Overview of the Nutrition Information System in Côte d’Ivoire

DURE Technology
ABOUT THE NIPN INITIATIVE

National Information Platforms for Nutrition (NIPN) is an initiative of the European Commission supported by the United Kingdom Department for International Development and the Bill & Melinda Gates Foundation. The initiative aims to strengthen national capacity to manage and analyse information and data from all sectors which have an influence on nutrition and to disseminate and use information so as to better inform the strategic decisions countries are faced with to prevent undernutrition and its consequences. A Global Support Facility has been set up by the European Commission to coordinate the NIPN initiative, managed by the Agrinatura alliance and hosted by Agropolis International.

DISCLAIMER

This publication has been commissioned by the Global Support Facility for the National Information Platforms for Nutrition initiative. The findings, interpretations, conclusions, advice and recommendations expressed in this work are those of the authors and do not necessarily reflect the views of the organizations that host, manage or fund the Global Support Facility.

COPYRIGHT STATEMENT


Cover page illustration: © VectorPot/Shutterstock

This report may be freely reproduced, in whole or in part, provided the original source is properly cited and acknowledged.

RECOMMENDED CITATION


PUBLICATION DATE

August 2019

Contents

Contents ............................................................................................................................................. 3
Introduction ........................................................................................................................................ 4
Section I: Global Parameters ........................................................................................................... 5
Section II: Mapping of existing information systems ................................................................. 6
Current Nutrition Environment in Côte d’Ivoire ........................................................................... 6
The National System of Health Information (SNIS, DHIS-2 based) .............................................. 6
National Data Archive (NADA) ......................................................................................................... 8
SIGDSE (System of Integrated Socio-demographic and Economic Data Management) ............ 8
Open Data Portal (Côte d’Ivoire Data Portal) ................................................................................ 9
National Summary Data Page (PNRD) ............................................................................................. 10
STATcompiler ................................................................................................................................... 10
IT Systems of the Ministry of National Education ........................................................................ 11
IT Systems of the Ministry of Women and Child Protection ....................................................... 11
IT Systems of ANADER ................................................................................................................ 12
FENASCOVICI Portal ................................................................................................................... 12
Section III: Indicator Mapping ........................................................................................................ 14
Finance for Nutrition ..................................................................................................................... 14
Intervention and Food Supply ....................................................................................................... 14
SDG Drivers of Nutrition ............................................................................................................... 16
Infant and Young Child Feeding Practices and Dietary Intakes ................................................... 17
Nutrition Status .............................................................................................................................. 17
SDG goals that are linked to better nutrition ............................................................................. 18
Section IV: Mapping of the main Stakeholders identified .......................................................... 20
National Institute of Statistics (INS) ............................................................................................. 20
National Nutrition Council (CNN) ................................................................................................. 20
Ministry of Health and Public Hygiene (MSHP) ......................................................................... 20
Introduction

This report presents the findings for Côte d’Ivoire of a study undertaken by Dure Technology (http://www.duretechnologies.com/), commissioned by the Global Support Facility of the National Information Platforms for Nutrition (NiPN) global initiative.

The summarized findings are presented in 4 sections:

- **Section 1: Global parameters**
  
  Key parameters of the Nutrition Information System have been assessed and are presented in a synthetic table.

- **Section II: Mapping of existing information systems**
  
  Sectoral and multi-sectoral information systems that can be relevant to nutrition have been identified and are described in this section. A table summarizes the findings.

- **Section III: Indicator mapping**
  
  17 multisectoral “key indicators” were arbitrary selected to represent multi-sectoral information important for Nutrition. For those indicators, the institution(s) in charge of data collection / quality review / analysis and dissemination were identified.

