IMPROVING DATA FOR WOMEN AND CHILDREN

Guidance on strengthening administrative data systems for gender statistics
Acknowledgements

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Introduction

What is the purpose of this guidance?

Administrative data systems provide an important source of information on gender equality for reporting against international commitments, and for national and subnational planning, policy, monitoring and resource allocation. Globally, there is increasing interest in the ways in which administrative data can be leveraged to fill key gender data gaps and needs\(^1\), \(^2\), \(^3\) and enhance national efforts to better address women’s and children’s needs across a broad range of sectors. Administrative data has the potential to close information gaps related to sex-disaggregated measures of learning outcomes,\(^4\) to drive better reporting on indicators on sexual and reproductive health,\(^5\) and to produce more accurate sex-disaggregated data on conflict-related mortality and morbidity,\(^6\) among many other key areas impacting women’s and children’s well-being. But to date, guidance on strategic next steps to strengthen the collection, availability, quality and use of these data to produce gender statistics relevant to women and children is lacking. This document aims to close this gap.

Gender statistics are needed across an individual’s lifetime, beginning with the first two decades of life when disparities shaped by an individual’s gender – the roles, relations, attitudes and norms that society ascribes to individuals based on their assigned sex – begin to emerge.\(^7\) Monitoring children’s well-being in these crucial early years not only illuminates where girls’ and boys’ needs are not being met, but also guides gender-responsive policies and programmes that lay the necessary groundwork for healthy lives and productive transitions into adulthood. The COVID-19 pandemic has further highlighted the need for up-to-date and reliable data disaggregated by sex and other characteristics to understand how humanitarian crises may impact girls and boys and women and men differently, including primary and secondary impacts like case numbers and disease severity, access to services, loss of income, educational outcomes, and intimate partner violence.

The guidance addresses data specific to the needs of women and children and sex-disaggregated data, noting that the binary focus on male and female is the basis for gender data in most countries; unless the administrative systems are specifically targeting gender-diverse populations, most lack the ability to capture data on these identities. It is important to note, however, that several countries are developing statistical standards for measuring gender identity, with some countries legally recognizing third gender or non-binary classifications.\(^8\) Collecting these data – including through administrative systems – is vital to inclusive development that leaves no one behind. Future guidance should prioritize the collection, analysis, and use of these data as they become more widely available.

Whom is this guidance for?

This document was developed for government national statistical offices (NSOs), line ministries, and agencies responsible for national gender policy, along with their partners. It is not intended to comprehensively address all issues related to improved administrative data systems, but rather zeroes in on the components most critical to strengthening these systems for better gender statistics. It offers guidance on both benchmarking performance and identifying priorities in order to bolster the availability and quality of administrative data, focusing on key investments in central areas to yield improved gender statistics for women and children.
Who developed this guidance?
This guidance was developed by UNICEF under the technical leadership of the Advisory Group on Strengthening Administrative Data Systems to Close Gender Data Gaps of the Inter-Agency and Expert Group on Gender Statistics (IAEG-GS). Members of the Advisory Group include self-nominated NSOs and regional and international agencies, with UNICEF acting as Chair. The guidance is informed by: 1) a review of both published and grey literature produced since 2007; 2) a short survey of countries represented in the Advisory Group that collected challenges and best practices in using administrative data for producing gender statistics; 3) country case studies; and 4) the Advisory Group’s technical expertise.

How is this guidance structured?
This document is divided into four parts:

- **Part 1** briefly outlines the importance of gender statistics and current gender data gaps, situates efforts to strengthen administrative data systems in the broader data ecosystem, and lays out the potential uses of improved gender data from administrative sources.

- **Part 2** builds upon UNICEF’s Administrative Data Maturity Model (ADaMM) to examine the components of the national administrative data landscape essential to high-quality administrative gender data, using country examples from around the world to illuminate best practices. A brief, downloadable self-assessment checklist is provided for national statistical systems to use in partnership with relevant stakeholders (e.g., line ministries) to benchmark current system performance against best practice principles through a gender lens.

- **Part 3** discusses the constraints to sourcing gender statistics from administrative data systems identified in the literature review and consultative process. It examines the critical role of gender statisticians and line ministries in the availability, quality and use of administrative data as a source of gender data, and in shaping overall data landscape maturity. A second downloadable self-assessment checklist helps NSOs and partner stakeholders evaluate critical challenges and identify priority areas to advance to the next level of administrative data maturity.

- **Part 4** outlines next steps and entry points for countries to strengthen administrative data systems, including investments in administrative data systems generally, gender-specific investments, and key sectoral considerations.

This material is followed by country case studies from Ghana and Canada, which outline how administrative data systems are being used to produce gender statistics in those countries. A supplementary annotated resource guide that provides an overview of key resources on gender statistics and administrative data systems identified during the literature review conducted for this work is also available online for reference.
What are administrative data? Definitions and characteristics

Administrative data refer to the data collected through the routine delivery of a service rather than through targeted data collection, such as a survey. These services may include health care, education, psychosocial support, water and sanitation, and social welfare, among others, as well as those that benefit the community – such as taxation or customs control. The data are collected as an integral part of routine management of client interactions and supply, planning and delivery of service across a defined population (usually national or a large subnational area).11, 12, 13

The following characteristics of administrative data have been adapted from UNICEF’s Administrative Data Maturity Model (ADaMM) for children:

- Collection takes place as part of the management or delivery of a service, rather than being primarily a statistical collection procedure.
- Data are collected on an ongoing basis either through a permanent or long-term system as services are delivered. This may be supplemented by so-called catch-up campaigns in some instances, such as in civil registration systems where late births are registered into the system as an add-on component to the routine registration of births as they occur. Data may be periodically updated or corrected if additional information is attached to existing records due to, for example, name changes or updates to addresses.
- Administrative data are collated (either as aggregate data or as individual records) from local sites or facilities to larger regional or provincial centres and up to a national (or large subnational) level. Collection sites may include several different types of service delivery points (such as in a health information system where data are collated from community health workers, laboratories, and secondary or tertiary care facilities, among others).
- Administrative data are generally collated upwards through the system from a base unit of an individual person or event and grouped by location. They may be aggregated at any point within the system (from the initial collection point upwards) as they are passed up through the different levels of the system.

Administrative data are defined by how the data are collected and structured, with systems stretching from the local to nationally collated (and internationally reported) levels. While these data are not collected primarily for statistical purposes, sectoral, or line, ministries often have statistical, planning and/or monitoring departments that collect, compile and disseminate substantial amounts of gender-relevant information, or have the potential to do so.

Administrative data systems support large-scale service delivery that scale up from multiple sites and generally do not include the small, localized systems that collect and manage data at a single site – such as data collected through community service organizations – unless these systems feed into a larger, connected system. While the data generated by these non-state actors are part of the larger data ecosystem, they are beyond the scope of this guidance given its focus on the national statistical system.
Part 1: Gender statistics and the data ecosystem
Gender statistics and gaps in the data

Gender data and the gender statistics they produce reflect the differences and inequalities in the situation between women and men and girls and boys. They include:

- sex-disaggregated data (individual and tabular data collected, analysed and presented by sex); and
- data that cannot be disaggregated by sex but that reflect the specific status, needs, opportunities and contributions made by women and girls in society, such as the adolescent birth rate or levels of violence against women and girls.

Gender statistics include more than the data themselves; they are underpinned by gendered concepts, classifications, methodologies, and statistical processes by which these data are collected. As these statistics are used to monitor progress towards gender equality, they are interdisciplinary in nature, cutting across all areas of statistics – including health, education and employment.

SDG monitoring and gender data

The 2030 Sustainable Development Goal (SDG) Agenda explicitly recognizes the critical role of gender data in monitoring progress toward 12 of the 17 SDGs, including Goal 5 on Gender Equality and the Empowerment of Women and Girls. Nonetheless, data on issues particularly relevant to women and girls remain scarce, with significant gaps in gender data vis-à-vis availability, granularity, timeliness and adherence to international standards. Alongside limited data that can be disaggregated by sex, poor data on other demographic characteristics – e.g., income, location, religion, migration status, education – preclude analyses of the intersecting inequalities experienced by the most marginalized women and children.

Sectoral data gaps also persist, including:

- gender-relevant indicators on poverty and economic opportunities;
- measures on the prevalence and circumstances pertaining to gender-based violence;
- time use data;
- migration and displacement;
- migrant workers;
- meaningful measures of learning outcomes; and
- gender differences in mortality and morbidity.

The source and nature of gender data gaps vary by SDG. In some areas, such as climate and the environment, data are lacking because gender-responsive measures are still in development. In others, where an approach to collecting gender data is established, gaps can arise due to a lack of prioritization, resources, or capacity to produce gender statistics. An analysis of the Global SDG Indicator Database, for instance, highlighted a significant lack of country-level data, finding that for four of the 17 goals, less than half of 194 countries or areas have internationally comparable data. This is particularly concerning for Goal 5 (gender equality), where, on average, only four in 10 countries have data available.

When data do exist, they are not always tabulated by sex or made available in user-friendly formats to allow for meaningful gender analysis. This limited granularity restricts the amount of disaggregated data available representing women and girls from various disadvantaged groups. Existing data collection tools have also been critiqued for leaving gaps in measurement, meaning that issues unique or critical to girls and women are often poorly reflected in national statistics. For example, data on contraceptive use, as measured through many household surveys, are often only collected for girls and women who are married or in a union and those of reproductive age (aged 15–49 years). This approach neglects the experiences of girls and women not married or in a union, and the experiences of younger adolescents and older women.

Gender data are frequently neither collected in a timely nor regular manner: In 2017, only 24 per cent of data available internationally for producing gender-related indicators were from 2010 or later, with many countries relying on ad hoc, infrequent or one-off data collection mechanisms. Between 2000 and 2012, for example, only 5 per cent of nationally representative surveys collected sex-disaggregated information on time spent on unpaid domestic work, with the majority of countries only collecting time use...
data once or twice over the past few decades. A lack of international standards, or lack of adherence to existing standards, is a notable challenge, particularly concerning internationally comparable measures of learning outcomes, mental health, and the utilization of health services by women and girls. This is notably problematic for topics that are sensitive or occur in sensitive contexts, including measures of gender-based violence and the impact of conflict on women and girls.

**Service provision and gender data**

Gender data collected through administrative systems (health care, education, psychosocial support, water and sanitation, social welfare, etc.) are essential to improving service provision to women and children. Summary indicators on country priorities are needed to measure progress and hold governments accountable and to support strategic planning and resource allocation. Timely and granular disaggregated data are also needed to guide local-level planning and service provision, as national statistics can obscure entrenched inequalities and patterns. Granular data help policymakers see who is being left behind or excluded from services, and why, along with providing the locally relevant and actionable data needed to implement gender-responsive services and programmes at the subnational level.

For instance, as countries have introduced policies and services to reduce or eliminate violence against women and girls, there has been a corresponding increase in the kinds of data required to effectively monitor the impact of such initiatives and determine if they are making a difference. Administrative data can provide a broad range of information to help monitor current and localized service provision, including the number of incidents reported, identified and registered; availability and quality of services provided; and access to prevention and support services. These data play a valuable role in shaping the response to violence against women and children by informing programme planning and resource allocation; illuminating the level of services available and any gaps in service provision, service use and demand; and identifying points of entry to essential services and historical patterns and trends in the identification, reporting, and response to this type of violence.

Because the production of locally specific data is often underdeveloped and underutilized, administrative data are currently limited in their scope and applicability. In the case of violence against women and children, the data are weakened by the significant number of incidents that are not formally reported, and by inconsistencies in definitions and methods used by various service providers. These challenges are not unique to administrative data on this particular rights violation – the same obstacles impact the effectiveness of initiatives to protect women and children across sectors.

**Institutional gender gaps**

As conceptualized in the Paris21 Framework and Implementation Guidelines for Assessing Data and Statistical Capacity Gaps for Better Gender Statistics, gender data gaps refer not only to the absence of gendered information, but also to gaps in the statistical capacity to produce gender statistics. Gaps in both national and subnational administrative gender data are underpinned by a weak institutional environment for gender statistics, including the absence of a gender focus in the policy, legal and financial infrastructure, as well as in the coordination mechanisms essential to the generation of gender data across sectors. Discussed in detail in Part 3 of this guidance, these challenges combine with a lack of political will and technical expertise to integrate a gender perspective into the data production cycle within both NSOs and line ministries that provide administrative data.

While the SDGs have generated new momentum for gender data, they have also increased demands from donors and international development partners for both the collection of new data and additional disaggregations. In contexts where these reporting burdens are not aligned with a country’s own national and subnational priorities – and this reporting takes precedence over locally relevant data – these demands can further widen national-level gender data gaps. Further, given the reliance on surveys for many gender statistics (and an overreliance on international donors to conduct such surveys), national data collection and publication schedules for many gender-specific indicators are unknown and their future continuity is uncertain in the absence of sufficient national resources.
Administrative data and their role in gender statistics

Data from administrative systems have several characteristics that make them particularly useful for monitoring gender equality, as described below. Core administrative data systems for women and children are outlined in Box 1 (see p. 9).57

- **Readily available and pre-existing source of information.** The data revolution calls for doing more with existing data sources, with the greater use of data from different sources leading to more effective evidence-based decision-making.58 Globally, almost every country has some system of administrative data collection, and systems in countries such as Denmark, Finland, the Netherlands and Sweden show how administrative data can generate a broad range of gender-relevant statistics on income, education, violence, and family and household characteristics, among others.59, 60 An increasing number of countries, including Bhutan, Chile and South Africa, are investing in their administrative data systems to strengthen the overall national statistical landscape.61

- **Continuous nature.** Although there may be delays associated with compilation and analysis (particularly where paper-based systems are used), data are collected and updated on an ongoing basis.62 This is important for decision makers and planners who need up-to-date or real-time data to make daily decisions on services and programmes that directly impact the rights and opportunities of women and children.63, 64 For example, countries such as Kenya, Nigeria and Pakistan have implemented real-time digital administrative data systems to track school attendance, recognize patterns, and identify at-risk children (this is particularly relevant to young girls) to provide additional support and incentives to keep them in school.65, 66, 67

- **Ability to provide longitudinal data to track trends over time.** Because they are continuously collected, data from administrative systems allow for the long-term perspectives needed to monitor changes in gender equality.68, 69 Countries with mature civil registration and vital statistics systems can show trends over several years for key outcome measures such as maternal mortality and life expectancy at birth, highlighting persistent issues as well as the effectiveness of national policies and programmes meant to reduce gender inequalities.

