

TICAD8 SIDE-EVENT

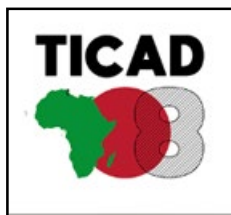
Digitalization of Maternal and Child Health Handbooks and Information: Benefits to Mothers and Children and Contributions to Public Health in Africa

2022/9/15

Ghana MCH RS



Maternal and Child Health Record Book and Expectations for Digital Applications in Ghana



TICAD8 side event: Digital MCH Handbook and Information
15 September 2022 (On-line Webinar)

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Contents

1. MCH Record Book in Ghana
2. Expectations for the Digital Applications and MCH RB in Ghana

Achievement of MCH RB in Ghana

- **Ghana MCH Record Book** was developed in 2018 by MOH and GHS with technical and financial support by JICA
- A home-based health record book for mothers and children.
- It contains **health records** of mothers and children and **health and nutrition messages** for mothers and family members.
- It has been a national Program since 2018
- More than 3000 health workers trained on effective use of MCH RB across the country
- It is well accepted by mothers, health workers, and the community
- It improved mother's knowledge and practice
 - **96%** of mother **can recall** what Health workers advised during the counseling
 - **87%** of mothers can recall more than 5 danger signs during pregnancy
- It provided records of ANC, Delivery and PNC readily available in one book for quality of care
 - **83%** of MCH RB had date of birth and baby's weight at birth recorded in MCH Record Book



Key features of the MCHRB

- A) FAMILY IDENTIFICATION
- B) PREGNANCY RECORDS
- C) HEALTH MESSAGES DURING PREGNANCY
- D) HEALTH MESSAGE TO PREPARE FOR DELIVERY
- E) DELIVERY RECORDS
- F) POSTNATAL RECORDS FOR MOTHER
- G) CHILD IDENTIFICATION
- H) POSTNATAL RECORDS FOR CHILD
- I) HEALTH MESSAGES FOR MOTHER AFTER DELIVERY
- J) HEALTH MESSAGES ON FAMILY PLANNING
- K) HEALTH MESSAGES FOR NEWBORN BABY (LESS THAN 1 MONTH)
- L) HEALTH MESSAGES FOR CHILD (AGE 1 MONTH UP TO 5 YEARS)
- M) TREATMENT OF COMMON CHILDHOOD ILLNESSES
- N) RECORDS ON CHILD GROWTH AND DEVELOPMENT
- O) STAGES OF GROWTH (DEVELOPMENTAL MILESTONES)
- P) SWEET MEMORIES
- Q) COC CARD



During Pregnancy

During Delivery

Postnatal period

Childhood
(up to 5 years)



Records
ID



Information
messages

- Records of pregnancy, delivery, postnatal, newborn and child-care are all in one book

Maternal and Child Health CoC Card

ANC 1	ANC 2	ANC 3	ANC 4	ANC 5	ANC 6	ANC 7	ANC 8	Delivered/Delivery	PNC1 by 48 hours (by 2 days)	PNC2 at 7 days	PNC3 at 6 weeks	CWC at 14 weeks	CWC at 6 months	CWC at 18 months	CWC at 24 months
By 12 weeks															
Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Delivery	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit	Date of Visit
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mother	Mother	Mother	Mother	Mother	Mother	Mother	Mother	Mother	Mother	Mother	Mother				
★	★	★	★	★	★	★	★	★	★	★	★				
								Child	Child	Child	Child	Child	Child	Child	Child
								★	★	★	★	★	★	★	★

Essential Services

Malaria Drug	IPT1	IPT2	IPT3	IPT4	IPT 5
	Td1	Td2	Td3	Td4	Td5
★	★	★	★	★	★
	Hb1		Hb2		Hb3
★			★		
	Test1				
★					

Essential Services for Child

Immunization	At Birth	6 weeks	10 weeks	14 weeks	9 months	18 months
	★	★	★	★	★	★
Vitamin A					6 months	12 months
					★	★
					18 months	24 months
						★

Health Education

Importance of CoC	Nutrition Counselling	Danger signs during Pregnancy	Preparation for Delivery	Breastfeeding within 30 mins	Exclusive Breastfeeding	Family Planning	General Child Care and Advice	Child Growth Monitoring	Complementary Feeding	Domestic Safety
★	★	★	★	★	★	★	★	★	★	★

Yellow for Delivery

with till the 3 months gap 2 to 5

*Acknowledgement: CoC card has been developed through Ghana EMRACE Implementation Research Project (2012 - 2016).