- **Section IV: Mapping of the main stakeholders identified**

The assessment followed key steps:

1. Creation of a questionnaire
2. Pre-populating the questionnaire with available country-specific information (including the work undertaken by SUN available here: https://scalingupnutrition.org/share-learn/planning-and-implementation/information-systems-for-nutrition/)
3. Interviews with main stakeholders (held between 1st - 30th Sep 2018)
4. Thorough investigation of open access/publicly available information
5. Report compilation
## Section I: Global Parameters

<table>
<thead>
<tr>
<th>Parameters assessed</th>
<th>Situation in Côte d’Ivoire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of any IT system for Central Data Repository</td>
<td>None</td>
</tr>
<tr>
<td>Access to raw data/ metadata across IT systems</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Frequency of Data updation on existing IT systems</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Analysis of available nutrition-related data</td>
<td>Partial</td>
</tr>
<tr>
<td>Data exchange capability between IT systems</td>
<td>Partial (Exists for NADA, Open Data portal)</td>
</tr>
<tr>
<td>Presentation of summary statistics on existing IT systems</td>
<td>Limited</td>
</tr>
<tr>
<td>Existence of IT systems</td>
<td>Available</td>
</tr>
<tr>
<td>Infrastructure for efficient data reporting (Computers/ Internet)</td>
<td>Limited internet connectivity at decentralized levels</td>
</tr>
<tr>
<td>Availability of Standard Reporting Tools</td>
<td>Likely existing (No gaps highlighted)</td>
</tr>
<tr>
<td>Type of Data collection- (Hardcopy-based/ Digital)</td>
<td>Mostly hardcopy based</td>
</tr>
<tr>
<td>Tools used for nutrition-related Data Consolidation</td>
<td>MS Excel, STATA, SPSS, DHIS2 (SNIS), NADA, STATcompiler, DHIS2 (SNIS), NADA, STATcompiler, MS-Excel</td>
</tr>
<tr>
<td>Data Analytics/ Reporting &amp; Dashboard</td>
<td>DHIS2 (SNIS), NADA, STATcompiler, MS-Excel</td>
</tr>
<tr>
<td>Level of Program Coverage across the country</td>
<td>Moderate</td>
</tr>
<tr>
<td>Plan for a Multi-sectoral nutrition-related Data repository in place</td>
<td>Yes, PNMIN</td>
</tr>
<tr>
<td>Existence of Data sharing law/ Policy</td>
<td>Yes, since 2013.</td>
</tr>
<tr>
<td>A compliant data exchange mechanism/ guideline</td>
<td>Not yet</td>
</tr>
<tr>
<td>Existence of Intra-/ Inter-sectoral Data sharing culture</td>
<td>Limited</td>
</tr>
<tr>
<td>National Budget allocated for Nutrition-related interventions</td>
<td>Information Unavailable</td>
</tr>
<tr>
<td>Major sources of nutrition-related Data</td>
<td>Survey (DHS, MICS, EDS, SMART, ENV), LSMS (Living Standards Measurement Study), Population Census, Routine data collection through HIS, Campaigns</td>
</tr>
<tr>
<td>Presence of a Governing body for inter-sectoral coordination of nutrition</td>
<td>Yes, CNN (National Nutrition Council)</td>
</tr>
</tbody>
</table>
Section II: Mapping of existing information systems

Current Nutrition Environment in Côte d’Ivoire

While child mortality in Côte d’Ivoire has declined from 125 per 1000 live births in 2005 to 96 in 2016, high rates of neonatal and maternal mortality still continue to exist. Furthermore, although the prevalence of stunting saw a decrease between 2012 and 2016 (from 29 to 21%), however, infant and young child nutrition practices continue to remain limited/sub-optimal. Together these pose as major obstacles to the economic and social development of the country, nutrition therefore remains a national priority issue to be addressed for the Government of Côte d’Ivoire.

In line with recognizing the fact that only concerted and synergistic efforts across multiple sectors can reduce this scourge quickly and sustainably, the Ivorian Government joined the SUN movement in 2013 that was soon followed by the creation of the National Council for Nutrition (CNN) in 2014 that intended to renew the Government’s commitment to good nutrition amongst its population. These commitments are reflected in the 2016-2020 National Multisectoral Nutrition Plan (PNMN) headed by the Ministry of Health and Public Hygiene (MSPH) through the National Nutrition Program with support of the CNN, which has the mission to coordinate and ensure the implementation of actions for the reduction of malnutrition in Côte d’Ivoire.

