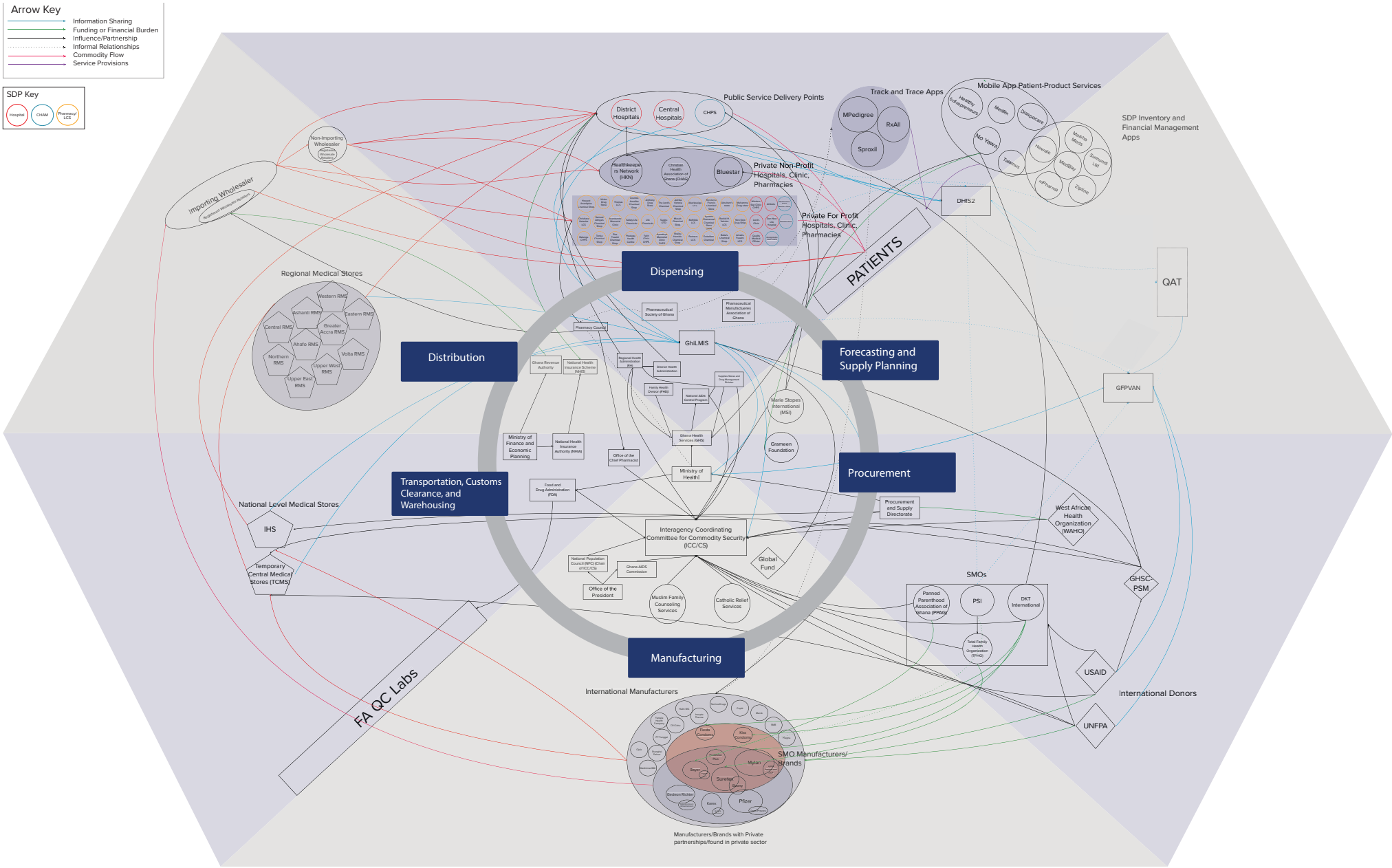
Annex A: Malawi and Ghana Key Informant Interviewees

Country	Name	Organization	Organization Type
Malawi	Evans Chimayi Chirambo	CHAM	NFP
Malawi	Flemings Kapunda, Kenneth Bwanali, Tsankho Kapanda	CML	Distributor
Malawi	Godfrey Kadewele	HTSS	GOM, MOH
Malawi	Austine Omiunu, Joseph Mtenje	UNDP	International Org/Donor
Malawi	Flora Kalimba	GHSC-PSM	Procurement Agent
Malawi	Simeon Yosefe	DHD	GOM, MOH
Malawi	Maganizo Monawe	DHD	GOM, MOH
Malawi	David Chima, Beatrice Banda, Enock Foster, Evance Clidakwa, David Mwangonde, Charles Khombem, Steward Lichapa	CMST	GOM
Malawi	Tadala Hamisi, Stella Nakaggwa, Sarah Mayuni, Rose Nyirenda	DHA	GOM, MOH
Malawi	Mbongeni Chizonda	DHD, DHIS2	GOM, MOH
Malawi	Caroline Bakasa	PSI	SMO, NFP
Malawi	Mayankho Dana	BLM	SMO, NFP
Malawi	Ramesh K	Worldwide Malawi	Wholesaler
Malawi	Muhammad Hassan	Intermed Malawi	Wholesaler
Malawi	Bharat Parmar	Artemis Life	Wholesaler
Malawi & Ghana	Chiedu Ezeadum, Greg Davidson	GFPVAN, RHSC	International Org/Donor
Ghana	Claudette Diogo	Family Health Division, GHS	GOG, MOH
Ghana	Isaac Ndaya	TFHO	SMO
Ghana	Justice Kwaning	Osons Chemist Ltd	Wholesaler
Ghana	Afua Nkumah Aggrey	GHSC-PSM	Procurement Agent
Ghana	Bernard Asamany	TCMS	GOG, MOH
Ghana	Cyril Dan Lardy	S4D Consulting	GhiLMIS Implementation
Meetings Observed/Cited	**Participants**		**Participant Organization**

Malawi Reproductive Health Commodity Security Committee Quarterly Meeting, June 30, 2021	Rose Chikumbe, Chair	RHD
	Caroline Bakasa	PSI
	Barnadette Chibwana	HTSS
	Innocent Evance Chamwalira	GHSC-PSM
	Flora Kalimba	GHSC-PSM
	Mayankho Dana	BLM
	Mark Malema	GIZ
	Dennis Chali	USAID/Malawi
	Christopher Kayuni	CMST
Malawi VAN Biweekly Call, July 22, 2021	Chiedu Ezeadum	GFPVAN
	Rose Chikumbe	RHD
	Flora Kalimba	GHSC-PSM
	Milika Dala	UNFPA
	Barnadette Chibwana	HTSS
VAN Office Hours: Malawi Experience, August 23, 2021	Rose Chikumbe, Presenter	RHD
VAN - Ghana PPAG Meeting: November 3, 2020	Emil Adzasu	PPAG
	Asamoah Boateng	PPAG
	Faustina Tetteh	PPAG
VAN - Ghana MSIG Meeting: October 27, 2020	Charlotte Mawunyega	MSIG

Annex B. Ghana Family Planning Supply Ecosystem Map (Detailed)



Annex C: Ghana Integrated Logistics Management Information System – Implementation Plan

