SPACE

Social Protection Approaches to COVID-19: Expert Advice

Inclusive Information Systems for Social Protection: Intentionally Integrating Gender and Disability

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1 Key points emerging

- Gender and disability exacerbate potential risks of exclusion from social protection programmes. However, information systems that pay explicit attention to reducing and removing these barriers can offer significant opportunities to promote inclusion as well as enabling a more tailored response to the needs of women and girls, and persons with disability.
- Fully leveraging these potential benefits – while addressing emerging risks – will require *intentional* design and implementation choices in the short and medium run. If this is not done, the system will be intrinsically discriminatory.
- This paper thus outlines key entry points for increasing inclusiveness via information systems at each stage of the social assistance delivery chain, from communications/outreach, through to registration, assessment of needs and determination of benefits/services package, enrolment, and M&E.
- It also provides broader policy recommendations on developing inclusive systems, moving from a vicious to a virtuous cycle: the lack of disaggregated and adequately analysed data within national surveys and information systems reinforces data invisibility, lowering awareness of and demand for such data, which in turn leads to ignorance of specific inclusion requirements in social protection resourcing, design and implementation. “There is no data, therefore there is no problem to solve” is the crux of the problem and is simply not a tenable excuse.
- Interest in the role of administrative data, and especially social assistance information systems has been growing, and will be further boosted with COVID-19.

***Now is the time to act to ensure these are inclusive*.**

Contents

Inclusive Information Systems for Social Protection: Intentionally Integrating Gender and Disability 1
2 Introduction 4
2.1 Why so relevant now (in the COVID-19 context)? 4
2.2 Focus of this piece 5
2.3 What is an 'information system' (key terminology) 6
3 Along the 'Delivery Chain' 9
3.1 Outreach and communications 9
3.2 Registration/intake and associated verification, validation, and de-duplication 11
3.3 Assessing of needs and conditions, eligibility decisions and determination of the benefits/services package – leading to leading to enrolment 20
3.4 Payments/delivery 23
3.5 Complaints and appeals 24
3.6 Case management 25
3.7 M&E, informing design and implementation over time 26
4 Conclusions 28
4.1 Why so important now? 29
4.2 Why is this not a 'technology' problem? 29
4.3 So, can information systems support gender and disability inclusiveness? 30
4.4 How can information systems be designed to be more inclusive? 30
4.5 From vicious to virtuous cycle 34
5 References 36

2 Introduction

Digital information systems serving the social protection sector, and especially social assistance[1], are increasingly prominent and will continue to be, as is the case within all other sectors. "Why? Because the ability of a country to care for its people and respond to their lifecycle needs depends on its ability to identify those who are in need, enrol them, provide tailored benefits and services, and follow up to cater to evolving circumstances". Governments also need to be able to monitor programme implementation and impact, feeding into longer term decisions on design and resource allocation. "All of these actions require accessible, dynamic and real-time data and information exchange if the goal of universal coverage is to be achieved" (Chirchir and Barca, 2019).

The coverage (% of population included in the information system), **relevance** (amount/type of data they store) and **accessibility** (e.g. level of interoperability/data sharing across the government data eco-system) **of these administrative data systems has also been increasing in many countries[2]** – posing important opportunities and challenges to policy-makers.

The question is how to develop these systems in a way that is inclusive and right-based, leveraging technology "to ensure a higher standard of living for the vulnerable and disadvantaged" (Alston, 2019) rather than becoming a further barrier to inclusion.

To illustrate the point this paper specifically focuses on gender and disability inclusion, while acknowledging similar considerations apply for all other forms of (intersectional) exclusion.

2.1 Why so relevant now (in the COVID-19 context)?

There are two key reasons why ensuring social protection information systems are developed inclusively is particularly relevant now, as the medium-term effects of COVID-19 unfold worldwide.

First, COVID-19 has exacerbated existing inequalities for women, girls, and persons with disabilities[3], stressing a more urgent need for these population groups to not only be covered by existing social protection, but also to ensure that systems and programmes further develop to respond to their needs (see Box 1).

Second, COVID-19 is likely to play a role in accelerating the push for countries to invest in the information systems underpinning the delivery of social assistance. This is because:

- The crisis has shown how countries with stronger systems – and stronger ecosystems and partnerships across government and beyond – were better able to respond, expanding caseloads significantly and in a timely manner4. If this could be seized upon to build more long-term, inclusive systems this would be a positive outcome of the COVID-19 response. Stronger core systems can enable better shock response5.
- The expansions of caseloads warranted by the crisis is sometimes setting the foundation for information systems that build on that data and experience.

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[1] Social insurance often have separate information systems (with an older history), that should be linked/interoperable with social assistance to ensure coordinated planning and an overview of the system as a whole.
[2] See Barca (2018); Leite et al (2017)
[3] UN Women (2020), COVID-19 Gender Data Resources; Banks et al (2020); Sammon et al (2021)
[4] Gelb and Mukherjee (2020), SPACE (2020a)
[5] Barca and Beazley, 2019

Box 1. Factors exacerbating exclusion of women and persons with disabilities

There are numerous factors which create additional risks of exclusion for women and girls, and persons with disabilities. These have all unfolded in full-force during the COVID-19 pandemic. For example, constraints to mobility (e.g. physical constraints, socio-cultural constraints), women's differential access to public spaces, or dependency on others (e.g. for persons with disability or where women's access outside the home is limited) will affect how potential eligible beneficiaries access and receive information and communication about the programme and how to apply for benefits. These factors also determine access to payments and benefits - for example, women and persons with disability typically have lower levels of mobile phone access and ownership and access to banking.

The challenges related to obtaining official documentation for programme registration can also create barriers – the requirements for ID cards or registration of disability status for example, can be highly influenced by issues of discrimination and stigma (e.g. preferences not to register girls with disability), early marriage (which may prevent marriage registration), the costs associated with obtaining documentation (distance, time etc). Moreover, confidence, low levels of literacy, low access to and ability to use digital platforms may also prevent women and persons and with disability from applying to programmes, but also limit their access to other programmes services such as feedback and complaints mechanisms.

In addition to the potential risks of exclusion, attention to the adequacy of information is critical. Common data collection tools however, often overlook gender, disability and age intersections. For instance, computing benefit levels on per-capita (or pre-crisis earning levels) may appear to make female-headed households better off, but they may still be more disadvantaged due to reduced access to markets and services; persons with disability face higher expenditures; women and girls within households may have specific nutritional requirements, face risks of violence or have high care responsibilities leading to lost income. Collecting the right type of information is critical for ensuring a more inclusive information system – as this paper further explores.

2.2 Focus of this piece

This piece has an explicit focus on analysing the opportunities (that need to be *intentionally* exploited) and risks (that need to be *intentionally* mitigated) offered by information systems in terms of enabling inclusion[6] throughout the design, implementation and M&E of social protection programmes.

For the purposes of this piece, a primary focus will be on the inclusion of women and persons with disabilities. For the rest of the document, inclusion will therefore refer specifically to promoting gender equality and disability inclusion.

The core question is: how can the information system ensure the provision of support that is not discriminatory or gender- and disability-unaware, but gender- and disability-sensitive, or even responsive?[7] More broadly, how the information system can:

I. At a minimum, be designed to ensure equal access (*coverage*);
II. Help respond to gender- and disability-specific needs (via *adequate* and *comprehensive* support, including through facilitated linkages with other services);
III. Support a transition towards systems that support broader *empowerment*?

In answering these questions the paper focuses primarily on the 'delta': not what is already known/widely discussed on these topics (e.g. barriers to access) but the specific role of a well-designed information system.

[6] Inclusion in social protection is about being better able to identify and respond to differences in vulnerability, driven by factors such as gender, age, disability status, and to be able to reach and benefit the most vulnerable in each context.

[7] See UNICEF (2020). Gender-Responsive Age-Sensitive Social Protection: A conceptual framework, *Innocenti Working Papers* no. 2020-10

The piece also focuses on (non-contributory) social assistance, more than social insurance, while acknowledging that: a) many of the same considerations apply across the two; b) social insurance will always be a fundamental part of the data ecosystem (see below).

As a **further caveat**, the recommendations are based on a rapid review of literature and key informant interviews and are aimed to be a conversation-starter on this fundamental topic.

2.3 What is an 'information system' (key terminology)

Running social assistance programmes requires management of beneficiaries' information in order to effectively accompany operations along the 'delivery chain' (see Section 3). Information about a wider population group – including potential future recipients or households who have been assessed but classified as ineligible – is also often collected and stored within the sector. With increasing digitisation, recent years have also seen a rapid acceleration in integrated approaches to data and information management, including linkages across programmes and with a broader government data ecosystem.

A 'social assistance information system' refers to the system that enables the flow and management of information within the sector, and sometimes beyond to other sectors. It can be set up to achieve a range of objectives, resulting in very different set-ups and degrees of integration (see Box 1).

It helps to view a social assistance information system as an ecosystem comprising three main, interlinked, objectives defined below along three visual 'Pillars' (Figure 1)[8]. Depending on the context and objectives, countries can organise their social assistance information systems very differently around these three objectives, leading to very different trajectories, with implications for women and persons with disabilities.

