An Assessment of the Prerequisites for a Social Welfare Information Management System in Ghana

February 2020

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ABBREVIATIONS

DED	district education directorates
DOVVSU	Domestic Violence and Victim Support Unit
DSW	Department of Social Welfare
DSWCD	district social welfare and community development office
eGIF	e-Government interoperability framework
GCLMS	Ghana Child Labour Monitoring System
GGEA	Ghana Government Enterprise Architecture
GHS EA	Ghana Health Service Enterprise Architecture
ICT	information and communications technology
LEAP	Livelihood Empowerment Against Poverty
MIS	management information system
MMDA	metropolitan, municipal and district assemblies
MOGCSP	Ministry of Gender, Children and Social Protection
NCCE	National Commission for Civic Education
NITA	National Information Technology Agency
NGO	nongovernmental organization
OHLGS	Office of the Head of Local Government Services
RHC	residential homes for children
RSWO	regional social welfare office
SOP	standard operating procedure
SWIMS	social welfare information management system
TIPIS	trafficking in persons information system
UNICEF	United Nations Children's Fund
UPS	uninterruptible power supply
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

Background

In 2018, Ghana's Ministry of Gender, Children and Social Protection (MOGCSP), with support from United Nations Children's Fund (UNICEF), developed a concept note for an information system to capture data for child protection and social welfare services. This system aims to strengthen the coordinated delivery of social services across the fields of social protection, community development, gender-based violence, justice for children, child protection, education, and health. Alternative care will be included in the system, with the plan to eventually provide access to residential homes for children (RHCs).

Ghana's social welfare information management system (SWIMS) (as it is currently referred to) will adopt an open-source case management software, developed by UNICEF headquarters, called Protection Related Information Management System or "Primero." This online platform is designed to be adapted to the country-specific context and can be configured to the specific system of child welfare services in Ghana.

To support preparations for the SWIMS deployment, MEASURE Evaluation, which is funded by the United States Agency for International Development (USAID) Displaced Children and Orphans Fund (DCOF) gathered information for some of the requirements for the rollout of a national Ghana SWIMS.

This report presents our findings as they relate to four key domains:

1. Individual proficiency in information and communications technology (ICT) and data use
2. Availability of ICT equipment and connectivity
3. Data governance
4. Interoperability

Methods, Sampling, and Analysis

At the national level, we conducted sixteen interviews or group discussions with representatives from all but one of the government bodies that would have access to or provide information for the SWIMS. We collected data from the following government bodies: the MOGCSP, the National Information and Technology Agency (NITA), the Cyber Security Agency, the Ministry of Local Government and Rural Development, the Ghana Health Service, and the Ghana Education Service. We were not able to interview a representative of the Ghana Child Labour Monitoring System (GCLMS), because the team was not available during data collection. We interviewed a total of 34 respondents at the national level.

We also visited the 10 subnational offices across five regions (Central, Western, Ashanti, Northern, and North East), three regional offices, three metropolitan assemblies (Cape Coast, Sekondi Takoradi, and Tamale), and four municipal assemblies (West Mamprusi, Sagnarigu, Asokore Mampong, and Komenda Edina Equafo Abirem). We conducted interviews and group discussions with 32 people in those locations.

We provided a short, self-administered assessment survey (Appendix 2) to UNICEF staff who collected results from a convenience sample of district, regional, and government staff. UNICEF staff administered the assessment during subnational meetings on the SWIMS, organized by Ghana's Child Protection and Education Departments, with regional and district social welfare officers, district community development officers and staff from district education directorates (DED), domestic violence and victim support units (DOVVSUs), district offices of the National Commission for Civic Education (NCCE), and nongovernmental organizations (NGOs).

Quantitative data were analyzed using simple, descriptive statistics in Microsoft Excel. Qualitative data were analyzed based on interview notes following a thematic approach in Microsoft Word and Excel, and findings were differentiated between national-level and subnational-level stakeholders.

Key Findings

Domain 1: Individual Proficiency in ICT and Data Use

There is limited technical capacity to support the rollout of the SWIMS at the subnational level. That said, although capacity to use some of the Microsoft Office suite is low, mobile smartphone use was prolific at the national and subnational levels. A well-built system that is user-friendly will have low barriers to entry; therefore, we do not believe that low computer proficiency is an unsurmountable challenge, particularly because many information systems have a mobile phone application option for data entry. We found a very weak data use culture at the national and subnational levels.

Domain 2: Availability of ICT Equipment and Connectivity

There were few government-issued computers at the national and subnational levels, and many respondents reported using their own computers for their government work. There were also weak and often nonexistent systems for maintenance of computers and other hardware. Although electricity is widely available at all government offices, Internet in offices outside of Accra is spotty or nonexistent, although mobile Internet was reported as being widely available.

Domain 3: Data Governance

The Ghana Data Protection Act, 2012 (Act 843) protects the privacy of the Ghanaian citizens and their personal data by regulating the processing of personal information and providing a process to obtain, hold, use or disclose personal information and for related matters. However, in practice there are limited policies and procedures to guarantee the security and privacy of beneficiary data at the national and subnational levels. Subnational offices reported not being fully staffed to carry out data management and reporting duties. The current legally mandated dataflow from the subnational to the national level for MOGCSP data is not in line with plans to house the SWIMS within the MOGCSP. Data quality processes are nascent.

Domain 4: Interoperability

The government of Ghana has an e-Government Interoperability Framework (eGIF) implemented under NITA, which serves as the strategic framework for implementing policies and technical standards across government (Republic of Ghana, 2006). The eGIF describes a well-structured approach for interoperability. We were able to identify three other electronic information systems that store data that would be included in the SWIMS. These systems are the district health information system, which records information on child pregnancy, defilement, and HIV cases; the Livelihood Empowerment Against Poverty (LEAP) management information system (MIS), which tracks data on cash transfers to beneficiary families; and the Trafficking in Persons Information System (TIPIS) that records information on child trafficking). Two of these three information systems are housed within the MOGCSP.

There are no data standards in place for assigning unique IDs for children and their caregivers or other data format standards to facilitate data exchange and unified child records across government departments that would be reporting into the SWIMS. We found that, at the time of survey, each institution had a different way of assigning their identifiers based on location and period.

Recommendations

Domain 1: Individual Proficiency in ICT and Data Use

- Incorporate basic ICT skills into the SWIMS training for subnational staff.
- Follow user experience and user-centered design standards and best practices to ensure that users with different levels of ICT proficiency are able to use the SWIMS system with ease.
- Include training on data use for decision making and quality improvement in the SWIMS sensitization and training at all levels—so the intention behind the creation of an information system for child protection and social welfare systems is clear and there is personal and institutional backing for the information system.
- Develop a data use standard operating procedure (SOP) within the MOGCSP for reporting and communicating data and routinely using data visualizations to communicate performance and areas for improvement.

Domain 2: ICT Equipment and Connectivity

- Make significant investments in hardware for the rollout of the SWIMS.
- Develop systems for maintaining the SWIMS hardware to ensure system sustainability. These systems should include regional IT support positions and funding for replacement of lost or broken devices in the annual MOGCSP budget.
- Create SOPs on how to proceed when there is an issue of theft or breakdown of a SWIMS data entry device.
- Include an offline mode feature in the SWIMS to address connectivity challenges.
- Purchase Internet connectivity modems and data bundles district and regional budgets using the SWIMS.
- Collaborate with NITA to explore measures to improve the provision of Internet connectivity to the government offices earmarked for SWIMS rollout.
- Explore hosting services available with NITA.

Domain 3: Data Governance

- Strengthen data storage and security policies at the national and the subnational levels, including the signing and updating of confidentiality and data use agreements and updated data security policies (and monitor whether these policies are being followed).
- Conduct a thorough mapping of data access and additional data security policies for particularly sensitive information, such as information from justice and police records, HIV status, etc.
- Review the implications of dataflow changes that result from SWIMS implementation, which will be housed at the MOGCSP, and hold discussions with the Office of the Head of Local Government Services (OHLGS) to ensure all appropriate permissions are in place so that OHLGS can also access and use the system.
- Invest in data quality procedures within the MOGCSP before, during, and after the SWIMS rollout, to maximize its investment and the success of the system.