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
0		**Ghana LMIS Acquisition and Implementation Project**	**1676 days**	**Mon 1/30/17**	**Mon 7/3/23**		**34%**
1		**1 Business Need Development**	**32 days**	**Mon 1/30/17**	**Tue 3/14/17**		**100%**
2		**1.1 Initiation Processes**	**32 days**	**Mon 1/30/17**	**Tue 3/14/17**		**100%**
3		**1.1.1 Review Inputs to Initiation**	**19 days**	**Mon 1/30/17**	**Thu 2/23/17**		**100%**
4		**1.1.1.1 Review Historical Information**	**15 days**	**Mon 1/30/17**	**Fri 2/17/17**		**100%**
5		1.1.1.1.1 Review Supply Chain Master Plan	5 days	Mon 1/30/17	Fri 2/3/17		100%
6		1.1.1.1.2 Review LMIS Assessment Report	5 days	Mon 2/6/17	Fri 2/10/17	5	100%
7		1.1.1.1.3 Review Supply Chain System IT Roadmap	5 days	Mon 2/13/17	Fri 2/17/17	6	100%
8		1.1.1.1.4 Develop LMIS Current Assessment Report	0 days	Fri 2/17/17	Fri 2/17/17	7	100%
9		**1.1.1.2 Develop Statement of Work**	**4 days**	**Mon 2/20/17**	**Thu 2/23/17**	**8**	**100%**
10		1.1.1.2.1 Review Enterprise Environmental Factors	2 days	Mon 2/20/17	Tue 2/21/17		100%
11		1.1.1.2.2 Review Organizational Process Assets	2 days	Wed 2/22/17	Thu 2/23/17	10	100%
12		**1.1.2 Produce Outputs from Initiation**	**13 days**	**Fri 2/24/17**	**Tue 3/14/17**		**100%**
13		1.1.2.1 Develop Project Charter	13 days	Fri 2/24/17	Tue 3/14/17	11	100%
14		1.1.2.2 Develop Preliminary Project Scope Statement	4 days	Fri 2/24/17	Wed 3/1/17	11	100%
15		1.2 Initiation Processes COMPLETE	0 days	Tue 3/14/17	Tue 3/14/17	13,14	100%
16		**2 Project Set Up, Management and Acquisition**	**338 days**	**Wed 3/15/17**	**Fri 6/29/18**		**100%**
17		**2.1 Planning Processes**	**273 days**	**Wed 3/15/17**	**Fri 3/30/18**		**100%**
18		**2.1.1 Scope Management Processes**	**5 days**	**Wed 3/15/17**	**Tue 3/21/17**		**100%**
19		2.1.1.1 Perform Scope Planning	2 days	Wed 3/15/17	Thu 3/16/17	15	100%
20		2.1.1.2 Complete Scope Definition	2 days	Fri 3/17/17	Mon 3/20/17	19	100%
21		2.1.1.3 Create WBS to level of Work Packages	1 day	Tue 3/21/17	Tue 3/21/17	20	100%
22		**2.1.2 Activity Planning**	**3 days**	**Wed 3/22/17**	**Fri 3/24/17**		**100%**
23		2.1.2.1 Define Activities	1 day	Wed 3/22/17	Wed 3/22/17	21	100%
24		2.1.2.2 Determine Activity Sequence	1 day	Thu 3/23/17	Thu 3/23/17	23	100%
25		2.1.2.3 Define Activity Resource Estimates	1 day	Fri 3/24/17	Fri 3/24/17	24	100%
26		2.1.2.4 Define Activity Duration Estimates	1 day	Fri 3/24/17	Fri 3/24/17	24	100%
27		**2.1.3 Cost Planning**	**2 days**	**Mon 3/27/17**	**Tue 3/28/17**		**100%**
28		2.1.3.1 Develop cost estimates	1 day	Mon 3/27/17	Mon 3/27/17	25,26	100%
29		2.1.3.2 Develop cost budget	1 day	Tue 3/28/17	Tue 3/28/17	28	100%
30		2.1.4 Complete Quality Plan	1 day	Wed 3/15/17	Wed 3/15/17	15	100%
31		2.1.5 Complete Human Resource Plan	2 days	Mon 3/27/17	Tue 3/28/17	25,15	100%
32		2.1.6 Complete Communication Plan	4 days	Wed 3/22/17	Mon 3/27/17	21,15	100%
33		**2.1.7 Risk Management Processes**	**7 days**	**Wed 3/15/17**	**Thu 3/23/17**		**100%**
34		2.1.7.1 Establish Risk Management Plan	1 day	Wed 3/15/17	Wed 3/15/17	15	100%
35		2.1.7.2 Perform Initial Risk Identification	1 day	Wed 3/22/17	Wed 3/22/17	34,21	100%
36		2.1.7.3 Establish Qualitative Risk Analysis Process	1 day	Thu 3/16/17	Thu 3/16/17	34	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
37		2.1.7.4 Establish Quantitative Risk Analysis Process	1 day	Thu 3/16/17	Thu 3/16/17	34	100%
38		2.1.7.5 Create Risk Response Planning Process	1 day	Thu 3/23/17	Thu 3/23/17	35,36,37	100%
39		**2.1.8 Procurement Management Processes**	**266 days**	**Fri 3/24/17**	**Fri 3/30/18**		**100%**
40		**2.1.8.1 RFP Development**	**7 days**	**Fri 3/24/17**	**Mon 4/3/17**		**100%**
41		2.1.8.1.1 Review Iteration Tender Document	5 days	Fri 3/24/17	Thu 3/30/17	38	100%
42		2.1.8.1.2 Complete and Prioritize Requirements	1 day	Fri 3/31/17	Fri 3/31/17	41	100%
43		2.1.8.1.3 Develop Tool Requirements Matrix	1 day	Mon 4/3/17	Mon 4/3/17	42	100%
44		2.1.8.1.4 Develop RFP	0 days	Mon 4/3/17	Mon 4/3/17	43	100%
45		**2.1.8.2 Expression of Interest**	**67 days**	**Tue 6/27/17**	**Wed 9/27/17**	**44**	**100%**
46		2.1.8.2.1 Advertise Expression of Interest (EoI)	30 days	Tue 6/27/17	Mon 8/7/17		100%
47		2.1.8.2.2 Receive EoI and Prepare for Evaluation	25 days	Tue 8/8/17	Mon 9/11/17	46	100%
48		2.1.8.2.3 Evaluate EOIs received	5 days	Tue 9/12/17	Mon 9/18/17	47	100%
49		2.1.8.2.4 Short List Firms to Respond to RFP	0 days	Mon 9/18/17	Mon 9/18/17	48	100%
50		2.1.8.2.5 Get Global Fund Review and Validation	2 days	Tue 9/19/17	Wed 9/20/17	49	100%
51		2.1.8.2.6 Integrate Global Fund Comments	3 days	Thu 9/21/17	Mon 9/25/17	50	100%
52		2.1.8.2.7 Prepare and Issue RFP to approved shortlisted firms	2 days	Tue 9/26/17	Wed 9/27/17	51	100%
53		**2.1.8.3 Tender Evaluation**	**89 days**	**Wed 9/27/17**	**Tue 1/30/18**	**52**	**100%**
54		2.1.8.3.1 Answer Questions/Clarifications from Consulting Firms	0 days	Wed 9/27/17	Wed 9/27/17		100%
55		2.1.8.3.2 Consulting Firms Submit RFP	1 day	Fri 11/3/17	Fri 11/3/17	54FS+26 days	100%
56		2.1.8.3.3 Evaluate Technical Proposals	5 days	Mon 11/6/17	Fri 11/10/17	55	100%
57		2.1.8.3.4 Consulting Firms Demonstrate Proof Of Concept	8 days	Mon 11/13/17	Wed 11/22/17	56	100%
58		2.1.8.3.5 Document Technical Evaluation Report	2 days	Thu 11/23/17	Fri 11/24/17	57	100%
59		2.1.8.3.6 Seek Global Fund's approval of the Technical Evaluation Report	5 days	Mon 11/27/17	Fri 12/1/17	58	100%
60		2.1.8.3.7 Seek Central Tender Review Committee (CTRC) approval of the Technical Evaluation Report	2 days	Wed 12/20/17	Thu 12/21/17	59FS+12 days	100%
61		2.1.8.3.8 Publicly Open and Evaluate Financial Proposals of the selected firms to move to the financial stage	1 day	Wed 1/10/18	Wed 1/10/18	60FS+13 days	100%
62		2.1.8.3.9 Conduct Financial Evaluation	1 day	Thu 1/11/18	Thu 1/11/18	61	100%
63		2.1.8.3.10 Prepare combined technical and financial evaluation report	1 day	Fri 1/12/18	Fri 1/12/18	62	100%
64		2.1.8.3.11 Seek Global Fund's Approval of Combined Technical and Financial Evaluation	2 days	Mon 1/15/18	Tue 1/16/18	63	100%
65		2.1.8.3.12 Seek approval of the combined technical and financial evaluation report from the approving committee (CTRC)	10 days	Wed 1/17/18	Tue 1/30/18	64	100%
66		**2.1.8.4 Contract Negotiation and Execution**	**10 days**	**Wed 1/31/18**	**Tue 2/13/18**	**65**	**100%**
67		2.1.8.4.1 Negotiate the contract	10 days	Wed 1/31/18	Tue 2/13/18		100%
68		**2.1.8.5 Award**	**23 days**	**Wed 2/28/18**	**Fri 3/30/18**	**67**	**100%**
69		2.1.8.5.1 Send out Notice of Intention To Award to 2nd placed firm	1 day	Wed 2/28/18	Wed 2/28/18	67FS+10 days	100%
70		2.1.8.5.2 Observe Standstill Period	10 days	Thu 3/1/18	Wed 3/14/18	69	100%
71		2.1.8.5.3 Execute the Contract	12 days	Thu 3/15/18	Fri 3/30/18	70	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
72		2.1.9 Complete LMIS Procurement	0 days	Fri 3/30/18	Fri 3/30/18	71	100%
73		2.2 Planning Phase COMPLETE	0 days	Fri 3/30/18	Fri 3/30/18	72	100%
74		**2.3 Execution and Monitoring & Controlling Processes**	**35 days**	**Mon 5/14/18**	**Fri 6/29/18**		**100%**
75		**2.3.1 Phase 1 - Inception**	**35 days**	**Mon 5/14/18**	**Fri 6/29/18**		**100%**
76		**2.3.1.1 Phase 1 - Task 1: Plan Inception Iteration**	**4 days**	**Mon 5/14/18**	**Thu 5/17/18**		**100%**
77		2.3.1.1.1 Define High Level Project Objectives, Measurable Goals, Issues	1 day	Mon 5/14/18	Mon 5/14/18	73FS+15 days	100%
78		2.3.1.1.2 Establish Draft Communications, Control and Reporting Mechanism	1 day	Tue 5/15/18	Tue 5/15/18	77	100%
79		2.3.1.1.3 Conduct Senior Leadership Kick Off Meeting	1 day	Thu 5/17/18	Thu 5/17/18	78	100%
80		**2.3.1.2 Phase 1 - Task 2: Review Project Cost, Scope, Schedule and Quality**	**8 days**	**Wed 5/23/18**	**Fri 6/1/18**		**100%**
81		**2.3.1.2.1 Review Project Scope**	**8 days**	**Wed 5/23/18**	**Fri 6/1/18**		**100%**
82		2.3.1.2.1.1 Develop High Level Schedule, Quality Standards, Risk and Issue Managem	5 days	Wed 5/23/18	Tue 5/29/18	79	100%
83		2.3.1.2.1.2 Review and Update Project Budget	3 days	Wed 5/30/18	Fri 6/1/18	82	100%
84		**2.3.1.3 Phase 1 - Task 3: Conduct Evaluation of the Business Need**	**5 days**	**Mon 6/4/18**	**Fri 6/8/18**		**100%**
85		2.3.1.3.1 Gather an Understanding of Stakeholder Needs and End User Business Processes (As-Is Business Process Validation)	5 days	Mon 6/4/18	Fri 6/8/18	83	100%
86		**3 System Configuration and Design**	**196 days**	**Mon 6/11/18**	**Mon 3/11/19**	**85**	**100%**
87		**3.1 Phase 2 - Elaboration**	**65 days**	**Mon 6/11/18**	**Fri 9/7/18**		**100%**
88		**3.1.1 Phase 2 - Task 1: Plan Elaboration Iteration**	**10 days**	**Mon 6/11/18**	**Fri 6/22/18**		**100%**
89		3.1.1.1 Define High Level Iteration Objectives, Measurable Goals, Issues	2 days	Mon 6/11/18	Tue 6/12/18		100%
90		3.1.1.2 Update Project Based On Iteration Updates	2 days	Wed 6/13/18	Thu 6/14/18	89	100%
91		3.1.1.3 Establish Draft Communications, Control and Reporting Mechanism	2 days	Fri 6/15/18	Mon 6/18/18	90	100%
92		3.1.1.4 Identify System Champions To Attend Working Group Session	1 day	Tue 6/19/18	Tue 6/19/18	91	100%
93		3.1.1.5 Develop and Finalize Requirements Elicitation Approach	1 day	Wed 6/20/18	Wed 6/20/18	92	100%
94		3.1.1.6 Conduct Session Dry Run	1 day	Thu 6/21/18	Thu 6/21/18	93	100%
95		3.1.1.7 Finalize Working Group Session Logistics	1 day	Fri 6/22/18	Fri 6/22/18	94	100%
96		**3.1.2 Phase 2 - Task 2: Requirements Validation and System Configuration**	**47 days**	**Mon 6/25/18**	**Tue 8/28/18**		**100%**
97		**3.1.2.1 Conduct Requirements Analysis and Validation Session**	**7 days**	**Mon 6/25/18**	**Tue 7/3/18**		**100%**
98		3.1.2.1.1 CMS TO RMS/THMS End to End Business	1 day	Mon 6/25/18	Mon 6/25/18	95	100%
99		3.1.2.1.2 DHIMS to GhiLMIS Integration	1 day	Tue 6/26/18	Tue 6/26/18	98	100%
100		3.1.2.1.3 Private to CMS/RMS/Teaching Hospital End to End Business Process	1 day	Tue 6/26/18	Tue 6/26/18	98	100%
101		3.1.2.1.4 CMS/Pvt to RMS/THMS	1 day	Tue 6/26/18	Tue 6/26/18	98	100%
102		3.1.2.1.5 RMS to Hospitals/Poly Clinics/Health Centers/CHPS	2 days	Tue 6/26/18	Wed 6/27/18	98	100%
103		3.1.2.1.6 THMS/Hospitals/Polyclinics/HC/CHPS to Consumer	1 day	Thu 6/28/18	Thu 6/28/18	102	100%
104		3.1.2.1.7 HC to CHPS	1 day	Fri 6/29/18	Fri 6/29/18	103	100%
105		3.1.2.1.8 Other Integration Requirements	1 day	Fri 6/29/18	Fri 6/29/18	103	100%
106		3.1.2.1.9 Central Leadership Expectations	1 day	Fri 6/29/18	Fri 6/29/18	103	100%
107		3.1.2.1.10 Any Other Requirements	2 days	Mon 7/2/18	Tue 7/3/18	106	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
108		**3.1.2.2 Phase 2 - Task 3: Develop "To-Be" Processes**	**7 days**	**Mon 8/20/18**	**Tue 8/28/18**		**100%**
109		3.1.2.2.1 Requirement Definition and Hand-Over	1 day	Mon 8/20/18	Mon 8/20/18	107FS+33 days	100%
110		3.1.2.2.2 Introduction + Scope of Review	1 day	Tue 8/21/18	Tue 8/21/18	109	100%
111		3.1.2.2.3 Focus on Hospitals/Poly Clinics/Teaching Hospitals to Consuming Party (Pickin	1 day	Tue 8/21/18	Tue 8/21/18	109	100%
112		3.1.2.2.4 Focus on CMS to RMS, Pvt Supplier to CMS/RMS/Teach Hospital (Requisition	1 day	Tue 8/21/18	Tue 8/21/18	109	100%
113		3.1.2.2.5 Focus on Health Centre to CHPS/Consuming Party (Picking and Staging, and R	1 day	Wed 8/22/18	Wed 8/22/18	112	100%
114		3.1.2.2.6 Focus on CMS to RMS, Pvt Supplier to CMS/RMS/Teach Hospital (Transportation Mgmt., Loading And Dispatch, Receipt And Put-Away, Reporting and	1 day	Wed 8/22/18	Wed 8/22/18	112	100%
115		3.1.2.2.7 Focus on RMS to Hospital/Poly Clinic (Requisition Mgmt., Order Mgmt. and Pi	2 days	Thu 8/23/18	Fri 8/24/18	114	100%
116		3.1.2.2.8 Focus on RMS to Health Centers (Requisition mgmt., Order mgmt., and Pickin	2 days	Mon 8/27/18	Tue 8/28/18	115	100%
117		**3.1.3 Phase 2 - Task 4: Conduct "Fit/Gap" Analysis**	**8 days**	**Wed 8/29/18**	**Fri 9/7/18**		**100%**
118		3.1.3.1 Map ONE Net Process to LMIS Processes	3 days	Wed 8/29/18	Fri 8/31/18	116	100%
119		3.1.3.2 Identify Requirements that "Fit" solution capability	2 days	Mon 9/3/18	Tue 9/4/18	118	100%
120		3.1.3.3 Identify Requirements that do not Fit solution	2 days	Wed 9/5/18	Thu 9/6/18	119	100%
121		3.1.3.4 Identify solutions to the Gaps	1 day	Fri 9/7/18	Fri 9/7/18	120	100%
122		3.1.3.5 Fit/Gap Sign Off	0 days	Fri 9/7/18	Fri 9/7/18	121	100%
123		**3.2 Phase 3 - Construction**	**113 days**	**Wed 9/26/18**	**Fri 3/1/19**		**100%**
124		**3.2.1 Phase 3 - Task 1: Plan Construction Iteration**	**5 days**	**Wed 9/26/18**	**Tue 10/2/18**		**100%**
125		3.2.1.1 Define High Level Iteration Objectives, Measurable Goals, Issues	1 day	Wed 9/26/18	Wed 9/26/18	122FS+12 days	100%
126		3.2.1.2 Update Project Based On Iteration Updates	1 day	Thu 9/27/18	Thu 9/27/18	125	100%
127		3.2.1.3 Establish Draft Communications, Control and Reporting Mechanism	1 day	Fri 9/28/18	Fri 9/28/18	126	100%
128		3.2.1.4 Identify Project Team	1 day	Mon 10/1/18	Mon 10/1/18	127	100%
129		3.2.1.5 Conduct Iteration Kick Off Meeting	1 day	Tue 10/2/18	Tue 10/2/18	128	100%
130		**3.2.2 Phase 3 - Task 2: Solution Design**	**27 days**	**Wed 10/3/18**	**Thu 11/8/18**		**100%**
131		3.2.2.1 Define Reports	5 days	Wed 10/3/18	Tue 10/9/18	129	100%
132		3.2.2.2 Define Interfaces	5 days	Wed 10/3/18	Tue 10/9/18	129	100%
133		3.2.2.3 Write Unit Test Scripts	2 days	Wed 10/10/18	Thu 10/11/18	132	100%
134		3.2.2.4 Configure Solution	20 days	Fri 10/12/18	Thu 11/8/18	133	100%
135		3.2.2.5 Solution Configuration Sign Off	0 days	Thu 11/8/18	Thu 11/8/18	134	100%
136		**3.2.3 Phase 3 - Task 3: Define Authorizations**	**7 days**	**Fri 11/9/18**	**Mon 11/19/18**		**100%**
142		**3.2.4 Phase 3 - Task 4: Data Configuration**	**15 days**	**Tue 11/20/18**	**Mon 12/10/18**		**100%**
143		3.2.4.1 Define Fields in ONE Solution	10 days	Tue 11/20/18	Mon 12/3/18	141	100%
144		3.2.4.2 Map ONE Fields to LMIS Business Processes/Requirements	10 days	Tue 11/20/18	Mon 12/3/18	141	100%
145		3.2.4.3 Configure and Upload Enterprise Data	5 days	Tue 12/4/18	Mon 12/10/18	144	100%
146		3.2.4.4 Configure and Upload Site/Facility Data	5 days	Tue 12/4/18	Mon 12/10/18	144	100%
147		3.2.4.5 Sign Off Data Configuration	0 days	Mon 12/10/18	Mon 12/10/18	146	100%
148		**3.2.5 Phase 3 - Task 5: Solution Development Addressing Gaps**	**80 days**	**Mon 10/1/18**	**Fri 1/18/19**	**124FS-2 days**	**100%**

