Reflections on the DPI Safeguards Initiative: CRVS and Legal Identity Perspectives

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As we implement the Digital Public Infrastructure Safeguards Initiative (DPISI), it is crucial to underscore the indispensability of Civil Registration and Vital Statistics (CRVS) systems as the foundation of Legal Identity systems to ensure the success and sustainability of this transformative endeavor.

There are several normative and, often, legal frameworks that position CRVS as the foundation of legal identity. These include the UNLIA-recommended lifecycle approach to CRVSID management, starting with birth registration and ending with death registration. Despite this, investments in CRVS systems are often not prioritized, with short-, medium-, and long-term consequences for a country's ID ecosystem. National ID systems, social registries and other functional systems that sprung up in silos face innumerable challenges, especially the problems of updating their databases and achieving universal coverage. Consequently, the number of people registered in NID systems or beneficiaries in social registries doesn't reflect the ground reality and renders such systems incomplete, inefficient, and untrustworthy. This also leads to financial leakage with benefits going to deceased individuals and states not being able to tax its population. It also potentially prevents individuals from accessing services.

Specifically, rooting the ID system in civil registration will lead to the following benefits for the ID system and the DPI overall:

- The continuous flow of data about birth (i.e., to establish identities) and death (i.e., to retire identities) keeps the ID system up to date.

- Proactive and universal civil registration will promote inclusiveness and equity in the ID systems, especially for women and girls.

- By collecting data, such as date of birth, from trusted agents (e.g., health staff) who are close to the occurrences of vital events, the civil registration systems provide accurate and verified information to ID systems.

- Data about deaths from the civil registration systems improves trust in and security of ID systems, allowing the identities of the deceased to be retired and preventing fraudulent use.

- Civil registration can improve the efficiency of the ID management system and avoid duplicative data collection and errors.

DPISI, therefore, presents an excellent opportunity to bridge this foundational gap (something which has been ignored or overlooked so far).

To begin with, DPISI should focus on bringing convergence between CRVS (the foundational system) and NID systems (a core functional system). The NID authority should then focus on links and interoperability with Health, Education, and Social Protection systems (other core functional systems).

The way forward is establishing a Health–CR–NID pathway linked with Education and Social Protection systems.
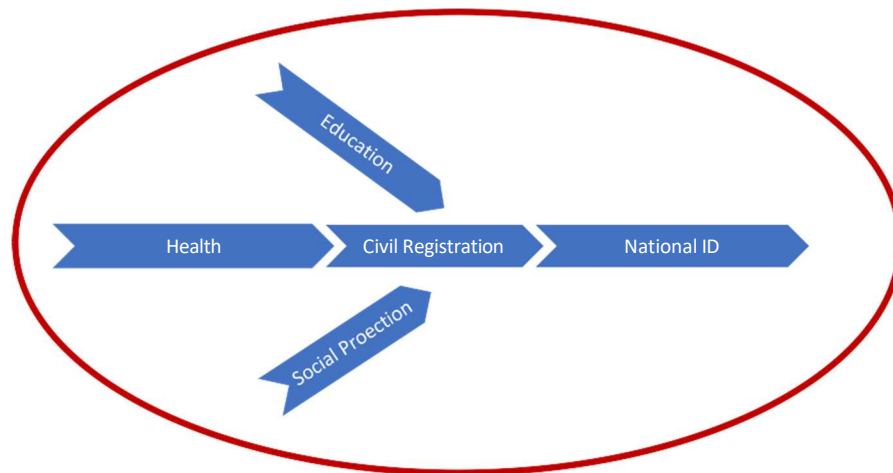
---------------------National ID Eco-system----------------------

Such a pathway will entail two main advantages: "collecting the information once and using it multiple times" and "moving information, not people".