As part of the above mission, the Ivorian Government also intends to ensure availability of safe food to all its citizens, and therefore deems food safety to be of umpteen importance as it fully recognizes that there is a strong link tying food safety to nutrition. Ensuring food safety includes measures that must cover the entire food chain, from production to consumption, such as risk assessment and risk management as well as raising awareness of good practices amongst all involved actors (producers, processors, distributors, households). To help achieve this, establishment of a properly functioning integrated risk analysis system is envisaged which would not only include improvisation of the Early Warning System but also of the Epidemiological Surveillance System of Côte d’Ivoire. Establishment of a multisectoral Epidemiological Database on foodborne diseases is also envisaged.

Below is a brief overview of the existing IT systems, the associated technical details and the information (indicators) captured by these systems (wherever accessible).

The National System of Health Information (SNIS, DHIS-2 based)

Description of the IT system: DHIS2 is a flexible, web-based open-source information system with strong analysis and visualization features being used across countries including in Côte d’Ivoire. SNIS has been focusing on the collection, reporting and processing of routine health system data from the decentralized level. However, MSHP reformed its services and decided to centralize the processing of information and communication technology issues to a single department called the Directorate of Information Technology and Health Information (DIIS). The SNIS system is next supplemented by data from the Directorate of the National Nutrition Program (PNN), which collects data on nutrition and food safety in specific.
Some gaps that have been encountered with respect to DHIS2’s optimal usage in Côte d’Ivoire include:

i. Unavailability of master data for verification, owing to paper-based data collection at the health facility level.

ii. Slowdown in data collection due to manual entry leading to loss of reliability in data quality assurance, and also in its successive transmission (from health facility to district health centers and then DIIS).

The data system can be found here:

https://www.sigsante.gouv.ci/dhis/dhis-web-commons/security/login.action

**Technical Details:** DHIS2-Côte d’Ivoire represents aggregated data rolled out on a national level having restricted access. Although implemented, there is delay in data transmission, and data completeness has not been fully achieved. DHIS2 is in its early phase in this country.

**Indicators:** Three indicators in total, one indicator each belonging to Lists 3, 5 and 7 out of the 17 chosen SUN MEAL indicators are presented on DHIS2. On account of the data system having restricted access (as seen above), a detailed list of the indicators being captured is unavailable.

**NOTE:** In addition to SNIS (DHIS2), MSHP is in the process of developing/ finalizing and thereafter implementing, two other applications:

i. The Hospital Information System (HIS)

ii. The Computerized Patient Record (DPI).

These IT-based activities are being handled by the IT and Telemedicine sub-directorate of MSHP.
Nutrition information system in the République de la Côte d’Ivoire

National Data Archive (NADA)

- **Description of the IT system:** NADA is a data catalog of the National Institute of Statistics (INS) of Côte d’Ivoire. Specific activities of NADA include the acquisition, documentation, anonymization, dissemination, and retention of survey and census microdata and metadata generated across the country. In order to allow widespread simplistic access to potential users (decision makers, researchers, academics, general public), NADA provides a data catalog (with the support of ADP/ PARIS21). Once registered on the NADA portal, data for public access is allowed to be downloaded. The portal is managed by the data team of INS.

- **Technical Details:** The NADA portal was developed with technical help from the following: PARIS21 that not only provided technical but also financial assistance through the Accelerated Statistical Program and the International Household Survey Network (IHSN), which provided the applications used for Toolkit and Dissemination (NADA). Data is mostly open access and some fraction of data (for public access) is also downloadable post registration. The IT system can be found here [http://www.ins.ci/n/nada/index.php/accueil](http://www.ins.ci/n/nada/index.php/accueil)

- **Indicators:** The exact indicator-specific granularities are not entirely known.

SIGDSE (System of Integrated Socio-demographic and Economic Data Management)

- **Description of the IT system:** SIGDSE is the reference integrated data management system of economic and demographic data in Côte d’Ivoire. The socio-demographic and economic data collected through surveys used to be earlier scattered, but to put an end to this, the Monitoring and Evaluation Directorate of the Ministry of Planning and Development set up an Integrated System for Socio-Demographic and Economic Data Management in Côte d’Ivoire (SIGDSE). Apart from presenting data collected through surveys, the portal also presents some of Census (RGPH) and Routine data (pertaining to Education sector).