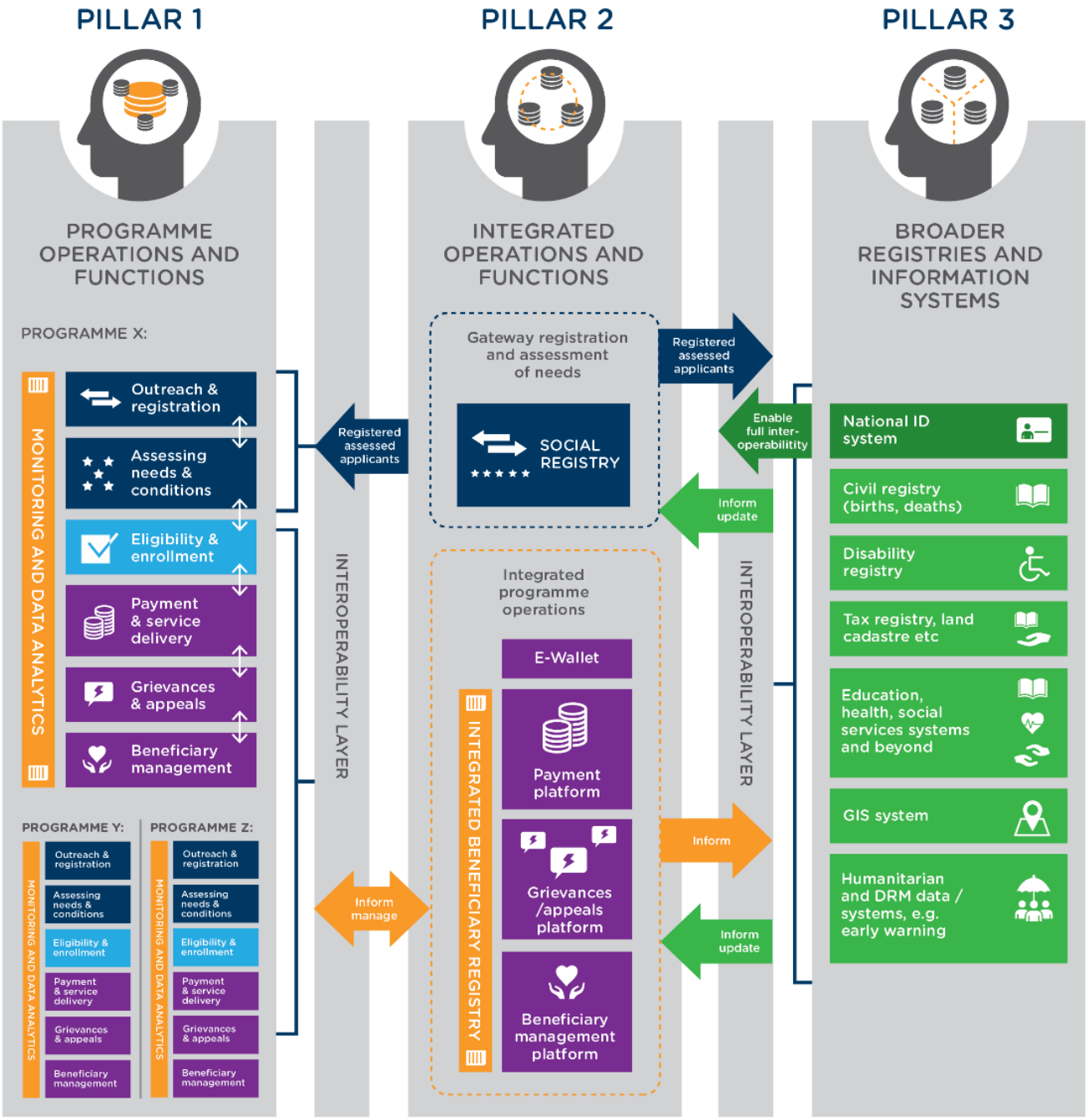
Pillar 1 *Facilitation of information flows for individual programme operations:* When the information system is designed to support the delivery chain of a specific programme, it is based on a **beneficiary registry** that is linked to a **Beneficiary Operations Management System (BOMS)**, also known as a **programme Management Information System (MIS).**

Pillar 2 *Facilitation of information flows for operations and functions across social protection programmes (integrated):* Increasingly, many countries are consolidating and integrating the delivery chain across multiple programmes. A key variant of this is the **social registry**, which integrates the functions of outreach, registration, and eligibility assessment, serving as the common gateway for multiple programmes. Another, complementary, approach is to integrate multiple beneficiary registries to enable an **integrated beneficiary registry** that provides a consolidated view of who is receiving what, thereby supporting better inter-programme coordination, planning and monitoring.

Pillar 3 *Facilitation of information flows for integration with broader information systems:* In more advanced contexts, the above two categories of information systems can be linked (e.g. via interoperability) with other information systems beyond the sector, often facilitated by a truly unique identifier such as a foundational national ID.

[8] Barca and Chirchir (2020); Lindert et al (2020)

Figure 1. Information flows across social assistance information systems (Barca and Chirchir, 2019)



Ultimately, the information system provides invaluable administrative data that not only supports day to day operations, but can also enable inclusive policy analysis, design, monitoring and evaluation - especially where it is effectively disaggregated and linked to other relevant data sources (e.g. analysis of national Household surveys and censuses). This is discussed in Section 3.

The potential and pitfalls of social assistance information systems in terms of ensuring inclusion of women and persons with disabilities – including their integration with information systems beyond the sector – depends on how they are set up. As shown in Box 2 and further explored in Section 3, several parameters influence how benefits can be intentionally reaped and how risks can be mitigated to enhance overall outcomes for women and persons with disabilities: no two information systems serving the sector are the same and these variations in design significantly affect outcomes.

Box 2. Core variations in the set-up of social assistance information systems that determine outcomes

What percentage of the population is covered: Different social assistance information systems vary widely in their coverage of the national population. For example, when considering the beneficiary registry of a small targeted programme versus a national social registry; a social registry with <20% population coverage versus a social registry with >80% coverage; a system drawing data interoperably from many databases versus a standalone registry. ***Higher coverage increases the likelihood of women and persons with disabilities being included, yet these are often the hardest-to-cover population groups so require specific tailored efforts.***

Whose data are collected and stored: For example, individual vs household-level data; beneficiary vs non-beneficiary data; data on the 'poor' and 'vulnerable', or specific age groups e.g for a social pension vs wider sub-sections of the population. ***Where data is collected at household level, individual vulnerabilities and needs may be 'lost. Similarly, if data is only focused on specific sub-groups of population. Measurement methodology for disability can yield very different results (see Box 1).***

What data are collected and stored: For example, an extensive dataset on household socioeconomic conditions vs a limited dataset with key variables; operationally relevant data collected at enrolment e.g. bank account, vs basic data for eligibility determination; biometric information or not; data on potential exposure to covariate risks and shocks vs not; etc. ***Critical to be collecting the right data and the right amount for a full assessment of individual needs e.g. functional limitations and support requirements for persons with disabilities.***

How data are collected: For many social protection registries, the two most frequent approaches to data collection are: a) on-demand registration, which relies on households going to an office (or accessing an application / website) to apply; b) census-survey registration, which entails all or selected households in an area being interviewed at selected intervals. These both offer significant advantages and disadvantages (see Barca (2017) for a full list). ***Important to collect data in a way that caters to the specific barriers faced by women and persons with disabilities, e.g. for some persons with disabilities on demand home visit might be required due to extensive barriers limiting access to registration mechanisms.***

Approach to information integration: For example, whether data are linked to other databases (social protection and beyond) for data sourcing / verification / removing duplication, ideally through the use of a unique identifier (national ID or other). ***Potential to proactively import data from other registries, to trigger or complement registration (disability registry, civil registry, etc).***

Frequency of updates: Depending on the approach to data collection, on national policy decisions, and on available budgets, the data may be updated on an ongoing basis (ideal) or periodically (every two to three years at most, but often less frequently for logistical reasons). ***Out of date data provides an unreliable snapshot of poverty and will pose an additional barrier to persons with disabilities (due to changes in their condition and/or support system).***

Who is responsible for data collection, storage, and management: For example, whether this is performed in-house by the lead social sector ministry, through municipal offices, through other state institutions e.g. statistics office, with or through contracted third partners, affecting trust in the data's integrity? ***Power dynamics for women and persons with disabilities will change widely depending on who is involved in data collection especially (nuances lost if lack of trust).***

How data are validated and maintained: What procedures are in place to guarantee data integrity. ***These may be useful to 'clean' data and avoid duplications and inclusion errors but could exacerbate exclusion for women and persons with disabilities if not intentionally designed not to.***

Level of data security / privacy guaranteed: This depends on existing legislation and provisions, including adherence to international standards, such as the United Nations Guidelines for the Regulation of Computerized Personal Data Files and ISO 27001. ***While interoperability is desirable, it is important to ensure that access to data (especially sensitive information such as medical conditions), are carefully segmented so that staff only access the minimum necessary data for their work.***

Source: Adapted from Barca and Beazley (2019)

3 Along the 'Delivery Chain'

This section focuses on the process of delivering social assistance programmes, zoning into each key stage – and especially the 'gateway' initial stages – in order to stress the opportunities of intentionally leveraging the information system to enhance gender and disability inclusiveness as well as the challenges/risks emerging. **The process is summarised in Figure 2**.

The 'gateway functions' of registration, eligibility determination and enrolment are where most exclusion will take place. The paper also discusses the importance of developing M&E systems that truly leverage administrative data generated by the system to support gender and disability -informed policy choices.

Across all of the stages it will be crucial to integrate considerations on data protection as per this Guidance Note developed for the social protection sector.

3.1 Outreach and communications

This stage of the delivery chain entails communication and interaction to build awareness, informing people about the programme(s) and their delivery processes, encouraging them to engage and apply.

3.1.1 Potential benefits and opportunities in terms of inclusiveness

Having a digital information system acting as a backbone for social protection outreach and communications activities *could* be designed to help enhance gender and disability inclusiveness. Examples are provided below.

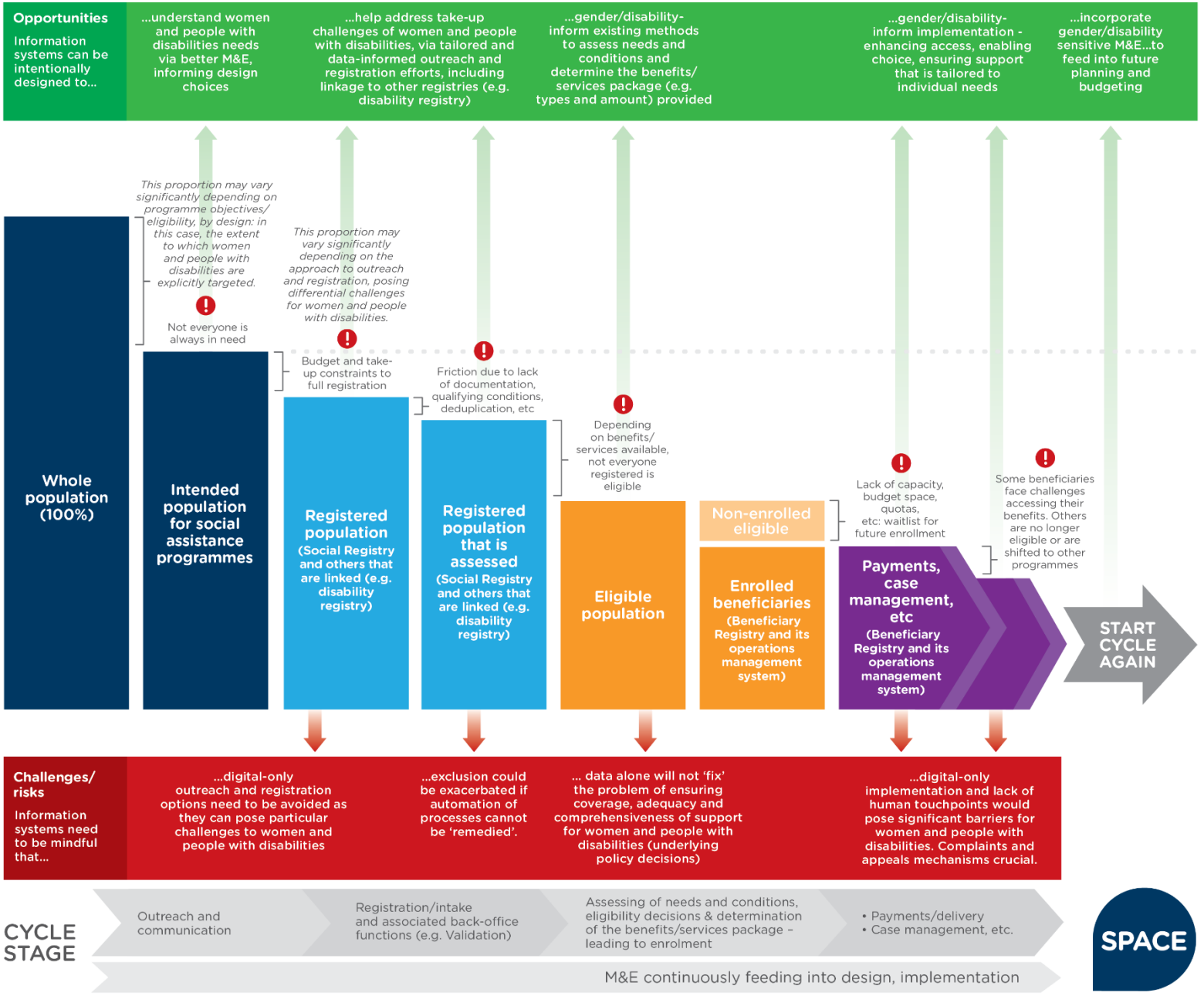
First, where data has been adequately and inclusively collected, leveraging existing data from a social registry and/or other administrative databases to develop a *targeted* communications strategy that:

- Specifically reaches those segments of population, at scale. This could be done via statistical analysis that combines different data sources – including qualitative understanding of user experiences and needs – to identify and explicitly 'target/reach' those (typically under-registered) categories;
- Is tailored to differential needs in terms of messaging, channel, etc.: awareness of the specific barriers that different groups face, and services they may most need to access, informing the communication strategy.

