsed by Ministry of Health/ Ghana Health Service. The NAPHS will be methodical and will be coordinated by relevant agencies put in place for the sole purpose of ensuring orderly and logical execution of acceleration interventions.

#### COORDINATION OF ACCELERATION INTERVENTIONS

*A. Expansion of responsibility of the Paediatric Technical Working Group*

The National Paediatric Technical Working Group with leadership from NACP and FHD of the Ghana Health Service will be responsible for the coordination and implementation of the NAPHS including development of advocacy package, operational research, curriculum and guidelines review, supportive supervision and mentoring of health workers.

*B. Revision of commodities forecasting and quantification*

The National HIV/AIDS Division, NACP, WHO, and UNICEF will review requirements and forecast for paediatric ART including requirements for rapid HIV testing, CD4+ estimation, reagents for DNA-PCR, CPT and ARVs.

*C. Expansion of paediatric ART services*

Comparative mapping of comprehensive health facilities and ART centers to establish number offering ART for children and provide clear recommendations for establishment of additional paediatric ART unit

*D. Training and deployment of health workers*

To support establishment of additional paediatric ART services – process to be coordinated by a tripartite of GHS, FHD and NACP.

*E. Minor infrastructural upgrades*

To support service provision in new facilities to be carried out by responsible regional or Districts Local Government with assistance from National lead HIV implementing partners and other interested partners.

#### QUALITY OF CARE

Quality of care will include the correctness of ART and associated services and as a result will cover such interventions as HIV counseling, adherence counseling, transitioning of children to adult clinics, retention of clients in care and disclosure.

A Quality of Care subcommittee will be established (via the Technical Working Group at the national level) and granted authority to raise recommendations for the development of retention in care plan that addresses all of the challenges that lead to poor adherence among children, poor transitioning of children, non-disclosure among others.

Other functions of the Quality of Care subcommittee will include:

- A. Quarterly mentoring and supportive supervision of ART services
- B. Monitoring and supporting the implementation of the recommendations of the national implementation of VL /EID testing in Ghana

Monitoring and supporting the implementation of community interactive interventions such as the tracking of children of index patients.

Indicators	Total number of children and adolescents currently and projected on ART yearly					
Regions	Baseline 2015	2016	2017	2018	2019	2020
Eastern	3162	5176	5937	7179	8321	8328
Ashanti	2734	4477	5135	6209	7197	7202
Greater Accra	2307	3777	4332	5238	6072	6076
Western		1166	1303	1519	1776	1751
Brong Ahafo	1794	2938	3370	4074	4723	4726
Upper East	1452	2378	2728	3298	3823	3826
Volta	1025	1679	1926	2328	2699	2701
Central	940	1539	1765	2134	2474	2476
Northern	684	1119	1283	1552	1799	1801
Upper West	683	1119	1284	1552	1799	1801

Table 3: Regional Targets for Number of Children and Adolescents currently and projected on ART 2015-2020