This can be achieved by promoting the following steps while taking necessary safeguards:

(i) Use the routine health sector data for notification, declaration, and registration of births and deaths

The data collected by the health system for its routine administrative purposes contains the necessary information to uniquely identify births (name, date and place of birth, sex, parents' names, and address) and deaths (name, date and place of death, manner of death or cause of death, date of birth/age at death, sex, parents' names, and address). Using the health sector data will help remove the requirement of formal notification as part of the CR system. Instead, parents and relatives of the deceased can use health records (mother and child health cards and medical certification of the cause of death/ death declaration certificates) as proof of birth and death. It will also help cut down one extra step towards a 'one-step, one-visit' process. After birth registration, the data can be shared with national ID, education, and social protection systems, ensuring a single source of truth across systems.

(ii)   Harmonize the data standards

Harmonizing data standards within the health sector, across these five sectors, and beyond requires urgent attention and should be a non-negotiable priority. Adopting the standards for recording names, the format for capturing date of birth and date of death, recording address, etc., used in civil registration and national ID systems will help promote the use of individual data collected routinely by the health sector for civil registration, national ID, education, and social protection sectors. Collecting such standardized data at source can streamline information and reduce duplication and data collection efforts across sectors.

Countries must urgently recognize the imperative of directing investments toward standardizing the bedrock of digital infrastructure. As they meticulously lay down roads and railway tracks for physical transportation, countries must prioritize building a robust digital foundation. Regrettably, despite their well-intentioned efforts, governments and international agencies have often neglected these fundamental aspects. Their focus has predominantly centred on promoting and investing in digital solutions, inadvertently bypassing the essential groundwork.

(iii)   Enhance individual case-level data availability and quality

The lack of decentralization or limited decentralization of DHIS2 poses a significant challenge to utilizing individual case-level data. In most low- and middle-income countries (LMICs), the system primarily relies on aggregated summary data inputted, particularly from tier 2 (health centers) and tier 3 (clinics and dispensaries) health facilities. Although countries have begun digitally collecting community events using platforms like OpenSRP and others, these efforts are still in their early stages.

The quality of health sector data is an area in need of substantial improvement. In Bangladesh, introducing DHIS2 data for birth and death notifications in 2023 highlighted significant quality issues. However, through collaboration with the Civil Registry and their constructive feedback, the health sector successfully addressed these challenges, leading to remarkable improvements in a short timeframe. Emphasizing cross-sectoral data utilization emerges as the most effective approach to enhancing data coverage and quality. Relying solely on aggregated data obscures reality and undermines the country's overall data ecosystem. Notably, Bangladesh stands out among LMICs for standardizing data standards across sectors.

(iv)   Integrate CRVS and National ID systems right from the start

The importance of early integration in setting the tone for a comprehensive approach to data management and identity systems hardly needs to be stressed. Countries can enhance efficiency, accuracy, and overall effectiveness by aligning these critical components.

Instead of integrating Civil Registration and Vital Statistics (CRVS) with National ID systems from the outset or at any given stage, many countries tend to wait until reaching a particular threshold, such as 80% or 90%, inadvertently missing the opportunity for mutual growth and benefits.

Examples from countries like Bhutan and Colombia, which established an integrated CRVS-ID system from inception, and Namibia, which adopted a phased approach, illustrate exemplary CRVS-ID management. In contrast, Bangladesh and Rwanda took several years to establish their integrated systems.

(v)   Issue a UIN during birth registration

Issuing a unique ID number at birth registration creates a seamless bridge between the initial registration process and the broader national identification system. Such an integration ensures that every individual, right from birth, becomes part of a comprehensive identity framework.

The straightforward approach involves linking the baby's UIN with the parent's existing UIN or National Identification Number (NIN), thus establishing a parent-child linkage that strengthens the familial connection within the system besides establishing essential data credentials.