- **Potential for granular disaggregated data at the local level.** Administrative data systems primarily collect data at the individual level and
are increasingly disaggregating their records by sex and other characteristics. This enables intersectional gender analyses that can help decision makers better understand the multiple inequalities faced by specific subpopulations, such as the most marginalized women and children.\textsuperscript{70} The structure of the data also allows for local-level analysis that may not be possible with national sample-based surveys due to sample size constraints, and the potential for identifying individuals in local data sets due to small numbers once these are disaggregated geographically once these are disaggregated geographically.

- **Ability to provide regular updates on those accessing services and the types of services being accessed.**\textsuperscript{71, 72} Administrative data can also indicate characteristics of those not accessing services but cannot explain the reason for or the extent of unmet needs. As such, administrative data systems can help transform international and national gender strategies into subnational policies and priorities, while providing the evidence needed to monitor implementation.\textsuperscript{73} For example, policy and court records can help address persistent data gaps on violence against women and girls by providing insights into the utilization of services and system response by tracking the number of incidents reported, persons charged, complaints filed, and civil injunctions or restraining orders issued.\textsuperscript{74}

- **Potential for inclusivity.** With their large population coverage often related to essential or in-demand services, administrative data systems have the advantage of including information on groups of people who are least likely to take part in traditional research, or those excluded from sampling frames.\textsuperscript{75} A notable example is the relative lack of information from household surveys on the health and nutrition of adolescent girls (those younger than 15). However, it should be noted that selective undercoverage by sex may be present in administrative data, as subpopulations least likely to be included in traditional sampling frames may face the greatest barriers to accessing and using the services for which the data are being collected. This is seen, for instance, in contexts where women or girls may face obstacles to accessing services for reasons such as a lack of identification or restrictive gender norms.

- **Capacity for data linkage.** The use of unique identifiers or other highly granular data to identify individuals within an administrative data system also creates opportunities for direct or indirect (probabilistic) data linkage, within an appropriate data privacy and protection framework. When combined with other sources of data, such as those from censuses and surveys, this allows for a more comprehensive understanding of the lives of women and children. In Canada, for example, graduate earnings (as measured through tax returns) have been used to demonstrate long-term learning outcomes for higher-education providers, while also offering important insight into wage gaps.\textsuperscript{76}

Because the collection of data for statistical purposes is not the primary function of administrative data systems – and by their very nature, administrative data are generally focused on processes, not outcomes – the quality and appropriateness of the data they generate for use in official gender statistics needs to be assessed (see Part 2). Strengthening administrative data has associated benefits beyond measuring gender-equitable outcomes, such as institutional strengthening and improved service delivery\textsuperscript{77} and the ability to track access to childhood health, development and learning interventions over time through effective health and education information management systems. In addition, administrative data can strengthen the use and applicability of other data sources, such as non-traditional data and survey data.
Box 1. Core administrative data systems for women and children

Administrative data systems vary from country to country, but are likely to include the following core systems relevant to women and children:

- **Civil registration and vital statistics (CRVS) systems**: Register vital events to provide legal recognition of an event (usually in the form of a registration certificate), including births, deaths, cause of death, marriages and adoptions. Data related to gender may include sex-disaggregated birth and death registrations, differentials in cause of death patterns, and specific indicators such as age at marriage.

- **National identity (ID) systems**: Centralize processes for creating and managing legal identity documents or credentials such as an ID card or registration of a biometric trait, facilitating individual interaction with government agencies and other entities (ideally linked to the national CRVS system to establish a legal identity). Gender-relevant data may include the number of formal ID documents issued by sex, and information on potential gender-related barriers, such as the need for a male family member to be present during the application process for women and girls.

- **Community health information systems**: Record key interactions with health services (typically excluding those that occur in a hospital setting), such as vital events and cause of death information known to the health system, key maternal and child health information, immunization records, notifiable disease events (disease surveillance), and well-child visits. These may exist as separate registers (MNCH, HIV, TB, disease surveillance, cancer, immunization, etc.) or as a combined system. Data related to gender are likely to include sex differentials in patterns of morbidity and mortality, service access, and specific indicators, including fertility rates.

- **Hospital management information systems (HMIS)**: Include information on type and length of stay, outcome or separation data, deaths by cause, outpatient services, hospital acquired infections, and others. Data related to gender are likely to include sex differentials in patterns of morbidity and mortality, and specific indicators, including maternal mortality. Cost-of-care data may also be important in some settings.

- **Education management information systems (EMIS)**: Collect data on children enrolled in 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, as well as details such as class size, facilities, and teacher numbers and qualifications. Gender-relevant data may include differentials in enrolments and learning outcomes by sex, access to education on sexual and reproductive health, and specific indicators, including access to gender-responsive facilities and infrastructure.

- **Child protection information management systems**: Act as a case management system for children and families known to authorities as being at risk or vulnerable for specific reasons, who are being tracked due to specific trauma or violence, or who are otherwise of interest or requiring specific support.

- **Social welfare and payment systems**: 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. Gender-relevant data may include the number of mothers with newborns receiving cash maternity benefits.

Other systems may also be viewed as core systems depending on country context. For example, a country with high HIV prevalence may consider an HIV register as essential (either as part of a community health information system or as a stand-alone system), in the same way a country with high prevalence of malnutrition may prioritize a nutrition register as a core system. Some other systems that may be considered to be core for children include:

- **Nutrition registers**
- **Population registers** (an extension of the CRVS system)
- **Systems for tracking children in early childhood education**, or older children and young people enrolled in vocational or tertiary education
- **Data on children in alternative (out of home) care**
- **Police information management systems**
- **Coronial or inquest data systems**
- **Court records**
- **Prison/detention records**
Integration within the larger data ecosystem

Efforts to strengthen administrative data systems to improve gender statistics must be considered within the context of the larger data ecosystem, defined as the constellation of “actors that engage with each other to exchange, produce and use data.” This ecosystem includes the national statistical system and communities of data producers and users, such as civil society organizations, academia, the media and the private sector. All these communities play pivotal roles in integrating a gender perspective into the data value chain – from driving the demand for gender data, to collecting and analysing gender data from traditional and non-traditional sources, to disseminating and communicating gender statistics across diverse communities.

As the demand for data – including gender data – increases, and new technologies and methods to meet these demands emerge, the role of national statistical systems is rapidly changing. Many NSOs are seeking to modernize their statistical systems, evolving from statistics producers relying on traditional data sources such as population censuses and household surveys to data stewards that facilitate and safeguard complex processes of data integration across multiple traditional and non-traditional sources. Transformation of the data, including those sourced from administrative systems, into intermediate data and associated metadata is essential to this process of data integration. These data can then be further processed by NSOs into statistical information and indicators.

Closing gender data gaps requires integration and coordination at many levels. This necessitates involving multiple stakeholders and data sources across sectors, including the administrative systems that provide services to women and children, and ensuring that administrative gender data are treated so that they are useful for statistical purposes. Strengthening administrative data systems to improve gender statistics for women and children must thus be undertaken in step with the broader changes to national statistical systems as new data ecosystems evolve. This guidance is driven by the conviction that administrative data systems should be an integral part of the national data landscape, rather than siloed sectorally within specific line ministries or agencies, and that a gender perspective must be mainstreamed throughout the national statistical system.

Many of the suggested recommendations to strengthen administrative data systems for improved gender statistics in Part 4 will yield benefits for the national data ecosystem more broadly, ensuring gender plays a foundational role in these upgrades.
Part 2: Gender data in a mature administrative data landscape
Defining good practice
A mature administrative data landscape delivers critical information that national governments need to monitor development progress and effectively prioritize, improve and manage service delivery across key sectors. This information fosters a clear understanding of how women and girls, men and boys (and those who do not identify as either sex) are faring in the areas essential to their well-being (health, education, etc.), their ability to access services, and how well they are doing relative to each other and to established development targets.

Much of the infrastructure, governance and other conditions required to support a mature administrative data landscape are not unique to a specific sector or system, but rather may be common (e.g., clear data standards, roles and responsibilities, documented processes) or cross-sectoral (e.g., underlying IT infrastructure, data protection legislation, data coordination, the existence of unique identifiers to facilitate data linkage both over time and across sectors).

ADaMM: A holistic approach to improved administrative data
To address the growing demand for a cross-sectoral approach to administrative data and improved administrative data systems, UNICEF has developed the Administrative Data Maturity Model (ADaMM) for children.82, 83 The model provides a framework for benchmarking the national administrative data landscape and enables priority areas to be identified in order to improve data quality, availability and use. ADaMM recognizes that system development is not linear, particularly in this era of rapidly changing technology, access, and data ownership. It also recognizes that newer technologies and innovative approaches may lead countries investing in systems today to take a very different path in system design and implementation than has been followed in the past, leapfrogging many of the stages that more developed countries have been through to reach system maturity.84 Mature systems both understand and effectively meet data needs, no matter the underlying development choices and structures.

ADaMM assesses maturity across administrative systems and is thus particularly relevant when defining a gender-responsive administrative data landscape, given the cross-sectoral nature of gender statistics. The model provides a lens to think about opportunities that would benefit the administrative data landscape, and by extension gender statistics, more broadly. The approach also places administrative data as part of a broader national data landscape – recognizing the importance of integrating multiple data sources to validate data quality, address data gaps and meet national data requirements.

The UNICEF model defines maturity across 20 outcome statements that define what national administrative data systems (in the social sector) should be able to deliver for children, the community, and as part of the national statistical system. These expected outcomes include, for example, “administrative data are integrated as part of a broader national statistical system” and “systems are able to ‘flex’ to changing community needs.”

ADaMM outlines six levels of system maturity, with maturity level 3 regarded as the ‘functional’ or minimal level that all countries should aim for, while the higher levels build towards an ideal or ‘fully mature’ system that may be more aspirational. Many of these aspects – e.g., data security, access control, confidentiality, infrastructure, and governance structures – are general requirements of functional and effective administrative data systems.

Building on ADaMM, Box 2 (see p. 13) identifies what good administrative systems that centre women and children look like, with their relevance from a gender perspective described in detail in the following sections.
### Box 2. Defining a mature gender-responsive national administrative data landscape

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<tr>
<th>Maturity level</th>
<th>Outcome statement</th>
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| 1 FORMATION    | - Core administrative data systems for women and children exist at the national level, with national coverage                                                                                              | 2 FOUNDATIONAL | - Administrative data are integrated as part of a broader national statistical system  
- 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  
- Data required to support the realization and protection of women's and children's rights under international conventions and development commitments are produced and available  
- National administrative data systems provide timely data for national planning and accountability  
- Systems are inclusive, effectively monitoring that no woman or child is left behind, as well as providing the data needed for systems to effectively address disparities where they exist                                                                                                           |
| 3 FUNCTIONAL   | - Data are actively used in national (and subnational) planning, monitoring and evaluation  
- Data are used to identify local needs and to inform and improve local services and programmes  
- Administrative data specifically address key disaster preparedness and planning needs (at national and broad subnational level)                                                                                                    | 4 FLEXIBILITY AND FORM | - Cross-sectoral collaboration supports a holistic approach to data for planning, innovation, and service provision                                                                                                                                                        |
| 5 ENGAGEMENT   | - Data are used to generate broader ‘public good’, contributing to research and knowledge generation on topics of benefit to the community                                                                                                                                                                                                                       | 6 INTEGRATION   | - Administrative data can be integrated effectively with other data sources in decision-making processes  
- Data support a holistic approach to services and care to support better outcomes through coordination across programmes, locations and sectors                                                                                                                                                          |
**Maturity Level 1:**

**Formation**

Core administrative data systems for women and children exist at the national level, with national coverage.

For gender data, this means:

- **Core systems for women and children exist, are functional, and have national coverage geographically.**

**Gender relevance:** As described in Box 1 (see p. 9), there are several administrative systems that can provide data relevant to gender-equitable development outcomes for women and children, ranging from civil registration to health and education management information systems to specialized registers on nutrition, violence against women and children, social welfare, and court records (related to, for example, child custody disputes, foster children, and child offenders). At minimum, these systems should be able to provide sex-disaggregated data on key gender indicators throughout an individual’s life cycle, which can be shared with the NSO. Countries should prioritize administrative data systems based on national development priorities and opportunities to improve data collection through the structures established to deliver services, paying particular attention to foundational systems that support inclusion (such as civil registration systems, which provide legal identity and enable access to health care), and where data are less frequently available through other sources – where systems either do not exist or do not have national coverage.

**Gender data in Ghana**

*Education management information systems for inclusive and equitable education*

An effective education management information system (EMIS) refers to a range of tools used to gather, process and interpret large amounts of data in a systematic way. While basic systems can generally provide data on educational metrics – including enrolment, attendance, and grade completion by sex – more advanced systems may be able to answer a wide range of questions for education stakeholders on issues such as:

- **Management and administration**, including financial transactions and human resourcing
- **Learning outcomes** (in systems where data are collected at individual level)
- **Planning**, to ensure that the education sector is meeting its obligation to provide education for all children and understanding who is being left behind
- **Policy formation** on educational outcomes, to assess how learners and schools are progressing towards objectives set out in national education plans.

In Ghana, the EMIS launched in 1997 uses the annual school census as its primary data collection tool. The census provides data on several metrics, including enrolment, teachers, textbooks, infrastructure and finances for all public schools in the country. The system is supported by national legislation that allows the Ministry of Education to use EMIS data for statistical purposes, including routine reporting to UNESCO and other regional and international partners. While much of the data in the system are disaggregated by sex, recent investments in supporting marginalized populations, including girls, are looking to expand the current set of gender-relevant indicators (which include enrolments and teachers by sex) to include metrics such as completion and drop-out rates, subject enrolment and exam results by sex. Incorporating these indicators will help drive more equitable educational incomes for Ghanaian girls and boys by providing more specific data on their experiences at school.