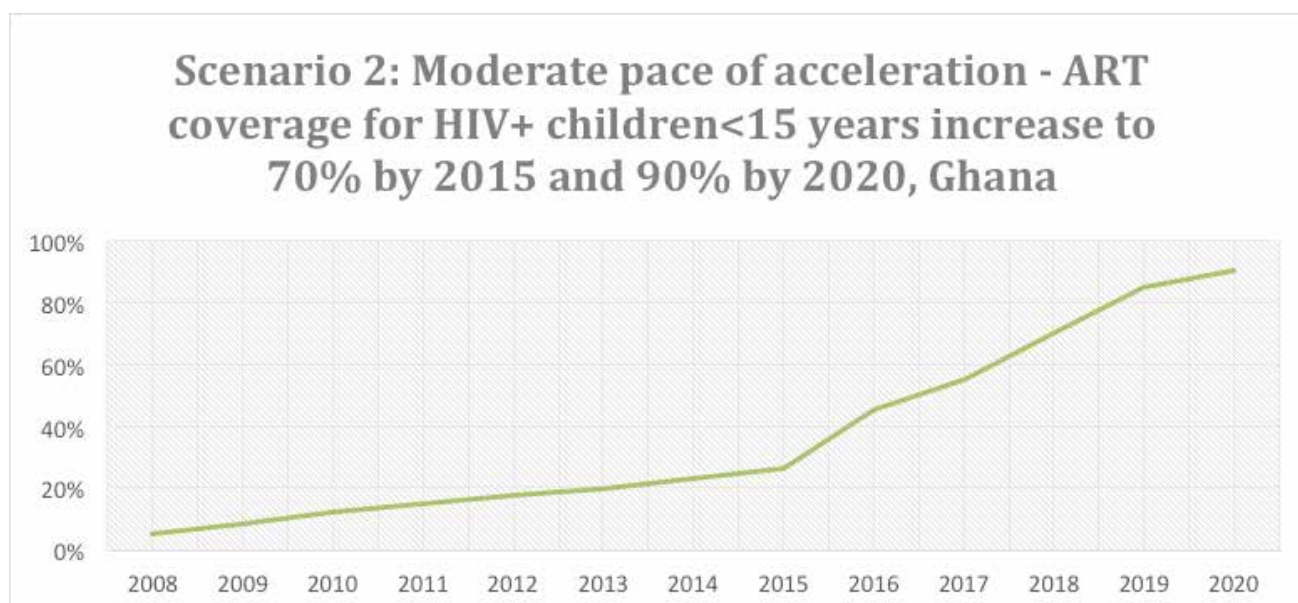


Figure 6: Moderate pace implementation of Paediatric HIV Services in Ghana

## CHAPTER FOUR

### MONITORING AND EVALUATION PLAN

#### Introduction

In line with the Ghana HIV/AIDS Strategic Framework, the National Acceleration Plan for Paediatric HIV services (NAPPH) will adopt a decentralized implementation policy, based on significant regional variations in HIV prevalence rates, current response activities and available resources. The M&E framework for NAPPH has been developed with the goal of reporting on key achievements and evaluating the effectiveness of our strategic interventions. This will be linked to accountability mechanisms between the Government and development partners. Existing strategic Information Management System will be utilized for routine program data collection through registers and reporting forms at implementing health facilities. Reporting will follow established channels from health facility to district, to the regional and national level. System will be put in place to strengthen data use for planning and decision making at the various strata of governance including the health facilities at periodic intervals.

#### 5.1 Information Products at All National Levels and Reporting Timelines

Reporting timelines refers to the frequency of data submission to the various levels. At the facility level, focal person is required to send in his/her report to the district health management teams within seven (7) working days at the end of the month. While the DHMTs are expected to submit their report to the regional level within seven working days, at this level the regional HIV coordinators collate analyze and share the information with stakeholders within the region as well as forward the comprehensive regional data to the national level after seven working days. Therefore, HIV service data from the regions should be available for submission to the national level within twenty-one working days at the end of the calendar month

After receiving data from the regional level, the national M&E officer is required to collate, analyze and disseminate the information with the relevant stakeholders within and outside of the country, on a quarterly basis.

Generally, data collected are analyzed according to gender and administrative settlements. This information disseminated to relevant stakeholders such as GAC, CCM, UN HIV team, etc., on a quarterly basis via news bulletin. In addition it is hosted on the Ghana Health Service website

#### 5.2 Reporting Levels and Data Flow

Data will be collected using data collection tools that had been designed to facilitate the process. The tools are in the form of registers and summary sheets which are translated into computer based MS Access and Excel to make collation and analysis easier



As shown above, HIV data from facility/health centre is transmitted to the district health management teams where collation takes place and aggregated data is sent to the regional health directorate. At the district level, district analysis is done to generate key information for action and advocacy.

At the regional level, various districts HIV data are collated and forwarded to National AIDS Control Program. Regional analysis of HIV data are also done to show where urgent action needs to be taken and also where resources should be sent to achieve maximum impact in the long term.

With respect to the national level, after collation, various kinds of analyses are done to reflect both national and international needs. The information that is generated is used in advocacy by various civil society organizations, CBOs, NGOs etc. To ensure ownership of the various data that is sent to the national level, feedback information is forwarded to the various levels.

# APPENDICES

# 1. MONITORING & EVALUATION (M&E) FRAMEWORK

To ensure that all eligible Children and Adolescents living with HIV in Ghana have uninterrupted access to high quality Universal Access to HIV/AIDS Treatment, Care and support by 2020

- To ensure that at least 90% of HEI are provided with EID by 2020.
- To ensure that at least 90% of children (0-19) and adolescents admitted in paediatric inpatient ward in Ghana have been counseled, tested and received result for HIV at least once by 2020
- To ensure that at least 95% of children (0-19 years) of adults in the ART program in Ghana have been counseled, tested and received result for HIV at least once by 2020
- To ensure that 90% of HIV positive children and adolescents are linked to care by 2020.
- To ensure that 90% of HIV positive children and adolescents linked to care eligible for treatment are initiated on ART by 2020.
- To ensure that 90% of HIV positive children and adolescents are initiated on ART and are retained in care.
- To ensure that at least 90% of women 15-49 years in Ghana are aware of the availability of HIV treatment services in their locality by 2020.

## Increased access to EID for HEIs

- Performance Indicators
- % of HIV-exposed infants receiving a virological test for HIV within 2 months of birth
  - % of early infant diagnosis test results returned in 2 weeks a timely manner.
  - % of infants born to HIV-positive women who are HIV-positive at 6 weeks

## Increased access to HTC for children and adolescents

- Performance Indicators
- % of children and adolescents living with HIV who know their status
  - Number of adolescent and children who were exposed to HIV AND retested for HIV within the past 12 months
  - % of HTS sites with stock-outs of HIV diagnostic tests or reagents within any quarter in last year.