B. Pregnancy Records

Obstetric History
 No. of Pregnancies: _____ No. of Births: _____ No. of Abortions (Spontaneous: _____ / Induced: _____)

Previous Pregnancies (Including miscarriages)

No.	Date of Delivery / Pregnancy Loss	Place of Birth	Problems during Pregnancy	Gestational Age at Birth	Mode of Delivery	Outcome of Delivery	Labour / Postpartum Complications	Child		
								Sex	Birth Weight (kg)	Child's Present Health
1	/ /	Hospital/ HC/ MH/ CHPS/ Home / Other			SVD / AVD / CS	Live Birth / Still Birth / Miscarriage		M/F		Good/Poor/Died
2	/ /	Hospital/ HC/ MH/ CHPS/ Home / Other			SVD / AVD / CS	Live Birth / Still Birth / Miscarriage		M/F		Good/Poor/Died
3	/ /	Hospital/ HC/ MH/ CHPS/ Home / Other			SVD / AVD / CS	Live Birth / Still Birth / Miscarriage		M/F		Good/Poor/Died
Orange for Pregnancy Care										Good/Poor/Died
										Good/Poor/Died
										Good/Poor/Died
6	/ /	Hospital/ HC/ MH/ CHPS/ Home / Other			SVD / AVD / CS	Live Birth / Still Birth / Miscarriage		M/F		Good/Poor/Died
7	/ /	Hospital/ HC/ MH/ CHPS/ Home / Other			SVD / AVD / CS	Live Birth / Still Birth / Miscarriage		M/F		Good/Poor/Died
8	/ /	Hospital/ HC/ MH/ CHPS/ Home / Other			SVD / AVD / CS	Live Birth / Still Birth / Miscarriage		M/F		Good/Poor/Died

HC: Health Centre / MH: Maternity Home / SVD: Spontaneous Vaginal Delivery / AVD: Assisted Vaginal Delivery / CS: Caesarean Section.

• **Major Risk Factors** : Circle below with red pen.

Previous CS / Grand multiparity / Previous Post-Partum Haemorrhage / Previous Pregnancy Induced Hypertension / Myomectomy / Sickle cell disease (SS, SC, CC) / Other (specify): _____

H. Postnatal Records for Child		Name of Facility: Contact No.:	
Postnatal Care	First Visit 24 - 48 Hours	Follow Up Visit 6 - 7 Days	Follow Up Visit 6 Weeks
Date	/ /	/ /	/ /
Weight (kg)			
Length (cm)			
Head Circumference (cm)			
Heart Rate (b/min)			
Respiratory Rate (b/min)			

Blue for Newborn Care

Observation	24th Day	6th Week	12th Month
Head	Normal / Abnormal	Normal / Abnormal	Normal / Abnormal
Eyes	Normal / Abnormal	Normal / Abnormal	Normal / Abnormal
Abdomen	Normal / Abnormal	Normal / Abnormal	Normal / Abnormal
Limbs	Normal / Abnormal	Normal / Abnormal	Normal / Abnormal
Back	Normal / Abnormal	Normal / Abnormal	Normal / Abnormal
Skin	Normal / Abnormal	Normal / Abnormal	Normal / Abnormal
Passing Urine	Yes / No	Yes / No	Yes / No
Passing Stool	Yes / No	Yes / No	Yes / No
Condition of Unilateral Card			
Remarks			
Name & Signature			
Date of Next Visit:			

***Note: Please fill in the Immunisation Records on page 51.**

Early Infant Diagnosis for HIV Keyword Babies			
	0-7 Days	8 Weeks	18 Months
Date of Test	/ /	/ /	/ /
Result	280 / 279	280 / 279	280 / 279

[illegible]

Information and Messages in MCH RB (care of newborn)

K. Health Messages for Newborn Baby (Less than 1 month)

1. Birth Registration.

- Register your baby with the birth registry. It is free of charge before your baby's first birthday.

2. Signs of a healthy newborn baby.

- Moves actively.
- Able to suckle breasts.
- Has birth weight 2.5kg or more.