Looking ahead, the next generation of the type of system seen in countries such as Ghana will likely include real-time online registration of children, allowing children to move across the school system regardless of location or other circumstances. Such powerful analytical tools enable teachers, local school managers, and the national ministry of education to follow the progression of any child through the education system, generating important insight into which children are succeeding and which are falling through the cracks.
**MATURITY LEVEL 2:**

**Foundational**

Administrative data are integrated as part of a broader national statistical system

For gender data, this means:

- **Administrative data are seen as a valuable source of national data on topics related to gender alongside other sources, such as censuses or surveys**
- **A national agency has a clear legal mandate to produce and publish official statistics on gender**
- **The publication and sharing of gender-related data across ministries is supported by formalized cooperation between the NSO and relevant line ministries**

**Gender relevance:** Legal and regulatory frameworks to assign responsibility and support data sharing are a vital component of this maturity level – but they are insufficient on their own. They must be bolstered by broader awareness and acceptance of the need to use multiple data sources to monitor gender equality effectively, as no single source can do so. Globally, nearly every country has some type of administrative data collection system; those with statistically mature systems demonstrate the effectiveness of administrative data in generating gender-relevant statistics on income, education, violence, and family and household characteristics, among others.

Data needs in national data plans or strategies should be mapped against the sources (both traditional and new) produced in the data ecosystem, with administrative data sources generally prioritized for data that are required frequently given the continuous nature of this type of collection, or to update benchmarks from other, periodic, data sources, such as household surveys.

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**Gender data in India**

*Investing in management information systems to derive gender-responsive statistics*

In India, several schemes are being implemented to generate gender-responsive statistics by leveraging data from the Management Information System set up under the administrative system. These administrative data are seen as a valuable source of national data alongside censuses or surveys on topics related to gender. India’s efforts are cutting across sectors and forging stronger bonds between ministries, including:

- **Education:** The Ministry of Education is implementing a web-based information monitoring system to collect, validate and disseminate data on school education related to individual schools, students and teachers, as well as key performance indicators like enrolment, promotion, repetition and drop-out rates, the gender parity index and pupil-to-teacher ratios.
- **Health:** The Ministry of Health & Family Welfare has implemented a web-based Health Management Information System (HMIS) to monitor health programmes and provide key inputs for policy formulation and appropriate programme interventions. For instance, HMIS has been used to assess national service delivery of reproductive, maternal and child health measures, immunization, and family planning.
  - **Crimes and deaths:** The Ministry of Home Affairs maintains an online database of key data on crimes, prisons/prisoners, deaths (including accidents and suicides) and missing women and children. Annual reports provide detailed age- and sex-information on these topics.
  - **Vital events:** India’s Civil Registration System provides unified, continuous, permanent, compulsory and universal recording of vital events. These data capture registered births, deaths, infant deaths and stillbirths, offering breakdowns by sex and geographical area.
Gender data in Canada
Reporting the Gender Results Framework using administrative data

The Gender Results Framework (GRF) represents Canada’s vision for gender equality. Introduced in 2018, it is a whole-of-government tool designed to define what is needed to achieve gender equality, determine how progress will be measured, and track progress. The GRF enables gender to be considered in relation to other intersecting identity factors and has legal authority through the Canadian Gender Budgeting Act, which ensures federal government’s budgetary and financial management decision-making processes factor in gender equality and diversity.

The framework prioritizes six key areas that require change, routinely monitoring progress on performance indicators and sharing these results online. Data to support the GRF come from existing data collection mechanisms and reporting sources, including surveys, administrative records, monitoring networks, and other forms of open data. Statistics Canada has been using non-survey data in official statistics for around 100 years, with many programmes using administrative data from government agencies and private sector organizations, which are then integrated into official statistics to meet statistical and research requirements. Administrative data are used economically to complement and replace surveys (or components of surveys) and reduce the burden on respondents. Statistics Canada plays an important role in housing data collected from various surveys and administrative systems, ensuring that the national statistical landscape draws on all sources of gender data available, including administrative data systems.96

Ensuring that girls and women have a recognized legal identity affords them many protections. It means they are less likely to be affected by early or forced marriage and human trafficking,97 and less likely to be excluded from accessing government services and other social protection services. While gender parity in birth registration has been achieved in practically all countries with available data, gender inequalities still exist in some settings. For example, girls born into polygamous families in Africa are significantly less likely to be registered.98 The intergenerational effects of gender inequality on birth registration also remain a noticeable barrier, with women often facing cultural, financial and legal barriers to registering their children, particularly those who are single parents.99 Such barriers result in disparities in birth registration among children of different social, economic and cultural backgrounds.100 Children born in conflict-related humanitarian settings also face particular challenges in having their births registered, especially when legal procedures require the presence of the father as part of the registration process.101

For gender data, this means:
- A functional civil registration system is in place with complete registration of all births for girls and boys, including the issuance of a birth certificate
- Accessible and equitable pathways to legal identity specifically address population groups that may face barriers to registration

Gender relevance: Legal identity through civil registration is essential to recognizing a child’s rights, acting as the cornerstone of inclusion and access to services such as health care, education, and social protection. This focus on inclusion and recognition as an individual with rights is foundational to equality. Civil registration and vital statistics systems are also important for up-to-date and timely population data to guide planning for service provision.
Gender data in Brazil

Utilizing administrative systems to improve birth registration

While overall birth registration completeness in Brazil increased by almost 20 percentage points between 1995 and 2007, persistent subnational level challenges – particularly related to geographic access to civil registration – meant that many of the country’s 27 states were recording completeness levels lower than the national average. To improve this, the National Programme for the Promotion of Birth Registration was implemented in 2001, which placed civil registrar outreach units within maternity wards in states with the lowest levels of birth registration. In 2006, after a review of the system, a new online birth registration system linked to the health system was rolled out. The third and final stage, introduced in 2008, provides an online system within each maternity ward, where health staff can enter birth data directly into the system, which are then shared with civil registration. This has removed the need for actual civil registration offices within maternity wards, while also improving access to birth registration services. By ensuring legal identity from birth, these efforts are helping to protect all Brazilian children from harms such as early marriage.

Data required to support the realization and protection of women’s and children’s rights under international conventions and development commitments are produced and available

For gender data, this means:

- **Administrative data systems** provide reliable and routinely available data as part of a national statistics system, on both specific indicators for gender-related issues and sex-disaggregated data for reporting against international frameworks (including the SDGs, Convention on the Rights of the Child (CRC), Convention on the Elimination of Discrimination against Women (CEDAW) and the Beijing Declaration and Platform for Action (BPfA))

**Gender relevance**: A country’s ability to report against international frameworks is an important indicator of system maturity. This includes frameworks such as the CRC, which stipulates that governments shall respect and ensure the rights set forth in the Convention to each child irrespective of the child’s or parents’ sex, and the BPfA, which calls upon States to disaggregate data across sectors in order to undertake analyses of the situation of girls.

Administrative systems are an important source for filling gender data gaps in the SDGs, with significant amounts of data already existing, but not being effectively used. In 2019, UN Women identified 34 gender-specific SDG indicators that could be sourced from administrative data systems, and of these, nine are also child relevant (see Box 3). Administrative data systems should be able to report on these child- and gender-relevant SDG indicators in order to assess gender disparities in children’s well-being and how gender equality influences both girls and boys.
### Box 3. Child- and gender-relevant SDG indicators potentially sourced from administrative data systems

<table>
<thead>
<tr>
<th>SDG indicator</th>
<th>Preferred source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1(b) Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable</td>
<td>Admin or other</td>
</tr>
<tr>
<td>3.1.1 Maternal mortality ratio per 1,000 live births</td>
<td>Admin or other</td>
</tr>
<tr>
<td>3.1.2 Proportion of births attended by skilled health personnel</td>
<td>Admin or other</td>
</tr>
<tr>
<td>3.7.2 Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group</td>
<td>Admin or other</td>
</tr>
<tr>
<td>3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases, and service capacity and access, among the general and the most disadvantaged population)</td>
<td>Admin or other</td>
</tr>
<tr>
<td>4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex</td>
<td>Admin or other</td>
</tr>
<tr>
<td>4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex</td>
<td>Admin or other</td>
</tr>
<tr>
<td>16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age</td>
<td>Admin only</td>
</tr>
<tr>
<td>16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause</td>
<td>Admin or other</td>
</tr>
</tbody>
</table>

Admin = administrative data system  
Adapted from: Advancing administrative sources of data for monitoring gender-specific Sustainable Development Goals in Africa (2)
In 2011, Albania published, ‘Harmonised Indicators on Gender Equality and the Status of Women in Albania’, a consolidated tool for monitoring government commitments to gender equality and women’s rights. The document was the result of a two-year effort led by the Inter-Ministerial Working Group on Monitoring Gender Equality in Albania (IMWG), which included participants from the Ministry of Labour, Social Affairs and Equal Opportunities, Institute of Statistics (INSTAT), line ministries, relevant government agencies, NGOs, academics, and international organizations including UN Women, UNFPA and the UN Joint Programme on Gender.

In developing the tool, the working group analysed all national and international commitments on gender and the data needed to monitor them. The harmonized indicators also include key standards and norms put forward by the European Union pertaining to gender equality. The document outlines 220 core indicators across eight fields for reporting on gender equality to be collected by responsible line ministries. In adopting the indicators, INSTAT and the IMWG identified primary and secondary sources of data, with data from administrative systems prioritized as primary sources where possible. Experts designated sources as primary or secondary, reviewing both regularity and reliability of data to ensure appropriate and comparable standards of measurement throughout the indicators.

Overall, the harmonized indicators are expected to serve as a basic manual for collecting data, assessing gender equality and the status of women in Albania, and developing proposals to further improve areas such as women’s participation in decision-making, education, employment, defence, social welfare, health, the media, and domestic violence.111

Gender data in Albania
Using administrative data to report on gender equality

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

For gender data, this means:

- **Beyond required reporting against international commitments**, reliable and timely gender data from administrative sources are also produced to monitor gender equality as identified by national policy frameworks and the localization of gender-relevant SDG indicators, as well as the data required to support national services and systems to achieve these development goals

Gender relevance: National policy frameworks are the main driver for the production and use of gender statistics, as they shape the need for data based on priority issues, goals and targets that countries have established for their economic, social and environmental development.112 In addition to national planning mechanisms that identify key indicators for monitoring gender equality and the administrative data requirements for measuring them, such systems should be able to provide timely data on priority indicators adopted by sectors.113 Mature systems can support line ministries in both defining the necessary gender-relevant data and linking them with national planning and policy cycles to ensure accountability. Metadata and collection processes and issues should be routinely shared with national and international agencies in line with reporting commitments to ensure that administrative data are fully integrated in local and international monitoring and evaluation processes.
Morocco's Governmental Plan for Equality (ICRAM) 2012–2016 defines the country’s overall approach to promoting equality and integrating women’s rights in public policies and development programmes. It is based on the founding principles of the Constitution of 2011, which aspires to build new social relationships between women and men, ensuring fair and equal participation in the design and monitoring of policies and development programmes and fair and equal sharing of benefits and profits from this participation.

The ICRAM includes eight thematic areas and 24 objectives, which have been translated into 156 actions with quantitative and qualitative indicators for monitoring progress. Actions are divided among the departments and ministries responsible for implementation, with a Ministerial Commission for Coordination, Monitoring and Evaluation established to assist departments and ministries and ensure legislative and organizational provisions are in place. An interministerial technical committee was also established as a permanent focal point tasked with collecting all data necessary to monitor implementation of the government plan.

A sophisticated information system was established to monitor implementation of commitments pertaining to each ministry by:

- Translating each strategic action into a roadmap to determine the levels and turnaround time for each ministry
- Appointing a manager to prepare the roadmaps for each ministry
- Integrating the roadmaps in the information system to determine the level of implementation and the obstacles encountered

This important work demonstrates the Government of Morocco’s investment in supporting the integration of gender equality into government programmes and initiatives among line ministries, including the adaptation of gender-specific indicators for national and subnational planning and accountability.

Given concerns over the quality of data sourced from administrative systems, mature systems also require established processes for assessing quality, with clear recommendations on when and how such data can be used in the production of gender statistics. The Australian Bureau of Statistics (ABS), Australia’s official statistical agency, for example, developed a policy on quality management of statistical outputs produced from administrative data, which focuses on principles and best practices to assist the management and acquisition of administrative data. The policy defines the major uses of administrative data for statistical purposes and sets out quality management techniques important to the production of statistics. These include a series of questions that statistical agencies can use when assessing a potential administrative data source, including its institutional environment, relevance, timeliness, accuracy, coherence, interpretability, and accessibility. Similarly, the United Kingdom Statistics Authority has produced several resources, including a data quality assurance toolkit and guidance document, to help statistical producers ensure the quality of administrative data when producing official statistics, enable effective reporting on data quality and quality issues, and raise awareness on the ways administrative data may change the quality of statistical outputs.

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

For gender data, this means:

- Development indicators are available by sex, so that data reflect the different challenges faced by girls and boys
- Data are sufficiently disaggregated to allow gender differentials related to rights or key development outcomes to be routinely probed by other population characteristics (ethnicity, location, poverty quintile, etc.) to effectively monitor that women and children from vulnerable groups are not left behind
**Gender relevance:** Data are most relevant within countries to support targeted policy initiatives and hold governments accountable on national priorities and commitments. To that end, an inclusive system is one that provides timely data on national priorities and relevant SDG indicators, disaggregated by (at a minimum) sex, age, and disability status. Recent research into measuring health inequalities in the SDG context has also highlighted how different dimensions of inequality require specific measures to be prioritized, with, for example, no difference in immunization coverage between girls and boys, but clear variation in coverage based on maternal education level.115

The availability of administrative systems to disaggregate data by sex at national and subnational levels is the minimum requirement for generating most gender statistics.116 Further, as gender-based deprivations are likely to be compounded by deprivations stemming from other demographic characteristics, disaggregation by multiple characteristics (age, ethnicity, disability, location, etc.) is critically important to ensure policymakers understand who is being left behind, and determine what services and resources they require.118, 119, 120, 121

Data disaggregated by sex and disability status, for example, are essential for understanding the greater risks women and girls with disabilities face vis-à-vis limited access to health care, intimate partner violence, and sexual abuse, among others.122 While data linkage at the individual-record level substantially increases the analytical capacity of countries to investigate gender issues across topics, key cross-analyses may be facilitated through aggregate data collections with appropriate design and planning.