## Increased linkage of children and adolescents to care

- Performance Indicators
- Number and % of newly diagnosed children and adolescents linked to HIV care.
  - % of identified HIV-positive infants who initiate ART by 12 months of age
  - Number of children and adolescent 1-19 years identified HIV-positive initiated on ART by 12

## Increased access to high quality ART service

- Performance Indicators
- Number of children and adolescents living with HIV who initiate ART
  - % of children and adolescents living with HIV who are receiving ART
  - % of children and adolescents in HIV care who were screened for TB in HIV care and treatment settings
  - % of children and adolescents living with HIV and newly enrolled in HIV care who have active TB disease
  - % of HIV-positive children and adolescents new and relapsed TB patients on ART during TB treatment
  - % of HIV- positive new and relapsed
  - TB patients who receive cotrimoxazole (CTX) preventive therapy.
  - % of people living with HIV who have suppressed viral load.

## Increased retention in treatment

- Performance Indicators
- % of children and adolescents living with HIV and on ART who are retained on ART 12, 24, 36 months after initiation.
  - % of children and adolescents living with HIV who have suppressed viral load within 12 months of treatment.
  - % of facilities with stock-outs of antiretroviral drugs within any quarter in the last year.

## Increased availability of HIV treatment services

- Performance Indicators
- Percentage of District with at least 1 comprehensive ART site.
  - Number of PMTCT sites in the District.

Indicator	Definition	Baseline	Target	Data Source	Frequency
	How is it calculated? N: Numerator D: Denominator	What is the current value?	What is the target value? /%	How will it be measured?	How often will it be measured?
% of HIV-exposed infants receiving a virological test for HIV within 2 months of birth.	N: Number of HIV-exposed infants born within the past 12 months who received an HIV test within two months of birth  D: Number of HIV-positive Pregnant women who delivered within the past 12.	16%(HMIS)	95%	Program records,  e.g. PMTCT registers,  laboratory records	Quarterly
% of early infant diagnosis test results returned in a timely manner.			95%	PMTCT register/ child follow up register	
% of children and adolescents living with HIV who know their status	N: Number of children and adolescents living with HIV who have been diagnosed and received their results  D: Number of children and adolescents living with HIV		95%	Based on facility data:  N: Cumulative number of reported new HIV diagnoses minus deaths;  D: national PLHIV estimate based on internationally consistent modeled estimates, e.g. Spectrum AIM	
Number of children who were tested for HIV and received their results within the past 12 months	N: Number of children who were tested for HIV and received their results within the past 12 months.  D: NA			HTS registers	
Number of children and adolescence who tested positive for HIV and received their results within the past 12 months		1,185			

Indicator	Definition	Baseline	Target	Data Source	Frequency
% of HTS sites with stock-outs of HIV diagnostic tests or reagents within any quarter in last year	N: Number of HTS sites that had a stock-out of HIV diagnostic tests or reagents during a reporting period. D: Number of reporting HTS sites.		0	Routine programme management (PM) system	
% of eligible HIV positive Children who receive co-trimoxazole (CTX) preventive therapy	N: Number of eligible HIV positive individuals who received CTX D: Number of HIV positive individuals enrolled in HIV care who are eligible for CTX.		95%	ART register	
Number and % of newly diagnosed children and adolescents linked to HIV care.	N: Number of people who were newly enrolled in HIV care D: NA		90%	Program records, e.g. HIV care register, pre-ART register	
% of identified HIV-positive infants who initiate ART by 12 months of age	N: Number of positive infants initiated on treatment by 12 months of age D: Number of positive infants identified by 12 months of age		95%	Child follow up register and ART register	
% of children and adolescent ( 0-19) who initiated ART within 1 month after diagnosis	N: Number of Children and adolescent( 0-19) living with HIV who initiated ART within 1 month after diagnosis within the reporting period D: Number of of children and adolescent ( 0-19) living with HIV who initiated ART within the reporting period		95%	Pre-ART and ART register	
Number of children and adolescent 1-19 years identified HIV-positive initiated on ART by 12 months	N: Number of positive children(1-19) initiated on treatment within 12 months of diagnosis D: NA			Pre-ART and ART register	
% of children and adolescents living with HIV who are receiving ART	Number of people living with HIV who are currently receiving ART. D: Number of people living with HIV. Sex	26%	95%	ART register and reporting forms	



Indicator	Definition	Baseline	Target	Data Source	Frequency
% of children and adolescents in HIV care who were screened for TB in HIV care and treatment settings	<p>N: Number of HIV-positive adolescent and children enrolled in HIV care (pre-ART, ART) within the past 12 months whose TB status was assessed and recorded at their last visit during the reporting period</p> <p>D: Total number of HIV-positive adolescent and children enrolled in HIV care (pre-ART, ART) within the past 12 months</p>		100%	Programme record, e.g. HIV care register, pre-ART register, ART register,	
% of children and adolescents living with HIV and newly enrolled in HIV care who have active TB disease					
% of HIV-positive children and adolescents new and relapsed TB patients on ART during TB treatment					
% of children and adolescents living with HIV and on ART who are retained on ART 12, 24, 36 months after initiation.	<p>N: Number of children and adolescent on ART alive and on ART 12, 24 and 36 months after initiating ART</p> <p>D: Number of children and adolescent on ART initiating ART up to 12, 24, 36, months before the beginning of the reporting year. This include those who have died since starting therapy, those loss to follow-up as of 12, 24 and 36 months.</p>			ART register	

