

Strategic action 4

Monitor progress



**How to monitor
populations, implementation,
and individual children's
development**

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and individual children's
development**

Nurturing care handbook. Strategic action 4: monitor progress. How to monitor populations, implementation and individual children's development

(Nurturing care handbook. Start here: how to use the handbook, understand nurturing care and take action – Strategic action 1: lead and invest. How to do governance, planning and financing – Strategic action 2: focus on families and communities. How to listen to families, encourage communities and use the media – Strategic action 3: strengthen services. How to build systems, improve the workforce and provide three-level support – Strategic action 4: monitor progress. How to monitor populations, implementation and individual children's development – Strategic action 5: scale up and innovate. How to expand programmes, engage with the private sector and use digital solutions)

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Overview

This handbook is composed of 6 guides. Each of the five strategic actions of the *Nurturing care framework* has a guide dedicated to it, and the *Start here* guide provides a general orientation to the handbook.

Users may read all, or parts of the handbook, depending on their needs. It is recommended to read *Start here* before going to any of the other guides.

The handbook is meant to be a living document with guidance and resources that will be regularly updated as more experiences are gained in the implementation of the *Nurturing care framework*.

The use of this handbook is supported by the nurturing care website, a vibrant portal with country experiences, thematic briefs, tools, news items, and expert voices. Always consult the nurturing care website for new information that can be relevant to the issues that you like to address.

The Nurturing care handbook is available at <https://nurturing-care.org/handbook>



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This handbook is part of a set of resources for implementing the *Nurturing care framework*.

Partners continue to collaborate in global working groups to expand this set, facilitated by staff at WHO, UNICEF, the World Bank Group, the Partnership for Maternal, Newborn, and Child Health (PMNCH) and the Early Childhood Development Action Network (ECDAN).

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Using this handbook

This is part of the *Nurturing care handbook*, a practical guide to using the *Nurturing care framework* to improve early childhood development.

If you have not already, you will probably find it helpful to take a quick look at the first part of the handbook: **Start here**. This explains in more detail how the handbook works, what nurturing care is, and how to get started. It also includes practical advice on working in programme cycles, engaging all stakeholders, and doing advocacy.

After **Start here**, the handbook is divided into five strategic actions, each explained in a separate guide:

- 1 Lead and invest
- 2 Focus on families and their communities
- 3 Strengthen services
- 4 Monitor progress
- 5 Scale up and innovate

You can find out more and download the rest of the handbook at <https://nurturing-care.org/handbook>

STRATEGIC ACTIONS

1



LEAD
AND INVEST

2



FOCUS ON FAMILIES AND
THEIR COMMUNITIES

3



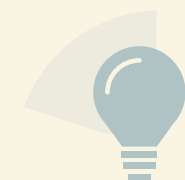
STRENGTHEN
SERVICES

4



MONITOR
PROGRESS

5



SCALE UP AND
INNOVATE*

Monitoring implementation of the *Nurturing care framework*

What is monitoring?

Monitoring is the process of systematically collecting, analyzing and using information. It is an essential component of global initiatives, national programmes and individual efforts. That is because it guides activities and investments, which accelerate and reinforce progress.



Monitoring aims to answer two questions:

“Are we doing what we planned to do?”

and

“Does this lead us to the expected results?”

The importance of monitoring was referred to throughout this handbook. In this guide on *Strategic action 4. Monitor progress*, more details and concrete suggestions of what and how to monitor are discussed.

Monitoring implementation is context specific. The choice of indicators will depend on the interventions and policies that are being implemented. This is particularly true for indicators of input and outputs. When efforts aim to improve nurturing care for early childhood development, outcome indicators for the five components of nurturing care are likely to be more universally applicable.