Domain 4: Interoperability

- Adopt the eGIF as an integral part of the SWIMS implementation to ensure the new system will be interoperable with other electronic government systems.
- Develop data sharing agreements highlighting the indicators and data elements to be shared (and with whom) across both paper-based and electronic information systems.
- Develop a plan and resources for batch manual data entry from existing paper-based systems into an electronic SWIMS system and a medium-term investment in manual data entry to the electronic SWIMS database prior to moving to a completely paperless system.
- Support a process to determine the feasibility of integrating unique IDs for beneficiaries within the system and the privacy concerns this may raise and establish a committee to explore both high- and low-technology solutions.

INTRODUCTION

Background

Since 2017, through financial support from the USAID Displaced Children and Orphans Fund, the MEASURE Evaluation project has collaborated with the Republic of Ghana's Department of Social Welfare (DSW), USAID/Ghana, and UNICEF to assess, address, and monitor alternative care of children in Ghana in line with the United Nations Guidelines for the Alternative Care of Children,[1] which serves to enhance the implementation of the United Nations Convention on the Rights of the Child.[2]

In 2018, Ghana's MOGCSP, with support from UNICEF, developed a concept note for an information system that would capture data for child protection and social welfare services. This system aims to strengthen the coordinated delivery of social services across the areas of social protection, community development, gender-based violence, justice for children, child protection, education, and health. Alternative care will be included in the system, with the plan to eventually provide access to RHCs.

The SWIMS will adopt an open-source case management software, developed by UNICEF headquarters, called Protection Related Information Management System, or "Primero." This online platform is designed to be adapted to the country-specific context and can be configured to the specific system of child welfare services in Ghana.

To support preparations for the SWIMS deployment, MEASURE Evaluation gathered information for some of the requirements for the rollout of a national Ghana SWIMS. This report presents our findings.

Scope of Work

Our scope of work consisted of gathering information on the following aspects of a SWIMS:

1. The context in which the SWIMS would operate and the feasibility for MOGCSP, UNICEF, and other partners to implement and scale the system in Ghana. This context includes the following:

- Internet, computer, and mobile phone availability in regional and district offices, and other issues related to connectivity and technology access to use a digitized information system
- Self-reported human capacity to use computer software or mobile phone apps that would be relevant for the SWIMS
- Privacy and data security in MOGCSP, regional, and district offices
- Data governance requirements and regulations in Ghana pertaining to data sovereignty, personally identifiable information, and data standards to which information systems would be required to adhere

[1] United Nations. (2010). Guidelines for the Alternative Care of Children [UN Resolution 64/142]. Retrieved from https://digitallibrary.un.org/record/673583?ln=en

[2] United Nations (1989). Convention on the Rights of the Child. Retrieved from https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&clang=_en

2. Contextual and high-level user requirements for a case management system in Ghana, including different users' perspectives on what the system functionalities and dataflows should be, and how users should access and interact with the system. This includes the following considerations:

- System users, including their information needs and case management workflows, to determine system functionalities required
- Dataflow mapping across the case management workflow that should be supported by the information system
- Dashboards and reports required on routine indicators based on decision maker data needs
- Interoperability mechanisms necessary to facilitate data exchange between case management and other information systems
- Governance mechanisms, including SOPs, required to define roles and responsibilities for data collection, entry, and analysis and use of information and a process to guide the modification of data elements as indicators are revised or changed
- Data standards to be adhered to, including standards for unique identification of parents, children, and alternative care facilities
- Processes required for ensuring and validating data quality
- Policies for data access, user permissions, and system administration
- Server, hosting, and other infrastructure requirements

METHODS

We collected data between August and October 2019, with the support of our in-country consultant and UNICEF representatives. Data collection coincided with a two-week visit from MEASURE Evaluation representatives, between October 14 and 26, 2019.

Data collection consisted of the following:

- Desk review of publicly available documentation including Ghana National e-Health Strategy, Ghana eGIF, and Ghana Health Service Enterprise Architecture (GHS EA; the eHealth architecture) (See Appendix 3 for a full list.)
- Semistructured interviews and group discussions with government respondents at the national and subnational levels (Table 3 and Table 4) on the domains highlighted in Table 1
- A self-administered questionnaire on capacity to use technology, availability of ICT equipment and Internet and mobile phone connectivity for a convenience sample of national and subnational stakeholders (Appendix 2)

Please see Table 1 for a summary of the information gathering domains and the data collection method used for each.

Table 1. Information gathering domains

Domain	Dimension	Method
1. Individual proficiency in ICT	• Self-reported human capacity to use computer software or mobile phone apps that would be relevant for the SWIMS	Interviews, group discussions, observation, and a self-administered questionnaire
2. Availability of ICT equipment and connectivity	• Internet, computer, and mobile phone availability in regional and district offices, and other issues related to connectivity and technology access to use a digital information system	Interviews, group discussions, observation, and a self-administered questionnaire
3. Data governance	• Privacy and data security in the MOGCSP regional and district offices • Data governance requirements and regulations in Ghana through a review of legal and policy documents pertaining to data sovereignty, personally identifiable information, and data standards to which information systems would be required to adhere • Mapping of the dataflow across the case management workflow that should be supported by the information system • Dashboards and reports required on routine indicators based on decision maker data needs • Governance mechanisms, including SOPs, required to define roles and responsibilities for data collection, entry, and analysis and use of information and	Interviews, desk review, group discussions, observation, and a self-administered questionnaire

Domain	Dimension	Method
	guide the modification of data elements as indicators are revised or changed	
4. System interoperability	• Interoperability mechanisms required to facilitate data exchange between the SWIMS and other information systems	Interviews, group discussions

Sampling

Semistructured Interviews and Group Discussions

At the national level, we sought to conduct interviews with all relevant national government bodies that would have access to, provide information, or contribute to the functioning and management of SWIMS. The following government bodies are relevant: MOGCSP, NITA, the Cyber Security Agency, the Ministry of Local Government and Rural Development, the Ghana Health Service, the Ghana Education Service, and the GCLMS.

We also sampled 10 subnational offices across five (Central, Western, Ashanti, Northern, and North East) regions and three regional offices, three metropolitan assemblies (Cape Coast, Sekondi Takoradi, and Tamale), four municipal assemblies (West Mamprusi, Sagnarigu, Asokore Mampong, and Komenda Edina Equafo Abirem). Sampling of these locations was determined for maximum variance within DSW's alternative care pilot regions and UNICEF-earmarked districts for the SWIMS pilot. Within those regions and districts, we sought variation by sampling different regions, urban and rural locations, and districts with and without RHCs (Table 2).

Table 2. Subnational locations sampled

Region	Office
Western	Western Regional DSW Office
	Sekondi-Takoradi Metropolitan Assembly
	Komenda Edina Eguafo Abirem Municipal Assembly
Central	Central Regional DSW Office
	Cape Coast Metropolitan Assembly
Ashanti	Asokore Mampong Municipal Assembly
North East Region	West Mamprusi Municipal Assembly
Northern	Northern Regional DSW Office
	Tamale Metropolitan Assembly
	Sagnarigu Municipal Assembly

Self-Administered Questionnaire

We gave a short self-administered assessment survey (Appendix 2) to UNICEF staff who administered it to a convenience sample of district, regional, and government staff during two regional consultations led by UNICEF staff on the SWIMS with Regional and District Social Welfare Officers; District Community Development Officers; and staff from DEDs, DOVVSUs, district offices of the NCCE, and NGOs.

Data Analysis

Quantitative data were analyzed using simple descriptive statistics in Microsoft Excel. Qualitative data were analyzed based on interview notes following a thematic approach in Microsoft Word and Excel, differentiating findings between national- and subnational-level stakeholders.

RESULTS

Semistructured Interviews and Group Discussions

At the national level, we conducted sixteen interviews or group discussions with representatives from all but one of the government bodies who would have access to, provide information or contribute to the functioning and management of SWIMS: the MOGCSP, NITA, the Cyber Security Agency, the Ministry of Local Government and Rural Development, the Ghana Health Service, and the Ghana Education Service (Table 3). We were not able to interview a representative of the GCLMS because their team was not available during data collection. We interviewed a total of 34 respondents at the national level (Table 3).