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
154		**3.2.6 Phase 3 - Task 6 - Testing**	**23 days**	**Wed 1/2/19**	**Fri 2/1/19**		**100%**
164		**3.2.7 User Acceptance Testing (Ghana MOH on US QA Environment)**	**17 days**	**Thu 2/7/19**	**Fri 3/1/19**		**100%**
172		**3.3 Phase 4 - Transition**	**6 days**	**Mon 3/4/19**	**Mon 3/11/19**		**100%**
173		**3.3.1 Phase 4 - Task 1: Plan Transition Iteration**	**2 days**	**Mon 3/4/19**	**Tue 3/5/19**	**171**	**100%**
174		3.3.1.1 Define High Level Iteration Objectives, Measurable Goals, Issues	1 day	Mon 3/4/19	Mon 3/4/19	171	100%
175		3.3.1.2 Update Project Based On Iteration Updates	1 day	Mon 3/4/19	Mon 3/4/19	171	100%
176		3.3.1.3 Establish Draft Communications, Control and Reporting Mechanism	1 day	Mon 3/4/19	Mon 3/4/19	171	100%
177		3.3.1.4 Identify Project Team	1 day	Mon 3/4/19	Mon 3/4/19	171	100%
178		3.3.1.5 Conduct Iteration Kick Off Meeting	1 day	Tue 3/5/19	Tue 3/5/19	177	100%
179		**3.3.2 Phase 4 -Task 3: Production Cut Over**	**4 days**	**Wed 3/6/19**	**Mon 3/11/19**		**100%**
180		3.3.2.1 Baseline LMIS data	3 days	Wed 3/6/19	Fri 3/8/19	178	100%
181		3.3.2.2 LMIS System Ready For Installation	1 day	Mon 3/11/19	Mon 3/11/19	180	100%
182		3.4 Execution, Monitoring & Controlling COMPLETE	0 days	Mon 3/11/19	Mon 3/11/19	181	100%
183		**4 System Knowledge Transfer and Training**	**193 days**	**Wed 7/18/18**	**Fri 4/12/19**		**100%**
184		**4.1 Change Management, Training and Knowledge Transfer**	**193 days**	**Wed 7/18/18**	**Fri 4/12/19**		**100%**
185		**4.1.1 Task 1: Conduct Training Needs Analysis**	**30 days**	**Mon 10/1/18**	**Fri 11/9/18**	**122**	**100%**
186		4.1.1.1 Identify needed tools and functional and technical knowledge and skills	10 days	Mon 10/1/18	Fri 10/12/18	122FS+15 days	100%
187		4.1.1.2 Assess current team capabilities	5 days	Mon 10/15/18	Fri 10/19/18	186	100%
188		4.1.1.3 Identify gaps between team capabilities and skill requirements	5 days	Mon 10/22/18	Fri 10/26/18	187	100%
189		4.1.1.4 Assess System Champions' abilities to bridge knowledge transfer gaps	10 days	Mon 10/29/18	Fri 11/9/18	188	100%
190		**4.1.2 Task 2: Develop Training Plan and Knowledge Transfer Strategy**	**55 days**	**Fri 11/16/18**	**Thu 1/31/19**		**100%**
191		4.1.2.1 Develop Knowledge Transfer Approach	5 days	Fri 11/16/18	Thu 11/22/18	189FS+4 days	100%
192		4.1.2.2 Develop Detailed Training Project Plan	5 days	Fri 11/23/18	Thu 11/29/18	191	100%
193		4.1.2.3 Identify Training Logistics	2 days	Fri 11/30/18	Mon 12/3/18	192	100%
194		4.1.2.4 Design and Agree on Delivery Methods	4 days	Tue 12/4/18	Fri 12/7/18	193	100%
195		4.1.2.5 Develop Role Based Training Materials	39 days	Mon 12/10/18	Thu 1/31/19	194	100%
196		4.1.2.6 Design End-User Curriculum	39 days	Tue 12/4/18	Fri 1/25/19	193	100%
197		4.1.2.7 Develop Training Evaluation Materials	39 days	Tue 12/4/18	Fri 1/25/19	193	100%
198		**4.1.3 Task 3 - Conduct Foundational Training on SCM (Online)**	**133 days**	**Wed 7/18/18**	**Fri 1/18/19**		**100%**
199		4.1.3.1 Conduct Basic Supply Chain Management Course	30 days	Wed 7/18/18	Tue 8/28/18		100%
200		4.1.3.2 Conduct Change Management/Adult Learning Course	30 days	Mon 8/20/18	Fri 9/28/18	199FS-7 days	100%
201		4.1.3.3 Conduct Forecasting and Quantification Course	30 days	Mon 8/27/18	Fri 10/5/18	200SS+5 days	100%
202		4.1.3.4 Conduct Procurement Management Course	30 days	Mon 9/17/18	Fri 10/26/18	201FS-15 days	100%
203		4.1.3.5 Conduct Warehouse Management Course	30 days	Mon 10/8/18	Fri 11/16/18	202FS-15 days	100%
204		4.1.3.6 Conduct Inventory and Logistics Management Course	30 days	Mon 10/29/18	Fri 12/7/18	203SS+15 days	100%
205		4.1.3.7 Conduct Quality Assurance Course	30 days	Mon 11/19/18	Fri 12/28/18	204SS+15 days	100%
206		4.1.3.8 Conduct Monitoring and Evaluation Course	30 days	Mon 12/10/18	Fri 1/18/19	205SS+15 days	100%