UINs at birth offer multiple advantages, such as early inclusion (ensures that no one is left out of the system and is a proactive step toward universal coverage), lifetime continuity (the same UIN can accompany an individual throughout their life, streamlining interactions with various government and private services), efficient data sharing (information can flow seamlessly across different systems), reduced redundancy (by avoiding duplicate registrations, resources are optimized and administrative overhead minimized), and unique navigation (a person can effortlessly navigate through services uniquely).

However, given the challenges of connectivity and other logistical issues, it's essential to have options beyond the real-time generation of UIN to ensure it doesn't become a bottleneck for timely birth registration. For instance, in Sierra Leone, the declaration for birth registration used to be completed before mothers were discharged before the introduction of UINs; however, because of poor connectivity issues, it takes weeks and at least one more visit merely to complete the declaration even in big hospitals in Free Town. Several other countries, including Kenya, Mozambique, and Gambia, face the same challenge. In Gambia, relying on satellite phones worked under a controlled setting during registration campaigns but faltered when health facilities started registering newborns.

So, real-time generation can be done at HQs, district offices, and big hospitals where

logistical challenges have been sorted out and for other centres, mobile phones can be used to send a minimal set of information (such as name of the baby, dob, sex, place of birth, parents' details) needed to identify a birth using SMS to the central server uniquely. In return, a UIN can be sent back. De-duplication and exchange of information from the server to the client can be automated to reduce time. For areas where even SMS connectivity is a challenge, pre-allotted UINs should be shared with HFs every two months, and the process should continue. The system-level validation can be done subsequently and at the next level of the CR office.

Furthermore, the UINs should be structured on NINs (rather than introducing another number not aligned with NINs, as in Mozambique). Biometrics should be collected at age 5 or after that in line with a country's policy and deduplication done. When a child turns 18 (or the age prescribed for NINs), the UINs can be confirmed as NINs. Some countries, like Chile, add an extra field when confirming UINs as NINs.

If countries can have a plan for issuing UINs to older children (1-4 years and 5-17 years) in a campaign mode using health facilities and schools, the entire <18 population can be covered in a few years, complementing NINs for the 18-plus population. This will be a win-win situation for both systems – a foundational one and the other a functional one.

(vi)   Capture the national ID numbers of parents in health records

Asking parents to compulsorily submit their national ID cards at the time of birth registration of their babies is on the rise, and this poses new sets of challenges for those who do not yet have national ID cards, especially vulnerable and marginalized populations. Accordingly, this has become a severe equity issue in countries with incomplete coverage of national ID registration.

Furthermore, a substantial gap exists between registration, issuing, and distributing national ID cards, which adds more problems. All these have started affecting the pace of birth registration.

Countries should, therefore, begin collecting the NINs of mothers (and fathers) while availing essential health services (if not already registered), especially when expectant women come to register their pregnancies instead of waiting for a linkage with the NINs of parents during birth registration. The health sector should share the names of those who do not have NIDs with national ID authorities. Such a move will provide expecting mothers/fathers at least 5-6 months to get their NIDs and national ID authorities a bigger time window for follow-ups rather than denying the birth registration of their babies for want of their NIDs.

(vii)   Simplify the business process before digitalization

The success of digitization hinges critically on simplified and well-structured civil

registration business processes. Therefore, ensuring accuracy and efficiency in CR business processes is paramount and should be considered an utmost necessity. It is imperative to validate and continually revalidate CRVS business processes with relevant stakeholders to remove redundant steps and maximize the benefits of digitalization. The ultimate goal is to have a system where registration and certification are completed in a one-step, one-visit process.

Attempting course corrections post-digitalization proves costly and rarely effective – there is a significant risk of setting back a CRVS system (or any other system) by several years, if not decades.

Two common deviations observed during digitalization are:

(i)   Adding extra steps to CRVS business processes contradicts the goal of streamlining the CRVS system and enhancing overall efficiency.

(ii)   Implementing additional validation or scrutiny checks at the certification stage. Ideally, all necessary checks should be conducted at the registration stage to enable simultaneous registration and certification.