Table 3. National representative interviewees

	Department or Unit	Ministry	Number of respondents
1	Project Coordinating Unit	MOGCSP	2
2	Department of Gender	MOGCSP	3
3	National Cyber Security Centre	Ministry of Communication	1
4	Community Development Unit	Ministry of Local Government and Rural Development	5
5	IT Department	MOGCSP	2
6	MIS Unit (LEAP)	MOGCSP	1
7	Human Trafficking Unit	MOGCSP	2
8	NITA	Ministry of Communication	2
9	Ghana Health Service	Ministry of Health	1
10	Research Statistics and Information Management Directorate	OHLGS	3
11	Department of Children	MOGCSP	1
12	LEAP	MOGCSP	1
13	Ghana Education Service	Ministry of Education	2
14	Domestic Violence Secretariat	MOGCSP	3
15	Policy, Planning, Monitoring and Evaluation Division	MOGCSP	1
16	DSW	MOGCSP	4
	Total		**34**

We also visited the 10 subnational offices across five (Central, Western, Ashanti, Northern and North East) regions where three regional offices, three metropolitan assemblies (Cape Coast, Sekondi Takoradi, and Tamale), four municipal assemblies (West Mamprusi, Sagnarigu, Asokore Mampong, and Komenda Edina Equafo Abirem) that we sampled (Table 4). We conducted interviews and group discussions with 32 people in those locations.

Table 4. Sampled subnational offices

Region	Office	Number of respondents
Western	Western Regional DSW Office	4
	Sekondi-Takoradi Metro Assembly	4
	Komenda Edina Equafo Abirem Assembly	2
Central	Central Regional DSW Office	5
	Cape Coast Metro Assembly	3
Ashanti	Asokore Mampong Municipal Assembly	5
North East Region	West Mamprusi	1
Northern	Northern Regional DSW Office	3
	Tamale Metropolitan Assembly	2
	Sagnarigu Municipal Assembly	3
Total		32

Self-Administered Questionnaire

After removing incomplete or incorrectly completed surveys, we had a total of 87 respondents from 43 districts in 12 regions included in our analysis of the self-administered questionnaire. Almost one-third (29%, n=25) of the 87 responses were from staff in regional social welfare offices; about half (52%, n=45) were District Social Welfare Officers; 6 percent (n=5) were District Community Development Officers and the rest were from other district departments and institutions. These included staff from DEDs, DOVVSU, district offices of the NCCE, and NGOs.

Table 5 shows a list of the number of respondents by district and region.

Table 5. Self-administered questionnaire respondents by region and district

Region	District	Number of respondents
Ashanti	• Asokore Mampong • Ejisu • Sekyere Kumawu District • Bosomtwe • Kumasi Metro	7
Bono	• Berekum East • Sunyani Municipal	4
Bono East	**District name not noted in survey*	1
Central	• Komenda Edina Eguafo Abirem • Gomoa East	5
Eastern	• Akuapem North • Nsawam-Adoagyiri • Ayensuano • Akwapim South • Denkyembour-Akwatia	7
Greater Accra	• Ledzokuku Municipal • Shai Osudoku • Kpone Katamanso • Ningo-Prampram • Ga East Municipal • Adenta Municipal	11

Region	District	Number of respondents
	• Accra Metropolitan	
Northern	• Tamale Metropolitan • Mion • West Gonja	5
Savannah	• Sawla-Tuna-Kalba	1
Upper East	• Bolga Municipal • Bawku West • Kassena Nankana • Builsa North • Pusiga • Talensi	22
Upper West	• Jirapa • Wa Municipal • Daffiama Busi Issa • Lambbussie • Lawra • Sissala East	15
Volta	• Ho Municipal • Ketu South • Kpando • Keta Municipal	5
Western	• Sekondi Takoradi • Ahanta West	4
Total		87

Domain 1: Individual Proficiency in ICT and Data Use

The interviews and self-administered survey assessed respondent proficiency in the use of data processing software and data management protocols. This was to partly determine competence in the analysis of data using available data processing packages and computer use. The survey prioritized common data processing software such as Microsoft Word, Excel, and Access.

During our in-country interviews at the national level, we found that all officers at the national level were proficient in using computers. There was much lower competency with other Microsoft Office software, specifically Excel and Access. Proficiency at the subnational level was lower; although, almost one-half (49%, n=43) of the subnational respondents of our self-administered survey described their competency in the use of Microsoft Word as "good," as opposed to "poor or "average." Less than a quarter (23%, n=20) of respondents said they had "good" competency in the use of Microsoft Excel, but just over one in six respondents (16%, n=14) indicated that they had a "good" ability to use Access or other similar database management systems. In the LEAP[3] pilot districts, staff have interacted with the LEAP digital system and are currently using the system for data entry and reporting using the tablets.

[3] LEAP—Livelihood Empowerment Against Poverty—is a program that provides social cash grants to the extremely poor and vulnerable households. The first criterion that the program considers in selecting a household is extreme poverty. After a household is confirmed to be extremely poor, the household must have at least one member who is either an orphan or a vulnerable child, an elderly person above age 65 years without productive capacity, a person with severe disabilities, or an extremely poor and vulnerable pregnant woman. Extreme poverty according to the Ghana living Standards Survey of the Ghana Statistical Service is defined as the inability of a household to meet its daily nutritional requirements even if it devoted all of its income to consumption.

At the national level, three staff members—one each from the ICT department, LEAP, and the Human Trafficking unit of MOGCSP—reported having MIS management skills (e.g., developing and maintaining an online MIS system).

Data Use

During our in-country visit, we asked stakeholders how they used the data they collected, or was reported to them, for decision making, action, and assessing their own performance. Although responses varied widely at the national level, data use did not appear to be a major emphasis of their work. That said, some respondents at the national level emphasized their interest in knowing the number of children affected by violence, abuse, neglect, and exploitation. We looked for but did not observe evidence of data use at the subnational level, for example, in the form of visibly posted data charts.

Barriers to data use we noted include the absence of a data use strategy to articulate how and when data should be used to support decision making, low demand for the information across the reporting spectrum, and a lack of guidelines for sharing and communicating data internally and externally.

Domain 2: Availability of ICT Equipment and Connectivity

In our self-administered questionnaire and during our in-country visit, we assessed different aspects of ICT infrastructure required to support an electronic database and routine reporting into such a system.

Electricity

Regarding consistency of electricity, 91 percent (n=79) of respondents (from regional and district locations) in our self-administered survey indicated that there is electricity almost all the time to facilitate work in the office and the remaining indicated that there is electricity "sometimes" in their offices. No respondents said there was rarely or never electricity. In addition to this, nearly half (47%) of respondents had an uninterruptible power supply (UPS) or stabilizer in their office.

Computers

Availability of Computers

We also asked respondents in our self-administered survey about the availability of computers in their offices at the subnational level. The majority (82%, n=71) had computers available. The offices that did not have computers available were primarily DSWDC (n=12), two RSWOs, and one DOVVSU. Forty respondents said there was one computer in their office, 11 had two computers, and the remaining 13 respondents had more than two or did not respond to this question (n=7).

During in-country research, we observed that officers at the national level had access to computers for their work—either using government-issued desktop computers or their own personal laptops.

In our field visits, we also assessed computer availability in person and found that all the regional offices we visited had one or more desktop computer, and five of the seven districts had at least one computer. Sekondi-Takoradi Metropolitan Assembly in Western region had no computer in its office. The officers at the district and regional offices reported using their personal laptop for reporting. Some districts have been equipped with laptops and tablets by the LEAP project.

Table 6. ICT equipment at regional social welfare offices visited

Region office	Desktop computers	Laptops	Tablet
Western	2	0	0
Central	1	0	0
Northern	2	0	0

Table 7. ICT equipment at district social welfare units visited

Region	District	Desktop computers	Laptops	Tablet
Western	Sekondi	0	0	0
	KEEA	1	0	0
Central	Cape Coast	1	1	0
Ashanti	Asokore Mampong	2	1	1
Northern	Tamale	0	0	1
Northern	West Mamprusi	1	1	0
Savannah	Sagnarigu	1	1	0

In our self-administered survey with respondents at the subnational level, we asked respondents if they used their own computers at work (which is something we had heard anecdotally) owing to dysfunctional work computers or insufficient number of computers in district and regional offices. Just over half (53%, n=46) said that they used their personal computer for their work. One respondent highlighted the necessity for improved access to computers in the following free-form questionnaire response:

> *Computer availability will facilitate electronic data management. Personal laptop is used for office work, so in the event of theft or staff transfer, data is lost. The department needs ICT equipment to enhance productivity.*

Computer Features

Our self-administered questionnaire included questions on the features available on existing computers, including storage space availability, security (e.g., antivirus software), networking with other computers, and maintenance support such as a service contract or ICT staff support. Forty-one percent (n=36) of respondents reported having a computer in their office and said that the computer was networked; however, many reported having only one computer in their office, suggesting that they may have misunderstood the question.