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
207	✓		**4.1.4 Task 4 - GhiLMIS Training**	**10 days**	**Mon 3/11/19**	**Fri 3/22/19**		**100%**
208	✓		4.1.4.1 GhiLMIS Master Training	10 days	Mon 3/11/19	Fri 3/22/19	171FS+5 days	100%
209	✓		**4.1.5 Task 5 - Training of Trainers**	**10 days**	**Mon 4/1/19**	**Fri 4/12/19**		**100%**
210	✓		4.1.5.1 Conduct Training of Trainers	10 days	Mon 4/1/19	Fri 4/12/19	208	100%
211			**5 System Implementation (Onboarding and Roll Out)**	**1006 days**	**Mon 4/15/19**	**Mon 2/20/23**		**45%**
212	✓		**5.1 Initial Operating Capability (MoH, GHS, IPs, NHIA, FDA, TCMS, IHS, DH, TH)**	**160 days**	**Mon 4/15/19**	**Fri 11/22/19**		**100%**
213	✓		**5.1.1 Task 1 - IOC Go Live**	**160 days**	**Mon 4/15/19**	**Fri 11/22/19**		**100%**
214	✓		**5.1.1.1 Central Level Tier Go Live**	**50 days**	**Mon 4/15/19**	**Fri 6/21/19**		**100%**
215	✓		**5.1.1.1.1 Central Level (MoH and GHS), RMS, Teaching Hospitals**	**50 days**	**Mon 4/15/19**	**Fri 6/21/19**		**100%**
216	✓		5.1.1.1.1.1 Provide overall planning and coordination for the implementation	2 days	Mon 4/15/19	Tue 4/16/19	210	100%
217	✓		5.1.1.1.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	2 days	Mon 4/15/19	Tue 4/16/19	210	100%
218	✓		5.1.1.1.1.3 Provide onboarding data templates to site facilities for data gathering and completion	5 days	Mon 4/15/19	Fri 4/19/19	210	100%
219	✓		5.1.1.1.1.4 Collect onboarding data from facilities	10 days	Mon 4/22/19	Fri 5/3/19	218	100%
220	✓		5.1.1.1.1.5 Configure system with data and users	15 days	Mon 5/6/19	Fri 5/24/19	219	100%
221	✓		5.1.1.1.1.6 Initiate Zonal Onboarding	10 days	Mon 5/27/19	Fri 6/7/19	220	100%
222	✓		5.1.1.1.1.7 Training, Onboarding and Go Live	10 days	Mon 6/10/19	Fri 6/21/19	220	100%
223	✓		**5.1.1.2 Zone 1 (Ashanti) - IOC Implementation**	**46 days**	**Fri 5/31/19**	**Fri 8/2/19**		**100%**
224	✓		**5.1.1.2.1 Ashanti and Brong Ahafo Region**	**46 days**	**Fri 5/31/19**	**Fri 8/2/19**		**100%**
225	✓		5.1.1.2.1.1 Provide overall planning and coordination for the implementation	1 day	Fri 5/31/19	Fri 5/31/19	214FS-16 days	100%
226	✓		5.1.1.2.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Fri 5/31/19	Fri 5/31/19	214FS-16 days	100%
227	✓		5.1.1.2.1.3 Provide onboarding data templates to site facilities for data gathering and completion	1 day	Fri 5/31/19	Fri 5/31/19	214FS-16 days	100%
228	✓		5.1.1.2.1.4 Collect onboarding data from facilities	10 days	Mon 6/3/19	Fri 6/14/19	227	100%
229	✓		5.1.1.2.1.5 Configure system with data and users	10 days	Mon 6/17/19	Fri 6/28/19	228	100%
230	✓		5.1.1.2.1.6 Initiate Zonal Onboarding	10 days	Mon 7/1/19	Fri 7/12/19	229	100%
231	✓		5.1.1.2.1.7 Training, Onboarding and Go Live	15 days	Mon 7/15/19	Fri 8/2/19	230	100%
232	✓		**5.1.1.3 Zone 2 (Central) - IOC Implementation**	**46 days**	**Fri 7/5/19**	**Fri 9/6/19**		**100%**
233	✓		**5.1.1.3.1 Central and Western Region**	**46 days**	**Fri 7/5/19**	**Fri 9/6/19**		**100%**
234	✓		5.1.1.3.1.1 Provide overall planning and coordination for the implementation	1 day	Fri 7/5/19	Fri 7/5/19	231FS-21 days	100%
235	✓		5.1.1.3.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Fri 7/5/19	Fri 7/5/19	231FS-21 days	100%
236	✓		5.1.1.3.1.3 Provide onboarding data templates to site facilities for data gathering and completion	1 day	Fri 7/5/19	Fri 7/5/19	231FS-21 days	100%
237	✓		5.1.1.3.1.4 Collect onboarding data from facilities	10 days	Mon 7/8/19	Fri 7/19/19	236	100%
238	✓		5.1.1.3.1.5 Configure system with data and users	10 days	Mon 7/22/19	Fri 8/2/19	237	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
239		5.1.1.3.1.6 Initiate Zonal Onboarding	10 days	Mon 8/26/19	Fri 9/6/19	238FS+15 days	100%
240		5.1.1.3.1.7 Training, Onboarding and Go Live	10 days	Mon 8/26/19	Fri 9/6/19	238FS+15 days	100%
241		**5.1.1.4 Zone 3 (Greater Accra) - IOC Implementation**	**40 days**	**Mon 8/26/19**	**Fri 10/18/19**		**100%**
242		**5.1.1.4.1 Greater Accra, Eastern and Volta Region**	**40 days**	**Mon 8/26/19**	**Fri 10/18/19**		**100%**
243		5.1.1.4.1.1 Provide overall planning and coordination for the implementation	1 day	Mon 8/26/19	Mon 8/26/19	240FS-10 days	100%
244		5.1.1.4.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 8/26/19	Mon 8/26/19	240FS-10 days	100%
245		5.1.1.4.1.3 Provide onboarding data templates to site facilities for data gathering and completion	1 day	Mon 8/26/19	Mon 8/26/19	240FS-10 days	100%
246		5.1.1.4.1.4 Collect onboarding data from facilities	10 days	Tue 8/27/19	Mon 9/9/19	245	100%
247		5.1.1.4.1.5 Configure system with data and users	10 days	Tue 9/10/19	Mon 9/23/19	246	100%
248		5.1.1.4.1.6 Initiate Zonal Onboarding	10 days	Tue 9/10/19	Mon 9/23/19	246	100%
249		5.1.1.4.1.7 Training, Onboarding and Go Live	20 days	Mon 9/23/19	Fri 10/18/19	240FS+10 days	100%
250		**5.1.1.5 Zone 4 (Northern) - IOC Implementation**	**46 days**	**Fri 9/20/19**	**Fri 11/22/19**		**100%**
251		**5.1.1.5.1 Northern, Upper West and Upper East Region**	**46 days**	**Fri 9/20/19**	**Fri 11/22/19**		**100%**
252		5.1.1.5.1.1 Provide overall planning and coordination for the implementation	1 day	Fri 9/20/19	Fri 9/20/19	249FS-21 days	100%
253		5.1.1.5.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Fri 9/20/19	Fri 9/20/19	249FS-21 days	100%
254		5.1.1.5.1.3 Provide onboarding data templates to site facilities for data gathering and completion	1 day	Fri 9/20/19	Fri 9/20/19	249FS-21 days	100%
255		5.1.1.5.1.4 Collect onboarding data from facilities	10 days	Mon 9/23/19	Fri 10/4/19	254	100%
256		5.1.1.5.1.5 Configure system with data and users	10 days	Mon 10/7/19	Fri 10/18/19	255	100%
257		5.1.1.5.1.6 Initiate Zonal Onboarding	10 days	Mon 10/21/19	Fri 11/1/19	256	100%
258		5.1.1.5.1.7 Training, Onboarding and Go Live	15 days	Mon 11/4/19	Fri 11/22/19	249FS+10 days	100%
259		5.2 IOC Roll Out Complete	0 days	Fri 11/22/19	Fri 11/22/19	258	100%
260		**5.3 Full Operating Capability (Health Centers)**	**310 days**	**Mon 7/6/20**	**Fri 9/10/21**		**46%**
261		**5.3.1 Western Region FOC Implementation**	**40 days**	**Mon 7/6/20**	**Fri 8/28/20**		**100%**
262		5.3.1.1 Provide overall planning and coordination for the implementation	1 day	Mon 7/6/20	Mon 7/6/20		100%
263		5.3.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Tue 7/7/20	Tue 7/7/20	262	100%
264		5.3.1.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Wed 7/8/20	Wed 7/8/20	263	100%
265		5.3.1.4 Collect onboarding data from facilities	10 days	Thu 7/9/20	Wed 7/22/20	264	100%
266		5.3.1.5 Configure system with data and users	10 days	Thu 7/23/20	Wed 8/5/20	265	100%
267		5.3.1.6 Initiate Zonal Onboarding	15 days	Mon 8/10/20	Fri 8/28/20	266FS+2 days	100%
268		5.3.1.7 Training, Onboarding and Go Live	15 days	Mon 8/10/20	Fri 8/28/20	266FS+2 days	100%
269		**5.3.2 Zone 1 - FOC Implementation (Ashanti and Brong Ahafo Regions) -Phase 1**	**60 days**	**Mon 8/17/20**	**Fri 11/6/20**		**100%**
270		5.3.2.1 Provide overall planning and coordination for the implementation	1 day	Mon 8/17/20	Mon 8/17/20	268FS-10 days	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
271		5.3.2.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 8/17/20	Mon 8/17/20	268FS-10 days	100%
272		5.3.2.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Tue 8/18/20	Tue 8/18/20	271	100%
273		5.3.2.4 Collect onboarding data from facilities	10 days	Wed 8/19/20	Tue 9/1/20	272	100%
274		5.3.2.5 Initiate Zonal Onboarding	30 days	Mon 9/28/20	Fri 11/6/20	268FS+20 days	100%
275		5.3.2.6 Training, Onboarding and Go Live	30 days	Mon 9/28/20	Fri 11/6/20	268FS+20 days	100%
276		**5.3.3 Zone 1 - FOC Implementation (Ashanti and Brong Ahafo Regions) -Phase 2**	**70 days**	**Mon 11/23/20**	**Fri 2/26/21**		**100%**
277		5.3.3.1 Provide overall planning and coordination for the implementation	1 day	Mon 11/23/20	Mon 11/23/20	275FS+10 days	100%
278		5.3.3.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 11/23/20	Mon 11/23/20	275FS+10 days	100%
279		5.3.3.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Tue 11/24/20	Tue 11/24/20	278	100%
280		5.3.3.4 Collect onboarding data from facilities	10 days	Mon 1/18/21	Fri 1/29/21	279	100%
281		5.3.3.5 Configure system with data and users	10 days	Mon 1/18/21	Fri 1/29/21	265	100%
282		5.3.3.6 Initiate Zonal Onboarding	30 days	Mon 1/18/21	Fri 2/26/21		100%
283		5.3.3.7 Training, Onboarding and Go Live	30 days	Mon 1/18/21	Fri 2/26/21		100%
284		**5.3.4 Zone 2 - FOC Health Centers Implementation (Volta and Eastern Regions)**	**90 days**	**Mon 2/15/21**	**Fri 6/18/21**		**2%**
285		5.3.4.1 Provide overall planning and coordination for the implementation	1 day	Mon 2/15/21	Mon 2/15/21	283FS-10 days	80%
286		5.3.4.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 2/15/21	Mon 2/15/21	283FS-10 days	80%
287		5.3.4.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Tue 2/16/21	Tue 2/16/21	286	50%
288		5.3.4.4 Collect onboarding data from facilities	10 days	Wed 2/17/21	Tue 3/2/21	287	0%
289		5.3.4.5 Configure system with data and users	10 days	Wed 3/3/21	Tue 3/16/21	288	0%
290		5.3.4.6 Initiate Zonal Onboarding	50 days	Mon 4/12/21	Fri 6/18/21	283FS+10 days	0%
291		5.3.4.7 Training, Onboarding and Go Live	50 days	Mon 4/12/21	Fri 6/18/21	283FS+10 days	0%
292		**5.3.5 Zone 3 - FOC Health Centers Implementation (Central and Greater Accra Regions)**	**40 days**	**Mon 6/7/21**	**Fri 7/30/21**		**0%**
293		5.3.5.1 Provide overall planning and coordination for the implementation	1 day	Mon 6/7/21	Mon 6/7/21	291FS-10 days	0%
294		5.3.5.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 6/7/21	Mon 6/7/21	291FS-10 days	0%
295		5.3.5.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Tue 6/8/21	Tue 6/8/21	294	0%
296		5.3.5.4 Collect onboarding data from facilities	10 days	Wed 6/9/21	Tue 6/22/21	295	0%
297		5.3.5.5 Configure system with data and users	10 days	Wed 6/23/21	Tue 7/6/21	296	0%
298		5.3.5.6 Initiate Zonal Onboarding	20 days	Mon 7/5/21	Fri 7/30/21	290FS+10 days	0%
299		5.3.5.7 Training, Onboarding and Go Live	20 days	Mon 7/5/21	Fri 7/30/21	290FS+10 days	0%
300		**5.3.6 Zone 4 - FOC Health Centers Implementation (Northern, Upper East and Upper West Regions)**	**40 days**	**Mon 7/19/21**	**Fri 9/10/21**		**0%**
301		5.3.6.1 Provide overall planning and coordination for the implementation	1 day	Mon 7/19/21	Mon 7/19/21	299FS-10 days	0%
302		5.3.6.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 7/19/21	Mon 7/19/21	299FS-10 days	0%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
303		5.3.6.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Tue 7/20/21	Tue 7/20/21	302	0%
304		5.3.6.4 Collect onboarding data from facilities	10 days	Wed 7/21/21	Tue 8/3/21	303	0%
305		5.3.6.5 Configure system with data and users	10 days	Wed 8/4/21	Tue 8/17/21	304	0%
306		5.3.6.6 Initiate Zonal Onboarding	20 days	Mon 8/16/21	Fri 9/10/21	299FS+10 days	0%
307		5.3.6.7 Training, Onboarding and Go Live	20 days	Mon 8/16/21	Fri 9/10/21	299FS+10 days	0%
308		5.3.7 FOC Health Centers Implementation Completed	0 days	Fri 9/10/21	Fri 9/10/21	306	0%
309		**5.4 Full Operating Capability (CHPS)**	**316 days**	**Mon 12/6/21**	**Mon 2/20/23**		**0%**
310		**5.4.1 Western Region FOC CHPS Implementation**	**47 days**	**Mon 12/6/21**	**Tue 2/8/22**		**0%**
311		5.4.1.1 Provide overall planning and coordination for the implementation	1 day	Mon 12/6/21	Mon 12/6/21	308FS+60 days	0%
312		5.4.1.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Tue 12/7/21	Tue 12/7/21	311	0%
313		5.4.1.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Wed 12/8/21	Wed 12/8/21	312	0%
314		5.4.1.4 Collect onboarding data from facilities	10 days	Thu 12/9/21	Wed 12/22/21	313	0%
315		5.4.1.5 Configure system with data and users	10 days	Thu 12/23/21	Wed 1/5/22	314	0%
316		5.4.1.6 Initiate Zonal Onboarding	10 days	Mon 1/10/22	Fri 1/21/22	315FS+2 days	0%
317		5.4.1.7 Training, Onboarding and Go Live	10 days	Wed 1/26/22	Tue 2/8/22	316FS+2 days	0%
318		**5.4.2 Zone 1 - FOC CHPS Implementation (Ashanti and Brong Ahafo Regions)**	**92 days**	**Thu 1/27/22**	**Fri 6/3/22**		**0%**
319		5.4.2.1 Provide overall planning and coordination for the implementation	1 day	Wed 2/9/22	Wed 2/9/22	317	0%
320		5.4.2.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Thu 1/27/22	Thu 1/27/22	319FS-10 days	0%
321		5.4.2.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Fri 1/28/22	Fri 1/28/22	320	0%
322		5.4.2.4 Collect onboarding data from facilities	10 days	Mon 1/31/22	Fri 2/11/22	321	0%
323		5.4.2.5 Configure system with data and users	10 days	Mon 2/14/22	Fri 2/25/22	322	0%
324		5.4.2.6 Initiate Zonal Onboarding	20 days	Mon 3/21/22	Fri 4/15/22	323FS+15 days	0%
325		5.4.2.7 Training, Onboarding and Go Live	20 days	Mon 5/9/22	Fri 6/3/22	324FS+15 days	0%
326		**5.4.3 Zone 2 - FOC CHPS Implementation (Volta and Eastern Regions)**	**102 days**	**Mon 5/23/22**	**Tue 10/11/22**		**0%**
327		5.4.3.1 Provide overall planning and coordination for the implementation	1 day	Mon 5/23/22	Mon 5/23/22	325FS-10 days	0%
328		5.4.3.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Mon 5/23/22	Mon 5/23/22	325FS-10 days	0%
329		5.4.3.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Tue 5/24/22	Tue 5/24/22	328	0%
330		5.4.3.4 Collect onboarding data from facilities	10 days	Wed 5/25/22	Tue 6/7/22	329	0%
331		5.4.3.5 Configure system with data and users	10 days	Wed 6/8/22	Tue 6/21/22	330	0%
332		5.4.3.6 Initiate Zonal Onboarding	25 days	Wed 7/13/22	Tue 8/16/22	331FS+15 days	0%
333		5.4.3.7 Training, Onboarding and Go Live	25 days	Wed 9/7/22	Tue 10/11/22	332FS+15 days	0%
334		**5.4.4 Zone 3 - FOC CHPS Implementation (Central and Greater Accra Regions)**	**52 days**	**Wed 9/28/22**	**Thu 12/8/22**		**0%**
335		5.4.4.1 Provide overall planning and coordination for the implementation	1 day	Wed 9/28/22	Wed 9/28/22	333FS-10 days	0%
336		5.4.4.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Wed 9/28/22	Wed 9/28/22	333FS-10 days	0%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
337		5.4.4.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Thu 9/29/22	Thu 9/29/22	336	0%
338		5.4.4.4 Collect onboarding data from facilities	10 days	Fri 9/30/22	Thu 10/13/22	337	0%
339		5.4.4.5 Configure system with data and users	10 days	Fri 10/14/22	Thu 10/27/22	338	0%
340		5.4.4.6 Initiate Zonal Onboarding	15 days	Fri 11/18/22	Thu 12/8/22	339FS+15 days	0%
341		5.4.4.7 Training, Onboarding and Go Live	15 days	Fri 11/18/22	Thu 12/8/22	339FS+15 days	0%
342		**5.4.5 Zone 4 - FOC CHPS Implementation (Northern, Upper East and Upper West Regions)**	**62 days**	**Fri 11/25/22**	**Mon 2/20/23**		**0%**
343		5.4.5.1 Provide overall planning and coordination for the implementation	1 day	Fri 11/25/22	Fri 11/25/22	341FS-10 days	0%
344		5.4.5.2 Ensure that all data/documents/guidelines applicable to the implementation effort are available	1 day	Fri 11/25/22	Fri 11/25/22	341FS-10 days	0%
345		5.4.5.3 Provide onboarding data templates to site facilities for data gathering and comple	1 day	Mon 11/28/22	Mon 11/28/22	344	0%
346		5.4.5.4 Collect onboarding data from facilities	10 days	Tue 11/29/22	Mon 12/12/22	345	0%
347		5.4.5.5 Configure system with data and users	10 days	Tue 12/13/22	Mon 12/26/22	346	0%
348		5.4.5.6 Initiate Zonal Onboarding	25 days	Tue 1/17/23	Mon 2/20/23	347FS+15 days	0%
349		5.4.5.7 Training, Onboarding and Go Live	25 days	Tue 1/17/23	Mon 2/20/23	347FS+15 days	0%
350		5.4.5.8 FOC CHPS Implementation Completed	0 days	Mon 2/20/23	Mon 2/20/23	349	0%
351		**6 Conduct Senior Leadership Orientation Western Region**	**37 days**	**Mon 5/25/20**	**Tue 7/14/20**		**100%**
352		6.1 Develop Senior Leadership Orientation Plan	5 days	Mon 5/25/20	Fri 5/29/20		100%
353		6.2 Develop Orientation and Training Delivery Approach	5 days	Mon 6/1/20	Fri 6/5/20	352	100%
354		6.3 Develop Orientation Schedule	5 days	Mon 6/8/20	Fri 6/12/20	353	100%
355		6.4 Identify Logistics Needs	2 days	Mon 6/15/20	Tue 6/16/20	354	100%
356		6.5 Initiate Senior Leadership Orientation and Training	20 days	Wed 6/17/20	Tue 7/14/20	355	100%
357		6.6 Senior Leadership Oriented	0 days	Tue 7/14/20	Tue 7/14/20	356	100%
358		**7 Capacity Building and Knowledge Transfer**	**40 days**	**Tue 4/4/23**	**Mon 5/29/23**		**0%**
359		7.1 Develop learning tools to support refresher training and new user orientation	10 days	Tue 4/4/23	Mon 4/17/23	350FS+30 days	0%
360		7.2 Conduct working group session to review and update supply chain Standard Operating Procedures related to GhiLMIS	5 days	Tue 4/18/23	Mon 4/24/23	359	0%
361		7.3 Develop Video SOPs	20 days	Tue 4/25/23	Mon 5/22/23	360	0%
362		7.4 Roll out SOPs	5 days	Tue 5/23/23	Mon 5/29/23	361	0%
363		**8 GhiLMIS Cost and Operational Impact Evaluation**	**762 days**	**Mon 12/9/19**	**Tue 11/8/22**		**50%**
364		**8.1 Conduct Supply Chain Cost Benchmark Pre-GhiLMIS Study**	**125 days**	**Mon 12/9/19**	**Fri 5/29/20**		**100%**
365		8.1.1 Develop Cost Benchmark Pre GhiLMIS Scope of Work	10 days	Mon 12/9/19	Fri 12/20/19		100%
366		8.1.2 Conduct study preparation and assumption building	5 days	Mon 12/23/19	Fri 12/27/19	365	100%
367		8.1.3 Understand Data Requirements	5 days	Mon 12/30/19	Fri 1/3/20	366	100%
368		8.1.4 Draft Study Methodology	5 days	Mon 1/6/20	Fri 1/10/20	367	100%
369		8.1.5 Define Supply Chain Parameters to be costed	5 days	Mon 1/13/20	Fri 1/17/20	368	100%
370		8.1.6 Set up and Calibrate Supply Chain Costing Tool (SCCT)	5 days	Mon 1/20/20	Fri 1/24/20	369	100%
371		8.1.7 Determine Data Sources	5 days	Mon 1/27/20	Fri 1/31/20	370	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
372		8.1.8 Collect pre-Study Data Sample	10 days	Mon 2/3/20	Fri 2/14/20	371	100%
373		8.1.9 Generate data collection tool(s) from SCCT	5 days	Mon 2/17/20	Fri 2/21/20	372	100%
374		8.1.10 Identify and Plan Data Collection Logistics	2 days	Mon 3/9/20	Tue 3/10/20	373FS+10 days	100%
375		8.1.11 Prepare for Data Collection	5 days	Wed 3/11/20	Tue 3/17/20	374	100%
376		8.1.12 Train Data Collectors	2 days	Wed 3/18/20	Thu 3/19/20	375	100%
377		8.1.13 Conduct Data Collection	15 days	Fri 3/20/20	Thu 4/9/20	376	100%
378		8.1.14 Conduct Result Analysis	10 days	Fri 4/10/20	Thu 4/23/20	377	100%
379		8.1.15 Draft Study Report	15 days	Fri 4/24/20	Thu 5/14/20	378	100%
380		8.1.16 Review Report and obtain consensus	10 days	Fri 5/15/20	Thu 5/28/20	379	100%
381		8.1.17 Present Findings	1 day	Fri 5/29/20	Fri 5/29/20	380	100%
382		8.1.18 Deliver Report	0 days	Fri 5/29/20	Fri 5/29/20	381	100%
383		**8.2 Conduct Supply Chain Post Implementation Cost and Operational Efficiency Evaluation**	**115 days**	**Wed 6/1/22**	**Tue 11/8/22**		**0%**
384		8.2.1 Develop GhiLMIS Post Implementation Operational Efficiency and Cost Impact Evaluation Scope of Work	10 days	Wed 6/1/22	Tue 6/14/22	382FS+522 days	0%
385		8.2.2 Conduct study preparation and assumption building	5 days	Wed 6/15/22	Tue 6/21/22	384	0%
386		8.2.3 Understand Data Requirements	5 days	Wed 6/22/22	Tue 6/28/22	385	0%
387		8.2.4 Draft Study Methodology	5 days	Wed 6/29/22	Tue 7/5/22	386	0%
388		8.2.5 Define Supply Chain Parameters to be evaluated	5 days	Wed 7/6/22	Tue 7/12/22	387	0%
389		8.2.6 Set up and Calibrate Study Tools	5 days	Wed 7/13/22	Tue 7/19/22	388	0%
390		8.2.7 Determine Data Sources	5 days	Wed 7/20/22	Tue 7/26/22	389	0%
391		8.2.8 Collect pre-Study Data Sample	10 days	Wed 7/27/22	Tue 8/9/22	390	0%
392		8.2.9 Generate data collection from study tool	5 days	Wed 8/10/22	Tue 8/16/22	391	0%
393		8.2.10 Identify and Plan Data Collection Logistics	2 days	Wed 8/17/22	Thu 8/18/22	392	0%
394		8.2.11 Prepare for Data Collection	5 days	Fri 8/19/22	Thu 8/25/22	393	0%
395		8.2.12 Train Data Collectors	2 days	Fri 8/26/22	Mon 8/29/22	394	0%
396		8.2.13 Conduct Data Collection	15 days	Tue 8/30/22	Mon 9/19/22	395	0%
397		8.2.14 Conduct Result Analysis	10 days	Tue 9/20/22	Mon 10/3/22	396	0%
398		8.2.15 Draft Study Report	15 days	Tue 10/4/22	Mon 10/24/22	397	0%
399		8.2.16 Review Report and obtain consensus	10 days	Tue 10/25/22	Mon 11/7/22	398	0%
400		8.2.17 Present Findings	1 day	Tue 11/8/22	Tue 11/8/22	399	0%
401		8.2.18 Deliver Report	0 days	Tue 11/8/22	Tue 11/8/22	400	0%
402		**9 Conduct System Integration**	**85 days**	**Tue 3/7/23**	**Mon 7/3/23**		**0%**
403		9.1 Develop Integration Plan	5 days	Tue 3/7/23	Mon 3/13/23	350FS+10 days	0%
404		9.2 Identify Systems to be Integrated with GhiLMIS	10 days	Tue 3/14/23	Mon 3/27/23	403	0%
405		9.3 Conduct Integration Requirements Session	5 days	Tue 3/28/23	Mon 4/3/23	404	0%
406		9.4 Conduct System Integration Analysis	10 days	Tue 4/4/23	Mon 4/17/23	405	0%
407		9.5 Develop Integration Architecture	15 days	Tue 4/18/23	Mon 5/8/23	406	0%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
408		9.6 Develop Integration Design	10 days	Tue 5/9/23	Mon 5/22/23	407	0%
409		9.7 Conduct Integration Testing	5 days	Tue 5/23/23	Mon 5/29/23	408	0%
410		9.8 Deploy Systems	5 days	Tue 5/30/23	Mon 6/5/23	409	0%
411		9.9 Provide Maintenance Assistance	20 days	Tue 6/6/23	Mon 7/3/23	410	0%
412		**10 System Utilization and Sustainability**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**32%**
413		**10.1 Conduct System Capacity Utilization Evaluation**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**35%**
414		10.1.1 Review site performance	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	35%
415		10.1.2 Evaluate by usage by facility (functions executed)	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	35%
416		10.1.3 Address usability Issues	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	35%
417		10.1.4 Evaluate site performance based on ranking indicators to identify centers of excellence, develop continuous improvement opportunities and provide mitigations where	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	35%
418		10.1.5 Address Usability Issues	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	35%
419		**10.2 Ensure GhiLMIS efficiently and effectively supports all supply chain reforms**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**20%**
420		**10.2.1 Framework Contracts**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**20%**
421		10.2.1.1 Manage all vendor contract performance including measuring KPIs and generate data that can support informed decision making resulting in optimization of the supply	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	20%
422		**10.2.2 Warehouse Management**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**20%**
423		10.2.2.1 Support warehouse optimization through provision of data that supports increased capacity management accuracy and product integrity.	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	20%
424		**10.2.3 Last Mile Distribution**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**20%**
425		10.2.3.1 Support LMD through provision of quality data for 3PL contracts management, route optimization and creating an optimized transportation process	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	20%
426		**10.2.4 Data Management**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**20%**
427		10.2.4.1 Provide real time quality data, reports and analytics measuring SC Performance	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	20%
428		**10.3 Provide Help Desk Support Activities**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**40%**
429		10.3.1 Address Help Desk Issues	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	40%
430		10.3.2 Generate Periodical Reports	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	40%
431		10.3.3 Develop Frequently Asked Questions	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	40%
432		10.3.4 Ensure system issues are addressed per the SLA (Level 1 and 2-GhiLMIS Team; Level 3 and 4 - Resolve)	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	40%
433		**11 Ensure Quality Data Production and Use**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**13%**
434		**11.1 GhiLMIS Data Management**	**45 days**	**Mon 9/27/21**	**Fri 11/26/21**		**0%**
435		11.1.1 Develop Data Production and Use Scope of Work	10 days	Mon 9/27/21	Fri 10/8/21	307FS+10 days	0%
436		11.1.2 Review Knowledge Areas that make up GhiLMIS Data Production and Use to identify improvement opportunities	20 days	Mon 10/11/21	Fri 11/5/21	435	0%
437		11.1.3 Develop an action plan to leverage GhiLMIS as a Decision Support System	5 days	Mon 11/8/21	Fri 11/12/21	436	0%
438		11.1.4 Identify Key Performance Indicators to measure data quality and use in each supply chain thematic area	5 days	Mon 11/15/21	Fri 11/19/21	437	0%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
439		11.1.5 Establish an effective communication program and support to improve data management capabilities across GHS/MOH	5 days	Mon 11/22/21	Fri 11/26/21	438	0%
440		**11.2 Develop Data Management Strategy**	**29 days**	**Mon 11/29/21**	**Thu 1/6/22**		**0%**
441		11.2.1 Define capacity development plans on GhiLMIS data benefits, data analysis and use, and data management	10 days	Mon 11/29/21	Fri 12/10/21	439	0%
442		11.2.2 Conduct workshop on Data Production and Data Use to Directors, Team Leads & Performance Review team members identifying specific capability gaps and key	5 days	Mon 12/13/21	Fri 12/17/21	441	0%
443		11.2.3 Define GhiLMIS Data management objectives, priorities, and scope	5 days	Mon 12/20/21	Fri 12/24/21	442	0%
444		11.2.4 Develop Traceability Matrix of Data Needs to GHS/MOH Supply Chain Business Need	2 days	Mon 12/27/21	Tue 12/28/21	443	0%
445		11.2.5 Develop a Data Management Strategy representing MoH/GHS organization-wide sco	2 days	Wed 12/29/21	Thu 12/30/21	444	0%
446		11.2.6 Establish processes for Data Management Strategy approval, promulgation, and maintenance	5 days	Fri 12/31/21	Thu 1/6/22	445	0%
447		11.2.7 Document and Deliver GhiLMIS Data Management Strategy	0 days	Thu 1/6/22	Thu 1/6/22	446	0%
448		**11.3 Establish Data Governance**	**39 days**	**Fri 1/21/22**	**Wed 3/16/22**		**0%**
449		11.3.1 Leverage existing M&E framework and the MoH/GHS data policy to develop GhiLMIS data governance plan	5 days	Fri 1/21/22	Thu 1/27/22	447FS+10 days	0%
450		11.3.2 Identify and assign (influential) champions to promote data use at each level of Ghana Supply Chain functionalities	5 days	Fri 1/28/22	Thu 2/3/22	449	0%
451		11.3.3 Define owners of data assets (aka the data stewards).	2 days	Fri 2/4/22	Mon 2/7/22	450	0%
452		11.3.4 Define data governance processes that cover storage, archival, backup, and security.	10 days	Tue 2/8/22	Mon 2/21/22	451	0%
453		11.3.5 Define simple/ manageable controls and audit procedures that ensure compliance to data governance processes/ procedures.	5 days	Tue 2/22/22	Mon 2/28/22	452	0%
454		11.3.6 Develop and Establish Data Governance	2 days	Tue 3/1/22	Wed 3/2/22	453	0%
455		11.3.7 Train (data) users on required competencies and implement policies and procedures.	10 days	Thu 3/3/22	Wed 3/16/22	454	0%
456		**11.4 Develop Data Quality Mechanism**	**23 days**	**Thu 3/31/22**	**Mon 5/2/22**		**0%**
457		11.4.1 Develop a GhiLMIS data quality strategy to ensure that GhiLMIS data quality meets	5 days	Thu 3/31/22	Wed 4/6/22	455FS+10 days	0%
458		11.4.2 Develop an integrated data quality strategy for priority data as the blueprint to instill a perspective of shared responsibility for the quality of data across the MoH/GHS	5 days	Thu 4/7/22	Wed 4/13/22	457	0%
459		11.4.3 Identify & select priority data to be included in the data quality strategy	2 days	Thu 4/14/22	Fri 4/15/22	458	0%
460		11.4.4 Secure MoH/GHS leadership team's commitment to a data quality strategy.	2 days	Mon 4/18/22	Tue 4/19/22	459	0%
461		11.4.5 Identify the root causes of the poor data quality and what needs to be addressed	5 days	Wed 4/20/22	Tue 4/26/22	460	0%
462		11.4.6 Define the goals, objectives, and plans for improving data integrity.	2 days	Wed 4/27/22	Thu 4/28/22	461	0%
463		11.4.7 Ensure data quality strategy is followed across the organization and is accompanied by corresponding policies, processes, and guidelines.	2 days	Fri 4/29/22	Mon 5/2/22	462	0%
464		11.4.8 Establish Data Quality Mechanisms	0 days	Mon 5/2/22	Mon 5/2/22	463	0%
465		**11.5 Establish Data Architecture**	**25 days**	**Tue 5/17/22**	**Mon 6/20/22**		**0%**
466		11.5.1 Define the approach and practices for developing, approving, and instituting compliance for data representation, data access, and data distribution standards in	5 days	Tue 5/17/22	Mon 5/23/22	464FS+10 days	0%
467		11.5.2 Define GhiLMIS Data Representation, Data Access, and Data Distribution Standards	2 days	Tue 5/24/22	Wed 5/25/22	466	0%