- **Technical Details:** SIGDSE is Redatam based, is being maintained by INS and was last updated in May 2017. The IT system can be found here [http://redatam.sndi.ci/SIGDSE/](http://redatam.sndi.ci/SIGDSE/)

- **Indicators:** Presents data collected primarily through surveys (EDS, MICS, ENSPSR, EBCS, etc), however the exact indicator-specific granularities are not entirely known.
Open Data Portal (Côte d’Ivoire Data Portal)

**Description of the IT system:** As part of the Government of Côte d’Ivoire’s Action Plan (Year Action Plan 2016), in order to facilitate centralization of overall open public data and the possibility for general public/citizens to check, share and reuse these data in order to improve data openness, an open data web platform was operationalized. This is referred to as the Open Data Portal of Côte d’Ivoire. The entire government structure and other Civil society organizations were contributing partners in the implementation of this initiative. The project is funded by the African Development Bank.

The relevance of creating this web platform is in strengthening of access to public information. This new platform aims to ensure satisfaction of the public expectations in terms of access to information and public documents, interactive citizen participation in data openness policy in Côte d’Ivoire. As per the Data Catalog section of the portal, it presents data related to the following: Census, Health, Income, Population, GDP, Economy, Infrastructure, Poverty, etc.

**Technical Details:** The IT system is being maintained by INS in support from the African Development Plan and can be found here [http://cotedivoire.opendataforafrica.org/](http://cotedivoire.opendataforafrica.org/)

**Indicators:** Presents all open public data in Côte d’Ivoire, however the exact indicator-specific granularities are not entirely known.
National Summary Data Page (PNRD)

- **Description of the system:** PNRD collects all categories of data governed by the Enhanced General Data Dissemination System (GDDS-a). Data linked from this page correspond to data described in the International Monetary Fund’s DSBB [https://dsbb.imf.org/](https://dsbb.imf.org/) (Dissemination Standards Bulletin Board).

- **Technical Details:** This site is built on the Open Data Platform (ODP) and data access, as the name suggests is likely open (post a user signing up on the website). The data system is maintained by INS. The IT system can be found here [http://nso.cotedivoire.opendataforafrica.org/awirqrf/national-summary-data-page-nsdp](http://nso.cotedivoire.opendataforafrica.org/awirqrf/national-summary-data-page-nsdp).

- **Indicators:** Macroeconomic and Financial Data, and Demographic and Selected Socio-Economic Indicators are presented on this summary data page.

STATcompiler

- **Description of the IT system:** STATcompiler is a DHS Program that allows users to make custom tables based on thousands of demographic and health indicators across many countries (90 to be precise), of which Côte d’Ivoire is one. It allows for customization of tables to view indicators by background characteristics, over time, and across countries.

- **Technical Details:** STATcompiler ([https://www.statcompiler.com/en/](https://www.statcompiler.com/en/)) represents aggregated DHS (survey) data rolled out on a national level and is hosted on outside country premises. The system is a brainchild of USAID and is being maintained by the same. Data access seems to be of open access.

- **Indicators:** 10 out of the 17 core NiPN indicators are reported on STATcompiler but only up to the last DHS survey conducted in the country (2011-12 for Côte d’Ivoire). These belong to the SUN MEAL indicator Lists 5, 6, 7 and 8. A consolidated list of the indicators that are being captured by STATcompiler can be found here [https://www.statcompiler.com/en/](https://www.statcompiler.com/en/)
IT Systems of the Ministry of National Education

- **Description of the IT systems:** The Ministry of National Education of Côte d’Ivoire has two IT systems to its credit. One system is linked to the School Canteens, while the other system is being worked upon to be the evolved version of the former. ‘The School Canteens Department (DCS)’ and ‘The Strategies, Evaluation Planning and Statistics Directorate (DSPES)’ are the contributing structures within the ministry for keeping these systems up and running.

- **Technical Details:** The current IT system is running as an office application, while the evolved IT system is soon going to be running on SIGCS (Geographic Information System for School Canteen Management), thus offering a more navigable interface for the users, than what is being offered by the current system. The data arising out of school canteens are compiled each quarter in Excel files and transmitted by email. Weblink for the IT system is unavailable.

