ADaMM: Administrative Data Maturity Model Ver 1.0
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Administrative (‘admin’) data systems have a dual purpose, and both underpin the delivery of essential services to support development outcomes and provide an important source of data to improve administrative systems and service delivery – as well as supporting planning, monitoring, and accountability at national and international levels. The advent of the SDGs and growing demand for data has led many countries to look more closely at admin data systems as a key part of their national data landscapes. Despite the good work that has been done and the increase in investment in administrative data systems globally, many countries still struggle to ensure that all children are included, that government systems are sustainable and not dependent financially and technically on external partners and/or consultant firms, and that they are seen as an integral part of the national statistical system rather than remaining siloed within a specific line ministry.

In many sectors, UNICEF is already leading the way or playing a key role in supporting national governments to strengthen administrative data systems and use admin data to support improved development outcomes for children. The Data for Children Strategy identified administrative data as one area that could be strengthened in UNICEF – particularly through improved collaboration across sectors and locations, with new efforts underway to focus more clearly on cross-sectoral issues. These include developing guidance on new tools and technologies and improving access to existing tools and standards; identifying common areas of impact across sectors and prioritizing areas of need; evaluating emerging issues as systems evolve to meet new interoperability requirements and shift from aggregate to more nuanced data; and building more institutional approaches to data protection and quality assessment.

As a member of the wider UN family, UNICEF also has a critical role to play in achieving the Data Strategy of the Secretary-General for Action by Everyone, Everywhere. The Data Strategy outlines how the UN can make better use of data by treating it as a strategic asset – making better decisions and delivering stronger support to people and planet with insight, impact, and integrity. By focusing on seven outcomes, the Strategy aims to engage everyone in building a truly data-driven organization, with an ecosystem that spans the entire UN family and helps unlock the full potential of UN data.

Across the outcomes, eight priorities have been outlined, based on the Secretary-General’s priorities for 2020/21. These priorities will help guide the development of use cases – purposes for which data are used – to help add value and develop new capabilities in the process. Actions in the Strategy aim to build new capabilities in analytics and in data management. The Strategy also acknowledges the need to foster stronger enablers across People and culture; Data governance and strategy oversight; Partnerships; and Technology environments.

This maturity model adds is a holistic approach to the administrative data that is collected on and which affects children, looking at the broad national landscape of data systems and putting children and individuals at the center.
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Introduction
Administrative data is collected through the routine provision of a service such as health, education, or social welfare – most often by a government provider, but potentially also through private sector services. The data collected by these systems are an essential means to improving service provision, identifying and acting on development goals and targets, and reporting against international commitments such as the Sustainable Development Goals. However, despite the importance of administrative data and indeed, significant investments in many countries, many remain unable to report against key development indicators, and data quality significantly limits the utility of much of the data available. Where data is available, these systems are frequently either under-utilized or are unable to ‘flex’ to meet changing needs – especially in the context of a rapid onset humanitarian situation. The importance of administrative data has been highlighted by the global impact and demand for data during the COVID-19 pandemic, while the disruption to services and systems has created a key opportunity to look at “building back better”.

There is therefore a need to focus additional investment in building and strengthening administrative data systems, and to find a better approach to ensuring these investments result in improved data for decision makers. A maturity model approach provides governments and partner agencies such as UNICEF with a framework for prioritizing system investments, sets benchmarks, and helps identify what “good systems” look like. This helps donors assess the capacity to absorb proposed investments and create impact. It also provides a structure to identify and share example of good practice – demonstrating how some countries have achieved “maturity” in parts of their data systems or landscape so that others can draw on these experiences. Equally, it highlights areas where more technical support or guidance is needed. By bringing a focus on children to this discussion, the model provides a lens to assess how well data systems at the national level support development for children, and where critical investments in data and data systems could have the greatest impact for children.

While administrative data can, in practice, be very broad, the model presented here focusses on the definition of administrative data used by UNICEF. That is, data collected from systems structured around data relating to an individual or event – regardless of where in the collection and collation process that data is aggregated. As such, while systems related to land titles, financial records, trade import and export duties, and household energy supply for example, all collect administrative data in the broadest sense, this model focuses more closely on those systems and data that record information directly related to children, individuals, and families.

The model recognizes that many of the requirements for effective national administrative data systems are not sectoral but rather, are the ‘foundational’ elements of government data policy, use, and supporting infrastructure. It also takes account of the changing data landscape in which many administrative data systems operate, as national identity functions influence both data ownership and departmental roles. These open up rapidly expanding opportunities for data linkage to create new insights and provide a more holistic approach to services. It is not intended to be an exhaustive review of all of the administrative data systems in a country; nor does it support specific technologies or solutions. In this context, the “system” refers to the whole structure around data collection, analysis reporting, and use and not just to a specific IT technology or software. The many existing assessment tools and quality indicators for administrative data systems for specific systems and sectors are noted, and work to develop the model has drawn extensively on these. What the maturity model adds is a holistic approach to the administrative data that is collected on and which affects children, looking at the broad national landscape of data systems and putting children and individuals at the center. It supports the use of existing tools, where they exist, and provides a framework to make appropriate tools more readily available and accessible.
Development of the model

The model has been built as a collaboration across sectors through UNICEF and managed by the administrative data task team. This has included a series of brainstorming sessions, structured workshops and discussions, and online discussion forums drawing on the expertise of sectoral specialists (in both programme delivery and data), innovation and ITC colleagues, and regional and country PME specialists. Key elements noted include a preference to focus the model on high-level outcomes in order to use the model as a tool to drive investment and political will; the importance of both a rights-based approach and a cross-sectoral lens to administrative data; the need to fill perceived gaps in support for sectors such as social welfare and child protection; a common framework that could be used to support benchmarking, both across sectors and across countries, to highlight and encourage best practice; and the importance of adding value without duplicating existing resources. As previously noted, the work draws heavily on existing assessment tools and models with the aim to collate and link to key tools and resources that exist to support the assessment or strengthening of systems by sector. It also seeks to identify gaps where there is a need for normative standards or guidance to support investment at the national level. This will continue to be built up through online resources over time.

Data maturity models across a broader range of topics, such as using data for organizational decision making (including those developed by Stanford\(^1\) and IGM\(^2\)); data literacy\(^3\); statistical systems\(^4\); and sectoral data system assessment tools from health\(^5\), civil registration\(^6\) and education\(^7\), have all been reviewed as part of this development process.

Field testing was conducted in Namibia in September 2019\(^8\) with results used to refine the initial concept and structure. The revised version was shared for discussion and review with country offices and government representatives through the Global Partnership for Sustainable Development Data Latin America and the Caribbean-Africa Peer Exchange on Administrative Data.\(^9\) The model will be further refined through feedback from the released working document.

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Our approach

The maturity model presented here takes a rights-based approach, building backward from what systems need to deliver effectively supporting governments to meet their commitment to sustainable development and to children in particular. As such, the work draws heavily on the Convention on the Rights of the Child\(^\text{10}\) and the associated work on reporting, and on the 2030 Development Agenda.\(^\text{11}\) By focusing on defining 'maturity', the model does not lay out specific intermediate steps or ‘stages’ that systems will go through to reach maturity for each outcome as it was felt these were likely to be restrictive and therefore, more distracting than helpful in outlining a path forward. System development is not linear, particularly in this era of rapidly changing technology, access, and data ownership. Countries investing in systems today are likely to take a different path to system design and implementation than those that have come before. They may ‘leapfrog’ many steps more developed countries took in order to reach system maturity through the use of newer technologies and innovative approaches. There is no ‘one size fits all’ approach. What works in one country at any given point, may not necessarily the best option for another with different challenges and experiences.

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Regardless of the approach, there are core outcomes that a fully mature administrative data system should deliver and which we have proposed should set out the benchmarks for maturity. These outcomes are structured in terms of three core elements we feel define a mature system able to deliver for children and communities:

- **It is child focused** – putting the best interests of children at the center of system design and operation;

- **It is built from the community up** – recognizing the importance of local impact and engagement in supporting development outcomes for children and the collection of high quality data for national planning and use;

- **It recognizes the need for strong cross-sectoral foundations at the national level** to support the effective and sustainable functioning of administrative data systems.

In putting children at the center of the approach, we recognize the significance of administrative data systems in providing important information for action by individual children and their families; at the community level; and by government at all levels, from the provincial to national. For systems to be responsive to changing community needs, to provide high quality data for decision making, and be resilient to potential disruptions they must build from this local focus. If we use data only at the national level or for international reporting we miss much of the value that data can provide and will significantly lessen the impact of available data for improving children’s lives.

While the model does not provide stages of maturity for each outcome statement – measuring on a scale from “not true at all” to “always true” – there is a natural grouping or order to the outcome statements. This can help countries focus their investments when more than a couple of areas are highlighted as needing work. Some outcomes, such as supporting a holistic approach to service delivery for children for example, require a system, by necessity, that is able to link data from various sources on an individual child. However, it would not make sense to invest in achieving this if a large proportion of children do not have a legal identity forming the basis for such linkage, or core systems such as the health, social welfare, and education sectors are not at a stage where individual records are digitized.

The issue of equity is firmly built into the model at all levels. A mature system is one which is inclusive and supports development outcomes and rights of all children and individuals, not just those of the majority. The model also views administrative data as part of a broader national data landscape, recognizing both the strengths and limitations of this type of data and the importance of integrating multiple data sources to validate data quality, address data gaps, and meet national data requirements.

The expected time needed for conducting the assessment will depend on cooperation/ scale / and intended depth of detail. The minimum would be 2-3 weeks with good in country support and coordination. Added to that would be preparation time to organise meetings and time afterwards to document the assessment and review of the final report.