Second, using features of the information system to automate and further diversify channels of communication. This may include:

- Assistive technologies for online, mobile, and other technology-based outreach, serving the specific needs of persons with disabilities: e.g. sending a user with visual impairment an automated voice message about program details rather than an automated text message; or a sign language video; or easy to read format for persons with mental or learning disabilities; or screen-reader compatible digital materials etc;
- Digitally driven mass campaigns directed at individuals, such as SMS campaigns. COVID has increased experience with these to rapidly scale-up caseloads, for example in Jordan and Pakistan. These campaigns could also be targeted at relevant and trusted local information 'intermediaries' (e.g. local leaders, local groups, champions, social workers, health workers, teachers);
- Leveraging technology for coordinated communications alongside disability/women's organisations (information sharing, complementary messaging, etc.).

Figure 2. Key opportunities, risks and challenges along the delivery chain - Source: authors, building on Lindert et al. (2020)



3.1.2 Potential challenges and risks to inclusiveness that need mitigating

It is fundamental to stress that none of the digitally-enabled strategies discussed above should be seen as a solution on their own, but as a potential complement to the range of outreach/communication activities designed to serve the needs of women and persons with disabilities, as well as other excluded/marginalised population groups and the population at large.[9]

In other words, having a solid information system in place that supports outreach/communications activities does *not* entail a fully digitised approach. Digitising the 'last mile' – without providing any non-digital option – would pose significant barriers to access for many intended recipients. This is because of well-documented inequalities, reinforced via social norms, that women and persons with disabilities face: low ownership and access to digital devices (e.g. phones), low levels of literacy and especially digital literacy, social isolation, marginalisation and distrust in the system, etc. Moreover, one approach to communications alone will never meet the needs of all.

Ultimately, in-person engagement via trusted partners (e.g. local leaders, local groups, champions, social workers, health workers, teachers, etc.) will be critical to the success of any outreach efforts. They will also help to create a first 'human connection' for an approach that prioritises humanity, dignity and continuity of care over efficiency.[10]

3.2 Registration/intake and associated verification, validation, and de-duplication

This is the process of gathering, recording, and verifying/validating information on potential beneficiaries, subsequently used for deciding on eligibility and enrolment.

3.2.1 Potential benefits & opportunities in terms of inclusiveness

The information and analysis generated by social information systems is only as good as the data collected and entered into those systems – typically collected during 'registration'. Some refer to this as 'rubbish in rubbish out'. Both the *types* of information collected and *how* data is collected and validated have implications from an inclusion perspective.

Much of this is not related to the social assistance information system itself, but to its underlying approach to registration[11], which in turn is partially related to the design of eligibility criteria across different social protection programmes[12], both of which are beyond the scope of this piece (but are touched on in Section 3.7 on M&E).

Nevertheless, the issue is so important in affecting further exclusion via data-informed decisions by the information system (especially where this acts as a gateway across several programmes) that it is worth stressing a few points.

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[9] See Lindert et al. (2020).
[10] For relevant considerations see SPACE (2020a).
[11] For more on this topic see Lindert et al. (2020) and Barca and Hebbar (2020).
[12] As an example, a country operating a poverty-targeted scheme targeted at households (not individuals) is more likely to collect larger amounts of socio-economic data while collecting less individually-focused information on household members.

A. Registration, what information is collected

First, regarding the *types* of information collected, getting the questionnaire/application form used for registration 'right' is critical to gender and disability inclusiveness. What data is needed to allow for the design of policies, services and benefits that are inclusive? There is a lot of variation across countries on how this is done (see Table 2), with some critical questions that need addressing summarised in Table 1. There are trade-offs of course in terms of length vs quality of the 'data collection'/registration process, that can be tackled via a 'staged' approach (see below).

Table 1. Critical questions to ask (and address) within the registration questionnaire/form

Domain	Critical questions
Both disability and gender	• Is full data being captured on all household members, not just the 'head'? →if it isn't it will be a lot more difficult to assess intra-household needs of women, persons with disabilities, etc. and to support the roll-out of social assistance programmes focused on individuals (not households) e.g. child grants, disability benefits, etc. • Is bias being avoided in the questionnaire implementation? E.g. who is the respondent? Who else is present? Are enumerators trained to avoid bias?
Disability specifically	• Does the initial identification of disability include a set of questions about functional/activity limitations, capturing the diversity of persons who may experience disability, rather than a simple self-assessment (e.g. a filter question such as do you have a disability yes /no) → 'yes/no' risks filtering out people who do not self-identify as disabled but may have significant functional difficulties e.g older persons. Do the questions draw on a local adaptation of the Washington Group enhanced set of questions and/or WHODAS[13]? • Is there specific attention paid to children with disabilities? • Is there any question about whether a household member has an official disability status/card? →this should complement but not replace the other questions on disability • Will the questions in the questionnaire/form be supplemented by any additional data (existing or future)? Which? →fully assessing eligibility status/needs this way will be impossible and too lengthy, ideally this would be one screening stage in a process requiring a more in-depth assessment.
Gender specifically	Are questions being asked on the following? • Care obligations • Access to services, in particular health/ family planning • Mobility • Credential requirements (men often control women's ID documents) • Pregnancy *Additional questions may also be critical, but not necessarily at the registration stage. E.g. these could be considered for case management and M&E: Time use including women and girls' time spent on unpaid domestic and care work; Autonomy, decision-making, control over resources): Gender based violence; Access to information.*

[13] Noting these will still not be entirely comprehensive, for example they do not focus on some profoundly limiting conditions (incontinence, fistula, albinism, neurodiverse conditions).

Deep Dive: Disability registries within the social protection ecosystem Collecting the right data on Disability, why it is so complex – and important[14]

While several countries have indeed included disability related questions in their Social registry forms, the way it has been done may have flaws which limit their usefulness. This is unsurprising as measuring disability in population has been a critical challenge for years.

It is estimated that 15% of the world population experience some form of disability (WHO/WB, 2011**), with 2 to 4% facing significant difficulties. Yet disability prevalence between countries and often within countries vary widely - mostly due to the difference in approach to measure disability.** Surveys using stand-alone or filter questions such as "Do you have a disability? Y/N" are more likely to miss many people who may experience disability but might not necessarily self-identify as having a disability (e.g older persons) or will be ashamed to say so. Those using less stigmatizing questions on activity limitation or functional difficulties (e.g the Washington group short set) will usually yield higher prevalence. The prevalence will also vary depending on the country contexts (ageing population, level of stigma, awareness, disability related support available etc.).

In recent years there has been significant progress in national data collection and data analysis to better capture the population likely to live with disability and the inequalities they face, with greater comparability between countries. This is thanks to the greater inclusion of the Washington group short set of questions in census and the main household surveys (HIES, LFS, DHS, MICS etc.), in line with recommendations of the UN statistical commission.

To ensure compatibility between administrative and national statistical data, it is recommended that information systems serving social protection (e.g. social registries):

- **Use at least the internationally agreed disability requirement for census and household surveys (WGSS).** Of course, this is a minimum, as countries can expand and use with WG enhanced set and/or the WHODAS 2.0 among other tools;
- **Ask whether any household members have an official disability status or disability card.** This can help assess the gap between people that would likely benefit from benefits associated to the status to the actual number of people having it, facilitating effective referral. à For example, in the Dominican Republic, inclusion of a disability related question within data collection for the Unique System of Beneficiaries (SIUBEN) in 2018 supported a more inclusive response to the COVID19 crisis, enabling quick identification of many families with children with disabilities to provide them with cash transfers.[1]

The reality, however, is still far from this. Table 2 below provides an overview of current practice with regards to questions on disability within Social Registries. While there is significant variation from country to country most still use a filter question (either on health condition or disability) which might exclude many people and could usefully be removed.

Table 2. Examples of disability questions within existing social registry questionnaires

Country and information systems	**How are disability questions asked?** *Note: these are not examples of best practice, they showcase a range of approaches and issues emerging.*
Dominican Republic (SIUBEN)	• *Has a filter on health conditions for household members* • *Has a set a questions based on the Washington group short set and WHODAS 2.0*
Brazil (Cadastro Unico)	• *Filter question for all HH members*: "Does (name) have any permanent disability that limit his / her everyday activities?"

[14] This draws heavily on UNPRPD (2021b)

	• *Two specific questions if yes*: "What type of disability does (name) have?" + "As a result of his / her disability, does (name) receive continuing third-party care?"
Cambodia (IDPoor)	• *No specific questions for all HH members.* • *Two generic HH questions touching on disability (alongside other issues): "*How many persons in your household cannot produce an income (because of young or old age, school pupil, poor health, disability, looking after children, or any other reasons)?" + "presence of severely disabled head of household or spouse of head of household (unable to earn income, or spends money for treatment)"
Philippines (Listahanan)	• *Filter question for all HH members: "*Disability – Yes or No" • *Specific questions on six functional domains using WG short set, asking "difficulty or problem in.." a)* Seeing, even when wearing eyeglasses; b) Hearing, even when using a hearing aid; c) Walking or climbing steps; d) Remembering or concentrating; e) Self-caring (bathing or dressing); f) Difficulty or problem communicating using usual language
Pakistan (NSER)	• *Question for all HH members* on the roster in the following response codes: No disability, Upper limb disability, Lower limb disability, Mental disability, Speech disability, Hearing Disability, Visual disability (partial), Visual disability (full), Other
Mongolia	• *Filter question for all HH members: "*Is _____suffering from any disability?". • *Specific questions if yes:* "Have disability certificate/booklet?"; "Type of disability*?"* Blind, Dumb, Deaf, Physically, Mentally, Combined, Others.
Georgia	• *Question for all HH members on the roster on physical status*: Person confined to bed; Person who cannot move without assistance and/ or requires nurse. • *Question for all HH members on the roster on Special Status and Category*: Does not have a special status; Person with sharply expressed disability (Group I); Person with significantly expressed disability (Group II); Child with disability (under the age of 18)
Lesotho (NISSA)	• *Question for all HH members on the roster: "*Does [NAME] have any physical or mental disability?" None, Vision, Hearing, Physical, Speech, Mental, Other (specify); multiple responses are possible
Kenya (HTT)	• *Question for all HH members on the roster: what type of disability does NAME have? List no more than three:* Visual, Hearing, Speech, Physical, Mental, Self-care, Others, None

It is important to note that this data should be complemented by an in-depth individual disability assessment (ideally feeding into a Disability Registry, see Box 3). Specific instruments should be designed so that they can be easily used by community workers to increase access but should include more detailed questions on functional limitation, barriers a and support needs to inform disability determination, case management and policy planning.