- **Indicators:** The exact indicator-specific granularities are unavailable as well.

IT Systems of the Ministry of Women and Child Protection

- **Description of the IT systems:** IT systems within the Ministry of Women and Child Protection have been developed as part of donor support for needs related to two specific programs: the first being the ‘Gender-Based Violence (VBG) program’ and the other being the ‘program for Orphans and Children made Vulnerable by HIV/ AIDS (OEV)’.

- **Technical Details:** The VBG program is managed by the SI VBG platform while the OEV program is being managed by the SI OEV platform. ‘VBG’ and the ‘OEV’ IT systems/ platforms are two applications with a web interface that collects data directly at the implementation level. However, owing to internet connectivity issues at the decentralized level (namely at the level of the NGOs and the regional directorates of the ministry), where data collection and quality check primarily occurs, the data is essentially collected through Excel files and then transmitted to be processed where internet connectivity is available. The Directorate of Planning, Evaluation and Statistics (DPES) has dedicated servers for both these applications and are hosted by the National Society of Computer Development in its Data Center. Weblinks for the IT systems are unavailable.

- **Indicators:** The exact indicator-specific granularities are unavailable as well. However, it is to be noted that both these IT systems have the capacity to evolve to take into account the monitoring of new indicators, for example, those included in the Common Framework of Results of the National Multisectoral Nutrition Plan (PNMN).
**IT Systems of ANADER**

- **Description of the IT systems:** The National Agency for Rural Development Support’s (ANADER) areas of expertise include monitoring and evaluation of programs and projects, surveys and agricultural statistics. The three main platforms within ANADER are:
  - SEPHORA version 1.7
  - The COSMOS Application
  - ANADERSTAT11

- **Technical Details:**
  - SEPHORA is a single-user application installed on DR (rural development) workstations and areas covering some cash crops and some major food crops, but not animal speculation. SEPHORA version 1.7 is the first IT system built by ANADER and is intended to supervise the monitoring of projects related to seven speculations. This application is used on isolated workstations and a data reporting procedure is put in place to facilitate overall coordination.
  - COSMOS is a web-oriented computer application accessible wherever internet connectivity is available, and currently covers coffee and cocoa. This is intended to be extended to cashew and then gradually to other cash crops and major annual food crops as well. The COSMOS application has been developed to support the monitoring and evaluation of ANADER activities. It results from an improvement of SEPHORA, and above all allows it to overcome the obligation to transmit data by mail or any other means. The COSMOS Application, is expected to integrate all the other speculations monitored within the framework of ANADERSTAT to offer ANADER an integrated tool for monitoring program activities, projects or any other activity. These speculations cover crop, livestock and fisheries data as well.
  - ANADERSTAT is a proven methodology for collecting general data for major cash crops and food crops. The overall objective of the ANADERSTAT program is to enable ANADER to contribute to the production of agricultural statistics in Côte d’Ivoire.

Weblinks for the above mentioned IT systems are unavailable.

- **Indicators:** The exact indicator-specific granularities are unavailable for these IT systems as well.

**FENASCOVICI Portal**

- **Description of the IT systems:** The National Federation of Foodstuff Cooperatives of Côte d’Ivoire (FENASCOVIVI) is a women-led organization that produces and markets food and market garden production throughout the country, including wholesale and semi-wholesale productions. FENASCOVICI collects information on the areas exploited by speculation, including market gardening, the production forecasts of its members, the harvests made daily by speculation, the harvest of crops by speculation and the destinations of the products removed, the productions which can not be removed for logistical reasons or because of the state of the roads and tracks, or other factors of isolation, the effective supply of the markets of the agglomerations in food products and market gardeners.

- **Technical Details:** The information collection system for FENASCOVICI works in a very rudimentary manner, relying on phone calls to collect all of its data and then compiled in its headquarters. The data can then be viewed on the FENASCOVICI portal. Weblink for the IT systems is unavailable.