3. How to breastfeed your baby.

- Breastfeed your baby within 30 minutes after delivery to help the flow of breast milk and to prevent you from bleeding too much.
- Breastfeed your baby day and night as often as possible and every time he / she wants.
- Do not give your baby any fluids; water, milk, herbal preparation, glucose water or any food other than breast milk until 6 months.
- Give the first produced breast milk (Yellowish) directly to your baby. It protects him/her from diseases. Do not throw it away.



2022/9/15 **Exclusive Breastfeeding for the first 6 months of life**

Ghana MCH RB



How to take care of newborn baby.

Keeping your baby warm

- Wrap your baby with a clean and dry sheet. Change it as soon as it get wet or soiled.
- Do not put your baby in a cold or windy place.
- Hold your baby closely in order to have skin to skin contact with you.
- Bathe term baby 6 hours or more after birth.
- Delay bathing a small baby (low birth weight) for 24 hours.
- Bathe sick baby when stable / well.
- Smear body with oil (use baby oil, shea butter, or palm kernel oil).



Preventing your baby from infection

Prevent umbilical cord from getting wet. Clean the umbilical cord with spirit or chlorhexidine everyday until the cord falls off and wound heals. Do not apply any herbs or other material to the cord.



2. Expectations for the digital applications and MCH RB in Ghana

Achievement of the MCH RB



Improved utilization of cares and services

Personal data readily available for referrals, emergency or regular follow-ups

Integrated nutrition counseling services and respectful care

improved filling rate

Improved knowledge and practice among mothers

Rationale for digitization



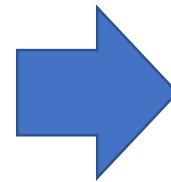
Yes, with reminder to the clients and follow-up of defaulters will increase the utilization of cares and services

Yes, personal data readily available at various service delivery points, merge with clinical patient records

Yes, the digital job aid will assist health workers to conduct nutrition counseling with algorithm

Yes, it may improve data filling and reduce errors (need more evidence)

Yes, on-demand audio-visual messages with the selection of language may enhance knowledge and practice further



Expected benefits of Digital Applications connected to MCH RB in Ghana

For mothers (family)

On-demand Health, Nutrition Messages with local languages and movie

Receive reminder of the next visit

Search health facilities and contacts for emergency



For Health care providers

Record available for emergency, referrals and regular follow-ups at various point of care

Data Backup

Avoid duplication of data entry to various forms

Automatic identification and follow-up of high risks and defaulters

Job Aid:

- Counseling aid
- Automatic calculation (BMI, EDD,...)
- Screening, Risk Identification
- Lab test results



For Health Administration and Research

Connected to E-tracker, DHIMS02

Use big data for Timely monitoring and decision making for policy



Main points for further discussion



**MCH RB is filling the gaps
of health system in**

Equity

Quality

Accountability



**We would like to know how best the digital application
enhance further the benefits of MCH RB**



**We shall explore the best mix of paper and digital
system**



THANK YOU

Homepage (English)

<https://www.jica.go.jp/project/english/ghana/010/index.html>

Homepage (Japanese)

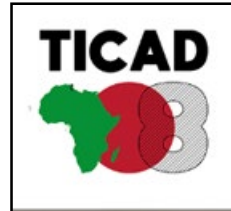
<https://www.jica.go.jp/project/ghana/010/index.html>





DIGITALIZATION OF MATERNAL AND CHILD HEALTH HANDBOOKS AND INFORMATION: BENEFITS TO MOTHERS AND CHILDREN AND CONTRIBUTIONS TO PUBLIC HEALTH IN AFRICA”.

TICAD8 side event: Digital MCH Handbook and Information
15 September 2022 (On-line Webinar)



Dr. Patrick Kuma-Aboagye

Director General,
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Outline

- Introduction
- Implementation Benefits of MCH RB
- Rationale for Digitalization and Ghana's E-Health Landscape
- Status of digitalization of MCH RB
- Way forward

Introduction

- The goal of universal health coverage (UHC) is to ensure quality, accessibility and affordability of health services
- Information and Communications Technologies (ICTs) present new opportunities and challenges for achieving universal health coverage
- In 2005 the World Health Assembly through its resolution WHA58.28 on eHealth urged Member States including Ghana ***“to consider drawing up a long-term strategic plan for developing and implementing eHealth services*”**

Implementation Benefits of MCH RB

- **Comprehensive documentation** of each episode of pregnancy, childbirth, growth and development of the child until 5 years of age
- **Information and educational messages** on MCH, Nutrition, Child Growth, Developmental Milestone and more
- Providing the health systems with **ready-to-use data** for health planning and implementation of quality improvement programmes
- Enabling organizations dealing with **vital national statistics** to have information on newborns for inclusion in population and demographic programmes for national development.