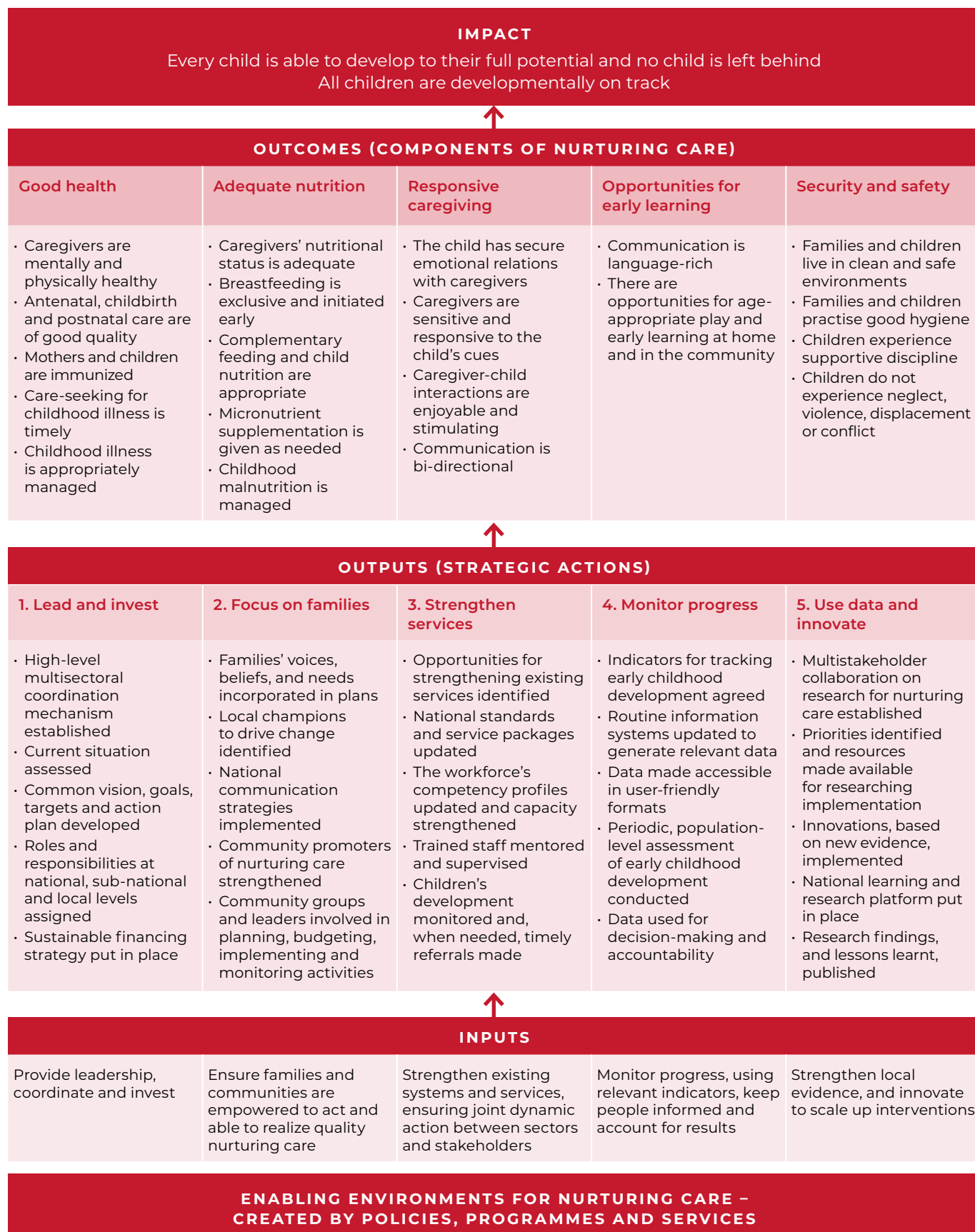
Monitoring implementation successes and challenges is important. Not only does monitoring demonstrate progress, but it also identifies areas where corrective action is needed, so the programme can achieve its objectives.

The *Nurturing care framework*'s logic model (see Table 1) is the basis of monitoring progress. For each of the five strategic actions, the logic model specifies the outputs (such as updated standards and service packages) that will be tracked. Together these outputs contribute to all five components of nurturing care and help to improve outcomes (such as increased coverage of exclusive breastfeeding). These can also be tracked, as can the impact on children's development (such as growth or development).



Table 1. The *Nurturing care framework's* logic model (1)

The logic model



What will this strategic action enable me to do?