The expected cost goes from only staff resources to a larger LTA holder contract, depending on the intended depth of the assessment and the complexity of the country. One option is to hire a local consultant to conduct a small desk review, set up meetings with stakeholders and document the findings. The price of such a consultant would depend on the country, but it could be down to one months work -again depending on the complexity and depth wanted.
How to use this document

This document is intended for use by UNICEF country offices, governments, agency partners, NGOs, communities, and donors. It is intended both to support a strategic assessment of the administrative data landscape at the national level, and to benchmark areas of strength and those requiring additional investment. Results from the model should be incorporated into a subsequent planning process and action plan such as the Data Landscape for Children work that UNICEF is currently supporting, or a National Strategy for the Development of Statistics (NSDS). Although the assessment can also be a result of findings from those processes.

The guidance is presented in five parts:

1. **Background**
   A background section is included that provides a brief overview of how UNICEF defines admin data systems and some of the key sectoral systems.

2. **The model**
   Components of a mature system: The ‘deliverables’ of the administrative data landscape, presented according to the three core areas of focus (children, communities, and the national structures) and defining, for each area of focus, what a mature system should have or be able to do.

   Characteristics by outcome statements: Each outcome statement describing a mature data landscape implies certain characteristics that a mature administrative data landscape, or the systems within it, needs to have in order to deliver the described outcome. These are presented by overall data landscape and by specific system (where applicable).

   Characteristics by theme: While it makes sense to define the maturity of an administrative data landscape by what it can deliver, governments and partners are likely to find it easier to assess the characteristics of their administrative data landscape by looking at these by theme or component. In this section, the characteristics are re-framed for assessment purposes, and a more detailed description of what mature means, any existing assessment resources, and considerations in making a judgement on the maturity of the overall admin data landscape or system are included. Countries are encouraged to use the Excel module attached in the Appendix to document their assessment, for ease of collating results to the major maturity components and deliverables.

3. **Using the model to drive change**
   Section Five outlines a step-wise process for using the model, both to review the national administrative data landscape and to look more closely at specific sectoral systems if warranted. It provides details of how to collate findings from individual characteristics to summarize results and provide a benchmark of national administrative data maturity, and outlines considerations around prioritizing activities based on the results of the assessment. Templates to support this work are provided in the annexes.
BACKGROUND
What is administrative data?

Administrative data refers to data collected through the routine delivery of a service rather than a targeted one-off data collection such as a survey. In other words, the collection of data for statistical purposes is not the primary reason the system exists. The data is collected as an integral part of the routine management of client interactions, supply, planning, and delivery of a product or service across a defined population (usually a national or a large subnational area). The most commonly recognized examples would be health information systems (HIS) where the primary purpose of data collection is to support health service delivery to individuals and groups (including vaccination, treatment and care, outcome evaluation, and disease monitoring and tracking), or education management information systems (EMIS) which manage the enrolment of children in school and their progression through the education system.

While there are many definitions used to describe administrative data used globally, there is not one clear agreed standard. The UN Data Dictionary simply defines administrative data as “data derived from an administrative data source”. At UNICEF, we have chosen to define the administrative data that we are interested in by its characteristics.

Characteristics of administrative data include:

- **Collection as part of management/service delivery functions.** Data collection is done to support programme delivery and planning rather than being primarily a statistical collection procedure.

- **Continuous/routine collection.** Data is collected on an ongoing basis, either through a permanent or long-term system (in the case of refugee registration for example, where the exercise is continuous and ongoing over months and/or years but may not be considered permanent) as services are delivered. This may be supplemented by ‘catch-up’ campaigns in some instances, such as occurs in the vital registration system where late births are registered as an ‘add on’ component to the routine registration of births as they occur.

- **Multi-site, population coverage.** Administrative data systems support large scale service delivery and are generally not considered to include small localized systems built to collect and manage data at a single site, unless these systems feed into a larger connected system. Administrative data is collated (either as aggregate data or by retaining individual records) from local sites or facilities to larger regional or provincial level centers, up to national (or large subnational) levels. Collection sites may include a number of different service delivery points, such as in a health information system where data is collated from community health workers, laboratories, and secondary or tertiary care facilities, amongst others.

- **Geographic or facility characteristics.** These are attributed to the administrative unit where the data is collected (such as hygiene facilities in a school, or the building materials and infrastructure available at a health center) and may also be captured through an administrative data system.

Administrative data are therefore defined by how the data is collected and structured, with administrative data systems reaching from the local level to nationally collated (and internationally reported) data.

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13. Historically, administrative data systems evolved from simpler “file or record management systems” where the focus was on retrieving the same individual record, once created, for future reference or action (such as a single crime report in a police incident management system, or a birth certificate record for an individual in order to issue a new certificate). The basic structure of administrative data continues to reflect this background, although data is increasingly able to be linked so these records can be related to others with similar characteristics.
Many administrative data systems existing at the national level provide, or could potentially provide, data relevant to supporting development outcomes for children. Countries should start by identifying which admin data systems should be considered ‘core’ for their needs and context. These systems subsequently form the frame of reference for the broader assessment in order to complete the model. While core systems may vary from country to country, they are likely to include at least the following:
Civil registration and vital statistics system: The system that registers vital events to provide legal recognition of the event (usually in the form of a registration certificate) including births and deaths. Systems may also include marriages, adoptions, and legal name changes in order to provide a ‘whole of life’ approach to vital events and linked data. The civil registrar who oversees the system most frequently sits under a Ministry of Interior, Justice, or Statistics. Effective systems work across sectors, particularly in regard to data sharing with health departments in order to facilitate registrations, and with national statistics authorities to provide population data. They link vital events across the life course of an individual rather than registering these as stand-alone events.

Population registers: Most likely an extension of a CRVS/ID system including location information (both within the country, and movements in and out of the country) in order to provide real-time population data at a subnational level.

Community Health Information System: Records key interaction with health services (usually excluding those interactions that occur in a hospital setting). This would usually include vital events and cause of death information known to the health system; key maternal and child health information (such as antenatal visits, STD tests, etc.); immunization records; notifiable disease events (disease surveillance); and well-child visits, etc. These may exist as separate registers (MCNH Register, HIV Register, TB Register, Disease Surveillance Register, Cancer Register, Immunization Register, etc.) or as a combined system. Where systems are able to follow individual children or families longitudinally, these may be known as patient management information systems (PMIS). A mature system is most likely to consist of a combination of linked, inter-operable sub-systems that include a mix of aggregate or event-based data collection and individual-based patient records.

Hospital information systems: A national health information system should collate key data from facilities such as hospitals. While a hospital system is likely to include a range of data held and managed at the facility level (bed census data, etc.), it should be possible to collate and interrogate hospital records (possibly de-identified) on admissions by type and length of stay, outcome or separation data, deaths by cause, and outpatient services, among others.

Education Management Information Systems (EMIS): Collect data on children registered for school. This is likely to include information related to students such as attendance, passing grades, and results on key competency tests (such as literacy or numeracy evaluations), special needs and other information. It may also include details such as class size, facilities, teacher numbers, and qualifications, etc. Older systems were primarily based around an annual school census while newer systems combine this periodic stocktaking of facilities and resources with more dynamic student information through individual student records created at enrollment and updated regularly with key results, events, and possibly, attendance.

Child protection information management system: This is essentially a case management system for children and families known to authorities as being at risk or vulnerable for specific reasons, who are being followed up due to specific trauma or violence, or who are otherwise of interest or requiring specific support. Often managed locally or by third party contracted services, data in these systems is highly sensitive. The PRIMERO system supported by UNICEF is an example of a child protection MIS. These systems may also be responsible for collating related data, such as other indicators on violence against children, from other systems such as court or police records.
Social welfare and payment systems: Similar to child protection information systems, these are usually structured as case management systems to support families and individuals who require, or are eligible for, additional government support – either by way of support services, or cash payments, or both. They are often linked to child protection systems, tax systems, or early childhood education systems, depending on the structure and purpose of the support being provided. Cash transfer management information systems may also exist as stand-alone systems established for specific humanitarian settings.

Other systems may be considered as core systems depending on country context. For example, a country with a high prevalence of HIV may consider that an HIV register (either as part of a community health system or as a stand-alone system) may be essential, in the same way a country with a high prevalence of malnutrition may prioritize a nutrition register as a core system. Other systems that may be considered as ‘core’ for the purposes of the maturity model include:

**Nutrition register** – Although many countries will handle this information as a subset of their national HIS system, some may have a stand-alone nutrition register to identity and support children who are malnourished.

**Systems for tracking children in early childhood education**, or older children and young people passing on to **vocational or tertiary education**.

Data on **children in alternative (out-of-home) care** – including their home situation, education, and health needs and available at the national level. They would usually be managed through dedicated registers or information/case management systems. This may also exist as a specific category within a broader child protection data system.

**Police information management systems** – capture information on events and cases which police are called to attend. Ideally these records should be searchable and able to be collated according to various categories, including the actual case (for case management purposes), but also by the event or crime (in line with the international classification system for police data) such as homicide or road traffic accidents, and by category of person (i.e., reported crimes with a child victim).

**Coronial or inquest data systems** – this may be a stand-alone system or operated as part of either a court records process or police system depending on national procedures and where responsibility for investigation of ‘unnatural’ deaths, or those that cannot be allocated a cause of death through simple medical certification, are assigned.

**Court records** – these systems capture specific cases that appear before the court, but as with police information systems, they may be structured in such a way that data can be collated by category, outcome decision, and demographics of those involved. These records may include crimes being tried, along with other issues often dealt with by various courts such as adoptions, name changes, divorces, children in alternative care, and citizenship. Data sharing with systems such as civil registration systems, social welfare or child protection systems, and immigration databases are important for many types of court records. Data in these systems is frequently held at the administrative level, equivalent to the jurisdiction of the court.

**Prison/detention/community sentence records** – should be collated or available for interrogation of key characteristics (such as demographics, length of detainment, conviction status, etc.) at the national level, either in a stand-alone system or as part of broader justice information management or a children in alternative care system.

There are a broad range of other systems that collect administrative data through service provision at the national level. These may include land title records, utility service records (including WASH registers water, sewage; electricity, etc.), taxation records, and employment and social welfare registers.
Components of a mature administrative data landscape

The model consists of 20 key outcome statements that define what we expect to achieve from a fully mature administrative data landscape at the national level. These are presented around three key areas of focus – children, community, and national data and foundations as defined below.