Among the respondents that had a computer available in their office, 61 percent (n=43, N=71) reported having storage space on these computers. The remaining respondents reported not having space, reported not knowing, or did not answer (n=28). It is notable that one-fifth of respondents (21%, n=15) that had a computer in their office did not know if the computer had available storage space.

Computer Security and Maintenance

Protection of computers against malware is a standard practice for safety and security of the computer and files. Just one-third of respondents (n=21) with a computer in their office said the computer had an updated antivirus software.

Furthermore, in terms of maintenance support for computers, most respondents with computers in their offices (n=55, 77%) reported that they had no service contract for their office computers or no ICT specialist support for these computers.

Mobile Phones and Connectivity

An anticipated component of the design of the SWIMS is that it will be usable both with computers and mobile phones and that it will have offline functionality. In light of this, our self-administered survey collected data on the types of mobile phones used by respondents and Internet connectivity for various mobile phone networks. All but one respondent in our survey said that they use a smartphone or smartphone and feature phone, and the vast majority (86%, n=75) said that their phone is connected to a 3G- or 4G-enabled mobile network. Mobile signal was found to be good by most participants (70%, n=61), as opposed to "average" or "poor." Just 3 percent of respondents (n=3) described their Internet signal as poor.

In Ghana, there are three major mobile telecommunication networks in terms of market share. MTN has the largest market share, followed by Vodafone Ghana and Airtel/Tigo. Most respondents (74%, n=64) indicated that MTN is the mobile phone network with the best signal, followed by Vodafone, with 24 percent of responses (n=21).

Internet Access

We learned through our in-person interviews that Internet connectivity in the offices at the national level is through a local area network provided by NITA, except in the Department of Gender, Domestic Violence Secretariat, and Department of Children, which are not located in the same office as the DSW. The users of this network experienced occasional downtime. Often, this downtime would be covered by the use of modem, which was often financed personally by the system users.

At the subnational level, just over one-third of respondents (35%, n=30) to our self-administered survey said that there was Internet connectivity in the office. Among those who reported Internet connectivity in the office, more than half (60%, n=18) indicated the Internet connection was "poor" or "average." This was confirmed during our interviews and group discussions at the subnational level. We did learn that through the LEAP Program, there has been a government initiative to provide a local area network connection to all regional DSW offices. However, of the four regional offices visited, only Ashanti and Northern regional DSW offices had a functional Internet connection. Nonetheless, just like at the national level, officers at the subnational level use mobile modems for connectivity, and the officers use their personal finances to cover the cost of these modems.

Hosting Requirements

In terms of server availability and other hosting infrastructure requirements, we learned that NITA has a data center and supports hosting of government information systems on their physical servers. NITA advises government ministries to coordinate with them when rolling out an information management system, acquiring ICT equipment, and negotiating maintenance service contracts with suppliers, in part because NITA may be able to help obtain discounts.

Domain 3: Data Governance

Dataflow

The case management workflow revolves around the social welfare staff responsible for assessing, managing, and reporting information on child-related issues. We observed that the case management SOPs were rolled out recently in all districts. The SOPs were developed through a collaboration between the

MOGCSP and UNICEF, with the support of USAID. These SOPs describe guiding principles, procedures, roles, and responsibilities for the protection of children residing in Ghana. Other key stakeholders are a mix of governmental and nongovernmental actors. These include the police, the Ministry of Education, the Ministry of Health, the Ministry of Justice, the Ministry of Employment and Labour Relations, human rights actors, NGOs, and civil society.

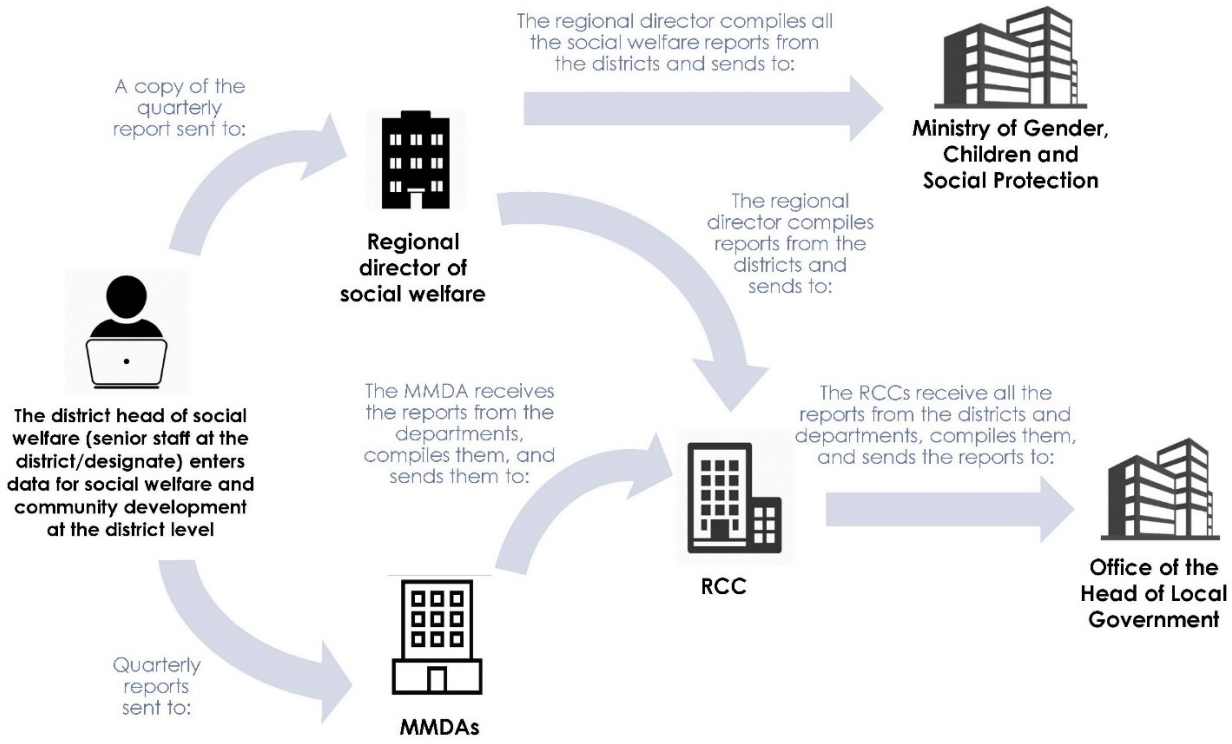
All the regions we visited had received the SOPs and have started implementing them in their respective districts, except the Northern region, where government officials had yet to disseminate the SOPs to the district even though a rollout plan was in place.

The formal dataflow in case management identifies the districts as the source for data entry. Every quarter, after all the data have been entered, the district staff summarizes the data into an aggregate report containing both qualitative and quantitative information. The reports contain indicators on justice administration, family tribunals, social inquiry reports, child rights promotion and protection, LEAP, and community care. The reporting themes were standard across all the districts, but the template was not standard.

The reports are compiled quarterly by the District Social Welfare Officer, reviewed for quality, and sent via email to the regional offices. During our interviews, we heard of many cases of late reporting and no reporting, but there did not appear to be any accountability mechanisms for these.

As illustrated in Figure 1, the social welfare staff at the district are mandated by law to send the summary report (See Appendix 3 for a report template) to the metropolitan, municipal, and district assemblies (MMDAs). District staff also send a copy of the report to the regional director of social welfare, although this is not mandated by law. The MMDA compiles the reports, including those from other departments, and sends the reports to the regional coordinating council. The regional coordinating council receives reports from all the MMDAs, collates them, and sends them in a summarized format to the OHLGS. When we asked members of the OHLGS how they used these reports, they responded that they used the reports for future planning and new interventions; however, our respondents did not provide any specific examples.