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
468			11.5.3 Institute a sustainable standards development and maintenance process involving all key stakeholders	5 days	Thu 5/26/22	Wed 6/1/22	467	0%
469			11.5.4 Establish effective governance and auditing processes for standards adherence and exceptions	3 days	Thu 6/2/22	Mon 6/6/22	468	0%
470			11.5.5 Define and enforce a data distribution standard for requests and approvals	3 days	Tue 6/7/22	Thu 6/9/22	469	0%
471			11.5.6 Define and enforce approved data access methods across platforms	2 days	Fri 6/10/22	Mon 6/13/22	470	0%
472			11.5.7 Develop data transfer protocols across systems within the value chain	5 days	Tue 6/14/22	Mon 6/20/22	471	0%
473			11.5.8 Establish GhiLMIS Data Architecture	0 days	Mon 6/20/22	Mon 6/20/22	472	0%
474			**11.6 Data Analytics and Information For Decision Making**	**780 days**	**Mon 1/6/20**	**Fri 12/30/22**		**10%**
475			11.6.1 Conduct evaluation and triangulation of data using analytical capabilities to inform supply chain decisions and improvements	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	10%
476			11.6.2 Provide periodic reports to both management and end users	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	10%
477			11.6.3 Conduct predictive, prescriptive and descriptive analytics and provide information for key decision making	780 days	Mon 1/6/20	Fri 12/30/22	259FS+30 days	10%
478			**11.7 GS 1 Support**	**281 days**	**Mon 1/20/20**	**Mon 2/15/21**		**30%**
479	✓		11.7.1 Review GhiLMIS Master Data to update item master with GTINs	20 days	Mon 1/20/20	Fri 2/14/20	259FS+40 days	100%
480			11.7.2 Facilitate implementation of Ghana GS1 Roadmap into GhiLMIS	261 days	Mon 2/17/20	Mon 2/15/21	479	50%
481			11.7.3 Facilitate establishment of GS1 based National product catalog	20 days	Mon 5/11/20	Fri 6/5/20	479FS+60 days	15%
482			11.7.4 Ensure GS1 Compliance	261 days	Mon 2/17/20	Mon 2/15/21	479	5%
483			**12 Mobile Devices Implementation**	**230 days**	**Mon 5/18/20**	**Fri 4/2/21**		**70%**
484	✓		**12.1 Initiation Phase**	**24 days**	**Mon 5/18/20**	**Thu 6/18/20**		**100%**
485	✓		12.1.1 Develop Initiation Phase Iteration Plan	5 days	Mon 5/18/20	Fri 5/22/20		100%
486	✓		12.1.2 Identify key devices functionality	5 days	Mon 5/25/20	Fri 5/29/20	485	100%
487	✓		12.1.3 Conduct Stakeholder Analysis and identify key internal/external actors for the activit	2 days	Mon 6/1/20	Tue 6/2/20	486	100%
488	✓		12.1.4 Develop Project Management Plan	5 days	Wed 6/3/20	Tue 6/9/20	487	100%
489	✓		12.1.5 Validate Requirement Specification	5 days	Wed 6/10/20	Tue 6/16/20	488	100%
490	✓		12.1.6 Plan Procurement Process	2 days	Wed 6/17/20	Thu 6/18/20	489	100%
491	✓		12.1.7 Inception Phase Iteration Plan, Project Charter, Requirements Spec, Project Plan and Procurement Proof of Concept Delivered	0 days	Thu 6/18/20	Thu 6/18/20	490	100%
492	✓		**12.2 Elaboration Phase**	**68 days**	**Fri 6/19/20**	**Tue 9/22/20**		**100%**
493	✓		12.2.1 Conduct Site Evaluation	5 days	Fri 6/19/20	Thu 6/25/20	491	100%
494	✓		12.2.2 Initiate Procurement Process	2 days	Fri 6/26/20	Mon 6/29/20	493	100%
495	✓		12.2.3 Procure Wave 1 Devices (2 Cubic Scan Units, 2 Laptops, 8 Mobile Devices, 4 Barcode Printers, 7 Temperature Monitors, 2 Temperature Monitor Access Points)	1 day	Tue 6/30/20	Tue 6/30/20	494	100%
496	✓		12.2.4 Prepare pilot environment (Eastern RMS and Brong Ahafo RMS)	5 days	Wed 7/1/20	Tue 7/7/20	495	100%
497	✓		12.2.5 Develop and configure mobile devices and integrate into GhiLMIS	10 days	Wed 7/8/20	Tue 7/21/20	496	100%
498	✓		12.2.6 Conduct solution test	5 days	Wed 7/22/20	Tue 7/28/20	497	100%
499	✓		12.2.7 Implement devices at pilot sites	10 days	Wed 7/29/20	Tue 8/11/20	498	100%