- **Indicators:** The exact indicator-specific granularities are unavailable as well.
Table 1. Summarised overview of existing IT systems

<table>
<thead>
<tr>
<th>SYSTEM NAME</th>
<th>Indicator coverage (17 SUN MEAL ones)</th>
<th>Current Status</th>
<th>Which Ministry/ Dept developed it?</th>
<th>Data Access</th>
<th>Hosted at?</th>
<th>Individual/Aggregated</th>
<th>Data last updated</th>
<th>Scale of rolling out</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNIS (DHIS2 based)</td>
<td>3 out of 17</td>
<td>Implemented (Early phase)</td>
<td>MHSP</td>
<td>Restricted access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Unknown</td>
<td>National</td>
</tr>
<tr>
<td>NADA</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>INS</td>
<td>Party open access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Unknown</td>
<td>National</td>
</tr>
<tr>
<td>SIGSSE (Redatam based)</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>INS in support with the African Development Bank</td>
<td>Open access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>May 2017</td>
<td>National</td>
</tr>
<tr>
<td>Côte d’Ivoire Data Portal</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>INS</td>
<td>Likely open access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>2011-2012 (only up to the last DHS Survey)</td>
<td>National</td>
</tr>
<tr>
<td>PNRD</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>USAID</td>
<td>Open access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Periodically</td>
<td>National</td>
</tr>
<tr>
<td>STATcompiler</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>Ministry of National Education</td>
<td>Likely open access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Unknown</td>
<td>National</td>
</tr>
<tr>
<td>IT systems of the Ministry of Women and Child Protection: SIVBG and SI OEV</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>Ministry of Women and Child Protection</td>
<td>Likely open access</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Unknown</td>
<td>National</td>
</tr>
<tr>
<td>IT systems of ANADER</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>ANADER</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Unknown</td>
<td>National</td>
</tr>
<tr>
<td>IT systems of FENASCOVICI</td>
<td>Not exactly known</td>
<td>Implemented</td>
<td>FENASCOVICI</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Aggregated</td>
<td>Unknown</td>
<td>National</td>
</tr>
</tbody>
</table>
Section III: Indicator Mapping

The GSF identified an arbitrary list of 17 indicators selected from 6 domains of the SUN MEAL system. The list numbers of these indicators have been kept consistent with that of the numbering used for the SUN meal system found here (https://scalingupnutrition.org/?s=MEAL) to avoid any nomenclature related confusion. The objective of this list is ONLY to get a flavor of the multi-sectoral data environment in Côte d’Ivoire. This section identifies, for each indicator, the institutions responsible for collecting, controlling for quality, analyses and reporting on those indicators. Data gaps are highlighted as well.

Finance for Nutrition

There is currently no provision for collecting data for the ‘Finance-associated indicators’ in the current ecosystem in Côte d’Ivoire.

<table>
<thead>
<tr>
<th>COLLECTION</th>
<th>QUALITY</th>
<th>ANALYSIS</th>
<th>REPORTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Gap(s): There seems to be a limitation in capacity from the country’s end required for collecting/mapping the above indicator-specific information from the existing system.

Intervention and Food Supply

Data for indicators 1, 2 and 4 is collected by the routine collection system (at the health facility level). Data for indicators 2, 3 is also collected by campaigns and that for indicator 4 also gets collected by surveys, in addition to routine collection. DIIS (Directorate of Computer Science and Health Information), and DC of PNN (National Nutrition Program under MSHP) are responsible for data collection, storage and reporting for indicators 1, 2 and 3, while DIIS and DC of PEV (Expanded Program of Immunization), also under MSHP is responsible for the same for indicator 4. Data for indicator 1 is collected daily with monthly reporting on DHIS2; while that for indicator 2 is collected daily/weekly, with monthly reporting for the routine system/also collected and reported after a day of the campaign (for data generated through campaigns); data for indicator 3 gets collected twice yearly and reported after every campaign; and data for indicator 4 gets collected weekly, monthly and also annually for the routine system/and every four years for the survey.