Each of these outcome statements infers certain functionality in the data landscape and systems in order for the outcomes to be true. In this way, the functional characteristics of a mature administrative data landscape, and what this means for specific systems, can be defined. These are presented in the following section.

The overall maturity of the system can be presented diagrammatically, as shown in Figure 1: Overview of a mature system, with the shaded length of each ‘petal’ indicating the maturity of each specific component. The inner ring represents an immature component, progressing through a classification from “under-development”, to “mostly mature”, and finally through to a “mature” admin data landscape able to fully deliver on the component described.

While a very broad (and not overly accurate) rapid assessment can be done based on a subjective assessment of maturity against the outcome statements alone, it is more accurate to assess these by unpacking the characteristics required to achieve each outcome, as outlined in the following section.
A child-focused admin data landscape

A mature administrative data landscape focused on protecting the needs and addressing the rights of children has the following features:

A. Systems create and recognize a legal identity for every child from birth, including provisions for those whose birth is either unregistered or who enter the territory and are unable to provide a legally recognized identity.

B. Administrative data systems and data use does not expose children to harm through their own operations/functions;

C. Data required to support the realization and protection of children’s rights, under the international convention and development commitments, are produced and available.

D. Systems are inclusive, effectively monitoring ‘no child is left behind’, as well as providing the data needed for systems to effectively address disparities where they exist.

E. Supports a holistic approach to services and care to support better outcomes through coordination across programmes, locations, and sectors.

National systems, integration, and foundations

Local impact is underpinned by a mature national data landscape in which:

J. Core administrative data systems for children exist at national level, with national coverage.

K. Administrative data is integrated as part of a broader national statistical system.

L. National administrative data systems provide timely data for national planning and accountability.

M. Systems engender confidence in the way data is collected, handled, and used across the data landscape, and trust in published data and results.

N. Data is actively used in national (and subnational) planning, monitoring, and evaluation.

O. Systems are both sustainable and resilient to ‘system shocks’.

P. Administrative data specifically addresses key disaster preparedness and planning needs (at the national and broad subnational levels).

Q. Cross-sectoral collaboration supports a holistic approach to data for planning, innovation, and service provision.

R. Systems are able to stay up-to-date and relevant, making appropriate use of new innovations and responding to changing national priorities.

S. Data is used to generate broader ‘public good’, contributing to research and knowledge-generation on topics of benefit to the community.

T. Administrative data can be integrated effectively with other data sources in decision-making processes.

Administrative data for community level impact

A mature admin data landscape that supports local impact is one where:

F. Data is used to identify local needs, and to inform and improve local services and programmes.

G. Systems are able to ‘flex’ to changing community needs.

H. Interaction with administrative data systems is simple, minimizing duplication and redundant data collection as well as barriers to participation.

I. Communities are actively engaged with the data that relates to them, and trust that the data represents their interests.
FIGURE 1: Overview of a mature system

- Admin data can be integrated with other sources
- Data generates ‘public goods’
- Systems are able to stay up to date
- Cross-sectoral collaboration supports holistic approaches
- Supports disaster preparedness
- Systems are sustainable
- Data is actively used in planning
- Systems engender confidence in the data
- Provides timely data for planning
- Admin data is part of a broader statistics landscape
- Core systems exist
- Communities are engaged
- Interaction with systems is simple
- Systems can ‘flex’
- Identifies local needs
- Supports holistic services
- Inclusive systems
- Data to support children’s rights
- Systems avoid harm
- Legal Identity
- Data avoids harm
- Children’s rights

NB/ Circles = Maturity level by component

- Child-focused
- Community
- National
What does a mature admin data landscape look like in practice?

This section looks at the 20 outcomes of a mature administrative data system and identifies key characteristics for each of the 20 statements, totaling 81 characteristics. A number of characteristics are repeated under multiple outcome statements.

Characteristics required to achieve the outcome statements can also be grouped by broad theme, or by the type of issue or investment the characteristic reflects. By assessing each characteristic individually, results can be collated in various configurations as best suits the needs of the country.

It is anticipated that countries may find it easier to plan improvements and develop a response to the maturity findings by referencing these investment themes, which reflect a more traditional way of looking at system structures and performance. It should be noted that many characteristics could be grouped under several different headings however, to avoid duplication they have been assigned to the theme where it is felt they fit best.

A resource library has been developed to collate additional information for each characteristic in order to assist countries both to assign a result (maturity level) to the characteristic and to consider options for improvement.
### A CHILD-FOCUSED ADMIN DATA LANDSCAPE

<table>
<thead>
<tr>
<th>Outcomes of a mature system</th>
<th>What a mature system looks like (characteristics)</th>
<th>Theme by issue/investment focus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.</strong> Systems create and recognize a legal identity for every child from birth, including provisions for those whose birth was either unregistered or who enter the territory and are unable to provide a legally-recognized identity.</td>
<td>1. There is an effective civil registration system with complete (or near complete) registration of births – including issuance of a birth certificate (or other recognized credential, such as an electronic certificate)</td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>2. The national CRVS system supports inclusion of otherwise marginalized and hard to reach communities that may face specific barriers to registration (see UN LIA country guidelines)</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>3. The health system routinely provides information on births known to them to the nominated registry authority to facilitate formal registration, minimizing the reporting burden on parents/families</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>4. There are formalized, accessible provisions for registration/recognition of a legal identity for individuals whose birth was not registered or who cannot otherwise demonstrate their legal identity</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>5. The national CRVS system registers all, or nearly all, deaths and causes of deaths are recorded using the International Statistical Classification of Diseases and Related Health Problems (ICD)</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>6. National identity functions/systems are linked to the national CRVS system to support both systems being up to date</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>7. National systems are able to work collaboratively with international agencies/receiving governments to provide evidence of legal identity for people moving across borders</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td>8. Adoption system/courts – updates civil registration system or identity management system to ensure issuance of appropriate legal ID in a timely manner</td>
<td></td>
<td>Civil registration and identity functions</td>
</tr>
<tr>
<td><strong>B.</strong> Administrative data systems and data use do not expose children to harm through their own operations/functions</td>
<td>9. There is a comprehensive, enacted, and enforced data privacy and protection regulatory framework</td>
<td>Legal and regulatory environment</td>
</tr>
<tr>
<td>10. New technologies, innovations, and system changes are specifically evaluated for potential harm to children through a comprehensive formal review and appropriate protections enacted before implementation</td>
<td></td>
<td>Legal and regulatory environment</td>
</tr>
<tr>
<td>11. Systems are responsive to complaints and concerns. Responsibility and processes for escalating concerns from within sectors or line ministries (both from the public or internally) are operational and protect those involved</td>
<td></td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td><strong>C.</strong> Data required to support the realization and protection of children's rights under the international convention and development commitments are produced and available</td>
<td>12. Relevant admin data is routinely available to support reporting against conventions, including the CRC</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td>13. Appropriate SDG indicators are able to be generated from administrative data sources</td>
<td></td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td>14. There is a centralized authority that routinely collates, reviews, and publishes data on the realization of children's rights at the national level</td>
<td></td>
<td>Coordination, governance, and planning</td>
</tr>
</tbody>
</table>
**TABLE 1: Overview of system outcomes, characteristics and themes by issue/investment focus**