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete
500		12.2.8 Conduct post pilot implementation evaluation to guide approach for implementation at remaining sited	5 days	Wed 8/12/20	Tue 8/18/20	499	100%
501		12.2.9 Conduct facilitation of implementation readiness for the remaining sites	5 days	Wed 8/19/20	Tue 8/25/20	500	100%
502		12.2.10 Integrate Devices in the GhiLMIS	5 days	Wed 8/26/20	Tue 9/1/20	501	100%
503		12.2.11 Develop Standard Operating Procedures	5 days	Wed 9/2/20	Tue 9/8/20	502	100%
504		12.2.12 Conduct Monitoring and Evaluation of implemented devices	10 days	Wed 9/9/20	Tue 9/22/20	503	100%
505		**12.3 Knowledge Transfer Phase**	**11 days**	**Wed 9/23/20**	**Wed 10/7/20**		**100%**
506		12.3.1 Develop Knowledge Transfer Approach	2 days	Wed 9/23/20	Thu 9/24/20	504	100%
507		12.3.2 Develop Detailed Training Project Plan	2 days	Fri 9/25/20	Mon 9/28/20	506	100%
508		12.3.3 Identify Training Logistics	1 day	Tue 9/29/20	Tue 9/29/20	507	100%
509		12.3.4 Design and Agree on Delivery Methods	1 day	Wed 9/30/20	Wed 9/30/20	508	100%
510		12.3.5 Conduct Training of Trainers	5 days	Thu 10/1/20	Wed 10/7/20	509	100%
511		**12.4 Construction Phase**	**55 days**	**Thu 10/8/20**	**Wed 12/23/20**		**100%**
512		12.4.1 Procurement Wave 2 devices (5 Cubic Scan Units, 5 Laptops, 13 Mobile Devices, 8 Barcode Printers, 10 Temperature Monitors, 5 Temperature Monitor Access Points)	10 days	Thu 10/8/20	Wed 10/21/20	510	100%
513		12.4.2 Prepare Wave 2 implementation Environment	10 days	Thu 10/22/20	Wed 11/4/20	512	100%
514		12.4.3 Ensure that the devices are operational and ready to be installed at all sites	5 days	Thu 11/5/20	Wed 11/11/20	513	100%
515		12.4.4 Conduct all pertinent tests	5 days	Thu 11/12/20	Wed 11/18/20	514	100%
516		12.4.5 Implement Devices Across Wave 2 Sites	25 days	Thu 11/19/20	Wed 12/23/20	515	100%
517		**12.5 Transition Phase**	**67 days**	**Thu 12/31/20**	**Fri 4/2/21**		**0%**
518		12.5.1 Identify Training Logistics	2 days	Thu 12/31/20	Fri 1/1/21	516FS+5 days	0%
519		12.5.2 Conduct End-User Training	5 days	Mon 1/4/21	Fri 1/8/21	518	0%
520		12.5.3 Provide operations, maintenance and end-user support	60 days	Mon 1/11/21	Fri 4/2/21	519	0%
521		**13 Transition to Logistics Management Unit (LMU)**	**31 days**	**Tue 7/19/22**	**Tue 8/30/22**		**0%**
522		13.1 Develop GhiLMIS Life Cycle Transition and Sustainability Plan	5 days	Tue 7/19/22	Mon 7/25/22	473FS+20 days	0%
523		13.2 Develop Sustainability Metrics	5 days	Tue 7/26/22	Mon 8/1/22	522	0%
524		13.3 Implement Sustainability Metrics	20 days	Tue 8/2/22	Mon 8/29/22	523	0%
525		13.4 Transition GhiLMIS Management To LMU	1 day	Tue 8/30/22	Tue 8/30/22	524	0%

Annex D: Ghana Integrated Logistics Management Information System – Reports to be Generated