Excel is used for data collection and reporting for indicators 2, 3 and 4. Apart from Excel, ENA and Stata is also used for data collection, storage and reporting for indicator 2.
Gap(s):

i. No IT system is being used for data collection and reporting for indicators 2, 3 and 4.

ii. Data collection for indicator 1 is carried out in selected districts only, all districts aren’t covered. Despite data storage and reporting on DHIS2, there is delay in data transmission, and data completeness has not been fully achieved.

iii. The introduction of routine vitamin A supplementation (indicator 2) is quite recent, and hence the gaps (if any) that may be there with regards to data generation and reporting for this indicator is not identified as yet.

iv. There is a risk for duplication of data for indicator 3, underestimation of denominators for this indicator has also been encountered.

NOTE: The indicator which comes close to the SUN MEAL List 3 indicator 1 captured in Côte d’Ivoire is ‘Proportion of acute malnourished children cared for and cured’.

<table>
<thead>
<tr>
<th>Intervention and Food Supply</th>
<th>Collection</th>
<th>Quality</th>
<th>Analysis</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Proportion of children 6-59 months with severe acute malnutrition (SAM) admitted for treatment, 2012</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
</tr>
<tr>
<td>2. Vitamin A supplementation coverage, 2 doses (%), 2015</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
</tr>
<tr>
<td>3. Proportion of children 6-59 months who received deworming, %</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
<td>DC Programme (PNN), MSHP</td>
</tr>
<tr>
<td>4. Immunization coverage DTP3 (%) , 2016</td>
<td>DC Programme (PEV), MSHP</td>
<td>DC Programme (PEV), MSHP</td>
<td>DC Programme (PEV), MSHP</td>
<td>DC Programme (PEV), MSHP</td>
</tr>
</tbody>
</table>

PNN: National Nutrition Program, PEV: Expanded Program of Immunization, MSHP: Ministry of Health and Public Hygiene
**SDG Drivers of Nutrition**

Data for all three indicators gets collected via surveys (MICS) at the household level. Data for ‘Incidence of Diarrhea (a close enough indicator to Indicator 1)’ and that for indicator 3 also gets collected by the routine collection system. For the ‘Incidence of Diarrhea’ indicator, data is collected from the First Contact Health Establishment (ESPC), General Hospital (HG) and Regional Hospital Centers (CHR). INS, MHSP and PNSME (National Mother and Child Health Program) are responsible for data collection, storage and reporting for indicator 1, while INS and the Ministry in charge of Sanitation; and INS and the Ministry of National Education is responsible for the same for indicators 2 and 3, respectively.

Data for indicator 1, 2 and 3 is collected and reported every four years. Data for ‘Incidence of Diarrhea’ is collected daily with monthly compilation. SPSS, Excel is being used for data collection/storage/reporting. Data for ‘Incidence of Diarrhea’ indicator is collected/ stored/ reported on DHIS2.

**Gap(s):**

i. No IT system is being used for data collection and reporting for indicators 2 and 3.

ii. For all three indicators, the main bias for the collected data is that, the information is collected from the declaration of the interrogator of the survey. There is no provision for carrying out additional investigations to corroborate the collected information.
Infant and Young Child Feeding Practices and Dietary Intakes

Data for both the indicators gets collected via survey (MICS) every 4 years at the household level. INS (National Institute of Statistics) along with MSHP (Ministry of Health and Public Hygiene) [DC PNN (National Nutrition Program) in specific] and PNSME (National Mother and Child Health Program) are responsible for data collection, storage and reporting for both the indicators. SPSS and Excel is being used for data collection, storage and reporting for both the indicators.

- **Gap(s):**
  1. No IT system is being used for data collection and reporting for either of the two indicators.
  2. For both the indicators, the main bias for the collected data is that information is collected from the declaration of the interrogator of the survey. There is no provision for carrying out additional investigations to corroborate the collected information.