Indicator	Definition	Baseline	Target	Data Source	Frequency
% of children and adolescents living with HIV who have suppressed viral load within 12 months of treatment	N: Number of people living with HIV who initiated ART 12 months before the start of the reporting period and who have a suppressed viral load (VL) (<1000 copies/mL) at 12 months after initiating ART D: Number of people living with HIV who initiated ART 12 months (□}3 months) before the start of the reporting year		95%	ART Register	
% of facilities with stock-outs of antiretroviral drugs within any quarter in the last year	N: Number of ART sites that had a stock-out of any ARV drugs during a reporting period D: Total number of reporting ART sites		0%	Program data such as pharmacy log book	
Percentage of District with at least 1 comprehensive ART sites	N: Number of district with at least 1 ART site D: Total number of districts		95%	Program data	
% of facilities providing PMTCT service in the District	N: number of facilities with in a district proving PMTCT service including EID D: Total number of facilities within the districts		100%	Program data	

## 2. ROADMAP FOR ACCELERATING PAEDIATRIC AND ADOLESCENT HIV SERVICES IN GHANA 2016-2020

Strategic Objectives for achieving outputs:

- To improve the identification of paediatric HIV cases
- To establish linkages to care and improve enrollment and maintenance of children on ART
- To improve uptake of PMTCT and to strengthen EID for early identification of HIV-infected infants in order to initiate them on ART

Outputs	Strategic Intervention	Activities
Output 1: Leadership, Governance, Coordination, evidence-based planning- at all levels of the health delivery system	Establishment of a National Policy Framework for the following activities	Integration of paediatric HIV services into RMNCH as at the level of policy, programming and supervision
		Integrate HIV testing services in Adolescence Health Corners
		Make facility in-charges, district and regional managers responsible and accountable for Paediatric HIV care together with other services to engender ownership of Paediatric HIV care and supervision of HIV services.
		Mandate Community Health workers and other HCW in EPI programed to allow for getting women with unknown HIV status tested and if positive have all their offspring tested for HIV i.e. Women to have their ANC card for inspection
		Institutionalized testing of children and sibling of index clients.
		Test and Treat all children in emergency and inpatients wards. ( New HIV Policy of Ghana)
		formulate policy to institutionalized in- service training on Integrating Paediatric HIV services into RMNCH at all levels of the health system
	Establishment of a Policy Framework for Logistics and commodities	Prioritize the procurement and management of Paediatric HIV Commodities <ul style="list-style-type: none"> <li>• DNA PCR kits and reagents</li> <li>• Serological test-Kits</li> <li>• Paediatric ARVs</li> </ul>
		Prioritize the coordination and management ARVs for children
		Procure simplified formulations (dispersible forms of ARVs with simplified dosage regimen in weight bands) for paediatric ARVs for ease of dispensing by HCW
		Resource mobilization from private cooperate bodies
		Implement continuous supply of Paediatric ARVs through the current 2-year procurement contracts and front loading measures within the integrated national procurement system
	Establishment of a Policy Framework for M&E and Coordination	Review of referral systems/mechanism for paediatric HIV at all levels of the health care system.

2016				2017				2018				2019				2020				Responsible Agency/Unit
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
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		Mainstream Paediatric HIV in all M&E and Supervisory visits
		Capture Paediatric HIV Data in DHMIS and regular data validation meetings
		Integration of Paediatric HIV indicators in existing monitoring tools
		Strengthen existing regional and district monitoring teams by including the respective regional and district public health nurses
		Disaggregate national indicators on HIV testing and ART for children in 5 age-groups (<4; 5-9; 10-14; 15-19) to capture adolescent age group
		Integrate the Paediatric Accelerated Plan into the National HIV Strategic Plan and also as a standalone Document, to ensure sound grounding in national planning and policy and generate ownership by actors at all levels.
Output 2: Service delivery and promotion of innovative models	Identification / case finding of 0 - 19 years	Identify and counsel HIV positive mothers at the: <ul style="list-style-type: none"> <li>Newborn care units to bring other children for testing.</li> </ul>
		Identify children of mothers of unknown status at the CWC/ EPI and provide counseling and testing
		Identify and test mothers who did not have re-testing for HIV at 34 weeks at the labour ward, post natal ward and the newborn care units.
		Offer testing at the Paediatric OPD
		Test and treat all children 0-19 year at emergency and inpatients of all hospitals
		Provide counselling and testing at Special clinics - Adolescent health clinics, STI, TB, malnutrition, family planning clinics.
		Conduct home visits for testing of other children of HIV positive parents for those who give consent Involve the Community based volunteers (CBVs) in family and contact tracing at the community level, through the existing surveillance system.
		Provide support for transport fare and/or nutritional support to HIV positive mothers as incentives to encourage them to bring their children for testing.
		Routine identification and testing for abandoned babies brought to newborn care units
		Provide testing services at children homes/ orphanages and link up with care