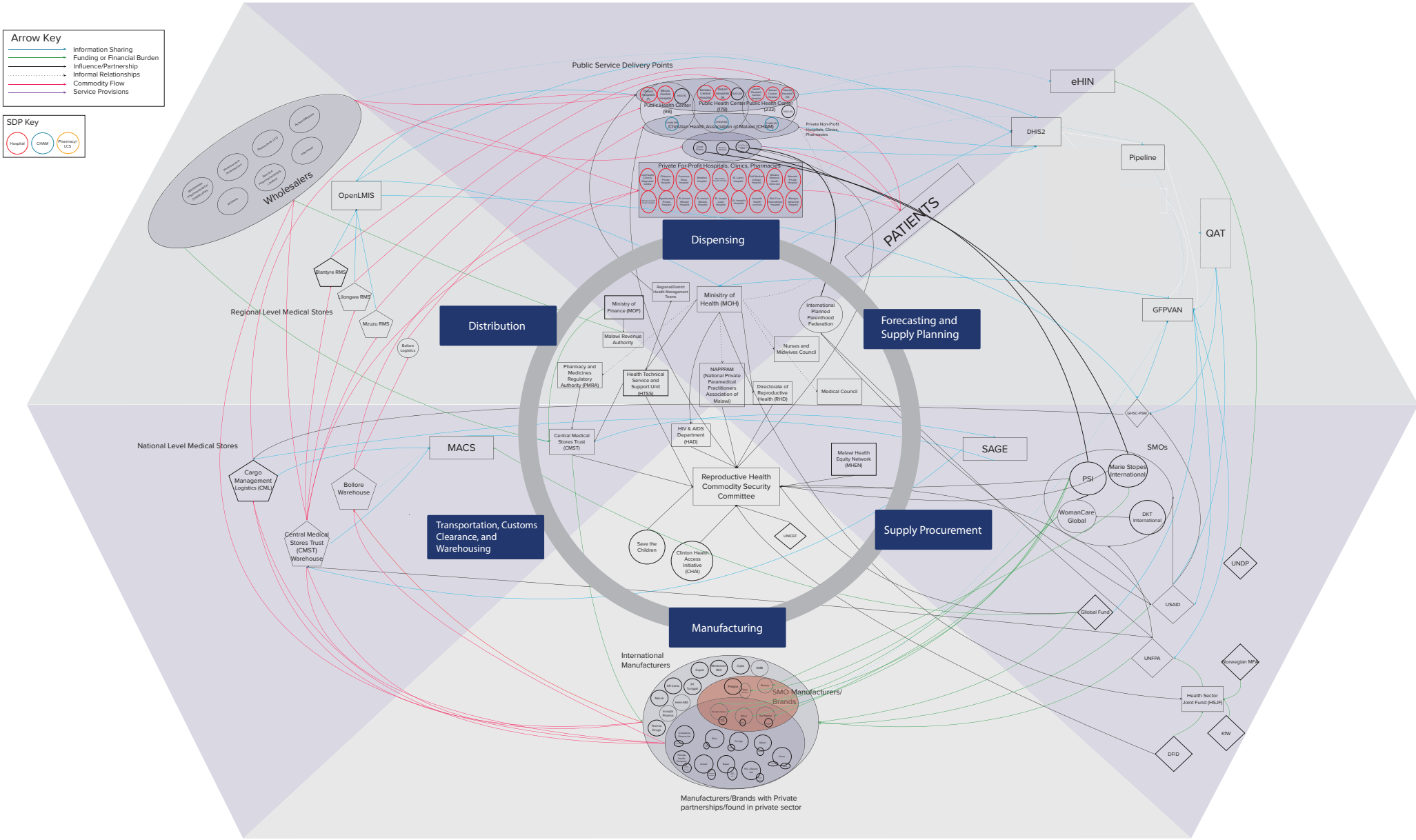
Functional Area	Description	GhiLMIS Available Key Information	Usability/Outcomes
Demand and Supply Planning	The GhiLMIS will support demand and supply planning activities by tracking analysis and statistical forecasting and quantification of demand across the value chain. The GhiLMIS will additionally support replenishment planning through calculation, suggestion, creation and management of replenishment and related orders throughout the value chain based on the output the demand planning.	- Total Consumption - Months of Data Available - Average Monthly Consumption - Maximum Number in Months - Days of Data Available - Estimated Average Daily Consumption - Estimated Days of Stock On Hand - Maximum Stock Quantity (Proposed) - Re-Order Quantity (Proposed) - Maximum Stock Quantity (Current) - Re-Order Quantity (Current) - Emergency Order Point (Current) - Current Balance on Hand - Stock Holding Unit of Measure - Re-Order Status - Suggested Order Quantity - Order Unit of Measure - Order Policy Type - Last Order Creation Date and Time	- Effective Support demand and supply planning - Ability to Inform purchase order creation. - Real time buffer updates - Reduce variability in demand and supply planning. - Timely and accurate data to support quantification. - Reduction in stock-outs and expiries - Reduce inventory operating costs. - Increase operational efficiencies
Contracts Management	The GhiLMIS will support management of both Framework and Carrier Contracts. This will include monitoring the performance and execution of contracts, the management of commodities under each contract and the evaluation of the vendor performance KPIs. The GhiLMIS will support performance management of all framework contracts. All orders and fulfillment of framework contracts will be tracked in the system. The system will generate contracts consumption report which will provide details on each vendor contracted quantities, agree order quantities, draw down, remaining quantities, order details, key performance indicators and total payables to each individual vendor.	- Vendor Details - Minimum and Maximum Contracted Details - Received quantity. - Agreed quantity. - Cumulative quantity - Remaining quantity - Order details - Approval agreed and actual receipt dates. - Total and Cumulative Payment - Price UOM	- Support Framework Contract Management - Effective 3PL (Carrier Contract Management) - Supports effective volumetric determination and management. - Provided Milestone Management Capability - Provides real time visibility on contract performance and contract consumption. - Supports effective load consolidation and route optimization through ASN information shared with the transporter during pick processing. - Provides capability to manage vendor performance, tracking of shipment, and all other transportation key performance indicators. - Visibility to individual framework contractor performance will facilitate evaluation of each vendor performance, establish order trends, and contribute to improving procurement efficiencies.

Functional Area	Description	GhiLMIS Available Key Information	Usability/Outcomes
			- The system will capture and provide data on all vendor performance KPIs including average days to promise, days to process orders, on time and in-full
Order Management	The GhiLMIS will support capture management and control of any orders. This includes capturing, management, and control of any of the Order Cycles (Purchase Orders, Deployment Orders and Return Orders).	- Order Status - Order Fill Rate - Agreed Delivery Date - Actual Delivery Date - On Time - Agreed Quantity - Shipped Quantity - Ordered Vs Shipped - Shipped Vs Received - Received Quantity - In Full - Request, Promise and Original Ship Date - Quantity UOM - Ship From/Ship To - Buyer - Fulfillment Organization - Holds - Vendors reject reason - Request/Promise/Agreed Unit Price - Vendor details	- Real time order processing and fulfillment - Real time collaboration between buyer and vendor - Reduction of resources required to process and fulfill orders. - Reduction in cycle time from order creation to fulfillment - Harmonization of ordering policies including FEFO, ABC, SLED etc.…
Inventory Management	The GhiLMIS will support the inventory management of all commodities. It will capture all inventory transactions, indicating stock status, expiries, wastages etc. The GhiLMIS will additionally receipting of items both automatically and manually as well as generation of put away lists to various site locations. The system will support creation of cycle count plans and stock taking, including inventory adjustments and quarantine for all recalled items. The system will leverage various inventor policies, including FEFO, FIFO, SLED to facilitate effective management of inventory.	- Stock Status - Percentage of Stocked Out items - Percentage of items stocked to plan. - Total Expiries Percentage - Total Expiries Value - Percentage of items destroyed. - Percentage value of destroyed items - Inventory Accuracy - Inventory Percentage Turnover - Value of Adjustment - Order Policy - Minimum Lot size - Inventory Transaction Type - Transaction Quantity - Inventory Status Report - Inventory Consumption Report - Inventory Discrepancy Report - Cycle Count - Cycle Count Plan - Inventory Transfers - Inventory Adjustments - Inventory Receipts	- Effective management of inventory - Identification and classification of items according to inventory status - Real time visibility of stock status at any value chain tier - Facilitates stock taking - Identification of expired products both volumes and cost - Provide insight in inventory turnover - Receipts details - Insight into inventory discrepancies during receipt
Warehouse Management	The GhiLMIS will support warehouse management of all commodities. This includes the management and enablement of warehouse management functions	- Shipment/Movement details - Receipts - Inventory Move Orders - Pick Lists - Pack Lists	- Real time visibility of stock expired rates - Availability of vendor performance KPIs including: o Order fill rates

Functional Area	Description	GhiLMIS Available Key Information	Usability/Outcomes
	including Receiving, Put-Away, Picking, Packing, Inventory Move Orders, Kitting, and ultimately the Dispatch of commodities out of a facility. Pick Lists will be used to instruct warehouse staff where to find specific products to be grouped for a single delivery to a customer. Packing lists will support the packing of items into specified shipping containers like cases, pallets,	- Put Away Lists - Task Orders - Lot Management - Location Inventory - Order Milestones - Invoices - Replenishment Sensing	o Warehouse Order Processing Turn Around Time o Supplier (RMS and TCMS) Performance o Stock destroyed rates. - Ability to generate volumetric prior to shipment. - Ability to generate Advanced Shipment Notification to 3PL - Facilitates capacity management
Transportation Management	The GhiLMIS will support movement of items from central and regional warehouse to all service delivery points. This will include dispatching shipments from their facilities to destination facilities or customers. Transportation Visibility will be made available to transporter and 3PL partners. Shipment Visibility will be native to any facilities utilising transport management but will also be utilised by the transporters and 3PLs for management of the shipments as well as notifications for pickup and delivery, and transport related reporting and key performance metric tracking.	- Shipment/Movement details - Order Milestones - Task Order - Advanced Shipment Notification details - Briefing - Proof of Delivery details - Trip Sheet details - Milestone tracking - Milestone Exception Analytics	- Shipment consolidation - Route optimization - Capacity management - Volumetric - Ability to generate trip sheet and proof of delivery sheet details. - Ability to brief a movement before shipment. - Ability to notify the transporter/3PL of shipment details prior to shipment: o Quantities o Packs o Volumes o Shipment Schedule - Ability to place Hold on shipments. - Capability to track and report on shipment milestones
Reports	The GhiLMIS will support multiple reports all aimed at providing information that supports decision making and optimization of the Ghana MoH supply chain.	- Demand and Supply Planning - Replenishment Sensing Report - Contracts Management - Vendor/Carrier Score Cards - Milestones Exception Analytics - Contract Consumption Report - Order Management - Purchase Order Analytics Report - Order Milestones Report - Exception Reports - Order Hold Reports - PO State/Schedule Summary - Inventory Management - Stock Adjustment Report - Days of Stockout Report - Buffer Audit Report - Inventory Transaction Report	- Understanding Ghana supply chain value creation through utilization of reports in GhiLMIS to assess performance and identify venues for value creation. - Improving what is measured. - Improving management information and decision making - Creating shared value across all tiers in the value chain - Effective utilization of resources

Functional Area	Description	GhiLMIS Available Key Information	Usability/Outcomes
		- Inventory Status Report - Inventory Consumption Report - Inventory Analysis Report - Inventory No Activity Report - Inventory Open Order Report - Inventory Discrepancy Report - Inventory Expiry Report - Inventory Operations Report - Warehouse Management - Receipts/Issue Reports - Store Ledger Reports - Bin Card Report - Inventory Operations - Stock Movement Summary Report - Program Report - Inventory Operating Cost - Historical On Hand - Warehouse On Hand - Warehouse On Hand Valuation Report - Inventory Aging - Warehouse Capacity Summary - Issue Inventory Summary - Consumption Analysis Report - Value Chain Inventory Report - Transportation Management - Milestone Exception Analytics - Pickup/Delivery Operations Summary - Carrier Summary - On-Time Deliveries	
End to End Visibility, KPIs and Analytics	GhiLMIS will provide the capability for respective users to see stock status and any other key transactions across the value chain at any site any given time. It is believed that the End-to-End visibility of inbound and outbound data will enable the coordinating mechanism to conduct analytical reviews to track Key Performance Indicators (KPI's), trends and risks to inform the decision cycles like forecast and supply planning, order cycles aligned to consumption of commodities, improve the velocity of commodities throughout the supply chain to avert wastage, etc. This capability will provide key information required for proactive planning including end-user verification.	- Stock Out Rates - Stocked According to Plan - Total Consumption - Emergency Orders - Vendor on Time Delivery - Stock expired rates. - Order Fill Rate - On Time Delivery - Warehouse Order Processing Turn Around Time - Inventory Accuracy - Supplier Performance - Inventory Turn over - Order Approval Lead Time - Stock Destroyed Rates	- Trend analysis - Root cause analysis for risks identified. - Planning for services activities such forecasting - Innovative options for improvements in service delivery - Classification of shared data by site, item, and program - Evaluation of cost implications of the value chain inventory operation costs - Product management such as expiries, wastages, stock-outs, availability, shelf life - Increase in infrastructure capacity. - Predictive analytics and ability to measure outcomes.

Annex E: Malawi Family Planning Supply Ecosystem Map (Detailed)



Annex F: Malawi National Sexual and Reproductive Health and Rights Policy MOH Roles and Responsibilities

The goal is to meet the minimum staffing levels at all services outlets, especially at health centres as per WHO criterion. The strategy is to advocate for increased training of skilled service providers and equitable deployment of the available staff. Service providers shall be expected to maintain their technical competence and standards.