Nutrition Status

In the absence of capture of the exact below mentioned SUN MEAL indicators, close enough indicators that are currently being captured in Côte d’Ivoire have been considered for this mapping exercise. For Indicator 1, ‘Proportion of children suffering from stunting (chronic malnutrition)’; for indicator 2, ‘Proportion of newborns with low birth weight’; for indicator 3, ‘Proportion of children aged between 6 - 59 months with acute malnutrition’; and for indicator 4, ‘Incidence of anemia in pregnant women with CPN’ have been considered. Data for all four indicators gets collected via survey at the household level. Data for indicator 1 gets collected and reported every 4 years (for MICS) and annually/ every two years (for SMART). Data for indicators 2 and 3 also gets additionally collected via the routine system. These are collected daily with a monthly compilation/ reporting for the routine system, and every 4 years for MICS (data collected through survey). As for indicator 4, data is collected and reported every 4 years for MICS, EDS. INS along with MSHP (DC PNN) is responsible for data collection, storage and reporting for all four indicators (DIIS is also additionally involved for indicators 2 and 3). SPSS and Excel is being used for data collection, storage and reporting. Data for indicator 2 also gets collected, stored and reported using DHIS2 and ENA.
Gap(s):

i. No IT system is being used for data collection, storage and reporting for indicators 1, 3 and 4.

ii. The main bias associated with data collection is related to the taking of anthropometric measures for indicator 1, for taking weight measurements for indicator 2, and sampling related bias for indicator 4. As for indicator 3, biases are related to anthropometric measures and selection of enumeration areas, depending on whether they represent potential pockets of malnutrition or not.

SDG goals that are linked to better nutrition

Data for indicator 1 gets collected every 3 years through ENV Survey or Harmonized Survey on Living Standards for CI Households. As for indicator 2, data gets collected through surveys (MICS, EDS, SMART) every 4 years and also by RGPH every 10 years at the household level. INS and MDP (The Ministry of Planning and Development) is responsible for data collection, storage and reporting for indicator 1, while INS, MSHP and PNSME is responsible for the same for indicator 2. Excel and SPSS is being used for data collection, storage and reporting for both indicators.
Gap(s): No IT system is being used for data collection and reporting for either of the two indicators.
Section IV: Mapping of the main Stakeholders identified

National Institute of Statistics (INS)

› **Description of the Department/Ministry:** The National Institute of Statistics is a national institute of Côte d’Ivoire, which is dedicated to collecting statistical data on economic, social and demographic indicators. The Statistical services of the system have been renovated and revamped in order to make it more efficient in providing reliable and up to date data on the financial, demographic and social situation of the country.

› **Data Team:** Yes, as INS has its data portals such as ‘Open Data Portal’ and ‘National Archive of Data (NADA)’, SIGDSE, PNRD, etc.

National Nutrition Council (CNN)

› **Description of the Department/Ministry:** As part of Côte d’Ivoire’s joining the SUN global movement in 2013, one of its commitments to nutrition has included the establishment of a National Nutrition Council (CNN). The CNN has the mission to coordinate and ensure the implementation of actions for the reduction of malnutrition in Côte d’Ivoire. To help achieve this, the CNN is composed of the following organs: the Decision Committee chaired by the Prime Minister, the Technical Committee and the Permanent Technical Secretariat (STP CNN). To ensure successful implementation of the PNMIN, a Project Management Unit (PMU) will be set up and housed within the STP-CNN.

› **Data Team:** The Technical Committee of the CNN is a decision-making and coordination entity, a data team is therefore non-applicable to its context. As for the Data team of STU-CNN (which is the PNMIN PMU unit), an analysis team is operational and is being hosted by the technical secretariat of the National Nutrition Council (CNN). It is composed of staff seconded by different government institutions. In addition, a Nutrition Specialist and a Monitoring and Evaluation Officer have been recruited by UNICEF as part of the project as well.

Ministry of Health and Public Hygiene (MSHP)

› **Description of the Department/Ministry:** The Ministry of Health and Public Hygiene is responsible for the implementation and monitoring of the Government’s policy on health and public hygiene in Côte d’Ivoire. In the scope of the PNMIN initiative, it is one of the four ministries of the Permanent Technical Secretariat of the National Nutrition Council (ST-CNN), wherein the coordination of the secretariat is to be chaired by the representative of the MSHP.

› **Data Team:** Yes, as data portals such as DHIS2 and SIH (Hospital Information system) are under MSHP’s aegis that must be maintained by MSHP’s data team.
Summary

This report presents the findings for République de la Côte d’Ivoire of a study commissioned by the Global Support Facility of the National Information Platforms for Nutrition (NIPN) initiative; to assess the design, processes and practices related to data handling and usage from existing nutrition-related information management systems.