B. Registration, how data is collected and validated

Second, in terms of *how* data is collected and validated, getting the process right will be equally critical to inclusiveness. Many of the standard recommendations on ensuring inclusive registration approaches apply here, summarised extensively in existing literature.[15]

[15] See Banks et al. 2017; FAO 2018; Holmes et al. 2018; Kidd et al. 2019; SPACE (2020b) ; Barca and Hebbar 2020; Banks et al. 2021

There are opportunities offered by the information system that can be leveraged on top of these, *if and where a system is explicitly designed to pursue these functions*.

First, more proactive approaches to registration via interoperability with existing government databases/systems, triggering registration (especially for individual entitlement universally-leaning programmes[16]) or complementing other registration methods. This can help to shift the burden of proof and thus protection from the citizen to the State. For example:

- **Via strong[17] Civil Registration and Vital Statistics Systems (CRVS)** data the potential to trigger child grants as soon as children are registered, or social pensions for older people, or widow allowances as soon as the spouse/partner has died, etc. While this should be increasingly possible in regions such as Latin America and the Caribbean with over 90 percent birth registration, this approach is less promising in other regions such as Sub-Saharan Africa where the registration rates are much lower between 40-51 percent.[18] Linking social protection to information on deaths is much more constrained, as 50% of the global deaths are not registered;[19]
- **Via strong Disability registries** the potential to trigger disability-related benefits/services and/or complement the data required for eligibility determination. This is the case in many high-income countries (see Box 3);
- **Via tax vis-à-vis CRVS/ID data or informal worker organisation data** - filling in gaps by explicitly honing into certain groups that are absent in one database but present in another (targeting 'out'). For example, the challenge of informal and gig economy / platform workers who are often outside any existing social protection registry[20] - and in most countries do not feature within taxation registries.

Second, easing the burden of registration/application. Reducing the direct, indirect and opportunity costs of applying, especially those that pose particular barriers to women and persons with disabilities (time costs, documentation requirements, complexity of the process, distance to the registration point, etc.):

- Enabling a shift towards a 'single window'/'one stop shop' for accessing multiple services/benefits (information collected once and then shared across user programmes, including across sectors);
- Eliminating (or coordinating) multiple methods of assessment and addressing inconsistencies across these, increasing the overall transparency & effectiveness of the process (see the Deep Dive below on how this can be designed as a 'staged' process for disability assessments specifically);
- Enabling the potential for complementary approaches to registration (e.g. online, via SMS, call-centre or app, etc.), alongside traditional ones. For example, a GIZ project in Cambodia trained DPOs/OPDs in collecting data (door-to-door) through an offline application with iPads in communities. The data was shared and discussed with government officials in workshops in the aftermath[21];
- Reducing documentation requirements (as these can be pre-compiled and validated by the information system);
- Reducing application/processing time (meaning support is received when in need i.e not too late);
- Combining multiple phases within the delivery chain, further reducing additional travel time and costs. For example, if systems are automatically designed to calculate eligibility at the time of registration, then

[16] I.e. programmes that categorically target individuals (or their households) without requiring additional socio-economic information e.g. a universal disability grant.

[17] Here and below the '*strength'* of these systems is critical. In many low-income countries very low percentage of populations are registered in CRVS systems and these percentages are lower for women and People with disabilities.

[18] See UNICEF data

[19] See CRVS gateway.

[20] See Forde et al. (2017)

[21] See https://toolkit-digitalisierung.de/en/disability-data-app-dda-cambodia/

applicants can be enrolled simultaneously. Payment service providers can also be invited to set up a desk during registration, so that people can open their account during this single visit. This is the case in South Africa, where registration, enrolment and account opening are all enabled in a single visit.

Box 3: Disability registries within the social protection ecosystem

In order to provide support to persons with disabilities, many countries (such as Nepal, India, Kenya, Thailand) have adopted a disability card or status that is associated with a national registry. They act as an official proof of disability with different ministries and services, hence minimising the administrative burden on persons with disabilities and their families. They can also be automatically associated with a range of universal categorically targeted benefits (such as various concessions or even disability allowance).

Some countries have also established dedicated institutions responsible for the registration and assessment of persons with disabilities, feeding data into the 'Disability Registry'. This dedicated registry could usefully be linked to social protection programmes and their information systems, and vice versa, to mainstream support to persons with disabilities. Disability registries maintain essential information on each individual person with disabilities, including disability ID, name, national ID number, sex, physical address, level of education, date of birth, marital status, occupation, contact phone number, skill level, nature and type of disability, and next of kin. To be truly effective they should also include the type and level of support required in terms of services, assistive devices, etc.

If there is a unique identifier across information systems, this would facilitate links between the national disability registry and social assistance information system. This would help eligibility determination processes; reduce the challenges experienced by persons with disabilities in eligibility determination when they have to provide proof of their disability; provide proactive information about individuals who may require specific support and assistance in accessing schemes; enhance the monitoring of schemes to assess their disability inclusivity, and; facilitate case management for staff in charge of supporting persons with disabilities.

Country experiences on this have been increasing. For example:

- North Macedonia has been streamlining the process for disability assessment across the country, as this is currently conducted separately for different programmes. The plan envisages the establishment of a 'unified disability assessment system' and Central Disability Certification Coordination Unit (CDCCU) sitting within the Ministry of Labour and Social Policy, feeding into a consolidated Disability Registry that is linked to the social assistance information system.
- In Senegal, in response to COVID-19, the government has announced links between the equal opportunity card (disability) registry and the unified social registry to ensure that persons with disabilities would have access to in-kind relief.
- India is engaged in a vast reform, building a National Database and is in process to issue a Unique Disability Identity Card to each person with disabilities which would be both physical and electronic. The aim of the reform is to encourage transparency, efficiency and facilitate access to schemes and benefits provided by the Government through its various Ministries and their Departments at all levels of implementation – from village level, block level, District level, State level and National level.
- The national council of persons with disabilities in Rwanda is starting a process to develop a national disability information system based on in depth individual disability assessment that would also capture need for support in relation to health and rehabilitation assistive devices, education and employment etc.

While the potential for better supporting persons with disabilities across the life cycle is high, specific attention should be paid to ensure data privacy and protection: e.g. that only the minimum necessary information should be accessed by the social assistance information system.

Sources: Chirchir and Barca 2019, UNPRPD 2021c

Third, ensuring updates to information systems are explicitly targeted at women and Persons with disabilities to enhance their inclusion in various user programmes and services. For instance, UNICEF introduced a cash transfer programme for children with extreme disabilities in Syria. As part of this programme, the national registry which contains information about persons with disabilities is being updated for accuracy, as this registry has a case management component that links eligible children to other specialised disability services.[22]

Deep Dive: A staged approach to disability assessments

In order to provide support to persons with disabilities, states have to first identify them across the life cycle. This is often a challenge considering the wide diversity of persons with disabilities and the persistent stigma in most contexts. Often, due to their length, complexity and subsequent costs, disability assessment processes can pose a significant barrier for persons with disabilities which can explain why universal disability schemes achieve lower coverage than universal old age pensions.

The UN CRPD Committee has consistently recommended that countries reform their disability assessment and determination mechanisms, so they a) avoid multiple process to access different benefits, b) move away from focus on impairment and include consideration for support needs, b and c) are easily accessible everywhere in the country at low or no costs. To do so, it is important to distinguish different element of gatekeeping:

1. **disability assessment:** the collection of *comprehensive* information on individual situations
2. **disability determination:** the official decision of granting a disability status based on legal criteria (which may change over time) and all or part of information gathered during the assessment;
3. **eligibility determination:** the decision of granting access to one or more benefits/services which may be based on the multiple eligibility criteria (disability, age, location, means test…) of individual social protection programmes (which may also evolve over time)

These should not be conceptually merged into one, as they serve different functions and may have different data requirements. For instance, while comprehensive information on functional difficulties, barriers and support needs would be collected during a disability assessment to support case management and policy planning, it does not mean all that information should automatically be considered for disability determination.

From a social assistance information system perspective, this means that the processes of disability assessment and determination may

- Happen 'beforehand', feeding information from a national disability registry to a social assistance information system for the purposes of informing eligibility decisions (see Box 3);
- Be 'triggered' by referrals for individual disability assessment for persons identified during initial light-touch household screening via the social assistance information system and questionnaire.

Such a staged approach would enhance the quality of the overall disability assessment process, while also avoiding the need for multiple assessment processes.

Finally, acknowledging the issues posed by medical certificate for poorer persons with disabilities and their families or those remote areas, countries have taken different steps to facilitate access to disability assessment. India, Zambia and Rwanda have been carrying out assessment camps with mobile teams going in rural and remote areas. Others such as Fiji or Vietnam have adopted simple functional assessments. carried out at community level either by a committee or a social worker via home-visits. Medical assessment is required only in cases where the committee or the social workers cannot come to a clear decision or in case of appeal. Progress in digitalization allows for carrying out more comprehensive computer-assisted disability assessments by community

[22] See https://socialprotection.org/discover/blog/conversation-linking-humanitarian-cash-and-social-protection-response-covid-19

workers. Cambodia recently rolled out such an assessment, carried out at local level and assisted by smartphones which increase efficiency/reliability, feeding into a national database

While there are many important debates about the tools and approaches, each country should develop mechanisms ensuring equal and effective access to all persons with disabilities respectful of their rights and dignity.

3.2.2 Potential challenges and risks to inclusiveness that need mitigating

Once again, having a solid information system in place that supports registration/intake activities does not and should not entail a fully digitised approach. Digitising the 'last mile' – without providing any non-digital option or human contact – would pose significant barriers to access while compromising the social function of providing 'social' protection.

Even where systems are digital, significant investments will be required in:

I. **Enhancing the accessibility of any digital interfaces** e.g. via accessibility audits and expert advice;
II. **Building the capacity of social workers and other local-level actors to accompany applicants in the registration process**, addressing users' specific needs and challenges while acting as a human (and humane) point of contact. The value of this was seen during the COVID-19 pandemic, where mass registration campaigns were carried out digitally in many countries (online, or via SMS, applications, etc), accompanied by mobilisation of local organisations to support marginalised/vulnerable/excluded users to access these.

The capacity of frontline staff – or users themselves - to over-ride or help correct/fix any mistakes and omissions that are linked to the information system itself will also be critical[23]: for example, mistaken documentation collected via an interoperability agreement from another government department or missing documentation. If this is not done, the risks of exclusion will be exacerbated.