Moving forward, the ability of systems to capture gender-diverse populations will be of increasing importance. Statistics Canada, for example, has developed new standards on sex and gender variables and classifications and offers a non-binary gender option using the ‘X’ identifier when collecting information in certain administrative systems. While data will continue to be collected on sex, this new policy direction will allow for a better understanding of gender issues by providing a two-step process for collecting data on sex and gender. This is particularly relevant to data availability on gender-based violence, for which the experiences of people identifying as non-binary are currently missed.123

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**Gender data in Canada and South Africa**

*Disaggregation by multiple characteristics for effective policymaking*

**Canada**

The Longitudinal Immigration Database (IMDB) managed by Statistics Canada and Immigration, Refugees and Citizenship Canada (IRCC) is a comprehensive source of data that deepens understanding of immigrants’ economic characteristics. IRCC’s administrative records contain extensive information about the time of admission and immigrants’ economic outcomes and regional mobility over a span of more than 35 years. Using IMDB data, Statistics Canada has developed an online interactive dashboard, which enables users to select various characteristics – e.g., sex, immigrant admission category, knowledge of official languages at admission, and pre-admission experience – for several indicators, such as total number of residents, median income, median wages, and incidence of social assistance. This allows for a rich understanding of how economic outcomes for migrant women differ with respect to men, and other characteristics.

**South Africa**

For its 2018 report on economic empowerment, Statistics South Africa obtained household, demographic and labour data from the Quarterly Labour Force Survey and combined them with administrative data from the Personnel and Salary System (PERSAL) to analyse women’s representation in managerial positions in government. Merging the two data sets allowed for a multidimensional analysis that explored differences in mean salary and labour force participation by sex, along with several other characteristics such as marital status, age, educational status and race.
**MATURITY LEVEL 3: Functional**

Data are actively used in national (and subnational) planning, monitoring and evaluation

For gender data, this means:

- **Gender data from administrative systems are available and actively used by decision makers at the national and subnational levels, both within the ministry in which they are collected and cross-sectorally**
- **There is evidence in planning and results documents that data are used to inform policies and strategies and drive decision-making**

**Gender relevance:** A results-orientated strategic plan to achieve gender equality developed through broad consultation with government and non-governmental stakeholders and endorsed by senior leadership is critical. National and subnational-level strategies should also have measurable goals and indicators linked to high-level outcome targets to achieve gender equality, with a defined set of responsibilities, timelines, action plans and monitoring mechanisms to achieve identified priorities.\(^{125}\)

Coordination within and across sectors, as noted earlier in the key characteristics, is also vital to ensuring that data are used to drive evidence-based national and subnational planning and robust monitoring and evaluation.

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**Gender data in Sweden**

**Utilizing administrative data to generate evidence on violence against women and girls**

The Swedish National Council for Crime Prevention, an agency under the Ministry of Justice and a centre for research and development within the judicial system, produces Sweden’s official crime statistics. It works to reduce crime and improve levels of safety in society by producing data and disseminating knowledge on crime and crime prevention work. The council works closely with delivering authorities and collects and compiles almost all data registered in their databases.

Using the data it produces, the council evaluates reforms, conducts research to develop new knowledge and supports local crime prevention work. Its findings inform decision makers within the judicial system, parliament and government. Council data have led to major legislative reform that has brought about stronger protection of women and girls exposed to violence. For example, legislation concerning sexual offences has been extended and more acts are now included in rape crime. Legislation has also become gender neutral.\(^{126}\)

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**Data are used to identify local needs and to inform and improve local services and programmes**

For gender data, this means:

- **Data from administrative data systems, including basic analysis by gender, must be available and understood by local services (within the department or ministry in which the data is collected, and for broad issues – cross-sectorally by local government)**
- **Capacity exists to interpret and use gender data effectively, and there is a culture to support the use of evidence in planning decisions**

**Gender relevance:** Collation, analysis and reporting are a critical challenge in many administrative data systems as these processes are often done centrally, with data either substantially delayed or unavailable to local users. This may be further compounded when looking at data across sectors (e.g., for local budgeting or prioritization), or in contexts where local capacity to analyse and interpret data (particularly if presented in raw form) is limited.

Decision makers that undertake daily decisions that have a direct impact on the rights and opportunities of women and children\(^{127}\) need regular and up-to-date information. This includes information produced through the systems used to manage day-to-day
Improving Data for Women and Children

operations and service delivery in critical sectors like health and education.\textsuperscript{128, 129} A locally responsive system is one that can disseminate locally relevant gender data in formats that are easily understood and timely.\textsuperscript{130, 131} This type of system can also provide regular updates on those accessing services and the types of services being accessed.\textsuperscript{132, 133} By default, the data can also indicate characteristics of those not accessing services, though cannot explain the underlying reasons or the extent of unmet need.

For example, there are persistent data gaps relating to violence against women and girls in countries around the world. Police and court records from mature gender-responsive administrative systems can provide insights into the utilization of services and overall response to this type of violence by reporting on measures such as the number of incidents reported, persons charged, complaints filed, and civil injunctions or restraining orders issued.\textsuperscript{134} Administrative data can also provide vital information on aspects such as case management within and across sectors, and estimating the capacity of the response, its costing, and resource allocation.\textsuperscript{135} For such a system to be truly effective, however, a clear understanding of who is not represented in the data is needed, with appropriate measures taken to ensure these coverage gaps are overcome.

A system that identifies and responds to local needs is also one where staff within local facilities, subnational units and local government structures have sufficient capacity to collect gender-relevant data, analyse the data to facilitate an understanding of gender differences and the drivers or consequences of those differences, and present gender statistics in powerful ways for decision makers.\textsuperscript{136, 137} Mature systems are also supported by adequate national-level capacity, whereby decision makers understand the importance and relevance of gender statistics and effectively use the data to develop and monitor gender-responsive local policies and programmes.

Gender data in Morocco and Canada

\textit{Building capacity in gender statistics, from development to ongoing implementation}

\textbf{Morocco}\

With support from the United Nations Economic and Social Commission for Western Asia (ESCWA) and UN Women, the High Commission for Planning (Morocco’s NSO) undertook a two-year training programme that targeted key stakeholders (both producers and users). They included line ministries, consultative bodies, NGOs and academia. A questionnaire on capacity was conducted within each of the country’s regions to outline common challenges and good practices vis-à-vis the production of gender statistics sourced from administrative systems. This information was used to develop the country’s training programme on gender statistics.\textsuperscript{138}

\textbf{Canada}\

Statistics Canada provides specialized technical assistance on gender statistics. Guided by its Gender Results Framework to highlight gender equality issues, a training programme was developed to help organizations find gender-relevant data within Statistics Canada’s website, both to keep the data relevant and ensure organizations have access to up-to-date statistics. Training is tailored to each organization, so that staff can understand how to find the statistics and why they are important.\textsuperscript{139}
Administrative data specifically address key disaster preparedness and planning needs (at national and broad subnational level)

For gender data, this means:

- Administrative data sources used in planning and preparedness include capacity to report by sex, in order to effectively monitor the differential effects of the disaster and subsequent recovery on women and men and girls and boys against a known baseline

Gender relevance: While much of the data in disaster planning, response and recovery come from sources other than administrative data systems, a functional administrative data landscape should be able to provide a range of useful data for planning during disasters. This might include figures on population, population demographics and distribution, existing issues and concerns in the community that may be exacerbated by a disaster, and vaccination rates; these data can also shed light on who is excluded or not represented in the country’s statistics. Disasters may create a range of specific concerns that affect women and men and girls and boys differently – including issues of safety when displaced or in temporary shelter, unaccompanied minors, access to post-event support services and payments, loss of income and subsequent issues, health care service/access, and sanitation services/access. Engagement of gender specialists in this planning, through structures such as a national disaster committee, ensures that authorities have the best possible information to consider and monitor potential concerns.

Gender data in Morocco

Strengthening administrative data systems during COVID-19

The COVID-19 pandemic has highlighted the importance of timely and reliable data on cases and deaths disaggregated by sex and age, with preliminary data suggesting that COVID-19 has deepened existing gender inequalities. In Morocco, the pandemic prompted a rapid acceleration of the Ministry of Health Strategy 2025, which prioritizes digitization to help strengthen the resilience of households.

In July 2020, a law was approved to digitize key services for individuals. It set in motion the universalization of social protection systems for the entire population, including health insurance and family allowances. A new laboratory information system was introduced, which includes the ability to rapidly and efficiently manage and analyse data – providing real-time epidemiological data on COVID-19, while strengthening the overall administrative data system in preparation for future outbreaks.

In prioritizing digital health, Morocco is also working towards making health care more accessible to those most in need, including women, children, and those living in rural and remote areas. To build household resilience, Morocco has expanded its systems of digital financial services, access to credit, social protection, and insurance schemes to allow households to start or expand their businesses, potentially offering vital income streams for women.
MATURITY LEVEL 4: 
Flexibility and Form

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

For gender data, this means:

- The importance of data sharing and communication between sectors, including relevant ministries (such as department of women’s or family affairs, or similar) that may be secondary data users and not be engaged in data collection themselves, is recognized.
- A culture of collaboration around administrative and gender data issues exists, including analytical capacity building, data standards, technology reviews and quality control.

Gender relevance: National data standards and formats to support data sharing within and between systems support a cross-sectoral approach by ensuring that data variables are recorded consistently across systems and transferred between systems and agencies in formats that allow for statistical use. A collaborative system is one that has a national data strategy and legal framework that supports the use of national data standards and routine data collection, and that has an effective coordination mechanism between line ministries, the NSO, and department or agency responsible for the promotion of gender equality and women’s and girls’ rights more broadly.

Collaborative systems have clearly defined roles and responsibilities for monitoring gender equality through effective leadership and coordination.

Gender data in Canada

Building cross-sectoral collaboration and partnerships

The success of Canada’s approach to using administrative data is due in part to the strong national coordination mechanisms established between Statistics Canada and key partners, including the Department of Women and Gender Equality, the Department of Finance, and provincial ministries, including health and education. Statistics Canada fosters a strong partnership approach to support national coordination, facilitate data sharing and ensure data quality. Part of this work includes ensuring that data custodians, as data producers, can see the added value in investing in their administrative systems. For example, understanding the value of having data by sex and/or gender offers organization in terms of monitoring a policy or programme. This partnership approach is critically important, because even with legislation in place, neither the sharing of the data nor the data’s quality are always guaranteed.
For gender data, this means:

- **Data are available (with appropriate data protection and privacy measures) for research and knowledge generation of topics of benefit to the community**

**Gender relevance:** Readily available de-identified gender data (data for which all personally identifiable markers have been removed) for interested parties and researchers in accordance with appropriate data protection, privacy and consent, along with information on the data’s quality, is a critical first step in making data a public good. De-identified gender data encourage a culture of critical research, community discussion, and engagement to support development.

Developing system capacity to link and anonymize data records across multiple sectors for legitimate research purposes is equally important, along with the implementation of clear legal frameworks and procedures to assess research proposals and requests for data. Research findings and data releases should be shared with the public and made readily accessible to the community from which the data were drawn, ensuring that communities are actively engaged with the data that relate to them and trust that the data represent their interests.

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**Gender data in Denmark**

**Innovative use of the nationwide police administrative data system**

The Danish police collect nationwide, comprehensive data on all reported offences. Data are recorded by a unique case number that indicates the given police office, the reported criminal offence with reference to the national penal code, and the individual case number. Data registration includes the central population register (CPR) number (the unique identification number of Denmark) for both the alleged perpetrator and the reported victim. The police administrative system (Polsas), in operation since 2001, regulates uniform data registration and updating of the central criminal statistics for Statistics Denmark.

Statistics Denmark regularly publishes an overview of trends in specific criminal offences and profiles of alleged offenders and of victims in reported crimes. The Research Unit of the Ministry of Justice publishes results of specific analyses based on the criminal statistics, while the Ministry for Gender Equality regularly reports on gender-based violence using Polsas data. Researchers can access to encrypted data and draw up a specific data set based on linkages with the various registers in Statistics Denmark. Specific legislation regulates data access and linkage for research purposes.

The model adopted by Denmark allows the government to monitor trends in criminality and evaluate the impact of national strategies for the prevention of specific offences, including violence against women and children. Through Polsas, administrative data are both integrated and seen as a valuable source for planning purposes. By using the CPR number when registering crimes, information can be drawn from other registers – such as civil status, family status (i.e., number of children in the household), occupation, income, and primary household residence of the offender and victim. This provides a comprehensive overview of the characteristics of offenders and victims, and data that are sufficiently disaggregated to enable monitoring the impact on vulnerable groups.147
Maturation Level 6: Integration

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

For gender data, this means:

- **Data from administrative sources can be effectively combined with data from other sources (such as censuses, surveys, big data, needs assessments or qualitative data) to analyse important issues related to gender**
- **Critical data needs, including those that require integration of data sources, are identified in appropriate strategic documents and supported by clear processes and allocation of responsibilities**

**Gender relevance:** Beyond simply making data from different sources centrally available as part of a national statistics system, this higher level of maturity recognizes the added value of using data from multiple sources to interrogate, understand and monitor development issues from a nuanced perspective. This does not necessarily mean that data need to be directly linked, but rather that data sets are not considered in isolation. This requires a national statistics strategy that is operationalized and linked to national planning processes, compatible data standards, and analytical capacity. It also requires governance and legal frameworks to ensure clear responsibility and appropriate data protection.

The degree to which an administrative system is digitized also has an impact on the likely level of integration with other sectoral and statistical systems; this is particularly important for gender statistics, given the need for disaggregation by sex at the unit-record level. Digital systems, when based on national metadata standards to ensure consistency, increase the utility of administrative records for statistical purposes by increasing the amount of data available for gender analyses, improving the timeliness of data, and facilitating data access and usability.

**Gender data in Brazil**

**Integrating administrative data records to understand the impact of dengue during pregnancy on birth outcomes**

Brazil has well established procedures that allow researchers to access administrative data that have cleared the appropriate ethics reviews and are in the public interest. National standards and coordination across administrative data producers ensure that data are aligned across various data sets, making it possible to undertake probabilistic data linkage, even where a unique identifier is not available to support direct matching between sources.

A 2019 research paper highlighted the value of integrating data from different sources to interrogate maternal and child health issues that cannot be fully understood or monitored from a single source, and subsequently inform service delivery and response. Dengue notifications and associated case history data were linked to birth registration outcome data to examine how contracting the virus influenced outcomes for mother and child. The research demonstrated both the impact of dengue as a contributor to stillbirths and poor birth outcomes in Brazil and flagged important issues related to when the illness occurs during pregnancy. This information can help set public health priorities and strengthen existing clinical response protocols to better support patients.