The *Nurturing care framework* describes five outputs for this strategic action:

- Agree on the programme's logical framework and then its associated indicators for tracking progress in early childhood development.
- Update routine information systems to include the indicators that capture data relevant to the programme.
- Make data available to all stakeholders – including families and communities.
- Support the use of existing population-level measurements to monitor children's developmental status and home-care practices in target populations.
- Use data to make decisions about programming that supports caregivers to provide nurturing care, thereby ensuring accountability.

RELEVANT AUDIENCES

The suggested actions for *Strategic action 4. Monitor progress* have been developed with the following stakeholder groups in mind:

- national and district programme managers;
- national and district statistics offices;
- health facility managers;
- local and international implementation partners;
- researchers and programme evaluators.

What follows is a collection of suggestions and advice, based on our experts' knowledge of what has worked in countries around the world. The suggested actions listed in this guide are intended to support local action and decision-making. In each context, stakeholders will need to determine together the order and priority of actions to be completed for this strategic action as well as the five strategic actions as a whole.

Although there are five outputs, it is helpful to divide the work required into three areas, corresponding to the three levels of monitoring. Different tools are needed for each of these levels. Together, they generate information that is useful for monitoring the programme's implementation.

The three levels of monitoring are:

Population monitoring

This uses population-level surveys, censuses or administrative databases to gather information about a particular population – perhaps a country or a city. Standardized household surveys, such as the Demographic and Household Surveys (DHS) and the Multiple Indicator Cluster Surveys (MICS), are commonly used.

Implementation monitoring

This means continuously assessing the different components of a programme, and whether progress is made towards the planned objectives. It informs any changes to be made in the implementation and supports continuous quality improvement in programme delivery. Monitoring can stimulate innovation to overcome implementation barriers, and for ensuring equity.

Monitoring individual children's development

This is an important component of services that support children's development. It involves identifying children who are at risk of not developing as well as they could and enables timely delivery of interventions tailored to the needs of young children and their families.

Population monitoring

Population monitoring uses data collected from population-level surveys, censuses or administrative databases. These measure demographic characteristics, health status, service access or other characteristics of a population at a specific point in time. In the context of nurturing care, the aim of population monitoring is to draw conclusions about the overall state of children's health and development, the coverage of interventions and family-care practices, and the underlying factors that protect children's development or pose a risk to it.

Using standardized household surveys for population monitoring allows for comparisons to be made over time and between different settings or population groups. It generates data that are relevant for many different users – including policy-makers, researchers and other stakeholders. Countries can also use it to report progress on many of the Sustainable Development Goals (SDGs).

The *Nurturing care framework* suggests a set of 24 indicators that are linked to the SDGs (see Annex 1). These indicators cover all five components of nurturing care and are measured at the population level. They can be extended using indicators from standardized household surveys, such as DHS and MICS.

The *Countdown to 2030 Country profiles on early childhood development* (2) summarize 42 population level indicators that are relevant for different components of the *Nurturing care framework*. They cover context, intervention coverage and status of children's development. Figure 1 is an exemplar of these country profiles.

Because they have been derived from standardized household surveys, the data are comparable over time and across countries. The profiles are updated every year and available for 197 countries. You can find the country profiles by country and in one master document on the [UNICEF, Early Childhood Development Action Network](#) and [nurturing care](#) websites.

Definitions of the indicators can be found in the master document. To learn more about the profiles, read the Lancet commentary *Data for action on early childhood development* (3).

Measuring children's developmental status

There are gaps in indicators related to important aspects of nurturing care, such as responsive caregiving, maternal mental health, and the developmental status of children younger than 5 years of age. UNICEF, WHO and the World Bank Group are collaborating with experts to fill these gaps. The aim is to produce a single, validated set of indicators to monitor children's development from birth to their fifth birthday (see box *Measuring children's developmental status – ECDI and GSED*).