In other words, information systems can help to connect to a broader data 'ecosystem', with potential positive effects on registration, and ultimately coverage. However, women and persons with disabilities tend to be disproportionately excluded from some of the nodes of that ecosystem, such as CRVS, ID, and taxation databases. One in four children under age 5 (166 million) are not registered, and of the roughly 508 million children under age 5 who are registered worldwide, about 70 million lack proof of registration[24], while in 35 countries, a married woman cannot apply for a passport through the same process as married men, and in 11 countries married women cannot apply for an ID in the same way as married men[25]. Dependency on these foundational sources for identification and authentication can lead to an amplification of exclusion, particularly for vulnerable groups[26].

Ultimately, using existing data to inform registration can act as a double-edged sword. On one hand, it may simplify and speed-up processes as discussed above. On the other, it could lock potential beneficiaries into a devastating Kafkaesque loop of further exclusion for example if they lack the documents and other requirements to be registered into social protection systems, and where politics and societal norms intentionally exclude specific groups, whether by gender, identity or other characteristics. It will be essential to conduct technical and political economy analysis of existing patterns of exclusion / marginalisation and how these can be addressed within information and identification ecosystems (see National Identity Ecosystem Mapping tools[27]).

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[23] Of course there is a tension here with a desire for accountability (i.e. not wanting a corrupt local official to 'fix' things for personal interests) – what counts is a transparent process that enables remediation where needed.
24 See https://data.unicef.org/resources/birth-registration-for-every-child-by-2030/
25 Hanmer & Elefante (2019).
26 Masiero (2020).
27 Caribou Digital (2019).

The major implication and risk emerging is that if you do not make it 'into the data system', and that data system acts as a 'gateway' for all/most social sector schemes, you are systematically excluded from all of these. This is a risk that is only exacerbated by the increased granularity of targeting/eligibility assessment, and cannot be tolerated, requiring explicit policy attention.

A further risk worth noting regards the increasing use of biometric technology during registration (and enrolment) for social assistance. This is briefly tackled in Box 4.

Box 4: Biometrics, inclusion, and emerging risks

Biometrics are used to determine uniqueness in identifying individuals. The most common are fingerprints, but iris, face and voice recognition are increasingly used. The advantages of biometrics for registration, compared to physical tokens, numbers or names, is that they: are unique to each individual; cannot be lost or forgotten, are very difficult to counterfeit or steal; do not require literacy; are automated and leave an auditable trail; and increase anonymity when used in place of personal identifiers (names, addresses, etc.). However, biometrics also have many limitations and risks.

Biometrics introduce particular issues for social inclusion, especially for persons with disabilities. For example, biometric trials conducted by Atos Origin in 2004 around the UK's then proposed national identity cards scheme on three types of biometric technologies (facial, iris and fingerprint scans) found that usability outcomes for persons with disabilities turned out to be poorer than the other participants, including on metrics like success rates, time taken and number of attempts. Only 60.78% manage to enrol using all three and 0.62% failed on all three. Iris scans, in particular, proved to be especially problematic, with a 61 per cent enrolment success compared to 90.5 per cent for the other participants. In another example, a study of disability and Aadhaar (India's biometric ID system) found that, beyond those with missing or 'worn out' fingers or eyes, significant access challenges were faced by persons with hearing impairments, mental disabilities and development delays, with particular challenges for those with autism, cerebral palsy and psoriatic arthritis. While regulations allowed exceptions to biometric use in registration, the study reports issues at every interaction with Aadhaar, including ongoing authentication. As an overall benchmark, it should be noted that in the COVID-19 response up to 39% of social protection payments initiated through the Aadhaar-enabled payment system failed due to mismatch in biometric data.

Key areas where efforts to mitigate the exclusionary implications of biometrics for those with disabilities can make a real impact include: strengthening participation through more extensive consultation; conducting usability assessments that take an intersectional approach to address the diversity of disability, particularly through demographic diversity and enabling multiple modes of authentication (e.g. including biometric but also mobile One Time Password (OTP)-based and QR code) and biometric exception policies1; ensuring authentication sites are accessible and frontline agents sensitised to disability issues with authentication; ensuring grievance redress processes that also pertain to system design issues.

Ensuring digital technologies such as biometrics do not cause harm also requires appropriate regulatory provision, particularly around inclusion and data protection. As Sepúlveda Carmona, former United Nations Special Rapporteur on extreme poverty and human rights, notes, 'the establishment of biometric identification systems in social protection programmes is often not accompanied by serious analysis about their potential negative impact', and that 'when biometric technology is used in programmes without a proper legal and institutional framework, there are high risks of exclusion: individuals otherwise eligible may be overlooked or unable to enrol. Moreover, there are threats to privacy and data protection as well as risks to personal security.

Sources: Parsheera (2020); Sepúlveda Carmona (2019); Biometric Technology Today (2005); Microsave (2020)

3.3 Assessing of needs and conditions, eligibility decisions and determination of the benefits/services package – leading to leading to enrolment[28]

Brief description: Once potential beneficiaries' information has been registered, their needs and conditions are assessed, informing the determination of potential eligibility for specific programmes or a mix of benefits and services (based on existing eligibility rules). This is then operationalised via a formal enrolment process.

3.3.1 Potential benefits and opportunities in terms of inclusiveness

The ultimate factor affecting exclusion or inclusion of women and persons with disabilities in a country is the *policy decision* regarding the range of social protection benefits and services on offer and the design of the eligibility criteria and qualifying conditions for these (an issue that goes beyond the remit of this paper). In the medium term, these could be shifted to enhance inclusiveness, including via a better understanding of the specific needs of women and persons with disabilities through better M&E (see Section 3.8 for discussion on this). In the short term, these are broadly 'set in stone', determining eligibility and enrolment decisions for existing programmes.

Having said this, information systems could still play a role in improving the inclusiveness of *existing* methods to assess needs and conditions - thus determining eligibility and the benefits/services package provided – including in the short term (via more 'technical' rather than political 'fixes').

At the heart of this is transforming data into information in a gender- and disability-sensitive way – i.e. acknowledging gender and disability status as a factor of exclusion and vulnerability and explicitly addressing that. Strategies may include the following.

- Categorical targeting: using the disability status or specific family situation of women (e.g. single female head of household) as a criteria for eligibility
- Giving increased scoring/weight to women, persons with disabilities and other vulnerable categories when profiling needs in data-driven approaches[29]. For example:
    - Within Proxy Means Test scoring/ranking, this could entail adding specific proxies on functional disability and/or weighing these higher (where this data is available from the questionnaire, see Section 3.2 above). See also Box 5.
    - Within means tested scoring, it could entail raising the income threshold for assessing eligibility (e.g. acknowledging the higher living costs of Persons with disabilities, etc.). This is common practice for NGO programming as well.
- Better addressing intersectionalities: i.e how gender and disability intersects with other social identifiers, such as age, race, ethnic/migrant status etc. Using data from the information system to 'unpack' this can help to further inform eligibility decisions.
- Tailoring the overall benefit/service package and transfer amounts to the additional (multiple and varied) needs of women and persons with disabilities, leveraging the information system to do this effectively,

[28] This section draws on Lindert et al. (2020); UNPRPD (2021c); Sammon et al (2021)

[29] While explicitly addressing any risks that may emerge (perverse incentives, etc). It should also be noted that within non-data-driven approaches such as community-based targeting (CBT) this is often an approach that is used for prioritisation.

coordinating across programmes and sectors. Examples are provided in Table 3, most importantly data/needs-informed setting of transfer values and additional support and linkage to services.

Box 5: Adapting eligibility determination to enhance the coverage of Persons with disabilities and women in mainstream social protection schemes

The coverage of Persons with disabilities by mainstream targeted social protection programmes tends to be lower, as few programmes factor disability-specific costs in the calculation of benefit levels or in the criteria for means testing, which results in excluding many persons with disabilities and their households. Some countries have attempted to mitigate this either by increasing the PMT cut-off threshold for households with a disabled member (e.g. the Benazir Income Support Programme in Pakistan) or by including disability as one of the proxy indicators in the calculation of the PMT (e.g. Palestine; Mongolia) (*Kidd et. al 2019)*

A good example of an ongoing process comes from Palestine. Within the SDG Fund Joint programme "Towards a universal and holistic social protection floor for persons with disabilities (PwD) and elderly people ", WFP is working with ILO and UNICEF to support the Palestinian Authority on issuing a revised disability law which is currently under review in the Prime Minister's Office. The project is also supporting the assessment of the social protection system to review the sensitivity of targeting mechanisms for cash benefits distributed through the National Cash Transfer Programme for persons with disabilities and elderly people. The findings, will inform the design of an inclusive selection and identification model for social protection, including cash-based benefits and essential social services, aimed at these arget groups.

Similarly, explicit categorical targeting of vulnerable women can be used to enhance their coverage under mainstream social protection schemes. For instance, in India, female headed households with no other adult member are classified as deprived households, making them eligible to many of the targeted social protection programmes.

Table 3. Tailoring the overall benefit/service package and transfer amounts to the needs of women and persons with disabilities.

Approach	Who	How
Data-informed setting of transfer values[30]	Persons with disabilities	*Adjusting transfer values to account for the economic impacts/costs of disability*, to reflect the additional expenses faced by persons with disabilities. This can be done by including disability equivalence scales to household expenditure, informing final calculations, such as in Moldova.[31] This can also be done on an ad-hoc basis (not data-informed): for instance, Zambia's Social Cash Transfer Scheme doubles the value of the transfer for households with a disabled member. *Where these exist, disregarding disability allowances when calculating values of other benefits* (e.g. not lowering these accordingly). *Adjusting for the number of able-bodied adult workers*, so single women or households with disabled workers whose households have limited earning opportunities receive more. → Across, ensuring these adjustments to account for the true costs of disability do not replace disability specific support in cash, kind or services. For instance,

[30] See UNPRPD 2020 for further details

[31] see also Carraro and Cumpa (2014) In practice, this entails adjusting the expenditure of households with members with a disability to reflect the average disability related expenditure disability such that it is equivalent to the expenditure of households without a member with a disability. This is common in middle and high-income countries in the calculation of equivalence scales.

		the Georgia TSA scheme value is disability adjusted but is in addition to the disability allowance and disability services.
	Women	*Adjusting transfer values to compensate for care responsibilities which are disproportionately taken on by women when considering the transfer value* . I.e. recognising non-income costs e.g. time spent on care / domestic responsibilities, ability to access services, markets etc.
Data/needs-informed additional support and linkage to services	Persons with disabilities	*Depending on the benefits and services available in the country, an individual disability assessment can support matching people to these depending on their needs.* For example, a tiered approach may offer: • For all registered persons with disabilities: affordable/free health care (including rehabilitation and assistive devices); concessions to offset basic disability costs; discounts and free/subsidized public transport; economic empowerment programs, vocational training and support to self employment; • For all persons with significant support needs/disability costs: Disability/autonomy cash allowance to cover basic disability-related costs (universal, compatible with work and other schemes); access to relevant support services (personal assistance, interpreters and/or third person support/care giver allowance/ carer's grant for parents of child with disabilities); • For all persons with disabilities with no/lower income: Income security in the form of social insurance or social assistance depending on circumstances.
	Women	As above, additional support and services should be based on a needs assessment and the availability of quality services, but should consider a wider range of support services and interventions, for example: • Affordable/free care services • Economic inclusion and opportunities to strengthen skills and income generating activities • Financial services and skills training • Health (sexual and reproductive health, family planning), education, nutrition, WASH • Specialised services such as GBV protection, child protection, justice, psychosocial and mental health • Promotion of social norm changes, e.g. early marriage, gender relations, GBV, care and domestic roles and responsibilities • Networks and social capital, for example through group meetings, peer-to-peer support groups etc.
Extending the duration of benefits/services	Across	Using the information system to support waiving the requirement to re-register or re-certify periodically or extending the period between recertifications, especially for persons with disabilities and women
Waiving of conditions	Across	Using the information system to support waiving of conditionalities where these impose a particular burden to persons with disabilities and women[32]

Source: Authors building on UNPRPD (2020); Kidd et al. (2019). NOTE: none of these options are mutually exclusive. For example, adjusting the transfer values to account for true costs of disability should not replace service provision and vice versa.