Given the difficulties in ensuring full coverage and completeness of data from administrative systems, a mature integrated system is also one that includes small area markers (such as a postcode) or individual identifiers to allow other data sources to be cross-linked and help identify women and girls not being reached through routine administrative systems.

A recent pilot project in Tanzania, for example, was able to prospectively link data from the health and demographic surveillance system to health facility records, allowing for real-time identification of patients...
while generating a rich source of directly observed data on access to and utilization of health facility services at subnational level. Countries with advanced national data infrastructure and that have long used global (or ubiquitous) national unique identifiers, such as Denmark, Finland, Iceland, Norway and Sweden, are characterized by the broad scope of their identifiers, which are assigned at birth (or upon immigration) and used to link data across government systems, sectors and, increasingly, the private sector.

### Gender data in Rwanda

**Using administrative systems to assess the impact and sustainability of land tenure programmes for women and girls**

Given the significant impact of land ownership on women's autonomy, and intergenerational benefits to children when limitations on ownership through inheritance or systems of marriage and divorce are addressed, Rwanda introduced the Land Administration and Information System (LAIS) in 2005. The LAIS provides real-time data on registered land transactions, including land ownership by sex, and can quantify and manage issues at a high level of disaggregation.

A recent review of LAIS data demonstrated the gender-responsive nature of the regularization programme, with 25 per cent of tenured land parcels registered to women as sole owners (compared with 14 per cent to males) and 61 per cent to women as co-owners.

Rwanda has also worked to link administrative data with household survey data to better understand the levels and determinants of informal land ownership. By linking LAIS data with data from a 2015 household survey, for example, key issues were identified that contribute to informalized land transfers, such as a lack of information on the need to register land and the relatively high cost of registration. This analysis provided the necessary evidence to develop effective and gender-responsive local policies and programmes.

### Gender data in Oman

**Investing in the national administrative data infrastructure to produce timely and reliable data for decision-making**

Oman conducted its first e-Census in 2020, relying on data from existing administrative registers rather than the traditional door-to-door counting approach. One of the main benefits of an e-Census is that it can provide real-time data due to the continuous nature of administrative registers.

Planning for the e-Census took several years and required strong governance and coordination among different ministries and agencies, along with investments into the country’s national administrative data landscape. This included strengthening the legislative framework to develop an integrated statistical system electronically linked to administrative registers; investments in national administrative data systems, including the standardization of identifiers and indicators; and building an online data integration hub to facilitate real-time data exchange between government agencies.

While existing administrative registers were able to provide most data required for the e-Census, gaps in data to produce certain variables were noted, including those relating to chronic illnesses, pregnancy, child health, and social protection programmes. To address these gaps, work is continuing between the NSO and various owners of administrative registers to strengthen data capture at the source – helping to improve the statistical reliability of the data, while not affecting their operational usefulness. By providing high-quality, timely data on gender-relevant issues (e.g., pregnancy and child health) and addressing gender data gaps in current programmes (e.g., social protection), these efforts are leading to improved statistics on women and children.
Data support a holistic approach to services and care to support better outcomes through coordination across programmes, locations and sectors

For gender data, this means:

- **Access to services and care, including programmes to improve access for women and girls or to address specific issues, are supported by strong coordination across programmes, locations and sectors**

- **Effective case management services, particularly for welfare or child protection cases, are supported by systems where case managers have access to all the relevant data they need to improve outcomes through holistic care, while rights are protected through strong data privacy and protection**

- **Data systems support continuity of care and services for children and families on the move as they change location within a country, by making appropriate records to local providers in their current location**

**Gender relevance:** Collecting data at the unit-record level allows for disaggregation by multiple characteristics and, when appropriate data sharing standards and formats are in place, allows for administrative data to be used in a variety of statistical ways, including direct tabulation and indirect estimation. More importantly, when data sharing between relevant local services is supported and active, it facilitates the oversight of multiple services and programmes on gender equality by policymakers, while enabling data to track women and girls as they move between services and systems.

**Gender data in Ireland**

*Strengthened service provision through Ireland’s online database on gender-based violence*

There is growing recognition of the need to have timely, accurate and comprehensive data available to develop policy and commission services relating to domestic, sexual and gender-based violence in Ireland. The Rape Crisis Network Ireland (RCNI) database is a secure online database that allows authorized non-statutory sexual violence services in Ireland to record anonymized information on the specific needs and use of services by individual users. The data allow the individual services and the RCNI to generate a wide range of reports about the use of local and national services, and the characteristics and situation of service users in relation to sexual violence. The system offers a unique data source, as almost two thirds of these data relate to non-reported cases of sexual violence.
### SELF-ASSESSMENT CHECKLIST 1: Assessing maturity of the cross-sectoral administrative data landscape for gender data

This simple, downloadable self-assessment tool allows countries to benchmark key aspects of their administrative data landscape through a gender lens, by considering how well each of the statements reflects the national administrative data landscape. Where possible, countries are encouraged to include a diverse group of interested stakeholders, including representatives from the NSO, gender ministry/department/agency, and key line ministries responsible for core administrative data systems. For reference, see pp.14–29; checklist can be downloaded [here](#).

<table>
<thead>
<tr>
<th>Maturity level</th>
<th>Describing a mature administrative landscape through a gender lens</th>
<th>This statement applies to the administrative data landscape in my country</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very well</td>
<td>Mostly – with some exceptions</td>
</tr>
<tr>
<td><strong>1 Formation</strong></td>
<td>Core systems for women and children exist, are functional, and have national coverage geographically</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Administrative data are seen as a valuable source of national data on topics related to gender alongside other sources, such as censuses or surveys</td>
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<tr>
<td></td>
<td>A national agency has a clear legal mandate to produce and publish official statistics on gender</td>
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<tr>
<td></td>
<td>The publication and sharing of gender-related data across ministries is supported by formalized cooperation between the NSO and relevant line ministries</td>
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<td></td>
<td>A functional civil registration system is in place with complete (or near complete) registration of all births for girls and boys, including the issuance of a birth certificate</td>
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<tr>
<td></td>
<td>Accessible and equitable pathways to legal identity specifically address population groups that may face barriers to registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2 Foundational</strong></td>
<td>Administrative data systems provide reliable and routinely available data as part of a national statistics system, on both specific indicators for gender-related issues and sex-disaggregated data for reporting against international frameworks (including the SDGs, CRC, CEDAW and BPfA)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Beyond required reporting against international commitments, reliable and timely gender data from administrative sources are not limited to indicators required for reporting against international commitments, but also include data required for monitoring gender equality as identified by national policy frameworks and the localization of gender-relevant SDG indicators, as well as the data required to support national services and systems to achieve these development goals</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Development indicators are available by sex, so that data reflect the different challenges faced by girls and boys</td>
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<td></td>
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<tr>
<td></td>
<td>Data are sufficiently disaggregated to allow gender differentials related to rights or key development outcomes to be routinely probed by other population characteristics (ethnicity, location, poverty quintile, etc.) to effectively monitor that women and children from vulnerable groups are not left behind</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maturity level</td>
<td>Describing a mature administrative landscape through a gender lens</td>
<td>This statement applies to the administrative data landscape in my country</td>
<td>Comments Why does this describe your national situation? Please note sectors or systems that may be exceptions</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Very well</td>
<td>Mostly – with some exceptions</td>
</tr>
</tbody>
</table>
| 3 Functional   | • Gender data from administrative systems are available and actively used by decision makers at the national and subnational levels, both within the ministry in which they are collected and cross-sectorally  
• There is evidence in planning and results documents that data are used to inform policies and strategies and drive decision-making  
• Data from administrative data systems, including basic analysis by gender, must be available and understood by local services (within the department or ministry in which the data is collected, and for broad issues – cross-sectorally by local government)  
• Capacity exists to interpret and use gender data effectively, and there is a culture to support the use of evidence in planning decisions  
• Administrative data sources used in planning and preparedness include capacity to report by sex, in order to effectively monitor the differential effects of the disaster and subsequent recovery on women and men and girls and boys against a known baseline | | | | |
| 4 Flexibility and Form | • The importance of data sharing and communication between sectors, including relevant ministries (such as department of women's or family affairs, or similar) that may be secondary data users and not be engaged in data collection themselves, is recognized  
• A culture of collaboration around administrative and gender data issues exists, including analytical capacity building, data standards, technology reviews, and quality control | | | | |
| 5 Engagement   | • Data are available (with appropriate data protection and privacy measures) for research and knowledge generation of topics of benefit to the community | | | | |
| 6 Integration  | • Data from administrative sources can be effectively combined with data from other sources (such as censuses, surveys, big data, needs assessments or qualitative data) to analyse important issues related to gender  
• Critical data needs, including those that require integration of data sources, are identified in appropriate strategic documents and supported by clear processes and allocation of responsibilities  
• Access to services and care, including programmes to improve access for women and girls or to address specific issues, are supported by strong coordination across programmes, locations and sectors  
• Effective case management services, particularly for welfare or child protection cases, are supported by systems where case managers have access to all the relevant data they need to improve outcomes through holistic care, while rights are protected through strong data privacy and protection  
• Data systems support continuity of care and services for children and families on the move as they change location within a country, by making appropriate records to local providers in their current location | | | | |

Although maturity will vary by sector, the intent of the checklist is to provide an overall benchmark across sectors and reflect the cross-sectoral nature of gender data. Data landscape maturity is largely cumulative in this sense – so although some sectors and systems may score more highly (and have more statements that would be assessed as true), the maturity level should be considered as the last category for which stakeholders were able to answer “very well” or “mostly – with some exceptions” without having to answer any question with “to a limited extent” or “not at all”. Those that find themselves in level 1 – Formation – may be best placed to focus on one or two key sectoral systems in the first instance as a starting point, while those in level 2 or 3 – Foundational or Functional – will want to focus on including cross-sectoral issues such as infrastructure, coordination, data standards, capacity building and strategy. Including a gender lens – and gender specialists – in these conversations from the beginning can help ensure that data needs and appropriate standards can be built in as a core part of the data system. In each case, the next step is to identify the key barriers and challenges that may be limiting system maturity.
Part 3: Common challenges and barriers to the effective use of administrative data in gender statistics
Using data from administrative systems to produce gender statistics presents many opportunities – but various challenges and barriers remain. These have been broadly grouped below into those relating to the use of data sourced from administrative systems generally, and specific challenges related to the production and use of gender statistics.

Many of these challenges are interrelated. For example, the lack of sex-disaggregated data is often due to a lack of demand, which can result from policymakers’ limited capacity to recognize the need for gender data in their country or field of responsibility, as well as the lack of a gender focus in the national statistical system, resulting in insufficient budget allocations for the production of gender statistics.

**Challenges related to administrative data**

**Administrative data not suitable for all uses**

Administrative data have several inherent limitations, as their primary purpose is not the collection of data for statistical purposes. Administrative data sources can offer reliable measures of incidence (new cases or new reports), but as they are based on service provision, can only provide the prevalence of those who are current users of the system. They also struggle to capture the extent of underreporting. This makes them unsuitable for determining the overall prevalence of issues within a population, such as the burden from violence or mental health issues. \(^\text{159}\)

**Lack of correspondence with statistical concepts and definitions**

Because administrative data are often not collected for statistical purposes and statistical agencies have limited influence over how data are collected as part of administrative system processes, these data often do not correspond to the statistical concepts and definitions used in surveys collecting data on the same topic. This can affect the relevance, accuracy and coherence of the data. For example, the monthly reporting forms used in many health facilities only differentiate between ‘new’ and ‘returning’ patients, making it difficult to measure antenatal care coverage, which per international standards for calculating the indicator, requires counting the number of women aged 15–49 years with a live birth in a given time period who received antenatal care four or more times. Similarly, registered unemployment systems will rarely be aligned with statistical definitions of unemployment, which can lead to confusion among data users. And different entities within the same country may employ different definitions of disability depending on the purpose of the administrative data collection, rendering it difficult to use the data for the disaggregation of key indicators.

The issue of diverging concepts and definitions can be compounded when data are collected in different jurisdictions that have different legislative requirements regarding data acquisition and use. Data custodians may also have varying reporting requirements, which can affect the level of detail available to external parties. As such, the relevance and coherence of administrative data must be assessed as a component of data quality.

**Data quality**

Often, the ‘found’ nature of administrative data means that they are more likely to be messy and in need of substantial data management. \(^\text{160}\) Their multidimensional nature increases the likelihood of fragmentation across systems and hinders consistent data collection practices. \(^\text{161, 162}\) In many situations, forms and data collection tools may have evolved over years and subsequently not reflect current data needs and/or be resistant to changes. In many systems, it can be difficult to identify the data collection and management steps required to evaluate the data – particularly for data users who sit outside of the collection agency itself.

While administrative data are collected continuously, there can be significant delays between when data are collected and when they are made available. Given their continuous nature, incomplete records may be submitted in one cycle, and updated in the next, creating duplicate records and conflicting data. Custodians responsible for data collected within administrative data systems may not have the same interest (or resources) in following up on missing data, as their focus is on service delivery rather than statistical production. And in some cases, administrative data owners may be reluctant to share
data with NSOs given sensitivities about the quality of the data.

**Coverage and inclusion**

While administrative systems have the advantage of including those least likely to take part in traditional research, considerable data quality challenges relating to coverage and completeness remain. This refers to the extent to which certain populations may be systematically excluded from data sets, and is of particular concern for women and girls who are vulnerable to being excluded from administrative systems based on discriminatory legal frameworks. Data from national identification systems that require authorization from male family members as part of registration, for example, generally underrepresent women and girls. Issues of equity can further compound these challenges, with children born to mothers from the poorest wealth quintiles least likely to have their births registered, excluding them from such administrative data sets.

**System capacity to generate disaggregated data**

Systems that are heavily reliant on manual data collection, entry or processing, or that have not been updated to meet current data collection needs, may have limited capacity to disaggregate data by sex, particularly in conjunction with other variables.