Figure 1. Dataflow of the current paper-based system



Staffing

In our self-administered questionnaire, almost all (90%, n=78) respondents indicated they did not have any assigned data manager, data administrator, or statistician in their department. The respondents who indicated that they had this type of staff member were located in various districts in the Upper East region (n=6), with an additional two respondents from the Upper West region and one from the Western region. The titles of the individuals with that role were program head, records officer (regional social welfare office); statistics officer (district education directorate); and administrator and chief field officer (both with National Commission for Civic Education).

When asked if there was a focal person for monitoring, evaluation, and reporting, the majority (77%, n=67) did not have a representative in this position in their office. Among those who reported having a person with this position (n=20), there was variation by region and position title (Table 8).

Table 8. Location of respondents with focal person for monitoring, evaluation, and reporting

Region	District	Department	Focal person title
Ashanti	Regional office	Regional social welfare office (RSWO)	Case manager
Bono	Berekum East	District social welfare and community development (DSWCD) office	Social welfare officer
Bono	Sunyani Municipal	DSWCD	Director
Central	KEEA [Komenda/Edina/ Eguafo/Abirem]	DSWCD	Head of department

Region	District	Department	Focal person title
Greater Accra	Kpone Katamanso	DSWCD	Director
Greater Accra	Ningo-Prampram	DSWCD	Social welfare officer
Greater Accra	Regional office	RSWO	*Nonresponse*
Northern	West Gonja	DSWCD	Social welfare officer
Upper East	Bolga Municipal	DSWCD	*Nonresponse*
Upper East	Bawku West	DED - GEO	Assistant Director, Supervision
Upper East	Pusiga	NCCE	Civic Education Officer
Upper East	Regional Office	RSWO	*Nonresponse*
Upper East	Builsa North	NCCE	Program Officer
Upper East	Bawku West	DOVVSU	*Nonresponse*
Upper West	Wa Municipal	RSWO	Director
Upper West	Sissala East	District Education Directorate (DED)	*Nonresponse*
Upper West	Lawra	DOVVSU	*No Response*
Upper West	Wa Municipal	DSWCD	Director
Volta	Ho Municipal	DSWCD	*Nonresponse*
Volta	Regional Office	RSWO	Principal social development officer

Data Protection

The Ghanaian Data Protection Act 2012 (Act 843) protects the privacy of the Ghanaian citizens and their personal data by regulating the processing of personal information. (Republic of Ghana, 2012). It provides a process to obtain, hold, use, or disclose personal information and for related matters. The developers and implementers of the SWIMS must follow this key legal document to ensure the system complies with Ghanaian data protection law.

The data protection act expands on the right to privacy under article 18(2) of the Constitution of the Republic of Ghana (1992) and is implemented through Ghana's Data Protection Commission. The act sets out a series of general principles that data controllers and data processors must comply with. The aim of the principles is to ensure that data controllers and processors respect the right of privacy of individuals. The act has eight data principles:

- Accountability
- Lawfulness of processing
- Specification of purpose
- Compatibility of further processing with purpose of collection
- Quality of information

- Openness
- Data security safeguards
- Data subject participation

Despite the existence of this national law, interview respondents at the regional and district levels did not cite any specific regulations on data privacy, and we did not find any evidence that employees who handle sensitive personal data signed use and confidentiality agreements, although respondents reported that confidentiality of such data was valuable. Our self-administered questionnaire similarly found that almost all respondents (87%, n=67) reported that they did not sign a confidentiality agreement to access sensitive beneficiary data. However, just over half said they were aware of SOPs in their office for handling sensitive data (56%, n=49).

In terms of how case management files are stored at the subnational level, we found that paper was the primary means of storing these records, although close to one-third of respondents indicated that some files are also available in electronic format in their office (30%, n=26). More than two-thirds (77%, n=67) of respondents said that the case management files are secured (e.g., in locked cabinets).

Data Quality

During our interviews and group discussions with government stakeholders, we were unable to note or obtain documentation of any routine quality assurance activities at either the national or subnational level. DSW staff did explain that they conducted data consistency checks quarterly on the data reported in the quarterly reports.

Domain 4: Interoperability

The government of Ghana has eGIF, which is implemented under NITA and is the strategic framework for implementing policies and technical standards across the government (Republic of Ghana, 2006). The eGIF describes a well-structured approach for interoperability. The e-GIF strategy is driven by the GGEA, which is designed for increased interoperability through the principles of shared infrastructure services, service-oriented architecture, and event-driven architecture. These principles are essential ingredients for interoperability, and the GGEA is designed to ensure that information for government services is available anytime, anywhere, to anyone who is authorized to access it, through different clients' platforms. This guiding documentation will be important for the architects of the SWIMS to use in designing the system and how it can interoperate with other existing systems.

The country has a number of information management systems relevant for the SWIMS. These systems are the district health information system, which records information on several health indicators, including child pregnancy, defilement and HIV cases; the LEAP system, which tracks data on cash transfers to beneficiary families; and the TIPIS, which records information on child trafficking (Table 9). Two of these three information systems are housed within the MOGCSP. None of these systems have any kind of process in place to exchange data across the systems, although they have the architecture in place to do so. Aside from the three systems described above, the bulk of the data for the SWIMS will come from primarily paper-based systems.

Table 9. Existing systems that store SWIMS-related data

System	Information needed	System type	Organization
District health information system	Child Pregnancy, defilement, HIV cases	Web	Ministry of Health
LEAP system	Poor households, orphans, vulnerable children, disabled household members, those age 65 years or older, the extremely poor, and vulnerable pregnant women	Web	MOGCSP
TIPIS	Child trafficking	Stand-alone	MOGCSP

Standards for Unique Identifiers

During our document review and interviews, we investigated whether any data standards were in place to facilitate data exchange and unified child records across government departments that would report into the SWIMS—for example, assigning unique IDs for children and their caregivers. We found that each institution had a different way of assigning their identifiers based on location and period.

DISCUSSION

Domain 1: Individual Proficiency in ICT and Data Use

There is limited technical capacity to support the rollout of the SWIMS at the subnational level. Although capacity to use some of the Microsoft Office suite is low, mobile smartphone use was prolific at the national and subnational levels. A well-built system that is user-friendly will have low barriers to entry; therefore, we do not believe that low computer proficiency is an unsurmountable challenge, particularly because many information systems have a mobile phone application option for data entry. Furthermore, we witnessed subnational staff using tablets and computers for data entry in the LEAP pilot districts—demonstrating that, with training, data entry into an electronic system is possible. However, we do believe that it will be important for training on the SWIMS to be designed with consideration for stakeholders' proficiency with computers and information management to maximize success.

The understanding and ability of individuals to use data for decision making and quality improvement is a catalyst for successful reporting within either paper-based or electronic information systems. Because we observed low data use at both the national and subnational levels, we recommend that training on the system emphasize the reasons for collecting information in the SWIMS and how stakeholders can use it to support improved programming and service delivery to children. This will strengthen use of the system as stakeholders better understand the value of collecting information on the services they are providing or overseeing. We also recommend developing a data use SOP within the MOGCSP for reporting and communicating data and recommend routine use of data visualizations to communicate performance and areas for improvement.

Domain 2: ICT Equipment and Connectivity

We found that there was little government-issued ICT hardware that could be used for the SWIMS, particularly at the subnational level. There will need to be significant investment for the SWIMS implementation to ensure there is the hardware available for the system. That said, other than an initial up-front investment in hardware, it is important for implementers to develop systems and job descriptions and ensure there is ample budget for the maintenance of tablets, mobile phones, mobile hotspots, etc. that would be used for the SWIMS. We also recommend the development of SOPs on how to proceed when there is an issue of theft or breakdown of the SWIMS data entry device. This is a significant cost investment that should be factored in from the beginning of the design of the SWIMS and within the budget of MOGCSP.

Issues related to Internet connectivity can be addressed through offline data entry function within the SWIMS and mobile hotspots for sending and receiving data within the system. The cost of airtime for mobile hotspots should also be built into a long-term maintenance budget for the SWIMS.