3.3.2 Potential challenges and risks to inclusiveness that need mitigating

Ultimately, the main risks to inclusiveness at this stage cannot be solved through the information system, but are the product of broader, political, design choices upstream. While the opportunities discussed above show how intentional gender and disability-responsive design can mitigate exclusionary practices, they are not sufficient 'on their own'.

[32] See Cookson, T. P. (2018).

More generally, coordinating across programmes (both benefits and services) and sectors is not something that can be achieved via data-sharing alone. The institutional set-up and capacity required for this will be critical: the information system will be able to pursue this only as well as its creators and their institutional counterparts - and it will need to be carefully designed to perform these functions.

There are also some risks that may emerge in the process, especially as most low and middle-income countries do not have strong (or any) provisions to adequately address data protection. Misuse of such data could lead to profiling, stereotyping and data-driven decision making that ends up exacerbating existing exclusion.

3.4 Payments/delivery

The process of paying cash transfers or delivering services to eligible and enrolled beneficiaries. NOTE: In this piece we **do not cover this topic in depth** as it is extensively covered in existing literature. See for example Lindert et al. 2020, World Bank 2020b; Gronbach 2020.

3.4.1 Potential benefits and opportunities in terms of inclusiveness

An information system underpinning programme payments and service delivery has a wide variety of benefits, many of which have indirect implications on inclusiveness for women and persons with disabilities[33]. Focusing on 'payments' for ease of explanation, the two main ones are:

- Enabling accessible digital payments, helping to meet Know Your Customer requirements while potentially increasing the speed, security, convenience, predictability, capillarity of liquidity points, privacy, and control over use of funds[34] – all via improved authentication and digital feedback loops/interoperability;
- Easing multiple payment options/providers, increasing user choice. If designed into the system, beneficiaries can select the payment provider most appropriate to them (different banks, mobile operators, post office, manual distribution etc.) with the information system interface with each financial service provider established so the beneficiary is not asked to do this multiple times or required to use a provider not available/appropriate to their needs.

3.4.2 Potential challenges and risks to inclusiveness that need mitigating

As with other stages, this does not and should not preclude the possibility of non-digital options for cash-out – or a strong system for ensuring women and persons with disabilities overcome the barriers to financial access they face (e.g. lower mobile phone ownership, lower access to official IDs for KYC, etc).

Moreover, given the increasing practice of using biometrics to confirm identity at the payment point, it will be important to take measures to ensure these are accessible for persons with disabilities / eroded biometrics (manual laborers / elderly, etc).

[33] See UNPRPD (2021c)
[34] Bold et al. (2012)

Box 6: Challenges faced by persons with disabilities in accessing digital payments in India

Over the last decade, almost all social cash transfers in India have transitioned towards digital payments to beneficiary bank accounts. Aadhaar, the biometrically enabled national ID in India, is being leveraged to rapidly expand the agent banking network and thereby enable the withdrawal of cash by beneficiaries. While enrolment into Aadhaar by Persons with disabilities is provisioned for through special measures specified in the underlying law, biometric authentication at the time of use is not backed by similar considerations. Therefore, persons with disabilities face special barriers to access as compared to other beneficiaries. For instance, of the 6 social cash transfer programmes for which payments were made by the Ministry of Labour and Employment from April-October 2018, the highest failure rate was for a programme on rehabilitation of persons with disabilities. 4 of the remaining 5 programmes had failure rates ranging between 0.85-4.95 percent, alluding to significantly higher barriers to access faced by persons with disabilities.

Source: Parasheera, 2020

3.5 Complaints and appeals

A fundamental stage of the delivery chain, that allows citizens to complain or provide feedback to the implementers of a given service, and allows implementers to respond to those complaints or feedback. By doing this, well-functioning mechanisms provide a predictable, transparent, and credible process to all parties, resulting in outcomes that are seen as fair, effective, and lasting.

Ensuring that women and persons with disabilities can access and use these systems is of course critical to inclusiveness overall. This topic is not covered in depth here, but it is worth noting the following from an information systems perspective.

3.5.1 Potential benefits and opportunities in terms of inclusiveness

Some countries have started embedding complaints and appeals mechanisms as a module within social assistance information systems. Where this is the case, disaggregated data on the challenges/complaints of women and persons with disabilities will be critical to service improvement: i.e. it is important to build-in feedback loops so that information from the complaints mechanism is in fact analyzed and used to inform improvements in the design of the scheme (for example, by increasing accessibility and inclusiveness).

There is also the potential that digital mechanisms linked to the information system could provide more confidence in anonymity compared to in-person approaches, potentially supporting greater reporting of safeguarding issues, while addressing some discrimination barriers.

3.5.2 Potential challenges and risks to inclusiveness that need mitigating

As for the other stages, where such systems are fully digitized (only telephone hotlines, website/application forms, etc.) exclusion will be exacerbated and even the nature of issues discussed within the complaints may change (e.g. sensitive discussions on abuse, discrimination).

3.6 Case management[35]

This is the continuous activity ensuring an integrated approach to managing beneficiaries, ensuring social protection programmes do not work in a silo.

3.6.1 Potential benefits and opportunities in terms of inclusiveness

Information systems can play an important role in better integrating operations and services, catering to multidimensional and complex needs (e.g. beyond just focusing on the income dimension). This can be particularly relevant for women and persons with disabilities.

At the centre of such an approach is the overcoming of pre-determined approaches to assistance, focusing on in-depth needs based and holistic assessments of each individual based on their family and community context, in order to develop a tailored approach and individual action plans where relevant. This would build on existing data within the social assistance information system (on the household as a whole), layered with additional risk and clinical assessments – potentially culminating in tailored data sharing with other actors/institutions. A good example can be found within a recent reform in North Macedonia (Box 7), where separate information systems for cash benefit administration and case management were integrated, to provide more holistic assistance.

In some cases, caseworkers/social workers' assessment could be further supplemented (*not replaced*) by automated scoring tools and analytics, integrating data on the individuals involved in the case to make predictions based on past patterns (from similar cases) – **but this practice has been strongly rejected by many** because of a) its tendency to replicate and reinforce existing biases; b) its de-facto replacement of human judgement (people questioning their own judgement if the 'computer says yes/no)'[36].

Box 7: North Macedonia reform included changes to information systems to better tailor services to needs

A 2019 reform of the social protection system in Northern Macedonia sought to address the fragmentation in the previous system at several levels, by explicitly pursuing integration: integrating the user experience of interacting with the social protection system, while ensuring a tailored approach to the specific needs of each and every family. Despite the reforms, the number and 'complexity' of the range of existing programmes is still relatively high, with CSOs stressing this poses a significant barrier to access for the most vulnerable (who do not 'understand' the system). One of the areas of work to address this has been led by the World Bank and UNICEF, who are helping streamline the process for disability assessment across the country, as this is currently conducted separately for different programmes. The plan envisages the establishment of a 'unified disability assessment system' and Central Disability Certification Coordination Unit (CDCCU) sitting within MoLSP, feeding into a consolidated Disability Registry. This plan also envisages a new Integrated Case Management approach that integrates the features of the CB-MIS (an existing integrated system to manage cash benefits) and Lyricus (an existing information system to support social services). At the core of this integrated system is a case management module that enables integrated collection of information on a family and the needs of all household members, enabling decision-making on benefits and services to address these (subsequently providing an overview of who received what, when within a household).

Source: Barca (2019/unpublished)

[35] This section draws on Lindert et al (2020); TRANSFORM (2018); SPACE (2020c)
[36] See Eubanks, 2018

3.6.2 Potential challenges and risks to inclusiveness that need mitigating

A tailored approach to case management, building on an information system's capacity to provide and manage relevant information over time (e.g. along a 'case history'), can be a powerful tool for better social policy but also, if mismanaged, for social control. Human rights activists have been stressing this for some time, with regards to "the growing tendency of some governments to use the opportunities provided by the digital welfare state to try to alter social behaviours whether in the form of sexual activity or preferences, approaches to cohabitation, the use of alcohol or drugs, the decision to have children, or many other such goals" (Alston 2019).

There is also a risk of such an approach potentially preventing resources being directed to strengthen and expand social workers in L-MICs, seeing this as 'duplication' rather than an essential part of the social protection system.

Fully reaping the benefits of such a system will require a high level of capacity and institutional coordination, often lacking in many middle-low income countries, as well as appropriate data protection / privacy legislation, regulation, and organisational commitments.

3.7 M&E, informing design and implementation over time

The role of M&E systems cannot be over-emphasised when discussing gender and disability inclusiveness: getting these right is critical to ensuring programme design and implementation that places the needs of those who are most vulnerable at the centre. M&E systems are not the 'end' of the process, but the beginning.

Importantly, there is also an **SDG target** focused on reporting against gender and disability-disaggregated coverage of social protection. Whilst national surveys can help to capture this information, well designed social assistance information systems can provide a much more accurate and timely source of information against this target.

	1.3.1 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	Denominator (population)

3.7.1 Potential benefits and opportunities in terms of inclusiveness

Having a strong information system as a backbone for all programme operations means that 'administrative' data[37] is collected as a by-product of day-to-day activities, beyond the initial data collection informing registration and enrolment (discussed above). This may include: time-stamped data

[37] Compared to surveys, administrative data can be readily available and quickly respond to programme changes; offer a larger sample size which allows for disaggregated geographic analysis; allow the tracking of individuals and households over time (longitudinal data); be significantly less expensive; and, be matched to other data sources (including surveys). Important limitations, naturally, include: the 'denominator problem' by which the "choice-, event-, or participation-based nature of administrative data limits inferences"; the fact that administrative data does not measure all outcomes (for example some indicators of well-being); and, that data is only available when the client is 'in the programme', while less is known when they leave or do not enter (Attah et al 2015), precluding the potential for impact evaluation (which requires a counterfactual).

on service (i.e. enrolment, verification, and payment) delivery timelines, common reasons for rejections, bottlenecks causing delays, data on payment modalities accessed, trends coming from complaints mechanisms and case management information system, etc.