**Unstable collection processes or frequent system changes**

Political changes can also have an impact on how administrative data are collected; overall data quality is only as reliable as the record keeping and registration practices at the point of entry or service provision. A service may change its eligibility criteria, thus including or excluding different population groups from the administrative data system, while the end of a government funding cycle may entirely close a service and its associated data collection processes. The Office for National Statistics in the United Kingdom, for instance, used health records to help measure changes in service delivery, however, changes in definitions and coverage of administrative processes created statistics that had little credibility.

By their very nature, administrative data are not able to identify the extent to which services are responding to users’ needs, or highlight hidden patterns in the data, including data relating to the needs, activities and interests of women and girls.

**Limited access to administrative data files**

Poor access to both administrative data files and documentation and microdata on administrative systems also poses significant challenges to NSOs. As UN Women identified through its mapping of gender-relevant indicators, the existence of administrative data records is often only inferred through the indicators produced by them, with access to microdata generally not available from key systems. While a so-called cultural history of poor information sharing between sectors is often blamed for the limited use of administrative data by the international community, in countries like Ghana that have limited formal data sharing agreements in place, the process to gain access to new administrative data files is complex, requiring official endorsements from relevant line ministers. Further, even when collected and shared, data are not always tabulated by sex or made available in user-friendly formats to allow for meaningful gender analyses at the NSO.

**Lack of capacity and trust in using data from administrative systems**

There is an overall need to strengthen NSOs’ capacity to work with data from administrative systems both in terms of skills and resourcing, given their traditional roles in the design and implementation of large surveys and the budgeting tied to these processes. Capacity is also limited due to the noticeable gap in robust guidance on integration of a gender perspective into the available tools, guidance and methods for assessing and improving administrative data, such as the World Bank EMIS tools and the WHO’s civil registration and vital statistics systems assessment tools. This lack of capacity, along with limited access or ability to interrogate or influence how data are collected by line ministries in many countries, contributes to significant issues of trust in using data from administrative systems.
Challenges related to the production and use of gender statistics

Gender-blind institutional environments

Countries with strong national commitments to gender equality and a willingness to convert these commitments into practical actions have driven considerable progress in the production and use of gender statistics. Conversely, a weak national-level policy space and legal and fiscal environment to produce gender statistics, technical challenges within NSOs and line ministries, and limited capacity on the part of users to analyse the data and inform gender-relevant policies are common roadblocks to strong gender statistics.

Countries need national policy frameworks to drive demand for these data and to guide production and use of official gender statistics. Without demand, administrative systems are unlikely to prioritize the collection of sex-disaggregated data – a critical first step in producing gender statistics. The gender-blind nature of certain statistical topics may contribute to this lack of demand.

A 2019 study, for example, found that 80 per cent of policymakers agreed that gender equality was a ‘high’ or ‘very high’ priority in the education sector, while only 38 per cent ranked public finance as a similar priority. In the absence of strong national demand and a clear mandate for the production of gender statistics by different ministries and agencies, many administrative data systems become ‘reactionary’. They either provide no gender-relevant information, or produce the minimum required for reporting obligations.

Workplans are likely to be gender-blind without the appropriate guiding laws and policies on gender statistics, leading to gaps in policy and programme frameworks. Of 53 countries included in a study presented as part of the 2019 Sustainable Development Goals Report, almost one third had gaps in their overarching legal frameworks, including those related to discrimination, violence, employment and economic benefits, and marriage and family.

A low status of gender units (when they exist) can also reduce institutional legitimacy awarded to gender statistics, restrict senior decision makers’ understanding of the need for gender-relevant data, and limit national-level reporting on gender equality. Failure to place gender at the centre of macro-level processes may be the result of poor funding, inadequate resources allocated to the production of gender statistics, and marginalized gender focal points. A recent case study in Bangladesh, for example, found that limited political will and lack of understanding of the importance of gender statistics had resulted in an inadequate legal and financial environment for monitoring gender equality.
Lack of clarity over gender data needs

The emphasis on gender statistics for international reporting, in contrast to a general deprioritization of subnational-level data dissemination and use,\textsuperscript{196} has led to poor local-level understanding of data needs. This stems from the lack of prioritization of SDG targets,\textsuperscript{197} and the challenge of disaggregating indicators where relevant by income, sex, age, race, ethnicity, migratory status, disability, geographic location, and others.\textsuperscript{198} Limited guidance on priorities for sex-disaggregation and on which minimum gender-specific variables should be included in data collection forms has led to poor clarity of data needs, particularly among line ministries responsible for creating and maintaining administrative systems.

Limited capacity in the field of gender statistics

Gaps in national capacity in understanding the importance and relevance of gender statistics, how to analyse data in a gender-relevant way, and how to present data in powerful ways for decision makers at subnational and national levels remain a significant challenge.\textsuperscript{199, 200} These shortfalls have important downstream consequences, as without this capacity, data collection remains largely ad hoc, underresourced and largely peripheral in NSOs.\textsuperscript{201}

An enabling environment that includes opportunities for capacity building must be prioritized, as many issues of significance to women and girls are hard to conceptualize (poverty, empowerment), sensitive (gender-based violence), or occur in sensitive contexts (armed conflict), compounding the challenge of defining what to measure and how to measure it.\textsuperscript{202} Limited capacity also contributes to a lack of clarity – around what gender-related data are needed and by whom, particularly at the subnational level and for identifying local needs (for an example, see Ghana’s country case study in Annex 1), and around what should be prioritized when data are available.

Difficulties of coordination

Producing gender statistics is a complex and multi-actor process (as outlined in Part 1),\textsuperscript{203} requiring engagement and coordination not only between NSOs and line ministries but also with the national women’s machinery – the government structure responsible for promoting women’s and girls’ advancement and mainstreaming gender in all policy areas. This adds a layer of complexity to what is, in many cases, a fairly recent shift in how line ministries and the NSO work together, and mirrors challenges in other complex systems, such as CRVS, where regional commitments like the Asia-Pacific CRVS Decade (2015–2024) have prioritized national coordination mechanisms as an essential element of addressing data quality and registration completeness concerns.\textsuperscript{204}

Coordinating data standards and use of administrative data may be particularly complex given the multiple agencies and organizations that may service a single sector.\textsuperscript{205} Countries with decentralized systems of governance may also face additional hurdles in this regard (see Canada’s country case study in Annex 2). When line ministries are managed by subnational governments (such as at a state, territory or provincial level), administrative data files may not be collected in the same way, making national-level usability more difficult.\textsuperscript{206, 207, 208}

Lack of sex-disaggregated data

The lack of sex-disaggregated data is an ongoing obstacle to generating gender statistics, particularly for data collected at the household level,\textsuperscript{209} and plays a role in obscuring entrenched inequalities.\textsuperscript{210} While administrative systems can provide frequent data
– a large proportion of which relate to individuals – the extent that sex and other variables of interest are recorded reflects the laws and regulations of a country. Several reasons may account for poor disaggregation at the subnational level. Changing an administrative system not designed to capture data by sex can be difficult, requiring updated data capture forms, revised databases and staff training (see Annex 2). The quality of disaggregated data, particularly when tabulated by multiple characteristics, also generally decreases as the data become further removed from the immediate data needs of the administrative system.

This challenge is often further compounded at the national level: Even when sex-disaggregated data are collected, they may remain at the subnational level, or be stored and shared in formats that are hard to use for statistical purposes. This is particularly apparent in less mature systems where administrative records are not electronic or centralized, making it difficult to further utilize administrative records for statistical purposes. A lack of digitization at the lowest levels of data collection often means that NSOs only receive aggregate tally records, which are challenging to integrate with other data sources and cross-tabulation is impossible (see Ghana’s country case study in Annex 1).

The centralization and/or collation of administrative data at national levels creates a further challenge, given the often disconnect between the local level where sex-disaggregated data need to be collected and the national level where the data are assembled and used. This may result in local-level data producers and users not seeing the value in the collection of sex-disaggregated data at the point of entry.

However, without demand for sex-disaggregated data at either national or subnational level or clarity over what topics should be disaggregated by sex (and other variables), it is far less likely such data will be recorded in an administrative system. This represents a significant challenge in the use of administrative data for gender statistics among less mature systems, particularly regarding intersectional analyses and the current focus on multiple disaggregation, as many systems are still struggling to collect, compile and report on data disaggregated by sex alone.

**Contextual sensitivity**

The potentially sensitive nature of much of the data required to measure and monitor gender equality may also contribute to a poor gender statistics environment. Though evidence on this challenge is generally scarce, certain gender topics in different countries and contexts – particularly around reproductive health and violence – are likely to trigger social and cultural sensitivities. For instance, during the country consultative process to define the SDG goals and indicators, several countries reported that topics such as sexual and reproductive health had no relevance to them. While these challenges are not specific to gender statistics sourced from administrative data systems, they can compound the challenges of using administrative data sources for gender statistics, especially in ministries that hold administrative data but lack a gender focus.
### SELF-ASSESSMENT CHECKLIST 2: Identifying barriers to using administrative data for gender statistics

This downloadable self-assessment provides countries with a quick summary tool to evaluate critical challenges in their setting, and which should be prioritized in order to move to the next level of administrative data maturity (and to support better use of administrative data). For reference, see pp.33–37; checklist can be downloaded [here](#).

<table>
<thead>
<tr>
<th>Category</th>
<th>Key challenges or barriers</th>
<th>This challenge applies to the administrative data landscape in my country</th>
<th>Considering our current level of maturity – is addressing this challenge a key priority for advancing to the next level?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administrative data</strong></td>
<td>Administrative data not suitable for all uses</td>
<td>This is not a major challenge</td>
<td>We have some challenges with this</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of correspondence with statistical concepts and definitions</td>
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<td>This is an important challenge in our context</td>
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<td></td>
<td>Data quality</td>
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<td></td>
<td>Coverage and inclusion</td>
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Part 4: Pathways to better gender data
Improving Data for Women and Children

The maturity model and self-assessment tools in this guidance offer a high-level overview of how well the national administrative data landscape supports the data needed for monitoring gender equality in a country, and the key barriers limiting the use of administrative data for gender statistics or development of a more mature administrative data system. Addressing these challenges involves investments in both administrative data systems and those specific to the production and use of gender statistics. While it is beyond the scope of this guidance to discuss sector-specific investments in detail, strengthening management information within civil registration and vital statistics, maternal and child health, gender-based violence, and education systems is also critical for improving the availability of key gender statistics for women and children.

**Investments in administrative data systems**

Four current trends provide a useful platform from which to advocate for investment in administrative data systems: 1) the global focus on making the most of existing data sources; 2) technological advances that are rapidly expanding options for coverage, outreach and data management; 3) the evolving role of national statistical systems as data stewards that facilitate the integration of multiple sources of data; and 4) the growing interest in data protection and privacy and responsible data use frameworks. These trends also provide a key entry point for gender data specialists or agencies to find a place at the table to influence investments and designs.

**Basic building blocks**

- **Examine system maturity and overall capacity**

Before administrative data are able to serve as a reliable source in the production of gender statistics, system maturity must be at a foundational level (see p. 15). Investments that strengthen a system’s overall capacity to improve the quality and availability of disaggregated data typically lead to more robust data disaggregation by sex. An important first step is ensuring that aggregate data on key measures of gender equality are readily available, which can also increase data demand from a variety of users.219

- **Legal and governance frameworks**

Several sectoral-specific guidance documents already exist that outline approaches to assessing the legal frameworks permitting or prohibiting the use of administrative records in the production of official statistics, notably those relating to systems of civil registration and health, which could be adapted for use in other sectors.

Legal frameworks around open data, data protection, and identification also provide opportunities to develop formal processes for sharing data, build relationships that clearly define roles and responsibilities between sectors, and foster public trust in data use and processes.

- **Strategic planning of the statistical system**

**Develop a results-orientated strategic plan to achieve gender equality, endorsed by senior leadership, and developed through broad consultation with government and non-governmental stakeholders**

A strategic plan must be in place to ensure that data from administrative systems are actively used in national and subnational planning, monitoring and evaluation. National- and subnational-level strategies
Improving Data for Women and Children

should also have measurable goals and indicators linked to high-level outcome targets to achieve gender equality, with a defined set of responsibilities, timelines, action plans and monitoring mechanisms.\textsuperscript{220} The growing availability of sectoral guidance on using administrative data to produce gender statistics to monitor reported gender-based violence,\textsuperscript{221, 222, 223, 224} for example, and the strengthening of civil registration systems to address issues of gender inequality,\textsuperscript{225, 226, 227} provide opportunities for increased integration and use of administrative data in planning, monitoring and evaluation and can act as examples for other sectors wishing to develop similar guidance.

A national data strategy that supports the use of national data standards and routine data collection,\textsuperscript{228} and one that has an effective coordination mechanism between line ministries, the NSO, and department or agency responsible for gender more broadly, is essential.\textsuperscript{229}

- **Improve the collection and availability of sex-disaggregated data**

While national gender ministries, departments or agencies can drive political will for gender statistics, and NSOs can provide technical guidance, line ministries responsible for administrative data systems need to take on leading roles in improving the collection and availability of sex-disaggregated data at the unit-record level. Several sectoral assessments are already available to help understand strengths and weaknesses of core systems (including those in education, health, and civil registration),\textsuperscript{230} which can be referenced while countries are reviewing data collection forms to ensure they capture the needed data.

To improve the collection and availability of sex-disaggregated data at the unit-record level, local-level data producers and stakeholders must experience
the usefulness of the data they collect and the impact of these data on local decision-making. Greater engagement with the national level and better understanding of the importance of gender data can incentivize local-level data producers to address issues such as quality, usability and standards at the point of data collection/entry.

**Digitization and data linkage**

- **Digitize systems to improve access and coverage, speed up processing, and facilitate improved data quality and local data use**

Digitized systems that leverage dashboards and other linked messaging tools is perhaps the defining investment strategy for administrative data systems at lower levels of maturity to address gender data gaps. The launch of Morocco’s digital economy plan, Maroc Digital 2020, for instance, while not specifically designed to improve gender statistics, has several goals that are likely to have a substantial impact on administrative data systems more broadly, and, as such, gender-relevant data. These include a focus on interoperability, building shared services, eID and online public services, and the development of an intra-ministerial network to facilitate the regular exchange of data between the public sector.²³¹

Digitization has also enabled statistically mature countries to implement sophisticated data linkage programmes, offering substantial insights into several areas of gender equality.²³² But digitization without political support and coordination is likely to fail, particularly if fundamental issues relating to what data are needed for monitoring gender equality have not been addressed.