Why Digitalization of MCH RB

1. Government has embraced digitalization as a key policy goal and recently introduced several programs to develop a more digitally accessible public sector and promote transparency and efficiency, in order to drive the growth of the economy.
2. MCH RB has proven to be a valuable tool that mothers, children, health sector and communities as a whole
3. Existing operational challenges with procurement and utilization of the books-funding, utilization by caregivers, health staff competencies
4. Health care digitalization remains a key critical agenda of the Health Sector
5. National Identification Exercise covers only those above 5 years of age hence digitizing MCHRB will provide authentic information about children in the country

Why Digitalization of MCH RB (2)

6. To improve overall performance and quality of care
7. Make information accessible in a form which will be user friendly to mothers, other stakeholders and the entire population.
8. Create a platform for the health system, the national identification system to have a repository of data for research, and planning for various cohorts of the population of the country.
9. Digitalization would also provide ready made information for the Education Service to identify children with special needs by referring to their birth records

Review of ICT& Technological Landscape in Ghana

Household survey on ICT, 2020 showed:

- 63.2% of mobile phone penetration in urban dwellers and 34% in rural dwellers
- 20% of urban dwellers have access to internet while 12.8% rural dwellers have internet access

Review of ICT& Technological Landscape in Ghana

- Strategic documents developed to streamline the implementation of eHealth:
 - Health Sector's ICT Policy and Strategy- 2005
 - Ghana Government Enterprise Architecture Assessment - 2008
 - National eHealth Strategy- 2009
 - Ghana Health Service Enterprise Architecture- 2009

Review of ICT& Technological Landscape in Ghana

- Strategic documents developed to streamline the implementation of eHealth:
 - ICT for Accelerated Development (ICT4AD) Policy- 2016
 - Ministry of Health 5 year digital Health Roadmap- 2018
 - Ghana eGovernment Interoperability Framework (Version 2) - 2022
 - Ghana Health Service Digital Health Strategy- 2022

Existing Services and Applications

Innovative mobile and web-based digital health solutions developed or adopted include:

- District Health Information Management System II (DHIMS II)
- GHS eLearning Platform
- Trackers
- “You Must Know” (GHS-YMK)
- Family Health Mobile Application (FHMAApp)

Existing Services and Applications

- Mobile Technology for Community Health (MOTEC) Client Data Application
- Mobile Application for Point Mass Distribution (NETAPP)
- Mobile Application for Seasonal Malaria Chemo Prevention (SiCAPP)
- Mobile Application for Insecticide Treated Net Distribution (Net4Schs)
- Mobile Application for Larval Source Management (LSMAPP)

Existing Services and Applications

- Innovative mobile and web-based digital health solutions and other technological platforms developed or adopted which include:
 - Human Resource Information Management System (HRIMS)
 - Lightwave eHealth care Services (LWEHS)
 - Telemedicine platform
 - Sage ACCPAC Accounting Software

Enabling Environment for Digitalization of MCH RB

- Existence of a Division with a singular focus on ICT at the national level
- This is complemented by sixteen Regional Information Technology Managers with a rich skill mix in ICTs
- Experience and Expertise for the digitalization within Ghana's health sector
- Existence of Information Technology (IT) committee constituted to oversee the implementation of digital health solutions for the service
- Acceptability and utilization coverage of the MCH RB

Enabling Environment for Digitalization of MCH RB

- GHS has initiated steps to develop a digital health strategy to:
 - ❖ build on foundation laid from implementing these strategies
 - ❖ facilitate shared understanding of the digitalization agenda of the service
 - ❖ facilitate interoperability of digital health ecosystem that drives universal health coverage