<table>
<thead>
<tr>
<th>Outcomes of a mature system</th>
<th>What a mature system looks like (characteristics)</th>
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<tbody>
<tr>
<td>15. Sectoral systems should be able to generate data required to support high quality service delivery according to sector.</td>
<td></td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td><strong>D. Systems are inclusive, effectively monitoring 'no child is left behind', as well as providing the data needed for systems to effectively address disparities where they exist.</strong></td>
<td>16. Timely data on relevant SDG indicators and national priorities disaggregated by sex, age, and disability status is published regularly</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td></td>
<td>17. Data supports routine analysis and reporting of barriers to inclusion and impact on development outcomes in key sectors, including (at minimum) health, education and learning outcomes, early childhood development, violence against children, and poverty.</td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td></td>
<td>18. Data for vulnerable groups (such as migrant children, minority groups, etc.) is regularly reviewed and reported in comparison to national or subnational averages.</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td></td>
<td>19. Administrative data records can be matched, at least at the local level, against census data to identify children and individuals not being reached by the system collecting the data and target interventions appropriately</td>
<td>Interoperability and data linkage</td>
</tr>
<tr>
<td></td>
<td>20. Data can be disaggregated by sex, individual age, and (where appropriate) disability status, at all levels of core systems, including in national reporting</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td><strong>E. Supports an holistic approach to services and care to support better outcomes through coordination across programmes, locations, and sectors.</strong></td>
<td>21. National data standards and formats support data sharing within and between systems</td>
<td>Interoperability and data linkage</td>
</tr>
<tr>
<td></td>
<td>22. Key systems are built on individual records (unit record data rather than aggregate data collection) at the local level</td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td></td>
<td>23. Unique identifiers, appropriately encrypted, are available and can be used to allow deliberate data linkage between disparate systems</td>
<td>Interoperability and data linkage</td>
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<tr>
<td></td>
<td>24. There is a timely, straightforward mechanism in place for routine data coordination/collaboration, supported by a national data strategy or framework and legal process.</td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td>25. Data sharing between relevant local services is supported and active, with clearly defined access and role and subject to appropriate data protections and controls</td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td>26. Subnational systems are able to, and do, transfer/share data between geographic areas as children and families move. This should be, as much as possible, managed by individuals/families and minimize effort</td>
<td>Interoperability and data linkage</td>
</tr>
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<tr>
<td><strong>ADMIN DATA FOR COMMUNITY LEVEL IMPACT</strong></td>
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<tr>
<td><strong>F. Data is used to identify local needs, and to inform and improve local services and programmes</strong></td>
<td>27. Local government/planning structures receive appropriate summary data for their community (both on the current situation and trends over time) from across sectors in an easily comprehensible and timely fashion</td>
<td>Subnational coordination, capacity, and use</td>
</tr>
<tr>
<td></td>
<td>28. Key summary data is also provided to/and available at higher levels of government and linked to the appropriate planning processes</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td></td>
<td>29. Capacity exists within local government/planning structures to interpret and use data effectively, and there is a culture to support the use of evidence in planning decisions.</td>
<td>Subnational coordination, capacity, and use</td>
</tr>
<tr>
<td></td>
<td>30. Within core systems, local facilities and subnational units receive appropriate summary data for their community (both on the current situation and trends over time) from across sectors in an easily comprehensible and timely fashion</td>
<td>Subnational coordination, capacity, and use</td>
</tr>
<tr>
<td></td>
<td>31. Capacity exists within local facilities and subnational units to interpret and use data effectively, and there is a culture to support the use of evidence in planning decisions</td>
<td>Subnational coordination, capacity, and use</td>
</tr>
<tr>
<td><strong>G. Systems are able to ‘flex’ to changing community needs</strong></td>
<td>32. There is dedicated capacity available in-country to keep digital systems up to date or modify and upgrade as needed. Systems do not rely on unstable funding or approvals for external or short-term licence fees, technology, or storage</td>
<td>Resourcing</td>
</tr>
<tr>
<td></td>
<td>33. Feedback processes exist and are functional to ensure that local data users and managers can influence ongoing system planning and changes</td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td>34. Local emergency management response structures are engaged with key admin data system managers/contacts to support data preparedness and access</td>
<td>Subnational coordination, capacity, and use</td>
</tr>
<tr>
<td></td>
<td>35. Capacity exists to absorb potential volume increases in system enrolments/interactions in line with potential emergency scenarios</td>
<td>Resourcing</td>
</tr>
<tr>
<td></td>
<td>36. Systems should have capacity to capture and work with key interactions and individual contacts in an emergency or similar event – including incomplete records (such as a missing ID numbers, etc.)</td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td></td>
<td>37. Systems are able to fast-track data reporting/sharing of key indicators/measures to support emergency response activities</td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td></td>
<td>38. Key geographic identifiers in systems (such as facility location) are geocoded to specific coordinates, allowing data to be re-analyzed with changing administrative boundaries or categories</td>
<td>Interoperability and data linkage</td>
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<td>Outcomes of a mature system</td>
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</tr>
<tr>
<td><strong>H. Interaction with administrative data systems is simple, minimizing duplication and redundant data collection, as well as barriers to participation</strong></td>
<td>39. Sectoral systems share information to minimize the need to collect additional data on individuals but do not create additional barriers through this process</td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td>40. Access points to key systems/services are co-located or readily accessible through other electronic means and do not require multiple trips/contacts for a single interaction</td>
<td>System design, processes, resilience, and scalability</td>
<td></td>
</tr>
<tr>
<td>41. Accessibility for persons with disabilities has been actively factored into the design of access to key admin data points</td>
<td>System design, processes, resilience, and scalability</td>
<td></td>
</tr>
<tr>
<td>42. Engaging with key administrative data processes or systems does not incur substantive costs to the family (in addition to the cost of the service)</td>
<td>System design, processes, resilience, and scalability</td>
<td></td>
</tr>
<tr>
<td>43. Potential barriers to access and engagement (including social stigma, marginalized groups, etc.) have been reviewed and action taken across key sectoral systems to minimize exclusion</td>
<td>System design, processes, resilience, and scalability</td>
<td></td>
</tr>
<tr>
<td><strong>I. Communities are actively engaged with the data that relates to them, and trust that the data represents their interests.</strong></td>
<td>44. Summary data is publicly available in a format that is easily understood</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td>45. Data is of high quality and presented in such a way that it is not misleading or misrepresented. Information on data quality is easily available</td>
<td>Data quality, use, and feedback</td>
<td></td>
</tr>
<tr>
<td>46. Communities are encouraged to drive data demand and use through appropriate feedback loops</td>
<td>Data quality, use, and feedback</td>
<td></td>
</tr>
</tbody>
</table>

**NATIONAL SYSTEMS, INTEGRATION, AND FOUNDATIONS**

<p>| J. Core administrative data systems for children exist at the national level, with national coverage | 47. Core systems for children exist – such as CRVS, community and facility health information systems, EMIS, social welfare, and selected registers (see guidance) – that are appropriate to the national context | Key sectoral systems – cataloguing and coverage |
| 48. Core systems are functional at national, and subnational levels (such as regional or district hubs) as appropriate to country governance structures | Key sectoral systems – cataloguing and coverage |
| 49. Core systems have national coverage geographically | System design, processes, resilience, and scalability |
| <strong>K. Administrative data is integrated as part of a broader national statistical system</strong> | 50. The national statistics authority has a defined mandate that includes collaboration/cooperation with relevant line ministries to support the production, assessment, and timely publication of administrative data | Coordination, governance, and planning |
| 51. There is a national strategy for development of statistics, or equivalent, that is both operational and linked to national planning processes | Coordination, governance, and planning |
| 52. There are national metadata standards (or a data dictionary) that define the format/structure of key data fields shared across multiple core systems, such as dates, locations, etc. | Interoperability and data linkage |</p>
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<tr>
<td><strong>L. National admin data systems provide timely data for national planning and accountability</strong></td>
<td>53. National planning mechanisms identify key indicators for monitoring and the admin data requirements for measuring these</td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td>54. Data is available to national planning mechanisms on a timely basis</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td></td>
<td>55. SDG indicators have been nationalized and formally adopted, with responsibility and procedures for collation and reporting clearly assigned</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td></td>
<td>16. Timely data on relevant SDG indicators and national priorities disaggregated by sex, age, and disability status is published regularly</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td></td>
<td>56. Admin data – including metadata and collection processes and issues – are routinely shared with international bodies, in line with international reporting commitments (including SDG and CRC reporting commitments)</td>
<td>Access to data, publication, and reporting</td>
</tr>
<tr>
<td><strong>M. Systems engender confidence in the way data is collected, handled, and used across the data landscape, and trust in published data and results</strong></td>
<td>57. There is a national data quality framework, including responsibility for and routine monitoring of, data quality for national data</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td></td>
<td>58. Data quality assessment and response is integrated into routine operating of core admin data systems</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td></td>
<td>59. National and subnational data is routinely published according to a known and publicly available schedule</td>
<td>Access to data, publication, and reporting</td>
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<td></td>
<td>60. Systems are responsive to complaints and concerns. Responsibility and processes for escalating concerns from within sectors or line ministries (both from the public or internally) are operational and protect those involved. User-producer dialogues are institutionalised</td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td><strong>N. Data is actively used in national (and subnational) planning, monitoring, and evaluation</strong></td>
<td>61. There is clear evidence that data from administrative data systems is both available to key decision makers at the national planning authority and considered in key periodic national planning processes</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td></td>
<td>62. There is clear evidence that data from administrative data systems is both available to key decision makers at the subnational level (such as region or district, as appropriate to country context) and considered in key periodic planning processes</td>
<td>Data quality, use, and feedback</td>
</tr>
<tr>
<td><strong>O. Systems are both sustainable and resilient to system shocks</strong></td>
<td>63. Stable technical, human, and financial resources exist to support administrative data work at the national statistics authority and key line ministries</td>
<td>Resourcing</td>
</tr>
<tr>
<td></td>
<td>64. National administrative data systems are underpinned by stable infrastructure (electrical, telecommunications, etc.) and have been designed in a manner appropriate for the underlying infrastructure</td>
<td>Physical infrastructure</td>
</tr>
<tr>
<td></td>
<td>65. Administrative data systems are supported by clearly defined roles and responsibilities, including appropriate and consistent (across sectors) legal frameworks</td>
<td>Legal and regulatory environment</td>
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### TABLE 1: Overview of system outcomes, characteristics and themes by issue/investment focus

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<td></td>
<td><strong>32. There is dedicated capacity available in country to keep digital systems up to date, modify and upgrade as needed. Systems do not rely on unstable funding or approvals for external or short-term licence fees, technology, or storage</strong></td>
<td>Resourcing</td>
</tr>
<tr>
<td></td>
<td><strong>66. Sectoral administrative data systems are designed such that breaches, upgrades or changes in one do not render the others vulnerable or prevent future data sharing</strong></td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td></td>
<td><strong>67. Off-site secure back-up of systems and data exists and is routinely tested through continuity planning</strong></td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td></td>
<td><strong>38. Key geographic identifiers in systems (such as facility location) are geocoded to specific coordinates, allowing data to be re-analyzed with changing administrative boundaries or categories</strong></td>
<td>Interoperability and data linkage</td>
</tr>
<tr>
<td>P. Admin data specifically addresses key disaster preparedness and planning needs (at national and broad subnational level)</td>
<td><strong>68. There are clearly defined processes for communication/engagement between the national disaster management office (or equivalent), the national statistics authority, and line ministries</strong></td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td><strong>69. Administrative data from key line ministries that is likely to be important in the planning or response to a national disaster has been clearly identified, including documentation of key data quality issues, the data manager, and how data/when data will be shared</strong></td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td><strong>70. Core administrative data systems are able to prioritise reporting of key indicators required for emergency response in the context of an emergency response</strong></td>
<td>System design, processes, resilience, and scalability</td>
</tr>
<tr>
<td>Q. Cross-sectoral collaboration supports a holistic approach to data for planning, innovation, and service provision</td>
<td><strong>71. The importance of data sharing and open communication across sectors, levels, and departments is supported by a culture of collaboration around administrative data issues</strong></td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td><strong>72. Capacity to scale successful innovations and system approaches across sectors and systems is supported by open and regular communication and supporting mechanisms.</strong></td>
<td>Coordination, governance, and planning</td>
</tr>
<tr>
<td></td>
<td><strong>73. There is a common approach to GIS data and mapping data against administrative boundaries</strong></td>
<td>Interoperability and data linkage</td>
</tr>
<tr>
<td>R. Systems are able to stay up to date and relevant, making appropriate use of new innovations and responding to changing national priorities.</td>
<td><strong>63. Stable technical, human and financial resources exist to support administrative data work at the national statistics authority and key line ministries</strong></td>
<td>Resourcing</td>
</tr>
<tr>
<td></td>
<td><strong>32. There is dedicated capacity available in country to keep digital systems up to date, modify and upgrade as needed. Systems do not rely on unstable funding or approvals for external or short-term licence fees, technology, or storage</strong></td>
<td>Resourcing</td>
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<td><strong>71. The importance of data sharing and open communication across sectors, levels and departments is supported by a culture of collaboration around administrative data issues</strong></td>
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</tr>
<tr>
<td>74. The national strategy for development of statistics, or equivalent planning mechanism, is routinely reviewed to assess system needs and priorities</td>
<td>Coordination, governance, and planning</td>
<td></td>
</tr>
<tr>
<td>75. Aggregate data on key measures is publicly available by default, presented alongside information on the quality of the data, and is updated and managed to support its use</td>
<td>Access to data, publication, and reporting</td>
<td></td>
</tr>
<tr>
<td>76. Anonymized unit record administrative data can be readily accessed for legitimate research purposes</td>
<td>Access to data, publication, and reporting</td>
<td></td>
</tr>
<tr>
<td>77. Systems have the capacity to link and subsequently anonymize data records across multiple sectors for legitimate research purposes, and there are clear mechanisms for receiving and acting upon research applications</td>
<td>Interoperability and data linkage</td>
<td></td>
</tr>
<tr>
<td>78. There is a clear legal framework for assessing research proposals/data requests for identifiable data</td>
<td>Legal and regulatory environment</td>
<td></td>
</tr>
<tr>
<td>79. All research supported through formalized data requests/data releases should be shared with the public and readily accessible to the community from which the data was drawn</td>
<td>Access to data, publication, and reporting</td>
<td></td>
</tr>
<tr>
<td>51. There is a national strategy for development of statistics or equivalent that is both operationalized and linked to national planning processes</td>
<td>Coordination, governance, and planning</td>
<td></td>
</tr>
<tr>
<td>80. There is capacity to link data (through a unique identifier or other means) between admin data sources and key data collections such as census or national surveys</td>
<td>Interoperability and data linkage</td>
<td></td>
</tr>
<tr>
<td>81. Core admin data systems include geocoding in accordance with a national standard</td>
<td>Interoperability and data linkage</td>
<td></td>
</tr>
</tbody>
</table>
ADaMM: Administrative Data Maturity Model