4.1.5 SRHR Commodity Security

The MoH shall implement an RH Commodity Security Strategy to improve forecasting, quantification, procurement and distribution of SRHR commodities as well as logistical management systems. Districts shall ensure that essential SRHR commodities and supplies are always available in their respective service outlets.

4.2 Institutional Arrangements

Many institutions will be involved in implementation of SRHR programmes as follows:

4.2.1 Ministry of Health

i. Take overall responsibility and commitment for improving SRHR care
ii. Plan, develop and coordinate the provision of SRHR services
iii. Provide overall guidance for provision of SRHR care
iv. Advocate for the highest priority to be accorded to SRHR programmes as a necessary prerequisite for the attainment of SDGs
v. Mobilize and leverage human and material resources for the implementation of SRHR policy
vi. Promote and coordinate partnership with Development Partners, International Organizations, Non-governmental Organizations, Private and Public sectors for cooperation and collaboration to accelerate implementation of SRHR policy
vii. Ensure that the provision of SRHR services by all partners and stakeholders at all levels meets the required standards
viii. Disseminate relevant SRHR guidelines and standards
ix. Coordinate support and monitoring of progress towards implementation of SRHR policy

4.2.2 Ministry of Agriculture

i. Promote household food security and utilization of nutritious foods to ensure appropriate nutrition for girls and women before pregnancy, during pregnancy, and after delivery
ii. Promote creation of Farmers' clubs in communities to sensitize and mobilize farmers towards food security
iii. Collaborate with partners and other stakeholders to develop the concept and promote creation of model villages for holistic community development
iv. Organize periodic Agricultural shows/ fairs for raising awareness on good nutrition, food diversification, and food production at household level.

4.2.3 Ministry of Economic Planning and Development

i. Ensure the provision of adequate budgetary allocation to support implementation of SRHR policy
ii. Promote partnership with Development Partners, International Organizations, Non-governmental Organizations, Private and Public sectors for cooperation and collaboration to accelerate implementation of SRHR policy
iii. Utilise the Population Unit to promote awareness towards SRHR
iv. Monitor progress towards the achievement of all MDGs

4.2.4 Ministry of Education

i. Support services that address young people's SRHR issues
ii. Implement life skills curriculum in both primary and secondary schools
iii. Establish a counselling and referral system for boys and girls with SRHR needs
iv. Strengthen school clubs to address SRHR issues
v. Empower boys and girls to make informed decisions about their SRHR
vi. Provide age specific sexuality education to the youth

4.2.5 Ministry of Information

i. Raise community awareness on SRHR services including harmful practices/ domestic violence to promote women's and men's use of available services
ii. Facilitate public education through multimedia approach on issues of maternal, new born health and family planning
iii. Promote advocacy for the importance of SRHR services
iv. Facilitate debate and discussions on issues of SRHR
v. Facilitate implementation of Behaviour Change Interventions at community level on SRHR issues
vi. Coordinate publicity and media coverage among media stakeholders on SRHR issues

4.2.6 Ministry of Local Government

i. Support the promotion of community initiatives for SRHR at village level
ii. Support empowerment of men and women to make informed decisions on SRHR issues
iii. Assist communities dispel misconceptions and eliminate harmful practices that could prevent use of SRHR services
iv. Mobilize community leaders to participate in birth preparedness including organizing and supporting community transport for referral of women with obstetric complications
v. Support empowerment of community leaders to promote SRHR
vi. Support men involvement in SRHR issues

4.2.7 Ministry of Women and Child Development

i. Support empowerment of women to make informed choices on their sexual and reproductive health issues
ii. Mainstream SRHR issues of equity and empowerment
iii. Educate men to enhance their participation and involvement in the improvement of SRHR health of the community
iv. Support advocacy against harmful cultural practices that affect women's and girls' reproductive health.
v. Prevention of gender based violence

4.2.8 Ministry of Labour, Youth, Sports and Manpower Development

i. Promote sports among in and out of school youth as a medium for development of positive and healthy life style
ii. Raise awareness on cultural practices that expose youth, especially girls, to HIV infection and SRHR complications.
iii. Promote behavioural change among young people and communities; specifically looking at modifying negative cultural practices into safe practices
iv. Raise awareness on gender relationships that increase vulnerability to HIV infection and SRHR complications.
v. Equip youth with Life Skills
vi. Mobilise youth to participate in programmes that promote safe sexual behaviour

4.2.9 Department of Energy

The Department of energy is very important in SRHR issues, especially in rural areas where electricity is not available. The department should intensify its rural electrification program, which will provide power and light to rural areas for people to engage in economic activities and hence diverting attention from sexual activities.

4.2.10 Parliamentary Committee on Health

i. Support enactment of appropriate legislation with respect to SRHR including minimum age of marriage and legislation on violence against women
ii. Lobby with MPs to use constituency development funds to support SRHR initiatives in their various constituencies
iii. Promote and support adequate national budgetary allocation for SRHR
iv. Lobby for MPs to designate a focal person in their constituencies responsible for monitoring SRHR services.
v. Declare SRHR as a national priority and ensure allocation of resources to ring fence family planning commodities and life-saving drugs and commodities.

4.2.11 Development Partners

i. Advocate for the mobilization of resources and political will necessary to implement the SRHR policy
ii. Foster the relationship and collaboration among all development partners to support Government in the implementation of policies and strategies to bring about necessary changes and improve health and quality of life
iii. Support provision of technical and financial assistance to the MOH in thematic areas relevant to implementation of SRHR

iv. Strengthen and support monitoring and evaluation of SRHR services
v. Support operational research related to SRHR
vi. Promote advocacy for SRHR
vii. Provide technical and financial support to review and develop policies, standards, and guidelines in SRHR

4.2.12 Nurses' and Midwives' and Medical Councils of Malawi

i. Provide guidance for certification to attain minimum standards, competence, and skills required for the provision of SRHR care
ii. Support and promote inclusion of relevant components of SRHR into pre-service curricula of training institutions
iii. Monitor and evaluate nursing midwifery/medical services to ensure adherence to acceptable standards of practice
iv. Support development of SRHR standards
v. Reinforce professional conduct for health care providers to ensure provision of quality SRHR care

4.2.13 Training Institutions

i. Incorporate emerging issues in SRHR into pre-service training
ii. Conduct research for improvement of SRHR services
iii. Increase out-put of professional health workers
iv. Institute in-service education training in SRHR services

4.2.14 Professional Associations

i. Support advocacy for prioritizing implementation of SRHR programme
ii. Promote community awareness and empowerment on issues of SRHR
iii. Support human resource development for SRHR care provision through advocacy

4.2.15 Christian Health Association of Malawi (CHAM)

i. Collaborate with MoH to implement Service Level Agreements to enable beneficiaries access maternal and newborn care services in CHAM institutions free of charge
ii. Provide technical and financial support for provision of SRHR services
iii. Support MoH in training health workers to provide SRHR services

4.2.16 Civil Society Organisations

i. Provision of sexual and reproductive health and rights services
ii. Support community initiatives related to sexual and reproductive health and rights
iii. Create awareness of sexual and reproductive health and rights issues in the community.
iv. Advocate for the strengthening of sexual and reproductive health and rights services

Reproductive Health SUPPLIES COALITION

Global FP VAN

VAN

VAN Use and Demonstrated Value in Ghana

In 2020, the Family Planning High Impact Practices (HIP) partnership published an updated brief on Supply Chain Management. The VAN is highlighted as an opportunity to strengthen supply chain management through increased data visibility across trading partners. In November 2020, the VAN was further profiled in a webinar on this HIP Brief. Claudette Diogo from Ghana's Family Planning Programme, Ghana Health Service (GHS), was included in the webinar as a panelist and spoke about Ghana's experience with the VAN. She spoke about how stakeholders in Ghana have been using the VAN platform to track inventory reports and supply plans, which allows them to pinpoint when and how to intervene.

WEBINAR RECAP

You can watch here a 6 minute recap of that webinar which helps to highlight the VAN and how it is being utilized in Ghana.

The GHS team has played a critical role in the roll-out of the VAN in Ghana along with other supply chain partners including UNFPA, USAID, and GHSC-PSM. Using the VAN to support collaborative supply planning, the GHS has begun connecting its supply planning processes directly with two SMOs in-country (PPAG and MSI) to help facilitate clearer planning across the different organizations and decision-making on orders and shipments coming into the country. Stakeholders in Ghana have also established an automated connection between the VAN and Ghana's national eLMIS (GhiLMIS). The impact of such a connection on health system strengthening is being monitored closely for future documentation.

Annex H: RHSC VAN Use and Demonstrated Value in Malawi

Reproductive Health SUPPLIES COALITION

Global FP VAN

VAN

VAN Use and Demonstrated Value in Malawi

In 2020, the Family Planning High Impact Practices (HIP) partnership published an updated brief on Supply Chain Management. The VAN is highlighted as an opportunity to strengthen supply chain management through increased data visibility across trading partners. In November 2020, the VAN was further profiled in a webinar on this HIP Brief. The webinar highlighted a few primary value drivers and specific examples identified by government and other in-country users of the VAN (here is a 6 minute recap of that webinar). Some key value drivers identified in Malawi include:

Use order and shipment tracking from manufacturer to arrival in Malawi to plan storage and distribution in advance.

Cyclone Idai: VAN alerted the Ministry of Health to shipment delays, and they were able to redistribute stock between facilities in Malawi and avoid stock-outs.

Observe supply availability and use in quantifications

VAN flagged over-forecasting for implants and the data was used to adjust the quantification forecast.

Request rescheduling of shipment delivery

Data in the VAN is used to look at shipment scenarios and create tickets that alert procurers to the need for expedited, delayed or canceled shipments.

During an August 2021 presentation to USAID and other partners, Rose Chikumbe, a Reproductive Health Directorate Supply Chain Logistics Officer, shared the Ministry of Health's perspective on how Malawi has integrated the VAN into its supply chain management and how the Ministry of Health has been benefiting from its adoption. An excerpt from the Malawi Ministry of Health slide presentation is included in the annex below.

Malawi is currently working to connect their country logistics management system (OpenLMIS) with the VAN. The current approach to integration is to set-up connectivity through Malawi's interoperability layer. The work is a testament to their interest to integrate the VAN into their health system strengthening and will be followed closely to see the value.

GFPVAN MALAWI EXPERIENCE PRESENTATION

By

Rose Chikumbe

23rd August 2021

PRESENTATION OUTLINE

- Successes of Malawi GFPVAN implementation.
- Benefits of using GFPVAN.

CONCEPTUAL FRAMEWORK OF GFPVAN IN RESPECT TO MALAWI

- Better, aggregate, share, and align Malawi demand data with production, procurement and funding to avoid stock imbalances and maximize use of limited resources to ensure continuous availability and choice of family planning products.

GFPVAN SUCCESSES FOR MALAWI

- Malawi has been providing inventory and supply plan data to the VAN from February 2019 to date
  - This has increased data visibility for stakeholders
  - Increased trust and confidence in available data
- Order and shipment data readily accessible.
  - Efficiencies gained due to time saving
  - Faster decision making
- Bi-weekly calls with the Control Tower Planner
  - Complete MOH ownership of GFPVAN implementation
  - Increased coordination across stakeholders
  - Creating tickets for data reviews
    - Proving feedback to tickets
  - Increased interest and commitment to GFPVAN by country stakeholders
    - 10 additional Viewers from 4 partner organizations trained last week

Benefits of using GFPVAN

- Increased collaborations:-Funders, procurers, suppliers and Ministry of Health
  - Orders are placed on time following GFPVAN Supply plan reviews
  - Shipments are tracked from the manufacturer until it arrives in Malawi
  - Shipments are expedited/delayed as necessary e.g. Levoplant delayed till 2022 and Sayana Press airlifted in March 2021.
  - Shipment updates of FP products are shared with MOH and relevant stakeholders
  - In an event that a shipment is delayed the MOH is able to proactively conduct commodity redistributions.
  - Funding gaps are easily identified and acted upon (Male condoms, IUCDs, Female condoms, Jadelle, Implanon NXT in 2020).
- Transparency and accountability of order/shipment and inventory data, promoting visibility and sharing for decision making between MOH and other stakeholders.
- COVID-19 caused shipment delays, in country redistribution conducted while waiting for delayed shipments.

Benefits of using GFPVAN-MALAWI cont’d

- GFPVAN reviews and alerts, keeps stakeholders always up to date.
- Tickets, a whole new channel of communication.
- GFPVAN, a ready source of data for presentations
  - Order and shipment data pulled for presentation to (RHCS) members
  - Used Analytics to review commodity gaps
  - Pulled supply pan data for in-country presentations
- New partners coming onboard to expand visibility
  - Cooper/Smith building an infrastructure for E2E visibility of country data.