Objective of MCH Digital Applications

Enhance the services and utilization of COC

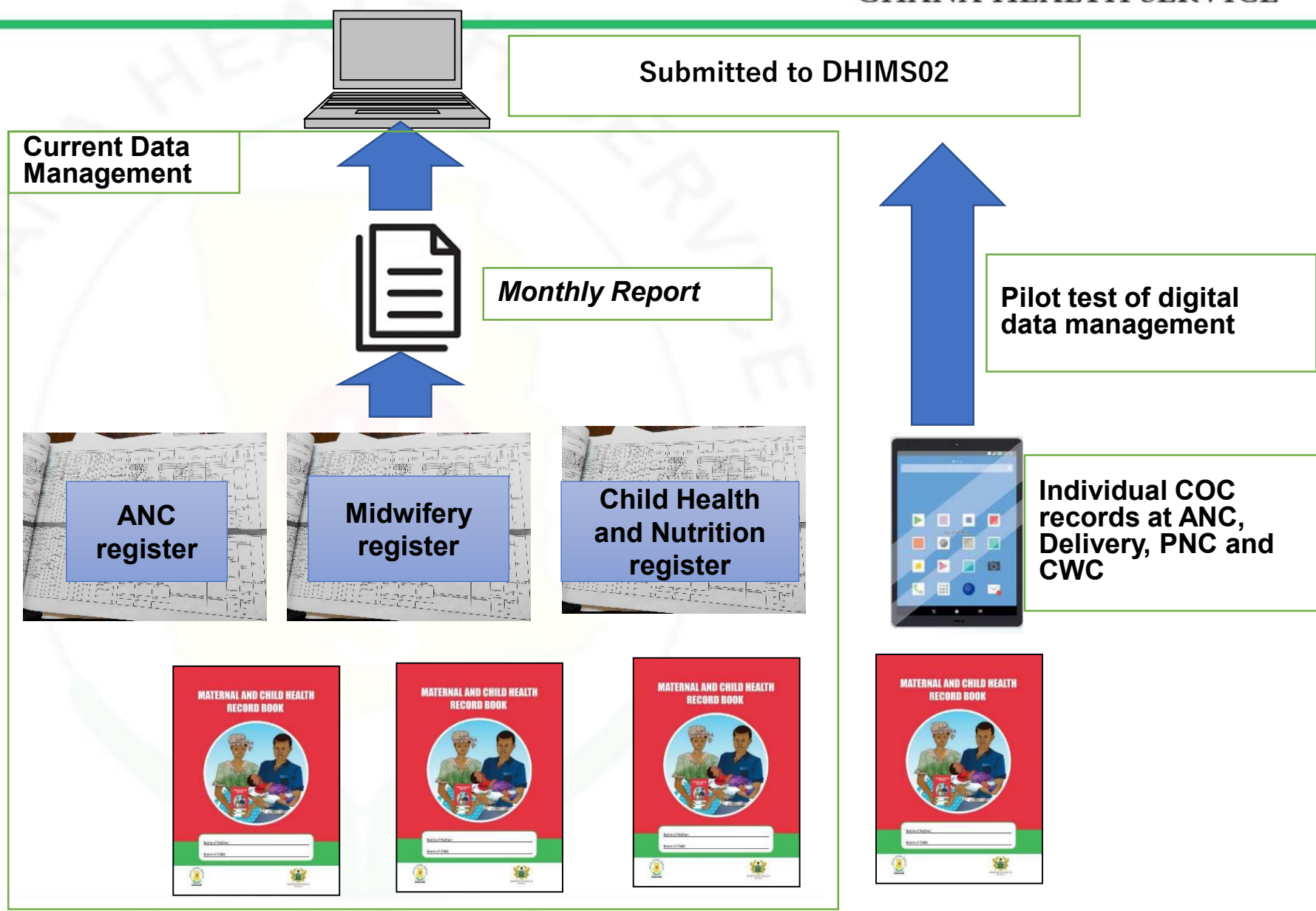
Must cover all mothers and children (equity)

Must have clear objectives

For Health Administration and Research

For Health care providers

For mothers (family)



Digitalization of Key sessions of MCH RB for Health Workers Pilot in Ashanti Region



Way forward

1. Learn lessons from pilot on digitalization of MCH RB for health workers
2. Develop proposal based on lessons learnt and scale up digitalization of MCHRB include use by mothers in several regions
3. Hold discussions with the requisite stakeholders in the telecommunication, tele medicine, statistics, maternal and child health sectors to draw blueprint on digitalization of MCHRB
4. Share experiences with JICA and other LMIC on the digitalization of MCHRB and other relevant documents.