Ver 1.0

WHAT COMES NEXT:

USING THE MODEL TO DRIVE CHANGE
Assessing the national landscape

It is recommended that an assessment of the broader admin data landscape is conducted prior to more detailed review of specific sectors should governments wish to unpack these further. Many of the broader items will apply across multiple sectors and systems and this will save duplication and inconsistent results on common items. It should also allow for greater comparison across systems and identify where there are potential points of collaboration or knowledge transfer. In countries where assessments of systems in specific sectors has already taken place, these assessments should inform the assessment of the broader admin data landscape.

The following section outlines broad steps that should be considered in using the maturity model to assess the national administrative data landscape.
STEP 1:

**Determine who will lead and coordinate the work**

An assessment of the national data landscape must involve the agencies or authorities that have ultimate responsibility for statistical coordination, government planning, and strategy and should be led by an entity with the authority to convene cross-sectoral discussions. This may be the national statistics authority or the national planning authority (both of whom should be included in the discussions), or an office such as the Office of the Prime Minister, etc. External agencies with a cross-sectoral mandate, such as UNICEF, may also be an important mechanism for convening stakeholders and initiating discussions.

STEP 2:

**Identify and convene key sectors and stakeholders**

The assessment of the national administrative data landscape will require intimate knowledge of the scope, purpose, coverage, and design of key administrative data systems and is therefore best conducted jointly through a workshop-style discussion. Key stakeholders to consider including are information system managers from key sectors or systems, as outlined in the ‘background section’ of this document (page reference).

STEP 3:

**Collate a ‘master list’ of national administrative data systems that collect data on individuals and which may be of value to the national data landscape**

This list may already have been created through work, such as a national strategy for the development of statistics, or in monitoring of national development strategies. In this case it should simply be reviewed for completeness and accuracy. If this list does not already exist, it should be collated as completely as possible in order to inform upcoming discussions, while focusing on those systems that collect data on children or their families. It should be noted that many sectors will have multiple separate stand-alone systems. It may be useful to use the following column headings to complete this exercise.

**TABLE 2**: List of national administrative data systems relevant to children

<table>
<thead>
<tr>
<th>System name</th>
<th>System owner (ministry or dept.)</th>
<th>Population included (who the system collects data about)</th>
<th>Geographic coverage</th>
<th>Unit of data collected (i.e., aggregate data; individual data; event data)</th>
<th>Identifier used (if individual data collected)</th>
<th>Intent/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The template is also included in the [Excel Work Book](#) sheet ‘1. Key Systems’
STEP 4:  
**Collate key documents**

There are number of documents that will help in conducting the assessment at the national level. At a minimum, the following should be gathered, if they exist:

- The National Development Plan and any monitoring framework for this;
- National Statistics Strategy, or National Strategy for the Development of Statistics;
- SDG indicator summary or plan (particularly if this has been nationalized);
- Reports to the UN – compulsory reports against CRCs, voluntary national reviews, etc.;
- Any annual statistical yearbook or equivalent;
- National data quality framework (or equivalent);
- Data protection and privacy laws;
- National map of administrative data boundaries;
- Key public-facing websites should also be noted.

STEP 5:  
**Review the characteristics of a mature admin data landscape**

Key stakeholders should convene as a group and work through and review characteristics in the model. For each characteristic, the group should assess how well the current system aligns with the category. It is suggested that your answers are framed as:

<table>
<thead>
<tr>
<th>Category</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The statement is not true at all, or only true for a very small proportion of the population, or only for very few administrative systems</td>
</tr>
<tr>
<td>2</td>
<td>The statement is true for some of the population/some systems, or there is substantive work underway to address the characteristic</td>
</tr>
<tr>
<td>3</td>
<td>The statement is true for most of the population/most systems</td>
</tr>
<tr>
<td>4</td>
<td>The statement is generally true for the whole population, including minority or marginalized groups and also for most relevant administrative systems</td>
</tr>
</tbody>
</table>

Approaching this assessment as a group is important as this will provide the greatest insight of the data landscape and current operations. As the statements are subjective, they provide clear guidance on areas for improvement and discussion but should not be used to generate rankings between or across countries.

While the individual characteristics can be assessed, either in order against the key outcome statements, or by broad function, the latter is recommended as most country teams will find this easier. An Excel sheet has been developed to support the recording of the results. It is labelled ‘3. Data entry -by theme’.

In addition to recording the category assigned, a summary description of why this judgement was reached, the strengths, and key gaps or challenges identified should be documented and a short version can be entered in the excel book sheet ‘4. By right focus’.

The summary description should, for each characteristic, be considered against an equity lens and a notation made of specific groups or populations (whether defined by demographic characteristics, economic and social descriptors, or location) who may be excluded or less likely to benefit from the characteristic described.
STEP 6:

**Collate results by outcome category and by theme**

For each of the 20 outcome statements, summarize your system findings by entering your findings into an excel sheet. It is recommended that the following is used to assign a final assessment:

**TABLE 4: Assigning maturity level by outcome statement**

<table>
<thead>
<tr>
<th>Level of maturity by outcome statement</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mature</td>
<td>All of the system characteristics were assessed as “mature”</td>
</tr>
<tr>
<td>Nearly mature</td>
<td>All of the system characteristics were assessed as “mature” or “nearly mature”</td>
</tr>
<tr>
<td>In development</td>
<td>All of the system characteristics were assessed as at least “in development”; irrespective of how many were considered “mature” or “nearly mature”</td>
</tr>
<tr>
<td>Immature</td>
<td>One or more of the characteristics were assessed as “immature”</td>
</tr>
</tbody>
</table>

These groupings provide a high-level overview of the key outcomes that cannot be supported by the current admin data landscape. As such, while this approach may mask a great deal of variation in the underlying capacity of national systems, particularly within category 2 where systems may be “in development”, it does allow for benchmarking against what the systems can currently deliver, rather than what they are intended to do. This in turn means that actions and investments can be prioritized based on outcome priorities rather than on the type of investment needed (whether this is system design, human resources, IT, or infrastructure, etc.).

STEP 7:

**Celebrate what you do well and set priorities for action**

As a collective, stakeholders should review and discuss the summary findings of the maturity assessment at the over-arching level. At this stage it is recommended that groups:

**A.** Review the broad outcome statements and themes where the admin data landscape was found to be performing well. Discuss if there are specific examples, characteristics, or lessons from the review that highlight good practice or that may be useful to advocate for data systems and use, either in your own country or as an example for others. Consider writing up a short case study for selected examples that captures:

- What was done well? What is your ‘good practice’ example?
- Why this worked and what was new/unique or special about the approach (what learning can your experience add that is not already common knowledge)?
- How was it done? Include resources, expertise, time, and process.
- What lessons did you learn? Most things do not go completely smoothly from start to finish. What challenges did you overcome, how did you reach agreement, and what would you do – or advise others to do – differently next time?

**B.** Looking at the outcome statements and themes where the administrative data landscape did not score highly, think about what areas are most important to you moving forward and where you may wish to prioritize. This should be done collaboratively with the broad group of stakeholders and with the support of the national planning authority/ leadership.