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		Support HIV positive adults to bring children aged 0 - 19 years of unknown status for testing as a priority activity.
		Engage NAP+ members to bring other family members aged 0-19 years for counseling and testing
		Include and complete the family matrix (HIV/ AIDS Care and Treatment Enrolment Forms) in clients' record to ensure linkage to care of other children in the family-At ART clinic, ANC etc.
		Link with faith based organizations / TBAs/ traditional healers for referral of persons under their care
		Development and dissemination of simplified Jobs aids, protocols and guideline on paediatric HIV services
Capacity building for Identification / case finding of 0 - 19 years		Conduct a rapid facility assessment to <ul style="list-style-type: none"> <li>• identify the capacity of and levels of health system/facilities capable of providing Paediatric HIV care and</li> <li>• identify health workers to be trained</li> </ul>
		Train HCW on testing for those involved in care of children 0-19 years- all prescribers, nurses, counsellors, CHOs, laboratory staff
		Train providers of Paediatric HIV care on the management of children and adolescents infected by HIV. Should be in phases
		Train providers on the management of children and adolescents infected by HIV in high burden regions.
		Train providers on the management of children and adolescents infected by HIV in low burden regions.
		Train HCW on logistics management for pharmacists, pharmacy technicians, CHOs, CHNs and midwives and other health care providers managing paediatric HIV commodities
Linkages - treatment, care and support		Initiating paediatric ART: <b>Short term to Medium term</b> - Train all clinicians, physician assistants, midwives and nurse prescribers involved in HIV care at the district hospitals to initiate paediatric ART in <b>high burden areas</b>
		<b>Long term</b> - Train all clinicians, physician assistants, midwives and nurse prescribers involved in HIV care at the district hospitals to initiate paediatric ART in <b>low burden areas</b>





		Establish Clinical mentorship scheme for clinicians at the district and health centre level in the provision of paediatric HIV care. ( Clinical mentors should be assigned zones/ a number of facilities to provide mentoring )
		Strengthen measures to link newly identified community cases to treatment sites by the CHN's and CHOs as early as possible
		Strengthen measures to link facilities with CHOs and CBVs by telephone to provide home visits and follow up to provide adherence and treatment support
		Strengthen measures to link newly identified cases from the facility to community based support groups (including involvement of CBVs) and vice versa
	Provision of logistics/ commodities for Identification / case finding of 0 - 19 years	Enforce monthly requisitions and scheduled delivery through provisions of monthly returns of HIV commodities from facilities to regional level
		Provide transportation between all levels (regions to districts to sub-districts and CHPS) to facilitate distribution of HIV commodities
		Provide transportation for transfer of samples and relay of results between care centres for EID
		Provide support services for pharmacy and laboratory at the facilities
	Monitoring and Coordination for Identification / case finding of 0 - 19 years	Conduct regional integrated quarterly monitoring using comprehensive checklists
		Conduct quarterly technical working visit from regional level to district level
		Performance reviews half yearly at regional level and quarterly for district level
		<b>Data management-</b> Monthly data validation meetings at all levels - regional district and sub-district
Output 3: Communication & demand generation	Knowledge sharing and awareness creation National Level	Disseminate information on Paediatric HIV testing and treatment at National level health fora.
		Include Paediatric HIV testing and treatment and support on available social media platform e.g. 'agoo', ADH mobile App, Facebook, twitter etc
		Produce IE&C materials for distribution at all levels
	Knowledge sharing and awareness creation Regional Level	Disseminate information on Paediatric HIV testing and treatment at Health Performance Review Meetings

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		Disseminate information on Paediatric HIV testing and treatment at Regional Co-coordinating Council Meeting
	Knowledge sharing and awareness creation Regional Level	Disseminate information on Paediatric HIV testing and treatment at District Assembly Meetings
		Disseminate information on Paediatric HIV testing and treatment at Community Health Committee Meeting at Sub-district and Community levels
		Disseminate information on Paediatric HIV testing and treatment at Community Health Committee Meeting at Sub-district and Community levels
		Use Community communication Systems – local radio/ FM, Information Vans etc to disseminate information on Paediatric HIV testing and treatment at
		Disseminate information on Paediatric HIV testing and treatment at Community durbars
		Disseminate information on Paediatric HIV testing and treatment at Community groups e.g schools, religious gatherings
		Reinforce information on Paediatric HIV testing and treatment at all service delivery points in all health facilities



### 3. COST (Summary of Costing for the Acceleration Plan in Ghana, 2016-2020)

#### Costing of the acceleration plan for paediatric HIV testing, care, treatment and support in Ghana 2016-2020

##### Objectives:

- To improve the coverage rate of paediatric HIV treatment in Ghana
- To determine the national and regional state cost of accelerating the scale up of paediatric HIV care and treatment

##### Methodology:

- Interventions derived through technical team meeting in Accra, November 2015
- Commodities quantified using morbidity data and methodology as per the standard application quantification 2014

Cost for the 10 Regions include activity costs only: commodity costs will be catered for by the central Government