For example, Mozambique introduced an unnecessary notification step in its eCRVS system, even though mother and child health cards are accepted as proof of birth. In Pakistan, parents or applicants are required to make at least two visits to Union Councils to complete the registration and certification process. Despite implementing an online Civil Registration Management System (CRMS), obtaining validation or approval from the National Database and Registration Authority (NADRA) still takes considerable time, typically 6-7 days. Kenya intends to replicate the current practice of registering newborns in six months, even in the forthcoming digital system.

In Uganda, obtaining a birth certificate after registration involves several steps, which undermines the efficiency of the entire process. A birth certificate is essentially an extract from the birth register, and once registration is finalized, there should be no reason for delaying certification. Despite having an excellent hospital-based end-to-end digitalized system in Rwanda, parents have to visit the nearest civil registration for certification as there is a fee for the 1st copy of the birth certificate.

Consequently, the drop-off between registration and certification is significant in several countries, including Rwanda, Kenya, Malawi, Sierra Leone, Pakistan, and Bangladesh, posing a severe risk from the human rights perspective.

(viii)   Follow a gradual and hybrid approach to digitalization

The decision regarding the extent of digitalization must be grounded in the realities of diverse and challenging settings, ensuring solutions are viable across different contexts. A practical approach forward involves adopting an evolving and hybrid strategy. End-to-end digitalization should be implemented in cities, towns, urban

centers, and areas not facing logistical challenges (such as electricity penetration, stable internet connection, availability of hardware, and trained personnel), with an offline version as a backup to ensure uninterrupted services. Meanwhile, paper-based systems should persist in other areas, with digitalization phased in subsequently. Digitalization mustn't impede service delivery under any circumstances. Data transmission to the central server should occur seamlessly across all three scenarios— online, offline, and manual.

Governments should have a well-laid-out and adequately funded scale-up plan for the country. Otherwise, there is a severe risk of adding one more system, leading to fragmentation and further widening the digital divide and exclusion. Countries with multiple localized solutions should prioritize converging existing digital systems, building on these investments and learnings. Adequate emphasis should be placed on data migration from these systems to the upcoming system, as civil registration records are permanent.

Further, digitalization may not need to occur in a single effort but rather follow an evolving process. Some initial digitalization takes place (e.g., registration and certification of some events are digitalized), and then the digital system is gradually expanded (e.g., further interoperability functions are built, and a public-facing interface is developed). Lessons learned from the steps of digitalization should inform the next evolution. The crucial aspect is leveraging digitalization as an enabler and amplifier rather than replacing existing systems. Also, digitalization should be based on improved, inclusive, and efficient business processes. Digitalization initiatives should be coordinated across sectors to capitalize on mutual benefits.

(ix)   **Establish a population register as the foundational layer for linkage with NID systems and social registries**

Establishing a population register is essential for maintaining accurate demographic data and is pivotal in the broader context of digital public infrastructure. and the efficient delivery of services". By serving as a centralized repository of up-to-date information on individuals within a country, the population register forms the backbone for linking with national Identification systems.

The population register utilizes a UIN to connect data on key life events, including births, deaths, marriages, and migrations, tracing individuals' demographic trajectories from birth to death. Factoring in both in-migration and out-migration can accurately determine the country's population count down to the smallest administrative unit, often with shorter intervals between updates and, in some cases, even in real-time.

It can standardize and harmonize multiple registries by serving as the foundation for linking with various functional registries, including social registries. In Nepal, nearly 30 social protection interventions operate independently at national and sub-national levels without linkage with CRVS. In the absence of a population register, any

convergence among these registries is not possible. The tendency to establish multiple siloed social registries has significant implications for governance in meeting the needs of citizens and driving sustainable development effectively, not to mention the resources required for all the parallel efforts.

Without a population register, countries like Bangladesh and Mozambique have mandated birth registration as a prerequisite for death registration, even for deceased individuals of advanced age. This policy has led to significant challenges for the families of older deceased individuals, exacerbating bureaucratic hurdles and complicating the process of registering deaths.