It is recommended that outcome statements are prioritized according to the following broad groups of maturity, with all countries encouraged to achieve at least a “functional” level of maturity.
### TABLE 5: Maturity levels and outcome statements

<table>
<thead>
<tr>
<th>Outcome statement</th>
<th>Lens</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATURITY LEVEL 1 – FORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>Core administrative data systems for children exist at a national level, with national coverage</td>
<td>National</td>
</tr>
<tr>
<td><strong>MATURITY LEVEL 2 – FOUNDATIONAL</strong></td>
<td></td>
</tr>
<tr>
<td>Administrative data is integrated as part of a broader national statistical system</td>
<td>National</td>
</tr>
<tr>
<td>Systems create and recognize a legal identity for every child from birth, including provisions for those whose birth is either unregistered or who enter the territory and are unable to provide a legally recognized identity</td>
<td>Child-focussed</td>
</tr>
<tr>
<td>Administrative data systems and data use do not expose children to harm through their own operations/functions</td>
<td>Child-focussed</td>
</tr>
<tr>
<td>Data required to support the realization and protection of children’s rights under the international convention and development commitments are produced and available</td>
<td>Child-focussed</td>
</tr>
<tr>
<td>National admin data systems provide timely data for national planning and accountability</td>
<td>National</td>
</tr>
<tr>
<td>Systems are inclusive, effectively monitoring ‘no child is left behind’, as well as providing the data needed for systems to effectively address disparities where they exist</td>
<td>Child-focussed</td>
</tr>
<tr>
<td><strong>MATURITY LEVEL 3 – FUNCTIONAL</strong></td>
<td></td>
</tr>
<tr>
<td>Systems engender confidence in the way data is collected, handled, and used across the data landscape, and trust in published data and results</td>
<td>National</td>
</tr>
<tr>
<td>Data is actively used in national (and subnational) planning, monitoring, and evaluation</td>
<td>National</td>
</tr>
<tr>
<td>Systems are both sustainable and resilient to system shocks</td>
<td>National</td>
</tr>
<tr>
<td>Data is used to identify local needs, and to inform and improve local services and programmes</td>
<td>Community</td>
</tr>
<tr>
<td>Admin data specifically addresses key disaster preparedness and planning needs (at a national and broad subnational level)</td>
<td>National</td>
</tr>
<tr>
<td><strong>MATURITY LEVEL 4 – FLEXIBILITY AND FORM</strong></td>
<td></td>
</tr>
<tr>
<td>Systems are able to ‘flex’ to changing community needs</td>
<td>Community</td>
</tr>
<tr>
<td>Cross-sectoral collaboration supports a holistic approach to data for planning, innovation, and service provision</td>
<td>National</td>
</tr>
<tr>
<td>Interaction with administrative data systems is simple, minimizing duplication and redundant data collection, as well as barriers to participation</td>
<td>Community</td>
</tr>
<tr>
<td>Systems are able to stay up to date and relevant, making appropriate use of new innovations and responding to changing national priorities</td>
<td>National</td>
</tr>
<tr>
<td><strong>MATURITY LEVEL 5 – ENGAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>Communities are actively engaged with the data that relates to them, and trust that the data represents their interests</td>
<td>Community</td>
</tr>
<tr>
<td>Data is used to generate broader ‘public good’, contributing to research and knowledge-generation on topics of benefit to the community</td>
<td>National</td>
</tr>
<tr>
<td><strong>MATURITY LEVEL 6 – INTEGRATION</strong></td>
<td></td>
</tr>
<tr>
<td>Admin data can be integrated effectively with other data sources in decision-making processes</td>
<td>National</td>
</tr>
<tr>
<td>Supports a holistic approach to services and care to support better outcomes through coordination across programmes, locations, and sectors</td>
<td>Child-focussed</td>
</tr>
</tbody>
</table>

This may also be displayed in graphical form as below:
**FIGURE 3:** Outcomes of administrative data systems of varying maturity

<table>
<thead>
<tr>
<th>Maturity level</th>
<th>Integration</th>
<th>Engagement</th>
<th>Flexibility and Form</th>
<th>Functional</th>
<th>Foundational</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Admin data can be integrated with other sources</td>
<td>Communities are engaged</td>
<td>Systems can “flex”</td>
<td>Systems engender confidence in the data</td>
<td>Admin data is integrated into National Statistical System</td>
<td>Core administrative systems exist</td>
</tr>
<tr>
<td>5</td>
<td>Supports holistic services</td>
<td>Data generates “public goods”</td>
<td>Cross-sectoral collaboration supports a holistic approach to data</td>
<td>Data is actively used in planning</td>
<td>Legal identity</td>
<td>Inclusive systems</td>
</tr>
<tr>
<td>4</td>
<td>Interaction with systems is simple</td>
<td>Systems are able to stay up to date</td>
<td>Systems do no harm</td>
<td>Identifies local needs</td>
<td>Systems do no harm</td>
<td>Support children’s rights</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides timely data for planning</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
STEP 8: 

**Prioritization**

In thinking about what elements should be a priority, consider the following questions:

- Are there outcome statements considered “nearly mature” where a (relatively) small effort could potentially push these systems to maturity?

- For outcome statements in development or considered immature, are there areas where you can focus efforts to shift multiple sectors forward?

- How did themes and outcome statements that best align with national priorities (as outlined in national development plans or other high level forums) rate in maturity? Are there areas here that align with both national priorities and those of partners or potential donors that you could use to drive change?

The Excel Work Book includes a sheet to support the prioritization exercise sheet ‘5. Summary’

The maturity model provides a high-level overview of how well the administrative data landscape of a country supports the data needs that underpin good development outcomes for children. The assessment may highlight specific areas (either thematically or sectoral) that will need further review and it may be useful or necessary to consider a more detailed assessment of these as a follow-up step. Options and considerations for sectoral reviews are highlighted in the following section.

STEP 9: 

**Document your assessment**

Findings and the assessment should be polished and collated into an assessment report, ideally for public release and discussion. A template can be found in Annex 4.
Possible STEP 10:

**Sectoral assessments**

See Annex 1 for suggestions for how to conduct sectoral assessments. It may further be useful to feed results from any sectoral or specific system assessment back into the review stage of the broader assessment to validate findings and common issues.

Possible STEP 11:

**Data flow mapping**

See Annex 2 for instructions on how to map the flow of data from the point of collection to national reporting.

Possible STEP 12:

**Action plans and leveraging your results**

The maturity model allows a prioritization of key issues that system managers and governments may choose to invest in, in order to build stronger systems able to deliver key data for children and communities. Prioritization, however, is insufficient to ensure results and these outcomes should now be tied to the development of an action plan with clear action, responsibilities, timeframes, resources (both committed and required), and how implementation will be monitored. Ideally, this will include a balance of short-term actions or ‘easy wins’ as well as longer-term activities.

There are a range of processes the maturity model could effectively feed into and inform, rather than establishing a stand-alone action plan. It is highly recommended that where appropriate, the model is used to inform these broader planning processes.

Within UNICEF these include the broader ‘Data for Children’ landscape assessment and action plan development, and the tri-annual country plans developed in close collaboration with governments to guide UNICEF support over the upcoming three-year period.

At the national government level, the most obvious connection is the creation of a National Strategy for the Development of Statistics (NSDS), or sectoral specific work plans linked to the overall national development strategy.
ANNEXES
If there is an established sectoral assessment framework for the administrative data system or area which you are looking to work with, it is recommended you start by considering if the existing assessment is likely to meet your needs – either as a stand-alone process or in combination with the approach outlined below. The assessment tools below have been developed by sectoral specialists and are specifically tailored to address the unique challenges of nominated systems.

The maturity model provides a more generic approach to assessing system maturity in regard to the ability of a specific sectoral system to support the broader requirements of a mature national admin data landscape. That is, one that can effectively provide data for development, monitoring, planning, and response, and which supports the rights of children. It is not intended to provide a comprehensive audit tool to determine whether the system is specifically able to provide all data fields or items that may be necessary to support core service delivery. Many of these steps reflect the approach described for the cross-sectoral review. It may further be useful to feed results from any sectoral or specific system assessment back into the review stage of that broader assessment to validate findings and common issues.
**TABLE 6: Selected existing assessment tool by sector/system (non-exhaustive list)**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Assessment Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ESCAP Regional Action Framework for CRVS</td>
</tr>
<tr>
<td></td>
<td>Business process mapping (this approach may also be applicable for other sectors)</td>
</tr>
<tr>
<td>EARLY CHILDHOOD</td>
<td>World Bank, SABRE Systems Approach for Better Education Results</td>
</tr>
<tr>
<td>NUTRITION</td>
<td></td>
</tr>
</tbody>
</table>
**Determine who will lead and coordinate the work**

System assessments are often convened by information systems managers or external parties who support the line ministry or department. Ideally, however, while these groups may play a key role in supporting the coordination and logistics of a review, the work should be led by someone senior enough to pull together not just information system staff, but key users of the data across the organization. For example, in the health sector, a review of the HIS systems may be coordinated by health information specialists or sectors but will require senior support in order to convene representatives for key data users, such as community health managers, hospital directors, doctors, and health planners.

**Identify and convene key sectors and stakeholders**

There is often a significant difference between how a system is ‘intended’ to operate and how things actually run. Identifying these differences can be crucial to identifying key blockages that could have a significant impact on the effective functioning of the system. In order to develop a comprehensive view of the strengths, challenges, weaknesses, and opportunities for improving specific sectoral data systems, it is important to include a broad range of stakeholders in the discussion and to ensure that discussions are conducted in such a way that all stakeholders feel enabled to participate openly. This should include not only data system managers, but representatives of key users of the data and those who work to input, analyze, collate, and report the data at various levels. Senior management should also be closely engaged in the process in order to build the political will and support for recommended priorities at the end of the process. Ideally, governments should consider including key partners, such as development agencies and donors, and representatives for key system user groups from civil society.

**Collate a ‘master list’ of administrative data systems within the sector (if more than one system is to be reviewed)**

This list may already have been created through work, such as a national strategy for the development of statistics, or in monitoring national development strategies, or as an earlier part of the ADaMM process if table 2 was very detailed in which case it should simply be reviewed for completeness and accuracy. If this list does not already exist, it should be collated to be as complete as possible in order to inform the upcoming discussions, while focusing on those systems that collect data on children or their families. It should be noted that many sectors will have multiple, separate stand-alone systems. It may be useful to use the following column headings to complete this exercise.