Developing system capacity to link and anonymize data records across multiple sectors for legitimate research purposes is equally important, along with the implementation of clear legal frameworks and procedures for assessing research proposals and requests for data. Research findings and data releases
should be shared with the public and made readily accessible to the community from which the data were drawn, ensuring that communities are actively engaged with the data that relate to them, and trust that the data represent their interests.

The capacity to link administrative data based on individual records, also assisted by digitization, offers a significant opportunity to better utilize existing administrative data, even when data quality is poor. Administrative data from one system can be linked to another, such as details in a population register that are matched with health records; linked to contextual information, such as the district or region where a person resides (or service was provided); or linked to household survey data or the census, providing detailed and rich information, while at the same time helping to strengthen administrative data sets by highlighting data quality issues, particularly around coverage and completeness. While the level of digitization and presence of a unique identifier greatly facilitates the process, linking can be done through ‘fuzzy’ matching methods, such as matching personal details like names or date of birth.233 Opportunities for increased data linkage are becoming more widespread given the drive for strengthening systems as part of the SDGs and broader investments in data systems, including digitization, the implementation of national identity systems, and the increasing number of countries looking to implement register-based censuses, which are based on existing administrative data systems.

**Capacity-building**

- **Invest in NSOs to build expertise in the use and development of administrative data**

As countries modernize their national statistical systems, NSOs must be equipped with the technical skills needed to leverage new data sources, including administrative systems. Training and capacity strengthening programmes can build on existing know-how within NSOs to foster new skills in the use and development of administrative data, including quality assurance, data integration, and coordination of administrative data across the national statistical system. Countries are also encouraged to establish smaller, decentralized statistical units within key ministries or, at a minimum, to position a statistical officer in each ministry to support data collection processes and ensure that the data and corresponding metadata are routinely made available to the NSO in the necessary format.

Several agencies are working to build capacity in the use of administrative data for official statistics, including the [UN Collaborative on the Use of Administrative Data for Statistics](https://unstats.un.org/unsd/cosadda/), which provides a platform to share resources, tools, best practice and experience, and raise awareness among NSOs about the benefits of sharing and combining administrative sources to enhance the quality, coverage and disaggregation of statistical data.
Gender-specific investments

To address many of the most pervasive and intractable gender data gaps and challenges – and for real change to occur – general system-strengthening will need to be matched by gender-specific investments. This hinges on a specific advocacy framework that defines these investments, establishes why they are needed and sensitizes decision makers to their value.

Legal and governance frameworks

- Define and implement gender-specific investments and data requirements based on a specific advocacy framework

A formalized national gender policy framework drives both production and use of gender statistics. Countries without such frameworks are strongly encouraged to develop one under the guidance of the national gender ministry, department or agency.

Clearly defined gender data requirements and a recognized role for gender statistics in the national data landscape greatly influence the ability of administrative systems to provide the data needed to report against international frameworks and monitor gender equality as identified by national policy. Commitments to reporting against international mandates, such as the CEDAW and 2030 SDG Agenda, generate momentum to produce and use gender statistics; these commitments can in turn be leveraged to develop national policy frameworks that define the data and corresponding indicators needed to monitor gender equality.

Investing in national policy frameworks fosters an enabling environment, clarifies data needs (including requirements for disaggregation), and increases data demand, particularly when administrative systems are a prioritized data source. Global commitments are more likely to become institutionalized and sustainable as local data collection mechanisms are strengthened, a process that also positions gender statistics in the national data landscape. Countries with a strong national commitment to gender equality matched by a willingness to invest in practical action have also been seen to link their national gender frameworks to budgetary and financial management decision-making processes, thus ensuring that gender equality is considered across government departments.234, 235

Strategic planning of gender statistics

- Clarify gender data needs

Developing a national gender policy with a monitoring framework, which includes clearly defined indicators and data sources, is a critical first step in defining data needs. Open conversations between the NSO, line ministries, and the national gender ministry, department or agency responsible for the gender policy about which data are needed and which are currently available (or could be available) are a valuable entry point, along with reviews of current data collection mechanisms (such as data capture forms and survey instruments).

Monitoring frameworks on gender equality with priority subnational, national and international indicators – all critical in clarifying data needs – must be developed. These frameworks can also act as a useful starting point in the localization of SDG indicators for national use. It should also be noted that as publication and dissemination of gender statistics are improved, increased demand is likely to follow as stakeholders become aware of the types of information available.
**Coordination and collaboration**

- Establish a national coordination mechanism to support the production of gender statistics, including from different administrative data systems

Countries are strongly recommended to establish coordination mechanisms through the development of specific gender statistics forums, such as the Interagency Committee on Gender Statistics established by the Philippine Statistics Authority in 2014 and the recently reactivated Brazilian SDG5 Working Group. Countries can also improve coordination by including and integrating gender into existing national statistical mechanisms, such as national strategies for the development of statistics. Widescal investments in the development of these strategies, due in part to the increased importance of a comprehensive and coordinated national data infrastructure that takes a whole-of-government approach to statistical development required for monitoring the SDGs, are creating opportunities for agencies responsible for the promotion of gender equality and women’s rights to engage with counterparts on data-related issues.

**Capacity-building**

- Increase capacity among NSOs to work with gender data

Robust gender statistics can only be produced by national statistical systems if NSOs have the technical skills to engender the concepts, classifications, methodologies and statistical processes underpinning gender data. Within NSOs, dedicated staff should be assigned responsibility for the development of gender statistics, including from administrative systems, and equipped with the training and resources necessary to ensure a gender-sensitive approach in statistical production. Such training can draw upon sector-specific gender guidance, as well as guidance that assesses national statistical systems’ capacity to mainstream gender. Within a country’s national strategy for the development of statistics, for example, opportunities to integrate gender into statistical processes include revising or expanding data sources to better focus on gender issues, revising definitions and concepts to ensure they are gender-sensitive, and improving the presentation and dissemination of results.
Conclusion

Data from administrative systems play a critical role in monitoring gender equality and addressing persistent gender data gaps. These gaps must be closed if countries are to achieve the 2030 SDG Agenda targets for children and their families. Well-managed and well-resourced administrative data systems can provide regular and granular data at the subnational level, which are not only essential for informing effective policymaking, but may also provide important contextual information and proxy measures to better inform understanding of progress between surveys and address monitoring gaps.

Investments with wide-ranging results

There are challenges involved in building administrative systems’ capacity to generate gender data – and there is no single path to better gender data. Country priorities will vary depending on levels of administrative and statistical system maturity, and the extent of the gaps in the gender data. Supporting calls for broad administrative data system investments, technological advancement, and national statistical governance and coordination are perhaps the most effective strategies available to gender advocates to strengthen the data available to them.

Investments in better gender data have great potential to change the lives of women and children for the better. Gender data can be used to develop national policy frameworks and ensure the most vulnerable women and children are not being left behind. Efforts to build national capacity to generate these data can drive local demand for gender statistics and clarify data needs, thus addressing issues of both data demand and supply.

Strengthening administrative systems for better gender statistics generally does not require standalone investments. For example, there are large associated benefits of digitization, including increasing the availability and timeliness of sex-disaggregated data. Improving the capacity of NSOs and line ministries to work with administrative data and strengthen the production of proxy indicators for policy, along with implementing systems for data linkage, also boost immediate data availability and help strengthen the underlying systems.

A broad call for support

The international community has an important role to play in supporting the use of administrative data in the production of gender statistics, including strengthening systems overall and improving guidance and clarity on how data from administrative systems can be used. This involves investments in methodological work to identify examples and adjust definitions where administrative data could fill a data gap with a locally adjusted indicator definition, act as a proxy to produce more timely measures or improve estimates in between surveys, or provide important contextual information either alone or linked with other data sources. Further, the development of internationally harmonized methodologies and data collection forms could provide guidance on sectoral-level core data and indicators needed to monitor gender equality, which countries could adapt and localize. These have the
potential to standardize and strengthen administrative data systems, following a similar pathway that has been taken to improve surveys’ use and applicability.

Recent guidelines on the use of administrative data for improved statistics on violence against women and girls, for example, provide detailed and practical guidance on when administrative data should and should not be used in the construction of indicators and how countries can strengthen administrative systems for better data. Developing similar guidelines for priority topics and other sectors, particularly health and education, would greatly improve the use of administrative data in the production of gender statistics and begin to resolve some of the current gender data gaps.

**A step closer to gender equality**

Administrative data will not replace the role that surveys play in establishing who is not being reached through routine systems and why. Nor will they replace data that are better sourced through surveys, such as certain prevalence-based measures or data on the behaviours, opinions and attitudes of women and girls. However, adopting a multi-modal approach to data collection while also integrating administrative data into routine statistical processes will enable a wider and stronger development approach to gender equality. This type of approach reflects the essence of the gender data revolution to do more and better with existing data sources, while helping to ensure that no one, including girls and boys, is being left behind.
Annex 1. Ghana country case study

Available online at: https://data.unicef.org/resources/strengthening-administrative-data-systems-to-close-gender-data-gaps/

This case study on administrative data systems and gender statistics is based on interviews held during December 2019 with staff from the Ghana Statistical Service (GSS), Ministry of Education, and Ministry of Gender, Children and Social Protection (MoGCSP). While Ghana has well-established statistical and administrative data systems, it continues to face challenges associated with primarily paper-based and decentralized systems for data capture and transmission. Ghana has a dedicated ministry for gender and a national policy guiding gender-related development initiatives: Gender-relevant data are collected across a wide range of data sources. However, the dissemination and broader use of gender statistics that are generated through administrative data systems remains a challenge.

Country context

In May 2015, the MoGCSP released its National Gender Policy, outlining five policy commitments. Despite the attempts of successive governments to address gender inequality, issues of concern include: unequal access to social protection, education, and social and economic power; inequalities in decision-making at all levels; and stereotyping and persistent discrimination against women and girls, with severe implications for maternal health and mortality. Further, while Ghana has progressed through substantial political and economic reform, poverty remains high in some areas and among certain socioeconomic groups, particularly women and girls, with poverty-endemic areas often constrained by inadequate basic infrastructure such as roads, electricity supply and internet connectivity.

The GSS, responsible for the production of official statistics for the country, relies on data produced through routine surveys and administrative data provided by various ministries, departments and agencies. It has led the localization and coordination of indicators for reporting on the Sustainable Development Goals (SDGs), which are available on its national SDG reporting platform. Currently, three of the 14 indicators relating to Goal 5 (Achieve gender equality and empower all women and girls) are reported online, two are ‘in progress’, and potential data sources for another nine indicators are ‘being explored’. Gender statistics are also published by key line ministries including health and education, which primarily report on sex-disaggregated measures such as disease burden, enrolment rates and learning outcomes, among others. A 2017 MoGCSP assessment on gender statistics found that while some ministries and departments are generating gender statistics, not all have the possibility of disaggregating their data by sex, and the ‘compilation and dissemination of such information is limited’ ³ (pg. xvii).

The GSS has sophisticated quality control mechanisms at all stages of data collection, capture, processing and reporting, including a three-stage process of data validation before data are entered into the national SDG reporting portal. The GSS, through the Ghana Statistics Development Project, also provides support to line ministries, providing them with funds to acquire statistical infrastructure, direct technical support on statistical projects, and general support in the development of handbooks on key concepts and definitions to ensure data harmonization. For example, the GSS has assisted in developing manuals and in-built software validation rules, and supported regular training sessions, supervision, and phone support, along with post-census validation for the annual school census, managed by the Ministry of Education (MoE).

Quality and usefulness of administrative data for gender statistics

There was general agreement from interviewees that administrative data are useful in reporting against national and international frameworks on gender equality, with “so much good data being collected” and administrative data being one of the “best ways to move forward” in terms of good statistical practices.
However, before this can happen, data custodians must be made aware of potential uses of the data, with one interviewee from the GSS commenting that capacity building at the grassroots level is required to help data custodians understand how the data will be used for statistical purposes, and not just administrative ones. This is particularly the case for gender statistics, where there is often limited broader understanding of the types of data needed for national and international reporting, or why they are important at the subnational level.

Within the Department of Social Welfare, MoGCSP, there is a clear pathway from receipt of quarterly reports to action, with reports viewed as a “working tool at the department level” used to identify issues and provide solutions, and used as key inputs into national policy formation. Data collection tools specify for the collection of data by sex, with “sex disaggregation very important” and an active system of follow up when reports are submitted using aggregate numbers. However, while the system can provide adequate information for a range of administrative decisions, very little of it is used for broader statistical purposes, with limited data sharing agreements in place with the GSS, and few publicly available reports published routinely. This has been recognized as a key challenge within the MoGCSP, which has been working with the GSS to strengthen the collection of sex- and age-disaggregated data and to develop a shared database.

**Challenges and barriers when working with administrative data**

“I don’t know what data they want”

– “I don’t know what data they have”

Interviewees commented on a general sense of not knowing what data are needed for monitoring gender equality at the subnational level, or what gender-relevant data were being collected by various ministries and departments. The MoE for example, conducts an annual school census on every public and most private schools in Ghana (those known to the ministry), collecting data on topics including infrastructure, the number of teachers and students, and student performance. Many of the resulting indicators are disaggregated by sex, and a gender parity index is calculated for each education level (from kindergarten to senior high school). However, official school census reports only include a small number of indicators. While the school census collects detailed data, including the number of girls who became pregnant during the year, student deaths by sex and age, and pupils with deceased parents by sex, among others, such data are not widely published. Raw data are made available to select partners via CD. Further, the school census itself only collects data on a relatively small number of questions, representing a fraction of the data that are routinely collected in all schools and recorded in the various administrative and class registers, log books, teacher attendance records, inventory books, cash books and visitor books. New items are often added to the school census, while old items are not removed, with one interviewee commenting:

“It is very hard to change what is collected – many people don’t know why they are collecting certain data.”