**Costing Table 1: Summary of Costing Results:**

<b>Commodity costs</b>					
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Pharmaceuticals</b>					
ARVs	\$ 13,539,441	\$ 23,659,319	\$ 27,580,006	\$ 6,895,001	\$ 5,516,001
Cotrimoxazole	\$ 2,086	\$ 2,593	\$ 3,076	\$ 3,088	\$ 3,100
<b>Laboratory commodities</b>					
HIV testing with RTKs	\$ 88,153	\$ 70,776	\$ 10,040	\$ 26,247	\$ 26,260
EID	\$ 163,831	\$ 208,505	\$ 213,792	\$ 56,307	\$ 6,898
CD4	\$ 12,669	\$ 27,356	\$ 23,032	\$ 13,704	\$ 10,968
Viral load	\$ 227,820	\$ 352,521	\$ 582,499	\$ 145,624	\$ 116,499
Hematology	\$ 185,263	\$ 331,524	\$ 526,537	\$ 107,033	\$ 73,609
Chemistry	\$ 347,909	\$ 622,574	\$ 970,293	\$ 242,573	\$ 194,058
<b>Total commodities cost</b>	<b>\$ 14,565,086</b>	<b>\$ 25,272,575</b>	<b>\$ 29,906,199</b>	<b>\$ 96,258</b>	<b>\$ 84,126</b>
<b>Activities cost</b>					
Pillar 1/ Outcome 1	\$ 9,248,047	\$ 9,889,502	\$ 10,866,652	\$ 12,496,650	\$ 14,966,372
Pillar 2/Outcome 2	\$ 3,047,042	\$ 3,199,184	\$ 3,485,873	\$ 3,434,770	\$ 4,131,746
Pillar 3/Outcome 3	\$ 1,184,908	\$ 1,274,880	\$ 1,403,097	\$ 1,612,723	\$ 1,871,092
<b>Total Activity cost</b>	<b>\$ 13,479,997</b>	<b>\$ 14,363,566</b>	<b>\$ 15,755,623</b>	<b>\$ 17,544,143</b>	<b>\$ 20,969,210</b>
<b>Overall total: Commodities and Activities</b>	<b>\$ 28,045,084</b>	<b>\$ 39,636,141</b>	<b>\$ 45,661,822</b>	<b>\$ 17,640,401</b>	<b>\$ 21,053,335.44</b>
<b>Grand Total 2016-2020</b>	<b>\$ 152,036,783. 00</b>				

**Costing Table 2: Summary of costing for commodities, 2016-2020**

Commodity costs					
	2016	2017	2018	2019	2020
<b>Pharmaceuticals</b>					
ARVs	\$ 13,539,441	\$ 23,659,319	\$ 27,580,006	\$ 6,895,001	\$ 5,516,001
Cotrimoxazole	\$ 2,086	\$ 2,593	\$ 3,076	\$ 3,088	\$ 3,100
<b>Laboratory commodities</b>					
HIV testing with RTKs	\$ 88,153	\$ 70,776	\$ 10,040	\$ 26,247	\$ 26,260
EID	\$ 163,831	\$ 208,505	\$ 213,792	\$ 56,307	\$ 46,898
CD4	\$ 12,669	\$ 27,356	\$ 23,032	\$ 13,704	\$ 10,968
Viral load	\$ 227,820	\$ 352,521	\$ 582,499	\$ 145,625	\$ 116,500
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<b>Total</b>	<b>\$ 14,565,086</b>	<b>\$ 25,272,575</b>	<b>\$ 29,906,199</b>	<b>\$ 96,258</b>	<b>\$ 84,126</b>

**Costing Table 3: Activity cost per region (excluding cost of commodities\*)**

Region	HIV Prevalence	Weighted prevalence	2016	2017	2018	2019	2020	Total by region
Greater Accra	3.10%	14.4%	\$ 2,068,353	\$ 2,068,353	\$ 2,068,353	\$ 2,268,810	\$ 14,350,562	\$ 22,824,432
Ashanti	2.80%	13.0%	\$ 1,867,264	\$ 1,867,264	\$ 1,867,264	\$ 2,048,231	\$ 12,955,369	\$ 20,605,390
Eastern	3.70%	17.2%	\$ 2,470,533	\$ 2,470,533	\$ 2,470,533	\$ 2,709,967	\$ 17,140,949	\$ 27,262,516
Western	2.40%	11.2%	\$ 1,608,719	\$ 1,608,719	\$ 1,608,719	\$ 1,764,630	\$ 11,161,548	\$ 17,752,336
Brong Ahafo	2.60%	12.1%	\$ 1,737,991	\$ 1,737,991	\$ 1,737,991	\$ 1,906,430	\$ 12,058,458	\$ 19,178,863
Central	1.40%	6.5%	\$ 933,632	\$ 933,632	\$ 933,632	\$ 1,024,115	\$ 6,477,684	\$ 10,302,695
Volta	2.20%	10.2%	\$ 1,465,084	\$ 1,465,084	\$ 1,465,084	\$ 1,607,074	\$ 10,164,981	\$ 16,167,306
Upper East	1.40%	6.5%	\$ 933,632	\$ 933,632	\$ 933,632	\$ 1,024,115	\$ 6,477,684	\$ 10,302,695
Upper West	1.30%	6.0%	\$ 861,814	\$ 861,814	\$ 861,814	\$ 945,337	\$ 5,979,401	\$ 9,510,180
Northern	0.60%	2.8%	\$ 402,180	\$ 402,180	\$ 402,180	\$ 441,157	\$ 2,790,387	\$ 4,438,084
<b>Total</b>			<b>\$ 14,349,202</b>	<b>\$ 14,349,202</b>	<b>\$ 14,349,202</b>	<b>\$ 15,739,867</b>	<b>\$ 99,557,024</b>	