**TABLE 7: List of key sectoral systems**

<table>
<thead>
<tr>
<th>System name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>System owner (section or dept.)</td>
<td></td>
</tr>
<tr>
<td>Population included*</td>
<td></td>
</tr>
<tr>
<td>Geographic coverage</td>
<td></td>
</tr>
<tr>
<td>Unit of data collected+</td>
<td></td>
</tr>
<tr>
<td>Identifier used (if individual data collected)</td>
<td></td>
</tr>
<tr>
<td>Intent/ purpose</td>
<td></td>
</tr>
<tr>
<td>Years covered</td>
<td></td>
</tr>
<tr>
<td>System description (platform, hosting, software etc.)</td>
<td></td>
</tr>
</tbody>
</table>

*who the system collects data about  
+ i.e., aggregate data; individual data; event data
Collate key documents:

There are number of documents that will help in conducting the assessment. These may be hard copy forms or could include entry screens for digitized systems, and include the following:

- Summary results from the national admin data landscape review – if available;
- Governing sectoral legislation (relevant Acts, regulations, and policies);
- The sectoral plan/management documents (specifically any monitoring framework);
- Data protection or privacy policies and procedures;
- Key annual reports or equivalent routine reporting mechanisms (or sites);
- Submissions to international reporting processes;
- Data summaries/feedback reports to subnational managers;
- Data collection forms and templates (including forms used to collate or aggregate data at intermediate reporting levels in the system);
- Digital system specifications or documentation (including key support contracts);
- Key internal and public-facing websites should also be noted.

Review the characteristics of a mature admin data system

As a group, work through and review the characteristics in the model as they apply to your system, ignoring any system-specific characteristics which relate solely to a different sector. For the remainder, replace the references to national structures or legislation, with the sectoral specific equivalent (a revised version for this purpose will be provided on the website).

For each characteristic, assess how well your system complies with the statement. It is suggested that your answers are framed as:

<table>
<thead>
<tr>
<th>Category</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The statement is not true at all, or only true for a very small proportion of the population</td>
</tr>
<tr>
<td>2</td>
<td>The statement is true for some of the population, or there is substantive work underway to address the characteristic</td>
</tr>
<tr>
<td>3</td>
<td>The statement is true for most of the population</td>
</tr>
<tr>
<td>4</td>
<td>The statement is generally true for the whole population, including minority or marginalized groups</td>
</tr>
</tbody>
</table>

In addition to recording the category assigned, a summary description of why this judgement was reached, the strengths, and key gaps or challenges identified should be documented. In addition, each characteristic should be considered against an equity lens and a notation made of specific groups or populations (whether defined by demographic characteristics, economic and social descriptors, or location) who may be excluded or less likely to benefit from the characteristic described.

While the individual characteristics can be assessed either in order against the key outcome statements, or by broad function – the latter is recommended as most country teams will find this easier.
Collate results by outcome category and by type of activity

As for the cross-sectoral assessment, for each of the 20 outcome statements, summarize your system findings. It is recommended that the following is used to assign a final assessment:

**TABLE 9: Summary or maturity level by component for sectoral assessments**

<table>
<thead>
<tr>
<th>Level of maturity by component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mature</td>
<td>All of the system characteristics were assessed as “mature”</td>
</tr>
<tr>
<td>Nearly mature</td>
<td>All of the system characteristics were assessed as “mature” or “nearly mature”</td>
</tr>
<tr>
<td>In development</td>
<td>All of the system characteristics were assessed as at least “in development”; irrespective of how many were considered “mature” or “nearly mature”</td>
</tr>
<tr>
<td>Immature</td>
<td>One or more of the characteristics were assessed as “immature”</td>
</tr>
</tbody>
</table>

These groupings provide a high-level overview of the key outcomes that cannot be supported by the current admin data landscape. As such, while this approach may mask a great deal of variation, particularly within the “in development” categories, in terms of the underlying systems and structures within the summary, it does allow for benchmarking against what the systems can currently achieve. It also highlights broad areas where further investment is needed, rather than focusing on the intent of the systems better placed to inform specific action plans once priorities have been identified.

These can then be reviewed against the ‘lens’ used (child-focused, community, or national), or the overall level of maturity (formation, foundational, functional, etc.). It is recommended that all core systems should aim to reach at least “functional” maturity.

The same can be done collating individual characteristics back to ‘themes’ or the type of intervention that is required.

Celebrate what you do well and set priorities for action

As a collective, stakeholders should review and discuss summary findings of the maturity assessment at the over-arching level. At this stage it is recommended that groups:

**A.** Review the components where the system was found to be “mature”, discuss if there are specific examples, components, or lessons from the review that highlight good practice and that may be useful to advocate for data systems, and use either in your own country or as an example for others. Consider writing up a short case study for selected examples that captures:

- What was done well? What is your ‘good practice’ example?
- Why this worked, and what was new/ unique or special about the approach (what learning can your experience add that is not already common knowledge)?
- How was it done? Include resources, expertise, time, and process
- What lessons did you learn? Most things do not go completely smoothly from start to finish. What challenges did you overcome? How did you reach agreement? What would you do differently next time (or advise others to do differently)?

**B.** Looking at the outcome statements where your system is not mature, think about what areas are most important to you moving forward and where you may wish to prioritize. This should be done collaboratively with the broad group of stakeholders, and with the support of the national planning authority/leadership. In thinking about what elements should be a priority, consider the following questions:

- How did your system score against the prioritized maturity levels outlined on page 26?
- Are there areas that were considered “nearly mature” where a (relatively) small effort could potentially push these systems to maturity?
- For categories in development or considered immature, are there areas where you can focus efforts to shift multiple sectors forward?
Is there clear ownership of the work needed or an existing structure or programme that could be leveraged to support action in any of these areas?

How did areas that best align with national priorities (as outlined in the national development plans or other high level forums) rate in maturity? Are there areas here that align with both national priorities and those of partners or potential donors that you could use to drive change?

Document your assessment

Findings and the assessment should be polished and collated into an assessment report, ideally for public release and discussion.
Annex 2:

Map the flow of data from the point of collection to national reporting

Although this step is not required, mapping the data flow through the system is perhaps the single most useful approach to understanding bottlenecks, challenges, duplication, and ‘stop points’ or places where data accumulates in the system but does not move on or is inaccessible. There are many approaches to mapping data flows and a range of software can be used to make the final diagrams understandable. The easiest way to get started is to simply draw the process on butcher’s paper as a group exercise, before translating that into a formal structure. This will open up discussion on where processes differ from the initial design or intent of the systems (and hopefully why). It will also help foster understanding between participants regarding how the various parts of the systems fit together and identify ‘black boxes’ where processes are unclear or poorly understood.

Select one or two real events or indicators for which data is collected (such as a birth, a vaccination, or a school grade) and a real scenario. For example, name the village or facility from where the student’s grades are being collected or where the vaccine is being given. While processes will vary by location, using a real example can help people visualize what really happens to the data.

Starting from the bottom of the page, draw a small box and indicate the initial data collection tool, and where this data is collected. Working up the page, draw an arrow to another box for each place that the data goes. In each box note both the form/mechanism for capturing the data and where this occurs. It may also be useful to mark on the arrows how the data is transferred (paper, digital, phone, etc.) and the timeframe in which this occurs. Once complete, review the mapping to consider where data gets ‘stuck’, where processes are overly complicated or duplicated, and the time taken to move data from collection to use. Refer to the mapping as you work through the rest of the questions.

You may wish to re-visit these diagrams and use them as a basis for an enterprise architecture diagram of how the system should operate following your discussions. These diagrams then form the basis of revising system processes and documentation to better meet your needs. There are a number of different examples of how to do this, such as the process mapping guide for the health sector/CRVS from the University of Melbourne.14

Annex 3:

Summary tables

Please note that summary tables are available in the Excel work book, where the maturity levels will be summarized automatically by component.

The workbook contains the following sheets:

1. **Key systems**
   The template table can be used to outline the key systems covered in the assessment and key details about these systems.

2. **Participants**
   This template can be used to list the participants in the assessment process.

3. **Data Entry – by theme**
   This sheet can be used to add the assessment results for each characteristics. The characteristics are organized around the themes (coordination, legal and regulatory environment, resourcing etc.). The characteristics are organized by the themes to facilitate discussions. It is important that extensive notes and comments from the discussions are included in the sheet during the consultation.

4. **By rights focus**
   The findings entered in sheet 3 will automatically update column D, E, F and G in sheet 4 and provide summary maturity levels for each of the 20 outcome statements. It is important that extensive notes and comments from the discussions are included in the sheet during the consultation.

5. **Summary**
   Included in this sheet are two tables which can be used to summarize findings and give an overview of the prioritization of actions needed.
Annex 4:

Template for ADaMM assessment

This template was developed as a practical tool for UNICEF country offices assessing the maturity of the administrative data systems that record information directly related to children, individuals and families. These systems – and their relevant authorities – vary from country to country, depending on the institutional setup as well as the existing administrative and organizational structures.

Irrespective of the national setup, it is important that all involved agencies collaborate in the assessment of the national administrative data system as outlined in the Administrative Data Maturity Model (ADaMM). This template is designed to assist UNICEF country offices and others interested in documenting their findings and process.

The template outlines key elements that should ideally be included in a report documenting the assessment process and findings. Additional content should be added to the report as relevant to the country context.

Preface

[GUIDANCE] A preface is usually a short introduction to the report, explaining why and for whom it was prepared as well as who contributed. It may be signed by a high-ranking officer, such as the Minister or Permanent Secretary of the Ministry under which the main contributing institution is placed, the Director General of the main contributing institution and/or a representative of the UNICEF country office, depending on the traditions of the institutions in the country.

It should briefly cover such things as:
- aim of report;
- who the report was prepared for;
- who conducted the analysis and who compiled it;
- scope and coverage of the publication;
- use of the report.