(x)   Urgent need for a health identifier, be it sectoral or universal:

Most low- and middle-income countries have incomplete unique health identifiers (UHI). Because of fragmented and siloed systems and sub-systems in these countries, a person has more than one health identifier or none – raising the problem of multiple vs none.

Health systems are at different stages of evolution in consolidating systems and subsystems, harmonizing data standards, and eventually digitalizing. Several of these countries also have incomplete unique identification numbers (UINs), compounding the problem further.

Without venturing into whether a sectoral or universal health identifier is necessary, every country needs a unique health identifier to bring convergence and synergy to its health systems. This is critical to optimizing the health sector's data potential, achieving universal health coverage and a must for the success of DPISI.

(xi)   Safeguarding Human Rights: Preventing Exclusion and Misuse of Personal Data

Digitalization serves as an enabler, transforming access to registration services, enhancing efficiency in Civil Registration (CR) systems, streamlining data management processes, and facilitating quicker record transfer and retrieval, particularly in Low- and Middle-Income Countries (LMICs). However, it also raises concerns necessitating protective measures, especially from a human rights perspective, to fully harness its benefits.

In addition to previously mentioned issues and suggestions such as implementing a backup plan for issuing Unique Identification Numbers (UINs) and collecting National Identification Documents (NIDs) during antenatal services rather than during birth registration, below are severe instances of exclusion and misuse I have observed or am aware of.

-   In many countries, parents' National Identification Documents (NIDs) are linked to various services, including birth registration for their babies. However, a significant

proportion of Low- and Middle-Income Countries (LMICs) issue NIDs at age 18. Consequently, mothers below 18, who represent sizable numbers in several countries, face service denials or encounter additional burdens. This issue has been observed in countries like Tanzania, Bangladesh, Pakistan, and others. Particularly vulnerable populations such as refugees, Internally Displaced Persons (IDPs), and marginalized groups face even greater challenges. Urgent measures are needed to accept alternative documents, such as birth certificates, to ensure that essential services are not denied to residents due to a lack of NID/ID registration.

- Using birth registration interactions to screen mothers' child marriage status constitutes a serious violation of human rights. It represents a significant misuse of CRVS data, typically not intended for public disclosure in most countries. This practice not only pressures mothers to provide inaccurate age or date of birth information, leading to substantial damage to the credibility of vital statistics, but also acts as a barrier to birth registration and other essential services where their accurate age has already been recorded within the system.

- The issuance of National Identification Documents (NIDs) with expiry dates has emerged as a significant disruptor of services. Ideally, NIDs should remain valid throughout a person's life once issued. For example, Malawi faced a backlog of nearly 4 million expired NIDs, posing challenges for renewal efforts, and the government struggled for years to address this issue. Recently, the Malawi government suspended the expiration of national IDs, and expired NIDs will be considered valid until January 2026 (but there is no clarity about the future). Notably, Malawi adopted the renewal requirement every ten years, mirroring a practice from Pakistan (the ex-NADRA chairman guided the process in Malawi), where CNIC renewal is also problematic, creating barriers to essential services, including birth registration. The newly introduced Gambian NIDs also have an expiry date.

(xii) Navigating Legal and Digital Identities: Unveiling the Distinction

There has been a push, especially in LMICs, for a digital identity without basing it on foundational legal identity systems. The problem gets complicated when the intention is to project it as an alternative legal identity without linking it with civil registration or not adhering to the due process of a legal identity system. Such digital ID systems run serious risks on multiple counts, including the risk of creating multiple sources of truth with catastrophic consequences for a country. Relying on self-reported biographic information as the base is fraught with risks, including identity theft and security threats. Biometrics as a de-duplication tool can be effective only when the biographic particulars are correctly captured. The NIDP program in Ethiopia is such an example (please read my mission report to understand the full spectrum of issues).