Domain 3: Data Governance

Although there are governing documents on data privacy in Ghana, policies and procedures within the MOGCSP are not strong in the area of data security, confidentiality, and data access. Before the implementation of an extensive database with sensitive information on vulnerable children and other protected classes, we recommend strengthening data storage and security policies at the national and subnational levels in the following ways: updating and signing confidentiality and data use agreements, updating data security policies, and collecting evidence data security policies are being followed. Within the forthcoming SWIMS system, we recommend conducting a thorough mapping of data access and

additional data security policies for particularly sensitive information, such as information on justice and police records and HIV status.

Currently, data do not flow directly to the DSW through the devolved government system, but instead are sent to the OHLGS. If the SWIMS system is to be successful at reporting subnational data into the national system, there may need to be some changes to the law to ensure that subnational units have the mandate to share data through a MOGCSP database and that the appropriate permissions are in place to allow the OHLGS to access and use the system.

The implementation of an electronic information system will not reduce the importance of data cleaning and data quality procedures if the data and system are to be trusted and used. We recommend investing in data quality procedures within MOGCSP before, during, and after the SWIMS rollout, to maximize its investment and the success of the system.

Domain 4: Interoperability

Ghana has a solid base of national standards to promote interoperability. We recommend following these standards when developing ways to exchange data across the existing electronic information systems. We also recommend mechanisms to leverage the existing interoperable systems that have information relevant to SWIMS. Furthermore, there will be a steep learning curve and cultural shift if implementers currently using primarily paper records will now be asked to use an entirely electronic record system. We recommend setting aside sufficient resources for batch manual data entry into the system, with the expectation that manual data entry will need to be funded for several years before staff are ready to move to a completely paperless system.

We recommend exploring the feasibility of linking children's data (using unique IDs) from across the SWIMS data sources, examining the privacy concerns this may raise, and establishing a committee to explore how this could be addressed through both high- and low-technology solutions.

RECOMMENDATIONS

Domain 1: Individual Proficiency in ICT and Data Use

- Incorporate basic ICT skills into the SWIMS training for subnational staff.
- Follow user experience and user-centered design standards and best practices to ensure that users with different levels of ICT proficiency are able to use the SWIMS system with ease.
- Include training on data use for decision making and quality improvement in the SWIMS sensitization and training at all levels—so the intention behind the creation of an information system for child protection and social welfare systems is clear and there is personal and institutional backing for the information system.
- Develop a data use standard operating procedure (SOP) within the MOGCSP for reporting and communicating data and routinely using data visualizations to communicate performance and areas for improvement.

Domain 2: ICT Equipment and Connectivity

- Make significant investments in hardware for the rollout of the SWIMS.
- Develop systems for maintaining the SWIMS hardware to ensure system sustainability. These systems should include regional IT support positions and funding for replacement of lost or broken devices in the annual MOGCSP budget.
- Create SOPs on how to proceed when there is an issue of theft or breakdown of a SWIMS data entry device.
- Include an offline mode feature in the SWIMS to address connectivity challenges.
- Purchase Internet connectivity modems and data bundles district and regional budgets using the SWIMS.
- Collaborate with NITA to explore measures to improve the provision of Internet connectivity to the government offices earmarked for SWIMS rollout.
- Explore hosting services available with NITA.

Domain 3: Data Governance

- Strengthen data storage and security policies at the national and the subnational levels, including the signing and updating of confidentiality and data use agreements and updated data security policies (and monitor whether these policies are being followed).
- Conduct a thorough mapping of data access and additional data security policies for particularly sensitive information, such as information from justice and police records, HIV status, etc.
- Review the implications of dataflow changes that result from SWIMS implementation, which will be housed at the MOGCSP, and hold discussions with the Office of the Head of Local Government Services (OHLGS) to ensure all appropriate permissions are in place so that OHLGS can also access and use the system.
- Invest in data quality procedures within the MOGCSP before, during, and after the SWIMS rollout, to maximize its investment and the success of the system.

Domain 4: Interoperability

- Adopt the eGIF as an integral part of the SWIMS implementation to ensure the new system will be interoperable with other electronic government systems.
- Develop data sharing agreements highlighting the indicators and data elements to be shared (and with whom) across both paper-based and electronic information systems.
- Develop a plan and resources for batch manual data entry from existing paper-based systems into an electronic SWIMS system and a medium-term investment in manual data entry to the electronic SWIMS database prior to moving to a completely paperless system.
- Support a process to determine the feasibility of integrating unique IDs for beneficiaries within the system and the privacy concerns this may raise and establish a committee to explore both high- and low-technology solutions.

CONCLUSION

The implementation of an information system for social welfare and child protection in Ghana shows a great deal of promise for strengthening the monitoring, evaluation, and reporting systems that are currently operating in place at the MOGCSP. We hope this report supports the successful development of SWIMS, and that it calls attention to the supportive processes, procedures, and resources necessary for the system's long-term success.

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APPENDIX 1. INFORMATION GATHERING TOOL

MEASURE Evaluation ICT Assessment Questionnaire

Introduction

Our names are XXXXX. We come from MEASURE Evaluation (organization) funded by USAID. MEASURE Evaluation is a global project focusing on collecting, analyzing, and using data for decision-making to improve health and social sector outcomes. We are part of a group gathering information on ICT requirements for the roll-out of a national Ghana Social Welfare Information Management System (SWIMS) . I would like to ask you to participate in an interview that will take about one hour. One of us will ask you questions and the other will take notes. We will be asking you questions about individual proficiency in ICT, availability of ICT equipment, connectivity, data governance and system interoperability and will be using it, along with responses from other respondents to be able to design and roll-out of this system. In our report and other documentation, we will not attribute any quotes directly to you and we will only summarize you and your name in the list of respondents we contacted. We will share findings through electronic means and can share a copy of our findings with you if you are interested.
Do you have any questions before we get started?

Title of the staff completing the tool : _____

Department : _____

Region: _____

District: _____

INDIVIDUAL PROFICIENCY IN ICT

Both National and Subnational Level

Indicator	Data Source	1	2	3	Not Applicable	Score
Does the office have an assigned staff for data management and reporting with a clear job description	Job Descriptions	No assigned staff for data management	At least one verbally assigned staff to handle data management	at least on staff assigned data management role with a clear job description		
How do you rate your proficiency in using the operating system *Open Files, Copy/Paste,create a shortcut to an application on the desktop Pin an application to the taskbar or start menu (MS Word / Excel / etc) Unpin that application from the taskbar or start menu*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
How do you rate your proficiency in advanced OS skills *(Determine RAM, OS,Take screen shots)*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		

How do you rate your proficiency in Ms Word *Open Ms Word* *highlight, copy and paste* *Print the document* *Create a heading with bold 14 part font* *Underline the heading* *Count the number of words and characters in the document*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
How do you rate your proficiency in Ms Excel *Open MS Excel and create a blank sheet* *Create three rows with these headings: Description, Number, Cost per Each, Total Cost* *Format the number column as numeric with no decimals.Enter Data,* *Create a Bar Graph*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
How do you rate your proficiency in accessing Internet? IE, Mozilla, Chrome) - *Open browser, enter address, download files*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
How do you rate your proficiency in sending email *Compose an email* *Forward the email they have just sent to you to another two email addresses*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
How do you rate your proficiency in antivirus management *Name the antivirus application on the PC* *Open the antivirus application* *Identify whether the definition files are up to date*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
How do you rate your proficiency in mobile phone functionality *Can send SMS?* *What phone model do they use?*	Observed	Poor	Beginner - only able to perform the task with direct (local) assistance	Expert - familiar with the task and able to perform it without further instruction		
Have you ever attended a formal ICT training before	Self-reported/training documents	Not attended any ICT training	Attended an ad hoc training on ICT	Attended a formal training on ICT with certifications		
Do you have experience with any child protection system	Self-report	No experience on any child protection system	Experienced in child protection manual system	Experienced in using child protection electronic system		