[SUGGESTED TEXT TO INCLUDE] Administrative systems underpin the delivery of essential services to support development outcomes and can also provide an important source of data to improve administrative systems and service delivery. This data can support planning, monitoring, and accountability at different levels – systems, national and international – but is often overlooked. The growing demand for timely and disaggregated data and increased digitalization to track Sustainable Development Goals (SDGs) progress have led many countries to look more closely at administrative data systems as a key part of their national data landscapes and national statistical systems. Despite increased investment in administrative data systems globally, many countries still struggle on several fronts. Firstly, to ensure that all children are included. Secondly, that government systems are sustainable and not dependent financially and technically on external partners and/or consultant firms. And, finally, that they are seen as an integral part of the national statistical system, rather than remaining siloed within a specific line ministry or agency. Using administrative data is not a quick fix, but rather a long-term strategy for ensuring more timely and disaggregated data.
Acknowledgements

[GUIDANCE] All parties that contributed to the assessment should be mentioned here. This includes those who contributed financially and those who provided time, input and suggestions. Report reviewers should also be mentioned.

Acronyms and abbreviations

[GUIDANCE] All acronyms and abbreviations used in the report should be listed, especially country-specific terms. The following can serve as a starting point for the list. Delete the acronyms not used in the report and add relevant ones, such as abbreviation of government agencies etc.

[SUGGESTED ITEMS FOR POSSIBLE INCLUSION]

- CP: Child protection
- CRVS: Civil registration and vital statistics
- DHIS2: District Health Information System 2 (open-source software platform)
- EMIS: Education management information system
- ESARO: Eastern and Southern Africa Regional Office
- HIS: Health information system
- HMIS: Health management information system (see HIS)
- ID: Identification
- ITC: Information, technology, and communication
- J4C: Justice for children
- MIS: Management information system
- MoE: Ministry of Education
- MoH: Ministry of Health
- MoP: Ministry of Planning
- NSDS: National Strategy for the Development of Statistics
- SDG: Sustainable Development Goals
- UNDP: United Nations Development Programme
- UNFPA: United Nations Fund for Population Affairs
- UNSD: United Nations Statistics Division
- VAC: Violence against children

Executive summary

[GUIDANCE] Include one or two pages that summarise the key elements of the report.

Introduction

[GUIDANCE] This chapter should provide information on the objectives of the administrative data maturity assessment, including the rationale for conducting it and the intended audience. The content of each chapter should also be described.

Other important topics may include the key policy questions where data from administrative systems are expected to be useful and why they are important. In addition, general information about which year the report is produced, who wrote it, and why is it important should be included.

The introduction should place the assessment in the institutional context, describing how the assessment relates to national planning and UNICEF country office planning. It is also helpful to describe any relationship with other existing prioritization and planning exercises. These include: national development plans, the SitAn, programme strategy notes, United Nations Sustainable Development Cooperation Framework (UNSCDF), and the Country Programme Document (CPD) and building on the national data landscaping exercise and action plan (if one exists) as well as the National Strategy for the Development of Statistics.
Methodology

[GUIDANCE] Describe which stakeholders were involved in the analysis and how it was conducted. It is also useful to add how many meetings were held to agree on the key findings and content of the report. This section should also include an overview of how the desk review of existing documents was conducted.

Describe how the analysis was conducted, including software and methods. Also mention any major limitations of the findings. If a pre or post-survey was distributed to stakeholders, this should be described. Finally, ensure to include information on who led and coordinated the work.

Overview of key administrative systems considered in the analysis

[GUIDANCE] This should include a very short history of the use of administrative data in the country.

Using ‘Table 2: List of national administrative data systems relevant to children’ list all systems that collect data on individuals in the population and that may be of value to the national data landscape. For each system, the following should also be described: who is the system owner, which population is covered (and not covered), the geographic coverage, the unit of data collected and if a unique identifier is used in the system as well as the intent and purpose of the system. Additional relevant information can be added to the table if necessary.

This section of the report should include the table as well as an overview of the administrative systems considered for the analysis (1–2 paragraphs per system).

For each system analysed, please elaborate on the purpose, coverage and data quality (if known). It is also good to include if this data is currently shared with other entities (i.e., National Statistical Office or line ministry).

Pre-existing resources

[GUIDANCE] There are several documents that will help in conducting the assessment at the national level. At a minimum, the following should be gathered, if they exist:

- The National Development Plan and any monitoring framework for this;
- National Statistics Strategy, or National Strategy for the Development of Statistics;
- SDG indicator summary or plan (particularly if this has been nationalized);
- Reports to the UN – compulsory reports against CRCs, voluntary national reviews, etc.;
- Any annual statistical yearbook or equivalent;
- National data quality framework (or equivalent);
- Data protection and privacy laws;
- National map of administrative data boundaries;
- Key public-facing websites should also be noted.

<table>
<thead>
<tr>
<th>System name</th>
<th>System owner (ministry or dept.)</th>
<th>Population included (who the system collects data about)</th>
<th>Geographic coverage</th>
<th>Unit of data collected (i.e., aggregate data; individual data; event data)</th>
<th>Identifier used (if individual data collected)</th>
<th>Intent/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 2:** List of national administrative data systems relevant to children
An overview of these existing resources and their main recommendations related to administrative data systems should be summarized in this section.

**Findings on characteristics of the administrative data system**

[GUIDANCE] Key stakeholders should convene as a group and work through and review characteristics in the model. For each characteristic, the group should assess how well the current system aligns with the category. It is suggested that the answers are framed as:

<table>
<thead>
<tr>
<th>Category</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The statement is not true at all, or only true for a very small proportion of the population, or only for very few administrative systems.</td>
</tr>
<tr>
<td>2</td>
<td>The statement is true for some of the population/some systems, or there is substantive work underway to address the characteristic.</td>
</tr>
<tr>
<td>3</td>
<td>The statement is true for most of the population/most systems.</td>
</tr>
<tr>
<td>4</td>
<td>The statement is generally true for the whole population, including minority or marginalized groups and for most relevant administrative systems.</td>
</tr>
</tbody>
</table>

An Excel workbook has been developed to support the recording of the results. The worksheet relevant for this is labelled '3. Data entry by theme'.

Please add the completed excel sheet as an appendix to this report.

Include a table with a maturity level assigned per outcome statement in this section of the report. The table will automatically be compiled in the Excel book sheet ‘5. Summary’.

In the report, please elaborate on the key findings, system gaps. Any surprises? Which indicators scored very high or low compared to others?

Please use the graph to create a graphical presentation of the maturity of the system, by filling in the fields according to the level given for each outcome statement.

[SUGGESTED TEXT TO INCLUDE] Regardless of the approach taken, there are a core set of outcomes that a fully mature administrative data system should be able to deliver, and which we have proposed should set out the benchmarks for maturity. These outcomes are structured in terms of the three core elements that we feel define a mature system that can deliver for children and communities:

- **It is child focused – putting** the best interests of children at the center of system design and operation.
- **It is built from the community up –** recognizing the importance of local impact and engagement in supporting development outcomes for children and the collection of high-quality data for national planning and use.
- **It recognizes the need for strong cross-sectoral foundations at the national level to support the effective and sustainable functioning of administrative data systems.**

In putting children at the center of the approach, we recognize the importance of administrative data systems providing important information for action for individual children and their families, at the community level, and by government at all levels, from provincial to national. For systems to be responsive to changing community needs, to provide high-quality data for decision-making, and to be resilient to potential disruptions, they must build from this local focus. If we use data only at the national level or for international reporting, much of the value that the data can provide is missed and will significantly weaken the impact of the available data for improving children's lives.
Themes for improvements in the administrative data system

[GUIDANCE] Describe the findings by outcome category (child-focused, community or national) and by theme:
- Civil registration and identity functions.
- Legal and regulatory environment.
- System design, processes, resilience, and scalability.
- Access to data, publication, and reporting.
- Coordination, governance, and planning.
- Data quality use and feedback.
- Interoperability and data linkage.
- Subnational coordination, capacity and use.
- Resourcing.
- Key sectoral systems – cataloguing and coverage; and
- Physical infrastructure.

Successes

[GUIDANCE] Review the broad outcome statements and themes where the administrative data landscape was found to be performing well. Discuss if there are specific examples, characteristics, or lessons from the review that highlight good practice or that may be useful to advocate for data systems and use, either in your own country or as an example for others. Consider writing up a short case study for selected examples that captures:
- What was done well? What is your ‘good practice’ example?
- Why this worked and what was new/unique or special about the approach (what learning can your experience add that is not already common knowledge)?
- How was it done? Include resources, expertise, time, and process.
- What lessons did you learn? Most things do not go completely smoothly from start to finish (what challenges did you overcome, how did you reach agreement, and what would you do – or advise others to do – differently next time?)

Priorities for action

[GUIDANCE] The Excel Workbook includes a sheet to support the prioritization exercise sheet ‘5. Summary’. In this section, please include the filled in sheet and describe what elements should be a priority, consider the following questions:
- Are there outcome statements considered ‘nearly mature’ where a (relatively) small effort could potentially push these systems to maturity?
- For outcome statements in development or considered immature, are there areas where you can focus efforts to shift multiple sectors forward?
- How did themes and outcome statements that best align with national priorities (as outlined in national development plans or other high-level forums) rate in maturity? Are there areas here that align with both national priorities and those of partners or potential donors that you could use to drive change?
- Are there other elements that can be included and need further assessments? Here reference can be made to specific sectoral assessments and/or data flow mapping.

Include a short list with a prioritisation of actions to respond to gaps identified during the analysis.
**Recommendations**

**[GUIDANCE]** This should describe whether an action plan be developed based on the assessment? Articulate **practical actions that can start within existing resources**: those can be started now using the existing budget, workplan, staff and other resources.

By building on existing practices, this helps improve the actionability of agreed priorities.

This section should describe current and planned work on administrative data related to children, highlighting opportunities for alignment and the potential role the UNICEF country office and other key stakeholders can play in helping to achieve the recommendations.

The recommendations should also include decisions on next steps, outline a plan for follow up, and describe the timeframe for addressing the top priorities identified through the exercise.

**Bibliography**

**[GUIDANCE]** List of resources referenced in the report, in particular the ones considered in the desk review of existing resources. Ideally the resources would be hyperlinked.

**Annexes**

**[GUIDANCE]** Here the completed Excel Workbook sheets: sheet 2 (participants), sheet 3 (data entry by theme) and sheet 4 (by rights focus) should be included as well as other relevant materials.

If specific legislation is considered particularly important to the use of administrative data, it may be included.