\*Cost for the 10 Regions include activity costs only: commodity costs will be catered for by the central Government

#### 4. HISTORICAL ART ENROLMENT (BASELINE TREND) FOR ADULTS AND CHILDREN IN GHANA, 2008-2014

Year	Historical enrolment (baseline trend)						
	2008	2009	2010	2011	2012	2013	2014
Number of children started on ART yearly	450	722	894	942	684	843	1185
Number of adults started on ART	9735	9409	12920	13441	13648	13456	13809
Total number of children currently on ART yearly	946	1617	2387	2957	3504	3907	4581
Average annual number of HIV+ children <15 yrs	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Annual gap for children ART	19,054	18,383	17,613	17,043	16,496	16,093	15,419
Annual gap for children ART (%)	95.3	91.9	88.1	85.2	82.5	80.5	77.1

## 5. FAMILY SCREENING MATRIX

Country: Ghana National HIV/AIDS Care and Treatment Program

### Family HIV Screening Matrix

*A guide for interview with adults and children's care giver at the ART clinic visit. Family members eligible for HIV testing are identified and appointments organized for family member testing (at facility or at household)*

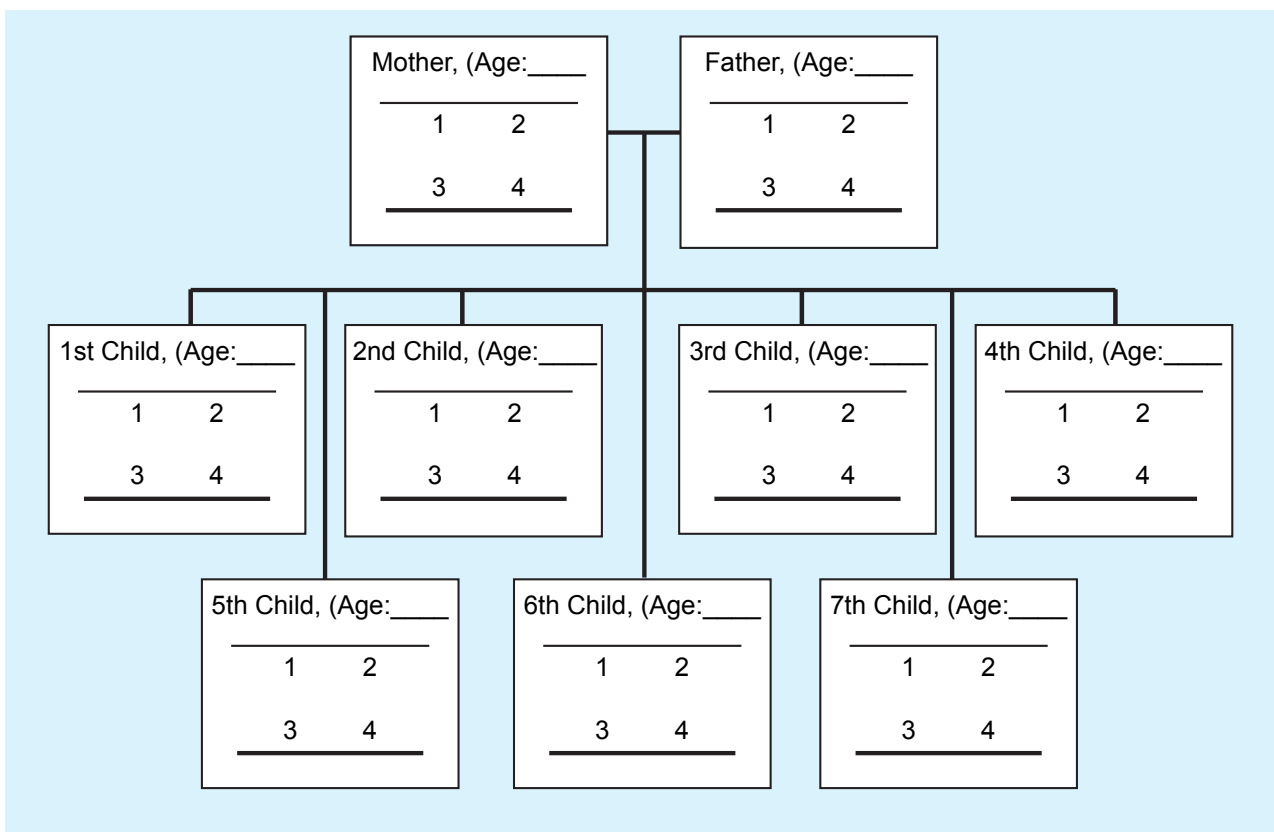
Date:     /    /      
DD/MM/YYYY

**ART Client** Unique ART No. of the Index Client: \_\_\_\_\_

**Pre ART Client-** Pre ART Serial No (Facility card number): \_\_\_\_\_

Legend	
1: HIV Status unknown	3: HIV positive not on ART
2: HIV negative	4: HIV positive on ART