Do you have experience in maintaining any electronic child protection system	Self-report	No experience maintaining child protection system		Experienced in maintaining child protection system		
For National Level Only						
Do you have ICT staff to support the development and maintenance of information systems (developers, data-entry, data base administrators, etc.)	Self-report	No ICT Staff	ICT staff in ministry	ICT staff from another organization (external organization)		
ICT EQUIPMENT AND CONNECTIVITY						
Both National and Subnational Level						
Indicator	**Data Source**	**1**	**2**	**3**	**Not Applicable**	**Score**
Are there existing initiatives on provision of ICT equipment and connectivity	IT vendor contracts, MOUs	No existing initiatives on provision of ICT equipment and connectivity	Some initiatives on provision of ICT equipment and connectivity exist but are not clearly stipulated	Initiatives on provision of ICT equipment and connectivity exist		
Does the office have sufficient computers, UPS, or stabilizers for each staff working with OVC?	Observed	No functioning computers	Functioning computers but not enough for each full-time assigned staff No UPS (or power stabilizer)	One functioning computer and UPS (or power stabilizer) for each full-time assigned staff		
How does the office handle information technology (IT) maintenance (hardware and software)?	Observed, IT Vendor Contracts	No assigned staff to handle IT maintenance (hardware and software) and anti-virus updates No contract with a local vendor to support IT	At least one verbally assigned staff to handle all IT maintenance (hardware and software) and anti-virus updates OR Verbal agreement with local IT vendor	At least one assigned staff to handle all IT maintenance (hardware and software) and anti-virus updates (with formal job description) OR A current contract with a local vendor to support IT		
Is electricity available when it is needed for the person responsible for CP activities? (Including generator and/or solar power)	Observed	Electricity not always available during working hours and reporting times and no back-up	Electricity not always available during working hours but a back-up generator/solar power is on site	Electric power available during office hours and extended reporting times (can be a combination of grid, generator and/or solar)		
How do you access Internet at your place of work	Observed	Internet not available	Mobile	Office LAN		

How reliable is your Internet ?	Observed, speed test	Internet not available	Available but not reliable	Internet available and reliable		
Observe general security of the office and provide comments *Access* *Window grilles* *Door locks* *Security guard*	Observed	Not secure		Secure		
For National Level Only						
What policies does the GOG have on system hosting	Policy review, observed	No system hosting policies exist	Policies exist but are not implemented or are obsolete	Clear policies exist and are implemented		
Is there an assigned server or systems in place to host SWIMS?	Observed	No assigned server or system in place to host primero systems	Systems are in place to host primero but no assigned server	Server in place and adequate systems are in place for hosting primero		
DATA GOVERNANCE						
Both National and Subnational Level						
Indicator						Notes
Which of the following tools are used in data collection and reporting *(e.g., Case Record Sheet Social Enquiry Form Individual Treatment Form)*	*List the tools here…*					
What reports do you produce? *(E.g., Caseload Report , CCI Population Returns, Narrative Reports, Statutory Institution Population Returns, Food Ration Report)*	List them here..					
How often do you compile your (statistical) reports (MULTIPLE)	Weekly	Monthly	Quarterly	Annually	Ad hoc	
How do you assure data quality for the reports? *(Describe in detail)*	*For instance how do you ensure that the case categories represent the true situation?*					
How often do you check for data quality	Weekly	Monthly	Quarterly	Annually	Ad hoc	
Where do you send your reports	Ghana HQ	District office	Regional office	Share with partner	Others	
How do you send your reports	Email	Postal services	Courier	Public transport	Others	
How do you use this data to improve your work						
Are there standardized tools for use in child protection issues in country	Yes	No	Not sure	*Comment*		
Are new staff trained on use of the standardized tools	Yes	No	Not sure	*Comment*		

Do you have specific regulations on data privacy	Yes	No	Not sure	*Comment*	
Do you have a data use and confidentiality policy signed by all employees?	Yes	No	Not sure	*Comment*	
For National Level Only					
Is there an authority in Government of Ghana that regulates use of personal data in information systems	Yes	No	Not sure	*Comment*	
is there an authority in MGCSP that regulates use of personal data in information systems	Yes	No	Not sure	*Comment*	
Do data sharing agreements exists with other institutions include security and privacy issues	Yes	No	Not sure	*Comment*	
Is there an informed consent from alternative care facilities on the processes employed to access, use and share children personal data	Yes	No	Not sure	*Comment*	
Is there an informed consent from parents on the processes employed to access, use and share children personal data	Yes	No	Not sure	*Comment*	
INTEROPERABILITY					
For National Level Only					
Indicator					Notes
How is the interoperability layer designed?	Comment				
Are there other information systems currently available that SWIMS should interoperate with?	List them here..				
Are there any existing interoperability governance structures among the institutions?	List them here..				
Does a defined information exchange policy exist?	Yes	No	Not sure	*Comment*	
What is the process of information exchange?	Comment				
Is there a documented information exchange process?	Yes	No	Not sure	*Comment*	
Does an agreed data dictionary among stakeholders exist?	Yes	No	Not sure	*Comment*	
Does the data elements have dropdowns?	Yes	No	Not sure	*Comment*	

How does the system data elements agree with the national /international/data dictionary?	Comment				
How are child IDs defined at the national level?	Comment				
Does the child profile have a unique ID?	Yes	No	Not sure	*Comment*	
How are stakeholders involved in assigning child profile ID at the national level?	Comment				
How is unique ID assigned ?	Comment				
Is the personal ID available for adults at the national level?	Yes	No	Not sure	*Comment*	
Does a the parents files have a unique ID	Yes	No	Not sure	*Comment*	
Does a master facility list of alternative care facilities exist	Yes	No	Not sure	*Comment*	
Does the alternative care facilities have geo-codes	Yes	No	Not sure	*Comment*	
Is there an informed consent from parents on the processes employed to access, use and share children personal data	Yes	No	Not sure	*Comment*	

APPENDIX 2. SELF-ADMINISTERED ICT ASSESSMENT SURVEY

MEASURE Evaluation ICT Assessment Questionnaire

Background:

MEASURE Evaluation is a global project focusing on collecting, analyzing, and using data for decision-making to improve health and social sector outcomes (www.measureevaluation.org). MEASURE Evaluation is currently contracted by USAID's Displaced Children and Orphan's Fund to reinforce current United States' government programming on alternative care for children in Ghana, working closely with the Country Core Team (CCT), composed of members of the Department of Social Welfare (DSW), the Office of the Head of Local Government Service (OHLGS), UNICEF and other governmental and non-governmental partners. As part of this work, we are supporting collection of information to inform the ICT requirements for the roll-out of a national Ghana Social Welfare Information Management System (SWIMS)[4].

The questions below will be used to help in the design and roll-out of this system. We will not be attributing any of the responses we provide directly to you and will use all the information we collect together with other responses to support the roll-out of the SWIMS.

Thank you for your participation and honest responses to the questions below.

Questions:

Title: _____

Region: _____

District (if relevant): _____

Section 1: Staffing

1.	Does your office have an assigned data manager or administrator or statistician? *Please choose only one response.*	Yes □ No □
1a.	*(If yes above)* What is their title?	_____
2.	Do you have an M&E focal person or someone responsible for monitoring, evaluation and reporting? *Please choose only one response.*	Yes □ No □
2a.	*(If yes above)* What is their title?	_____

Section 2: Computers and Electricity

3.	How frequently does your Department have electricity? *Please choose only one response.*	Almost all the time □ Sometimes □ Rarely □ Not at all □
4.	Does your office have any computers available for office use? *Please choose only one response.*	Yes □ *if yes, how many* _____ No □
5	Do you use your own computer at work?	Yes □ No □
If you responded "No" to Questions 4 and 5 above, please do not respond to Question 6 and move to Section 3 below (on Mobile Phones and Connectivity).		
6.	To the best of your knowledge, does the computer you mainly use at work have any of the following features:	Networked Yes □

[4] To promote responsive, accessible and coordinated social welfare services at the MMDA level, Ministry of Gender, Children and Social Protection (MoGCSP) in collaboration with Office of the Head of Local Government Service, with support from UNICEF, will be setting up Ghana Social Welfare Information Management System (SWIMS). Such an integrated system will also help to promote a culture of case management in relation to the provision of quality social welfare services at the MMDAs level. Through the system there is potential to achieve better outcomes for children and reinforce the objectives of social welfare services, namely enhancing households' capacity to take care of children and help to identify children and families that are in need of support before an incident occurs.