While legal identities such as birth certificates, national IDs, passports, and driving licenses can have digital versions, not all digital identities are equal to legal identities. Therefore, it is essential to understand and interpret the relevance of a digital identity depending on its context, use, and safeguards against misuse or abuse. Not linking such digital identities with foundational CRVS systems render the updating mechanisms of systems incomplete and ad hoc (birth registration as the entry and death registration as the exit). Even mature systems such as Aadhar and NADRA suffer on this count. The government of India finally realized this mistake and amended the birth and death registration Act in 2023 to make linkage with CRVS mandatory; however, its implementation on the ground may take several more years. Lack of investments in CRVS system in Pakistan renders the NADRA's coverage incomplete despite the fact that civil registration is done using NADRA's eCRMS system.

International development agencies often inadvertently promote short-term, unsustainable solutions that struggle to take root in developing contexts. These parachuted interventions require significant follow-up efforts, burdening countries as they strive to establish long-term systems that benefit all stakeholders. Moreover, the cost of recovering from these solutions often outweighs the initial investment. Recommending fixes without a deep understanding of the local context exacerbates the problem.

DPISI can play a pivotal role in addressing these challenges. By leveraging its platforms and key normative documents, including the UNDP digital governance framework, DPISI can highlight the importance of context-aware solutions. This distinction is crucial for both legal identity and digital identity, especially in today's interconnected world.

(xiii) Avoiding Disproportionate Digital Investments: A Prudent Approach

Disproportionate digital investments have become the new norm. When embarking on digitalization initiatives, countries don't exercise financial prudence and consider the long-term implications. The focus is on initial investments, forgetting the maintenance and replacement requirements. International Development Agencies, including the UN entities and the World Bank, often contribute to this problem as countries don't shy away from such huge investments, even when the funding comes as a loan. Some donors attach the funding with specified products, including vendors.

Let me cite one example I am familiar with and have several more across agencies. Out of nearly USD 5.2 million in loans to Tanzania, close to USD 4.5 million was spent on equipment (32 high-end servers, big desktops, heavy-duty colour printers (whereas birth and death certificates are black and white), scanners, etc.) for the piloting of a new system in just 60 locations (registration centres).

In short, a lot more can be achieved and sustained with far less investment made in synergy with investments in health, national ID, and other areas.

(xiv) **Balancing Digitalization Costs: Ensuring Equitable Access**

The trend of indirectly shifting the cost of digitization to clients through increased fees or conditional requirements is concerning. Registration is a fundamental right, and it should be accessible to all without financial barriers. The first copy of certificates, especially birth certificates, should be provided free of charge.

Despite this principle, some countries, including Kenya, Rwanda, Somalia, and Pakistan, charge for the first copy of birth certificates. In many Francophone countries, late or delayed registration comes with exorbitant costs. Additional levies in the name of digitalization exacerbate the problem.

Uncoordinated approaches among UN agencies sometimes contribute to fee discrepancies. For instance, Kenya agreed to waive the fee for the first copy of birth certificates but later increased it due to parallel conversations on digitalization with another agency and took advantage of the lack of coordination between the two agencies.

Such practices disproportionately affect marginalized populations and widen the digital gap. Digitalization should align with human rights principles and contribute to a renewed social contract.

(xv) **Pay equal attention to homegrown and private digital solutions**

While acknowledging the significance of Digital Public Goods (DPGs), DPISI must accord equal importance to homegrown and privately developed digital solutions to ensure inclusivity in its endeavors. Within Civil Registration and Vital Statistics (CRVS), over 90% of the digital solutions originate locally, a trend similar to that observed in National Identification (NID) systems. Furthermore, a pressing demand exists to advocate for the widespread adoption of open-source frameworks and open standards extending beyond the confines of DPGs. This proactive step is pivotal in fostering global cohesion within DPI initiatives, facilitating harmonious progress on a broader scale.

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