**In the family-tree below, circle the current status of each family member**



#### Summary and Actions:

Total number of HIV testing target (add all circled "1") = |\_\_\_\_|

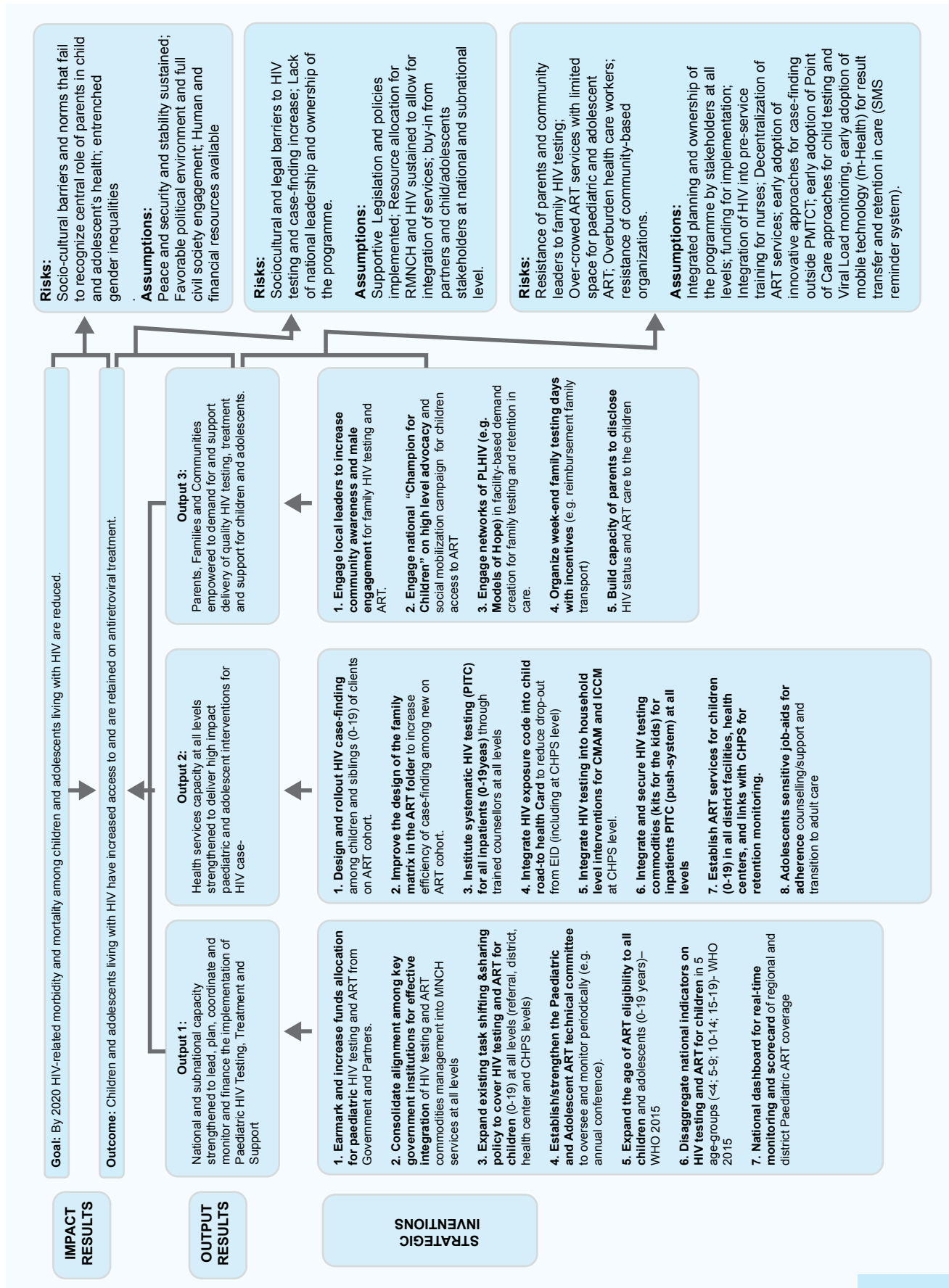
Action 1 à Propose appointment date for family HIV testing /\_\_\_\_/\_\_\_\_/\_\_\_\_/

Action 2 à Preferred venue for family HIV testing: |\_\_|Clinic |\_\_|Household



## 6. THEORY OF CHANGE FOR FAST-TRACKING PAEDIATRIC AND ADOLESCENTS HIV TESTING, TREATMENT AND SUPPORT IN GHANA

Theory of Change for Fast-tracking Paediatric and Adolescents HIV testing, Treatment and Support in Ghana (2016-2020).







**NATIONAL ACCELERATION  
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2016 - 2020