		(connected to printers, router etc.)	No □ Do not know □
		Storage space on hard drive	Yes □ No □ Do not know □
		Updated Anti-virus software	Yes □ No □ Do not know □
		Service contract or IT specialist support	Yes □ No □ Do not know □
7.	Does your office have uninterruptible power supply (UPS) or stabilizers for any existing computers? *Please choose only one response.*	Yes □ No □ Do not know □	

Section 3: Mobile Phones and Connectivity

8.	What type of mobile phone do you use in your daily work? *Please choose only one response.*	Feature phone □ "Smart" phone □ Both □
9.	How good is the mobile phone signal at your office? *Please choose only one response.*	Good □ Average □ Poor □
10.	Which mobile phone network has the best signal at your office? *Please choose only one response.*	MTN □ Vodafone □ Airtel/Tigo □ Glo □
11.	What level of data service is available for the mobile phone network you choose above? *Please choose only one response.*	None □ GPRS□ Edge □ 3G □ 4G □
12.	Does your office have an Internet connection? *Please choose only one response.*	Yes □ No □
12a.	*(If yes above)* How would you describe the Internet connection? *Please choose only one response.*	Good – almost always usable □ Average – sometimes usable □ Poor – is rarely usable □ Do not know □

Section 4: Computer Use and Data Protocols

13.	How would you rate your proficiency using Microsoft Word on a computer?	Good □

	Please choose only one response.	Average □ Poor □
14.	How would you rate your proficiency using Microsoft Excel on a computer? *Please choose only one response.*	Good □ Average □ Poor □
15.	How would you rate your proficiency using Microsoft Access or other similar database management systems?	Good □ Average □ Poor □
16.	Do you have a data use and confidentiality policy signed by all employees? *Please choose only one response.*	Yes □ No □ Do not know □
17.	Do you have a standard operating procedure for maintaining records confidential? *Please choose only one response.*	Yes □ No □ Do not know □
18.	Are case management files stored electronically, on paper or both?	Electronically □ Paper □ Both □
19.	Are computers and/or paper-based case management records stored in locked rooms when the office is closed?	Yes □ No □ Do not know □
20.	Do you have any anti-theft measures in place for computers or other important equipment? (e.g. Kensington locks for laptops) *Please choose only one response.*	Yes □ No □ Do not know □

Is there anything else you would like to share with us about computer use, connectivity, data protocols and mobile phone use in your department?

_____
_____

Thank you for your time participating in this survey.

APPENDIX 3. EXAMPLE OF A DISTRICT REPORT

Justice Administration

JUVENILE COURT

OFFENCES	BF		New		Ages		No. disposed of but not tried		No. disposed of after trial		Absconded		Pending		**Totals**	
	M	F	M	F	10-13	14-17	M	F	M	F	M	F	M	F	M	F
Stealing																
Assault																
Unlawful entry																
Causing harm																
Defilement																
Robbery																
Murder																
Possession of drugs																
Causing damage																
Threat of death																
Possession of firearms/ ammunitions																
Other offences																
TOTALS																

OFFENCES	**METHOD OF TREATMENT**													
	Probation		Super-vision		Voluntary supervision		Licensee /Signed bonds		Committed to Junior Correctional institution		Committed to senior Correctional institution		**Totals**	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Stealing														
Assault														
Unlawful entry														
Causing harm														
Defilement														
Robbery														
Murder														
Possession of drugs														
Causing damage														
Threat of death														
Possession of firearms/														

Ammunitions														
Other offences														
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

FAMILY TRIBUNALS

ACTIVITIES	BF		NEW		AGES						CASES DISPOSED OF		CASES WITHDRAWN		CASES PENDING		TOTALS	
	M	F	M	F	0-5		6-11		12-17		M	F	M	F	M	F	M	F
					M	F	M	F	M	F								
CHILD MAINTENANCE																		
CHILD CUSTODY																		
PATERNITY																		
FAMILY RECONC.																		
CHILD NEGLECT																		
CHILD DELINQUENCY																		
CHILD ABUSE																		
ELOPEMENT/CHILD MARRIAGE																		
CHILD TRAFFICKING																		
ACCESS																		
OTHERS																		
TOTALS																		

SOCIAL ENQUIRY REPORTS WRITTEN

TYPE OF COURT	BF	NEW CASES	NO. OF REPORTS WRITTEN	DISCONTINUED	PENDING
JUVENILE COURT					
FAMILY TRIBUNAL					
CIRCUIT/HIGH COURT					
TOTALS					

Child Rights Promotion and Protection

Social Work with Families

ACTIVITIES	BF		New		Ages of children involved			Cases disposed of		Referred to family tribunal/ police		Cases withdrawn		Cases pending		**TOTALS**	
	Complainants																
	M	F	M	F	0-5	6-11	12-17	M	F	M	F	M	F	M	F	M	F
CHILD MAINTENANCE																	
CHILD CUSTODY																	
PATERNITY																	
FAMILY RECONC.																	

CHILD NEGLECT																	
CHILD DELINQUENCY																	
SPOUSAL ABUSE																	
CHILD ABUSE																	
ELOPEMENT/CHILD MARRIAGE																	
ABANDONMENT																	
CHILD TRAFFICKING																	
BREACH OF MARRIAGE PROMISE																	
GENERAL ADVICE/ WELFARE																	
PROPERTY SHARING																	
TOTALS																	

CHILDREN'S HOMES

1. **HOME 1**

SUMMARY SHEET FOR XX QUARTER 2019									
Name of Home									
Location									
District									
(A) REUNIFICATION									
0-5 years		**6-11 years**		**12-17 years**		**18 + years**		**Grand Total**	
M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
(B) REMAINING CHILDREN									
0-5 years		**6-11 years**		**12-17 years**		**18 + years**		**Grand Total**	
M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
(C) NEW ADMISSIONS									
0-5 years		**6-11 years**		**12-17 years**		**18 + years**		**Grand Total**	
M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**

2. HOME 2

SUMMARY SHEET FOR XXX QUARTER 2019									
Name of Home									
Location									
District									
(D) REUNIFICATION									
0-5 years		**6-11 years**		**12-17 years**		**18 + years**		**Grand Total**	
M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
(E) REMAINING CHILDREN									
0-5 years		**6-11 years**		**12-17 years**		**18 + years**		**Grand Total**	
M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
(F) NEW ADMISSIONS									
0-5 years		**6-11 years**		**12-17 years**		**18 + years**		**Grand Total**	
M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**

Community Care

ASSISTANCE TO PWDs

CASH RECEIVED (DACF 2%)	NO. GIVEN EDUCATIONAL SUPPORT		NO. ASSISTED WITH TRADING CAPITAL		**TOTAL**	
	M	F	M	F	M	F

LEAP PAYMENTS

Cycle	**Amount Allocated (GHC)**	**%**	**Amount Paid**	**%**	**Amount Not Paid**	**%**
TOTAL						

The table below shows the reasons for the non-payment of some of the households.

Reason		
Caregiver unavailable/absent/Not Enrolled		
Biometric Verification Error		
Card Damaged		

SOCIAL WORK AT UNHCR REFUGEE CAMP – EGYEIKROM

STATISTICAL REPORT – 3rd QUARTER 2019		
Child Protection		
Indicators	**Quantity**	**Comments**
Number of vulnerable children benefitting from assistance in the quarter		
Number of UAMs and SCs for whom BIA/D have been initiated/conducted in the quarter		
Number of UAMs and SCs registered and placed in alternative care in the quarter		
Number of follow up meetings with foster families in the quarter		
Number of new arrivals below 18 years joining families assessed in the quarter		
SGBV		
Number of SGBV survivors counselled in the quarter		
PERSONS WITH DISABILITY		
Number of Persons with Disability registered in the quarter		
COMMUNITY WORK		
Number of CBOs/NGOs registered and operational in the quarter		
Number of Meetings with CP Committees		
Number of meetings with Disability work/ Mobility volunteers in the quarter.		

APPENDIX 4. DESK REVIEW DOCUMENTS

I. Ghana National e-Health Strategy
II. Ghana eGIF
III. GHS EA (The eHealth Architecture), Version 2, 2009
IV. GSMA Country Overview: Ghana, 2017
V. Ghana Data Protection Act, 2012
VI. Ghana ICT for Accelerated Development (ICT4AD) Policy, 2003
VII. Health Sector ICT Policy and Strategy, MOH, 2005

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