For many (not all[38]) of the fundamental questions informing inclusive programme design and implementation the issue is not one of 'data availability' but of desire and capacity to critically analyse the data available, to transform it into useful information for enhancing inclusiveness in the medium-long term. Yet routine M&E of social programmes is often under-financed and prioritised, despite its enormous potential.

Where there is political will to do this, a lot of the gender and disability-sensitive number-crunching required can be built into the information system itself via its tailored software application (within its dedicated M&E module). This would not entirely solve the problem, as capacity would still need to be built to interpret and use the data to inform decision-making, but that could be addressed in the medium-term.

What would this entail in practice?

First, ensuring all routine M&E tabulations and dashboards that are designed to be automatically calculated by the information system enable disaggregation by sex, age, disability status (ideally including type/severity) and socioeconomic status at a minimum – beyond routine disaggregation categories. These would then need to feed into routine reports, bulletins, briefs, meetings, scorecards, publications, and visualisations, explicitly highlighting any differentials worth noting (e.g. differences across categories).

- Note: it will be important to ensure the analysis does not only focus on 'household heads', but reflects all household members (and intra-household vulnerabilities).

Second, moving beyond the 3 or 4 classic indicators that are usually extracted from administrative data (e.g. number of beneficiaries, etc), to focus on automatically calculating a wider variety of procedural and benchmarking indicators that can give indication of where the bottlenecks are (e.g. in terms of access, discrimination, etc). For instance, administrative data systems can be explicitly designed to capture data on barriers to access in terms of distance between place of residence and the service delivery centre, lack of documentation, challenges with biometric authentication (where applicable).

Third, linking administrative data to other datasets (e.g. household surveys etc.) for in-depth understanding. This could be done via a unique identifier if feasible/possible (it may often not be) or simply comparing similar aggregate data to stress any significant discrepancies.

- One good example is a comparison of who is in the information system (social registry) vis-à-vis the structure of population as a whole, from census or representative sample surveys. Any discrepancies would stress take-up challenges for those particular groups. This can be done via 'fuzzy matching' of data.

Fourth, not only focusing on the supply of data, but also on its demand and use. This may entail:

- Ensuring that data and program managers, policymakers, service providers, civil society actors and beneficiaries are a) involved in the definition of useful indicators (that serve their needs) and b) can use data to identify gender/disability-related disparities, identify reasons for the disparities, and identify strategies for improvement;
- Making anonymized data accessible and transparent to relevant civil society organizations (women's organisations, organisations of Persons with disabilities), universities and advocacy groups – to be used for their advocacy.

[38] What analysis can be performed depends on what data has been collected in the first place. Moreover, most *evaluation* questions cannot be answered via administrative data.

To conclude, an M&E system will only ensure inclusiveness if its data is 'cut' so as to understand exclusion and used to inform more gender and disability responsive adaptations in design and implementation over time. This process is linked to every other stage in the 'delivery chain' described above. We should always be asking: what is the data telling us that could help us improve the inclusiveness of our system?

Box 8: The Convention on the Rights of Persons with Disabilities and data obligations

Collecting data on persons with disabilities is also an obligation for States that have ratified the Convention on the Rights of Persons with Disabilities (CRPD). Article 31 of the CRPD, on statistics and data collection, requires States Parties to "undertake to collect appropriate information, including statistical and research data" and states that data "shall be disaggregated, as appropriate, and used to help assess the implementation of States Parties' obligations under the present Convention and to identify and address the barriers faced by persons with disabilities in exercising their rights."

Source : IASC (2019)

3.7.2 Potential challenges and risks to inclusiveness that need mitigating

The main risk emerging at this stage is the potential for profiling: very high levels of data disaggregation make beneficiaries highly identifiable, with important implications for data protection and safeguarding.

The personal information collected and processed in social protection programmes that could form the basis of a robust M&E strategy can be very sensitive. Sensitive personal data is a special category of personal data which, when processed, may lead to encroachments on the interests, rights, and freedoms of the data subject. This is the case in relation to information that reveals personal characteristics such as sexual orientation, racial or ethnic origin, political opinions, religion, health status, payment of welfare benefits, and so forth.[39]

It will therefore be very important to:

- **Maintain informed consent** and ensure that consent is granted for any change in use of data, such as the use of information collected during registration for the purposes of monitoring and evaluation. A study on the use of MIS in humanitarian and social protection contexts provides guidance;
- **Conduct data risk assessments and response plans** as standard to all data-related activities.
- **Minimise data collection and ensure that data collected is used for the purposes intended**. ICRC's policy on data protection is helpful in providing guidelines here.

4 Conclusions

As this paper has shown, gender and disability can exacerbate potential risks of exclusion from social protection programmes throughout the delivery chain. However, information systems that pay explicit attention to reducing and removing these barriers can offer significant opportunities to promote inclusion as well as enabling a more tailored response to the needs of women and girls, and persons with disability.

[39] SPIAC-B (2020); FAO (2018)

4.1 Why so important now?

Interest in the role of administrative data, and especially social assistance information systems (such as social registries) has been growing and will be further boosted with COVID-19. Now is the time to act to ensure these are inclusive.

In line with approaches in high-income countries, and sometimes leapfrogging these, social assistance information systems[40] are playing an ever-growing role in low- and middle-income countries. These come in many different shapes and sizes[41], affecting the full range of outcomes they are able to help achieve, but broadly they accompany the delivery of social protection (both benefits and services), from outreach and registration all the way through to Monitoring and Evaluation (M&E).

Increasingly, these information systems are operating across a wide range of programmes within the social protection sector, especially social assistance. In many countries, **other sectors (e.g. health, education, agriculture, environment, etc.) are also leveraging or linking to these systems to inform their sectoral policies**, such as delivering free health insurance or subsidised services.

The importance of social assistance information systems has been accelerated by COVID-19, where countries that had invested in their information systems were able to leverage these for rapid and high coverage scale-up of social protection responses. At the same time, the lack of inclusiveness of existing information systems limited capacity to reach some marginalised groups[42]. During the global Socialprotection.org conference of 2020 'Turning the COVID-19 crisis into an opportunity: What's next for social protection', strengthening information systems was a repeated theme across a range of sessions, highlighting their centrality in building better systems for the future.

It is likely there will be a growing trend in terms of investment in information systems over the next few years, both donor- and nationally funded and driven. The window of opportunity to ensure the new wave of information systems are developed to be fully inclusive is clearly now – an opportunity not to be missed.

4.2 Why is this not a 'technology' problem?

To ensure information systems support more inclusive social protection it will be essential for policy and decision-makers to push beyond 'tecno-solutionism' and instead focus on ensuring the technology serves the policy objectives it was designed to support.

Digital systems are welcome progress vis-à-vis an entirely 'manual' process to manage the provision of social protection to individuals and households. For example, leveraging technology to increase coherence and effectiveness within a system of programmes to achieve integrated policy objectives is an important step forwards compared to a fragmented system where every programme operates independently.

However, there is also an increasing risk of 'techno-solutionism' and excessive reliance on technology as a panacea for problems that are not technical but political.

As 'intelligent' as these systems are, they primarily do what they are told. If they are told to prioritise efficiency over inclusiveness, that is what they will do – very effectively and in contrast to what

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[40] See definition and explanation within the document. Broadly, these are digital systems that enable the flow and management of information within the social protection sector, and sometimes beyond to other sectors.

[41] As an example, some information systems have almost 100% coverage of population including in-depth socio-economic data – but the global average is 21% coverage.

[42] See Gentilini et al. (2020); World Bank (2020a); Gelb & Mukherjee (2020); Barca & Beazley (2019)

social protection systems are set up to do (protecting people when they are in need). It is entirely in the remit of policy and technical decision-makers to tailor these systems to serve the needs of those who are most vulnerable.

Of course, it should still be stressed that lack of inclusiveness for women and persons with disabilities (but also other traditionally marginalised and excluded groups) is *primarily* the result of 'flawed' policy and implementation design, not information system design. In other words, most of the sources of exclusion are linked to a) the targeting/eligibility and benefit/services design of the range of programmes comprising a social protection system, and; b) the last mile of service delivery not catering to the needs of those populations and not addressing barriers resulting from different forms of discrimination. How this can be addressed is widely discussed in the literature and not the subject of this note[43]. **However, lack of inclusion in the information system will most likely reinforce invisibility of issues that need to be tackled.**

4.3 So, can information systems support gender and disability inclusiveness?

Ensuring gender and disability inclusiveness within the information system – fully leveraging its potential benefits, while addressing emerging risks – will require *intentional* design and implementation choices in the short and medium run. If this is not done, the system will not be gender- and disability-neutral but rather intrinsically discriminatory. As stressed above, information systems are the reflection of policy choices and can only perform the functions they are designed to perform.

Information system *can* play an important role to help pursue a policy vision of inclusiveness. This can happen via:

I. **Short term 'fixes'** *(within an existing legal framework and policy direction):* along the delivery chain of social assistance programmes there are many opportunities that can be exploited if explicitly pursued, and some challenges/risks that need mitigating (see Table 1 below for important examples along the delivery chain).
II. **Long term contribution to policy and implementation design** *(leading to a change in legal frameworks and policy direction).* Administrative data emerging from the information system is a crucial source of information to help pursue better outcomes for women and persons with disabilities. This needs to be harnessed via well-designed M&E.

4.4 How can information systems be designed to be more inclusive?

There are several fundamental points to note for policymakers and decision-makers involved in commissioning, supporting, designing, and leveraging social assistance information systems. These are outlined clearly and in-depth within the full report above, yet they boil down to the following.

First, what might 'intentionally inclusive' design entail in practice? Some thoughts are provided below, with a specific focus on policy/decision-makers.

[43] see for example Holmes et al a/b; UNPRPD 2021c

4.4.1 Start with policy

It will not be possible or advisable to hand over any of these decisions and actions to IT experts or even business-process-driven programme managers. Designing the information system to be inclusive requires coordinated inputs across actors, ideally led by policy decision-makers and those who are focused on the 'bigger picture' (including across the broader data ecosystem) – alongside key users of the system. Some fundamental changes, such as tailoring transfer values to needs, may even require legal changes before these can be embedded in business transaction processes.

4.4.2 Set clear obligations

Obligations to disaggregate data by gender and disability in line with SDG commitments and CRPD among others. Ensuring countries and donors alike have to report on level of coverage and inclusion of social protection system on gender disability, age and other relevant characteristics.

4.4.3 Advocate and fund, over time

Strengthening information systems to achieve inclusion objectives needs to be explicitly funded and sustained over time, including advocacy work in the background. It is not a one-off process, but an iterative one that may need to go hand-in-hand with policy windows of opportunity.

4.4.4 Keep it staged and realistic

If the broader capacity is not there, aiming too high too quickly (a comprehensive approach) is dangerous: it means making things complicated and hard to implement and this risks backfiring (e.g. exacerbating exclusion as staff find workaround solutions). Instead, build up towards that comprehensive vision over time., for example, start from asking the right questions in your social registry questionnaire.