Overall, while Ghana follows best practice principles when conducting national censuses and surveys, defining data needs is much more challenging when dealing with administrative data systems, given the breadth of data being routinely collected. This challenge is particularly pronounced for countries with paper-based systems for data capture, which can result in a cycle of data not being utilized to its full potential as data custodians generally only disseminate data when specifically asked; many potential data users do not ask as they do know what data are available. For both the MoGCSP and MoE, while each institution collects very detailed data at the unit record level, most of this individual-level data remain within the institution, with the national office only receiving aggregate tally reports or more detailed data upon request. This situation is compounded when working in areas such as gender, where there is limited broader understanding or communication on the types of sex-disaggregated or gender-specific data required. As reflected by a respondent from the MoE:

“[We] only report on a small number
of key performance indicators, while there is lots of data in the system; unless people specifically ask for the data, it remains unused.”

**Timeliness and access**

Given the limited Internet connectivity and intermittent power supply across the country, most administrative systems collect their records on paper, which may be aggregated and sent to the relevant national office or scanned and sent directly to the GSS. As with any paper-based system, this creates “major issues” for data users, due to the poor timeliness of the data. The Department of Social Welfare, MoGCSP, for example, while receiving quarterly reports, reflected that issues can arise when the quarter has not ended but there is an urgent request for information, requiring the development of interim reports. Similarly, the process can be delayed when various institutions or regional offices are waiting for the data to be complete before they can file and submit, thus slowing the process.

Another major barrier identified is that administrative data are often in a format that cannot be further used for statistical purposes, including aggregate data – the primary form of data in many administrative systems. While school census findings from the MoE are disseminated in PDF and made available online, there is limited availability of disaggregated data for secondary analysis, with raw data available to select partners and upon request. While the GSS generally requests data to be sent to them in Microsoft Excel, this can introduce errors, as it means additional data entry for the ministries. Further, administratively Ghana is divided into 16 regions and 260 districts, and each region and district have their own code for statistical purposes. However, the codes used by the GSS and line ministries often do not match, making system interoperability and data linkage difficult.

It can also be difficult to validate the data reported to the GSS, with one interviewee commenting on the difficulty in accessing and using certain administrative systems, and their inability to verify the data being reported “from the ground.” For ministries not routinely collecting their data by sex, it is also not reasonable to expect them to change their collection processes halfway through the year, or when additional data are required. The context for data sharing is also complex and often results in long delays, with any requests for new data needing sign off by the minister of the relevant line ministry.

**Moving forward**

Overall, while Ghana has made substantial progress with its statistical and administrative systems, meeting the increased demands for monitoring gender equality requires strengthening its routine data collection systems, including digitization. The GSS is currently working with Statistics Denmark on several data quality improvement projects, including a data-quality assurance framework and a single ‘data pipeline’ that ministries can use to deposit their data for direct reporting to the GSS. Further, the MoE has been working with USAID to develop a fully electronic administrative data system. However, several challenges have been encountered, primarily due to the limited electricity supply and Internet connectivity. An offline version is currently in development. Numerous initiatives are also underway, including mainstreaming gender in administrative data collection forms within the MoGCSP, and the development of a database aligned with strategies from the National Gender Policy and the SDGs.

References

Annex 2. Canada country case study

This case study on administrative data systems and gender statistics is based on interviews held with technical staff from Statistics Canada that took place December 2019 and January 2020. Canada has highly sophisticated statistical and administrative data systems; however, it continues to face challenges associated with decentralized systems of governance and data management. The Government of Canada has demonstrated its commitment to advancing gender equality through significant investments in key programmes, policies and initiatives. While substantial gains have been made, the Government has reflected that more work is still needed, particularly in the fields of education and skills development, economic participation, leadership, elimination of gender-based violence, reduction of poverty and improved health outcomes, as well as contributing to gender equality globally.

Country context

Introduced in 2018, the Gender Results Framework (GRF) represents the Government of Canada’s vision for gender equality. It is a whole-of-government tool designed to define what is needed to achieve gender equality, determine how progress will be measured, and track progress. The GRF defines the gender equality agenda for the Government of Canada: It ensures that gender is considered in relation to other intersecting identity factors and has legal authority through the Canadian Gender Budgeting Act, which ensures federal government’s budgetary and financial management decision-making processes consider gender equality and diversity.

Within the Framework, six key areas that require change have been prioritized, and progress on performance indicators is routinely monitored and made available online at Statistics Canada’s Gender, Diversity and Inclusion Statistics Hub and through the Women and Gender Equality (WAGE) GRF website. Many of the indicators, which form part of the Canadian Indicator Framework (CIF), align with other international frameworks, such as the Sustainable Development Goals (SDGs). Whenever possible, these indicators will be made available by intersecting identity characteristics such as disability, gender identity, sexual orientation, Indigenous identity, immigrant status and visible minority status. Data to support the CIF come from existing data collection mechanisms and reporting sources, including surveys, administrative records, monitoring networks, and other forms of open data.

Such data are used for two purposes: to set Canada’s goals for gender equality, and for ongoing gender budgeting and monitoring.

As set out in the Statistics Act, Statistics Canada is required to collect, compile, analyse, abstract and publish statistical information relating to the commercial, industrial, financial, social and economic activities and condition of the people of Canada. It collects data directly through traditional means, such as by paper, telephone, or in person, and has over 350 active surveys on most aspects of Canadian life, along with the Census, which is collected every five years. Statistics Canada has also been using non-survey data in official statistics for around 100 years, with many programmes using administrative data from government agencies and private sector organizations, which are then integrated into official statistics to meet statistical and research requirements. Administrative data are used to complement and replace surveys (or components of surveys) and are both an economical method and one that reduces the burden on respondents. Statistics Canada plays an important role in housing data collected from various surveys and administrative systems, and has very strict privacy, security, confidentiality and transparency policies, ensuring that any data collected are proportional to the need.

Statistics Canada is the central focal point for reporting Canada’s data on the SDG indicators, which are available online through the agency’s Sustainable...
Currently 9 of the 17 sub-indicators relating to Goal 5 (Achieve gender equality and empower all women and girls) are reported online, while appropriate data sources for another seven are still being explored, and data for one sub-indicator is not available. Subject experts were involved in a consultative process to help select the best data sources for each sub-indicator, with preference given to those sources that most closely match international metadata, which resulted in six of the nine available sub-indicators being sourced from survey data.

When considering gender statistics more broadly, although Canada has comparatively good data, significant gaps remain, particularly around emerging areas such as the representation of women in politics across the country’s jurisdictions, and the gendered impact of climate change on diverse groups of people. Data that have traditionally been sourced from household surveys, including topics related to the environment, labour force, and income and tax, are also of particular concern as the ‘gender element is missing’ from many of these surveys, which have focused on data at the household, instead of the individual level. Respondents also commented that more data on access to sexual and reproductive health services would be beneficial, along with having access to additional data for cross-tabulation, such as usual residence, to assist in lower-level statistical analyses.

Key components of a successful approach to using administrative data for gender statistics

While acknowledging the important and continued role that surveys will play in Canada’s statistical system, respondents commented on the need to use multiple sources of data as part of good statistical governance. Within this context of moving away from relying primarily on surveys, respondents equally stressed the importance of needing to carefully consider the use of administrative data sources, and of being constantly mindful in understanding why the data is being collected, particularly on sensitive topics. One respondent, for example, commented that collecting data on sex and gender for display on official identity documents is very different to collecting the same data for a research project, thereby highlighting the importance of good communication about data collection and its use.

The success of Canada’s approach to using administrative data is due in part to the strong national coordination mechanisms established between Statistics Canada and key partners including WAGE, the Department of Finance, and provincial ministries such as health and education. National coordination is supported by a strong partnership approach fostered by Statistics Canada to facilitate data sharing and to ensure data quality. As reflected by one respondent, “strong relationships [are] needed – otherwise data quality will suffer.” Part of this work includes ensuring that data custodians, as producers of the data, can see the ‘value-add’ in investing in their administrative systems. For example, understanding the value of having data by sex and/or gender offers organization in terms of monitoring a policy or programme. This partnership approach is critically important, because even with legislation that mandates the sharing of data, sharing is not always guaranteed and nor is its quality.

Further, while a key role of Statistics Canada, or any national statistical organization (NSO), is to assist in improving the quality of data, it is the responsibility of the NSO to fully understand the data source, including any challenges and weaknesses. This process is facilitated by Statistics Canada’s Quality Assurance Framework (QAF), which outlines the measures the agency has put in place to manage quality, and provides guidance to statistical programme areas as they develop and implement quality management strategies to meet their users’ needs. One respondent commented that working with administrative data is: “not free, [and] sometimes not useful, but that doesn’t make it not worthwhile examining it – as it may be useful for something else; [or] for building a relationship with another entity and data source.”

Another important lesson to come from Canada is the need to “start simply.” Regarding the SDGs, for example, one respondent commented that if all indicators were disaggregated by all possible variables,
it would produce over 700,000 data points, raising the new challenge of attempting to understand what all that data means. While countries with sophisticated statistical systems may, technically, be able to produce high levels of disaggregation, respondents commented on the need for data custodians and users to understand basic issues such as “what do you want to look at” and “what do you need disaggregation on.” Focusing on a select number of high-priority data items, and doing them well, sets the stage to expand as well as helping to build strong relationships with data custodians for future collaborations.

Along with this central coordination and relationship-building role, Statistics Canada also provides specialized technical assistance on gender statistics. Using the GRF as a guide to help highlight gender equality issues, a training programme was developed to help organizations find gender-relevant data within Statistics Canada’s website, both to help keep the data relevant and ensure organizations have access to up-to-date statistics. Training is tailored to each organization, so that staff can understand how to find the statistics, and to understand why it is important to them. Statistics Canada has also implemented standards for the transmission and composition of data messages from data custodians, to ensure that data arrive in the same format, improving the overall quality of the data and reducing the time needed to clean and validate the various data sources.

**Innovations with data linkage**

Statistics Canada has a sophisticated data linkage programme, offering substantial insights into several areas of gender equality. Data from income tax files have been linked with business ownership data to get a better understanding regarding the proportion of women who own businesses: Data on mothers (collected through birth registration) have been linked with census data on additional characteristics and variables to provide a more complete understanding of the lives of Canadian mothers. In Ontario, graduate earnings (as measured through tax returns two years after graduation) have been used to demonstrate education outcomes for higher-education providers, while also offering important insight into any persistent gender wage gaps. Preliminary work has also been done in the education sector in linking administrative data on public postsecondary enrolments and graduates with census data to improve coverage on Indigenous status, which is currently poorly reported, allowing for more detailed gender analyses. Similarly, plans are underway to link postsecondary education data to administrative data on disability support to provide an understanding of postsecondary participation for students with disabilities.

It is important to note that while several different identity numbers exist in Canada, there is no universal identifier, with most linkage being done via probabilistic methods, rather than directly. Further, all linkage is done in the context of strict privacy regulations, with one respondent commenting that the first question must always be “do we really need to link?”, followed by “are we able to?” As part of ensuring confidentiality, analytical records are kept separate from personal identifiers, and Statistics Canada has sophisticated data validation processes, which include guidelines on linkage rates, and minimum acceptable coverage levels for linked data to be published. As reflected by one respondent, given the extensive initial investments and ongoing data validation processes required, data “linkage is good, just not timely.”

**Challenges and barriers when working with administrative data systems**

Administratively, Canada is divided into 10 provinces and three territories, with provinces considered sovereign within certain areas based on the divisions of responsibility between the provincial and federal government. As with many countries that have decentralized systems of governance, this has a significant impact on operations of statistical and administrative systems. For ministries of health and education particularly, each jurisdiction (province or territory) does things differently. This means that every administrative data file may not be collected the same way, with certain jurisdictions asking questions in a slightly different way, making national-level analyses difficult. With regard to the counting of maternal deaths, one respondent commented on the ongoing difficulties in ensuring that each jurisdiction asks and records data relating to the length of pregnancy in a
consistent way. For education, although gender is now being requested for postsecondary administrative data, the ability to provide it is not always possible because this information is not collected for administrative purposes by some institutions.

As reflected by one respondent, legislative change is also required for provinces to amend the wording of questions on various data collection forms, which is a very onerous process. For agencies that cannot see the direct benefit of the change, this makes the task even more difficult. Overall, this means that some changes may never happen, while others may not happen for many years: Innovative approaches are required by Statistics Canada to develop ways to work with the data sets, given their limitations and weaknesses.

**Moving forward**

Given the significant investments in key programmes, policies and initiatives on gender equality in Canada, the Government is continuing to build on its successes in this area. The 2018 report, ‘Modernizing the Government of Canada’s Sex and Gender Information Practices’, provided recommendations on ways to modernize the Government of Canada’s handling of information on sex and gender, as an initial step to embed gender diversity in business modernization. In response, Statistics Canada has developed new standards on sex and gender variables and classifications, as well as offering a non-binary gender option using the ‘X’ identifier when collecting information in certain administrative systems. One respondent reflected that this will improve data availability around gender-based violence, for which the experiences of people identifying as non-binary are currently missed. While data will continue to be collected on sex, this new policy direction will allow for a better understanding of gender issues by providing a two-step process for collecting data on sex and gender. One respondent commented that these “new and exciting” methods of data collection are needed to help “understand issues rich in experiences”, a critical component of gender analyses.

**References**

Endnotes


10. The IAEG-GS is the coordinating body of the United Nations Global Gender Statistics Programme, comprising national statistical systems and international agencies. The group is mandated by the UN Statistical Commission to examine emerging and unaddressed key gender issues and related data gaps and develop proposals to fill them. IAEG-GS Advisory Group members are Brazil, Canada, Ghana, India, Jordan, Morocco, Uganda, Zimbabwe, ECA, ECLAC, ESCAP, ILO, OECD, UNFPA, UNICEF, UNODC, UNSD, UN Women and World Bank.

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innovation and information technology colleagues, and regional and country PME specialists. Field testing was conducted in Namibia in September 2019, along with a series of consultations with country partners in several regions. Results of this testing were used to refine the initial concept and structure. The model has been released as an internal working document for UNICEF staff, with further refinement anticipated based on ongoing testing and use.

84. For example, systems that use paper-based reporting processes may skip more traditional approaches to scaling up digital reporting at regional and district levels by placing technology (such as mobile phones, contactless biometrics, etc.) directly in the hands of community workers and individuals while broader infrastructure goes largely undeveloped.


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92. PARIS21, Assessing Data and Statistical Capacity Gaps.


96. UNICEF, Using Administrative Systems for Gender Statistics: Canada Case Study.


103. Gardner, Assessment of Opportunities for UN Women.


105. Data2X, Mapping Gender Data Gaps in Health.


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