4.4.5 Future-proof

It will always be important to future-proof your country's information system for the direction you would like the sector to be moving towards, supporting policy planning and development of new schemes, not the current reality or the needs of a specific scheme. As an example, you may not have a disability benefit in place now, but ensuring your system still adequately collects disability information (that can be refined in a second stage via additional data collection) will still be important. This may entail keeping your database separate from its related transaction processes (that may evolve because of policy and legislative changes) and user interfaces (that will be refreshed and improved as technology and needs evolve), focusing on building the stepping stones of data infrastructure that over time will connect to other pieces in the ecosystem.

4.4.6 Design with the users

Include women, persons with disabilities and other traditionally excluded or vulnerable groups in the design process. This is called 'user-centric design', following the Principles for Digital Development. For example, designing for accessibility not only benefits persons with disabilities but improves user-friendliness/usability for everyone. It will be critical to involve a diversity of persons with disabilities/marginalized groups, as solutions that can facilitate access to some might become barriers for others.

4.4.7 Look at, and invest in, the broader data ecosystem

Never focus *just* on the social assistance information system design, but the data/tech ecosystem in which it sits: every node in that system can bring opportunities and risks in terms of inclusiveness of women and persons with disabilities, with ID systems and Civil Registration and Vital Statistics (CRVS) systems being two of the crucial nodes that can exacerbate exclusion if mismanaged. It will also be important to invest in these, building solutions that are sufficiently open and standardized

that they can be easily linked into other data systems: thinking about interoperability from the start - as well as building legal/regulatory capacity.

4.4.8 Understand context and existing infrastructure

Connectivity, access to mobile phones, digital gaps (gender/ disability/rural etc.) – the list is long. These need to be understood and addressed, especially as they pose particular challenges of accessibility for women and people with disabilities.

4.4.9 Perform an accessibility audit for user-facing interfaces

Use accessibility experts (ideally persons with disabilities themselves, who understand the full spectrum of challenges faced) testing and assessing the digital solution before implementation.

4.4.10 Beware: rubbish in rubbish out

Never forget your information system (and the information it gives you) is only as good as the data it is drawing from. Any steps to improve the overall strength of the information system (its coverage, timeliness, relevance, etc.) and quality of the data collected will ultimately affect its inclusiveness.

4.4.11 Address emerging risks head-on

Whatever opportunities you choose to reap via the information system, make sure you are also mitigating and addressing all the emerging risks (via a 'do no harm assessment'). Some of the main risks include:

- **Data protection and privacy,** noting technical 'data protection frameworks' need to be accompanied by rights and accountability frameworks[44];
- **Creation of digital-only systems:** offering no non-digital option or remediation process (including as a backup for tech-failure), while removing or de-prioritising the fundamental role of social workers and human contact, will increase exclusion;
- **Systematic exclusion and automated profiling.** Digitising approaches to data collection, processing, and citizen interfaces (especially when integrated across multiple programmes) can introduce new and different risks of exclusion compared to 'traditional' approaches. When linked to systems for the automated profiling of individuals and households, based on information that may be incomplete or unverified, these risks can be exacerbated – unless explicitly addressed. This is particularly the case where such approaches are integrated.

4.4.12 Ensure data transforms into the right information

Social assistance information systems can help policy makers and programme implementers make critical decisions on design and implementation. However, data can be analysed in a gender and disability neutral way – i.e. not considering gender and disability status as a factor of exclusion and vulnerability – and therefore miss key vulnerabilities and needs that the social protection system could be responding to.

4.4.13 Build demand not just supply

Play an active role in *demanding* information from the information system and ensuring others' capacity do so as well, to hold scheme administrators and governments accountable: engage civil

[44] See this issue paper on data protection for more details.

society organisations working on gender and disability, academia, as well as generating interest and creating linkages within the civil service, etc.

Second, **what key actions could help ensure the information system enhances benefits for women and people with disabilities, while addressing emerging risks?** It is useful to break these down along the delivery chain, as in Table 4 below.

Table 4. Key examples: actions to ensure information systems enhance gender and disability inclusiveness along the delivery chain

Outreach and communications *(Section 3.1. of main report for details/guidance)*	• **Leverage existing data from a social registry and/or other administrative databases (e.g. disability registries) to develop a targeted communications strategy** that: a) specifically reaches persons with disabilities and women at scale; b) is tailored to their differential needs in terms of messaging, channel, etc. • **Use features of the information system to automate and further diversify channels of communication**. This may include: assistive technologies; mass campaigns directed at individuals; coordinated communications alongside disability/women's organisations.
Registration/ intake and associated back-office functions *(Section 3.2 of main report for details/guidance)*	• **The information and analysis generated by social information systems is only as good as the data collected and entered into those systems.** • **Types of information collected**: getting the questionnaire/application form used for registration 'right' is critical to gender and disability inclusiveness • ***How* data is collected and validated**: a) enabling more proactive approaches to registration via interoperability with existing government databases/systems, triggering registration (for universal programmes) or complementing other registration methods; b) Easing the burden of registration/application by reducing the direct, indirect and opportunity costs of faced by women by persons with disabilities (e.g. through single window services/one-stop shops, digital windows, reduced documentation requirements, staged assessment approaches).
Assessing of needs and conditions, eligibility decisions and determination of benefits/services package leading to enrolment *(Section 3.2 of main report for details/ guidance)*	• **While eligibility criteria is ultimately a policy decision, data from social assistance information systems can be used to** • **prioritize the inclusion of persons with disabilities and women**: (i) using the disability status or specific family situation of women (e.g. single female head of household) as a criteria for eligibility, (ii) giving increased scoring/weight to women, persons with disabilities and other vulnerable categories during means/proxy means testing • **tailor the overall benefit/service package and transfer amounts to the additional (multiple and varied) needs of women and persons with disabilities**
Payments/delivery *(Section 3.4 of main report for details/ guidance)*	• **Use the information system to enhance accessibility of digital payments** for women and persons with disabilities, increasing the safety, speed, security, convenience, predictability, capillarity of liquidity points, privacy, and control over use of funds. • **Ease access to multiple payment options/providers**, increasing choice.
Complaints and appeals *(Section 3.5 of main report for details/ guidance)*	• **Embed complaints and appeals mechanisms as a module within social assistance information systems enabling a disaggregated understanding of challenges** faced by women and persons with disabilities, while recognizing that if the mechanism is fully digitized it might exacerbate exclusion and bias the nature of complaints

Case management *(Section 3.6 of main report for details/ guidance)*	• **Leverage the information systems to undertake holistic assessments of each individual** based on their family and community context, in order to develop tailored individual action plans
M&E *(Section 3.7. of main report for details/guidance)*	• Ensure all routine M&E tabulations and dashboards enable **disaggregation by sex, age, disability status – and include information on all household members rather than focusing exclusively on household head** • **Include a range of procedural and benchmarking indicators** that can give indication of where the bottlenecks faced by women and persons with disabilities are • **Link administrative data to other datasets (e.g. household surveys etc.) for better understanding exclusion** • **Open the data for use by civil society organizations, think tanks and universities working on issues related to Persons with disabilities and gender**, to enable greater use of data for advocacy towards inclusive social protection, with privacy safeguards • **Use emerging insights** to inform more gender and disability responsive adaptations in design and implementation over time
Across all, Mitigating Risks Emerging	• **Ensure adequate data protection** • **Ensure the 'last mile' is not excessively digitised** – providing non-digital options and capacity to over-ride digital decisions • **Ensure safeguards against systematic exclusion** (i.e. if you do not make it 'into the data system', and that data system acts as a 'gateway' for all/most social sector schemes, you are systematically excluded from all of these) • **Mitigate against use of the information system for social control** and profiling

4.5 From vicious to virtuous cycle

Ultimately, advocating for embedding gender- and disability-inclusive considerations within information systems can help shift from a 'vicious cycle' to a virtuous' cycle – with large benefits to be gained:

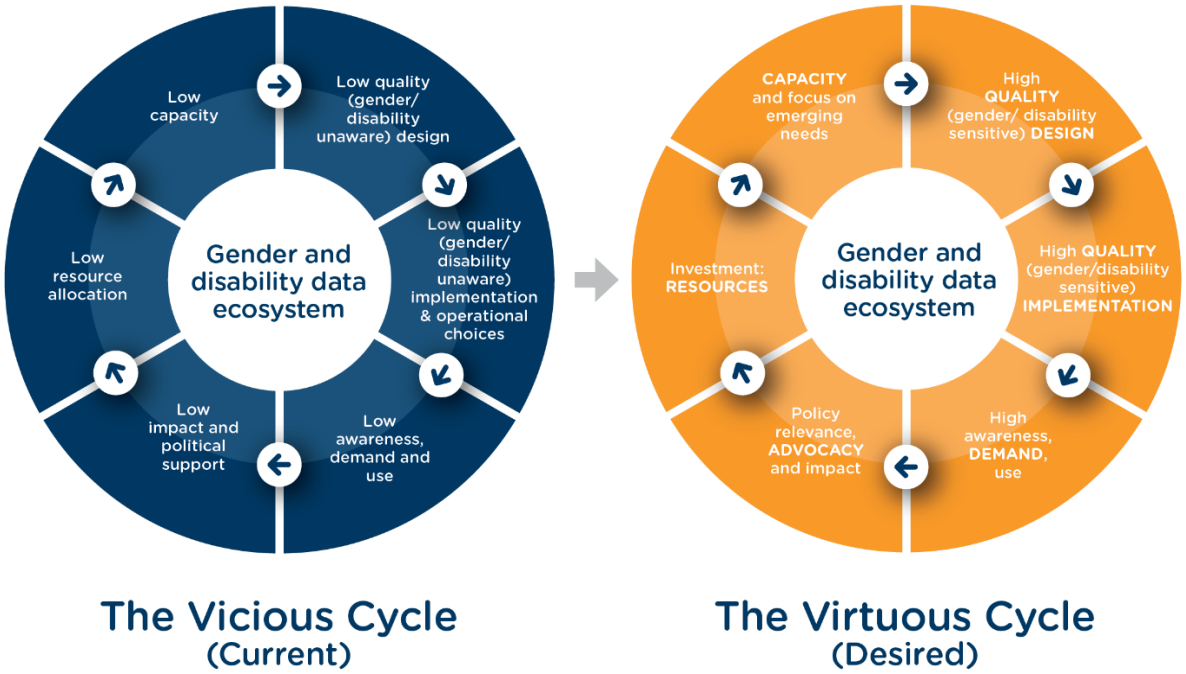
I. helping to ensure equal **access (coverage);**

II. helping to identify and respond to gender and disability specific needs (via **adequate and comprehensive support**, including through facilitated linkages with other services);

III. supporting a transition towards systems that enhance broader **empowerment.**

The story that needs to be narrated is the following: the lack of disaggregated and adequately analysed data within national surveys and information systems reinforces data invisibility, lowering awareness of and demand for such data, which in turn leads to ignorance of specific inclusion requirements in social protection resourcing, design and implementation (see Figure 3). "There is no data, therefore there is no problem to solve" *is* the crux of the problem and is simply not a tenable excuse.

Figure 3. Shifting towards a virtuous cycle within our gender and disability data ecosystem



The Vicious Cycle
(Current)

The Virtuous Cycle
(Desired)

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