MEASURING CHILDREN'S DEVELOPMENTAL STATUS – ECDI AND GSED

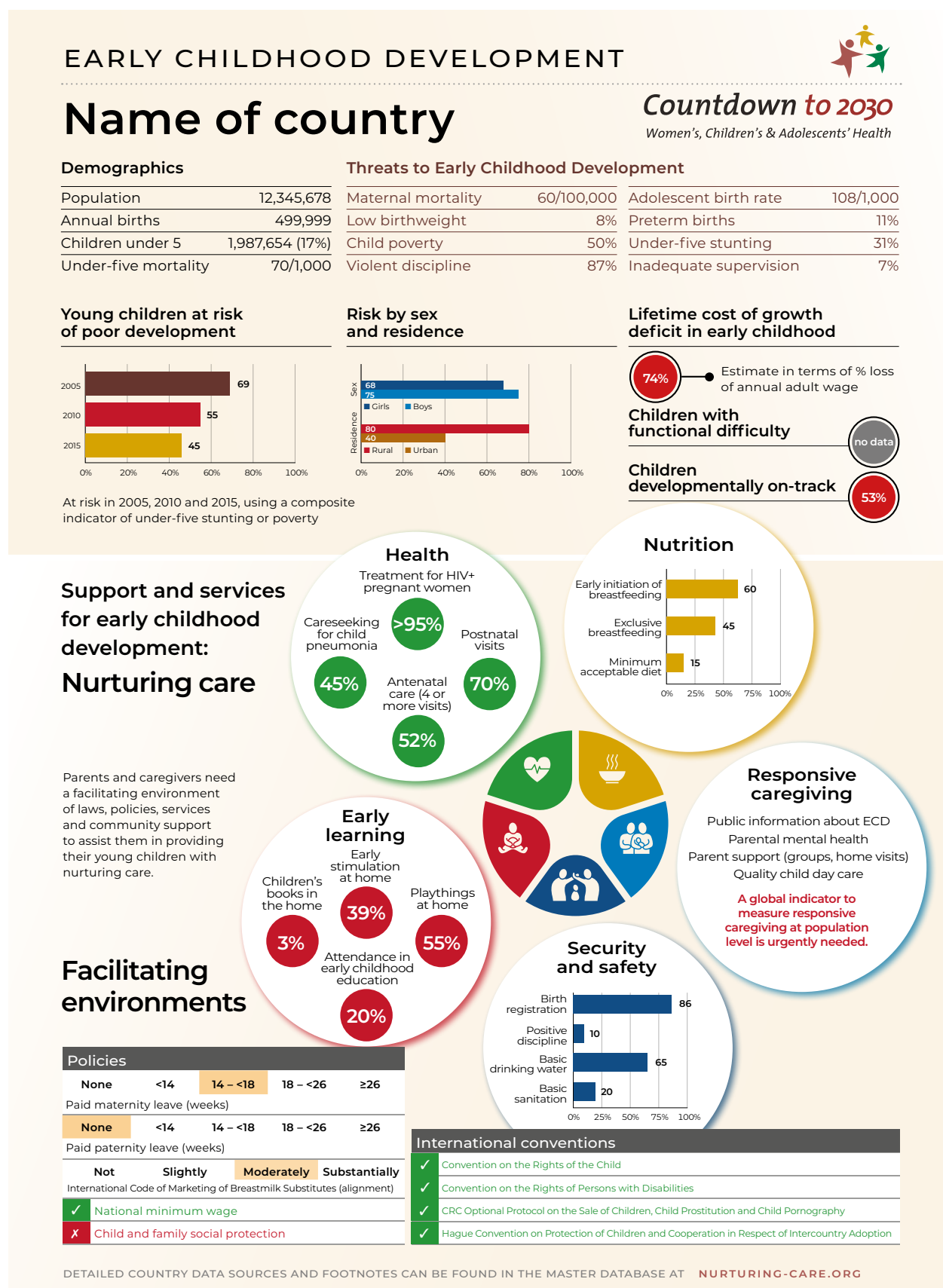
Early childhood development index (ECDI)

The ECDI is a measure of the developmental status of children. Initially focusing on children 36 – 59 months of age, it has been included in MICS since the fourth round of surveys in 2009 and has now produced estimates for more than 70 countries. In 2020, an [updated version of the ECDI \(ECDI2030\)](#) (4), covering children from 24 months of age, was recognized by the UN Statistical Commission as a suitable measure for assessing SDG target 4.2 – *By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education*, and its indicator 4.2.1 – Proportion of children 24 – 59 months of age who are developmentally on track in health, learning and psychosocial well-being.

Global scales for early development (GSED)

The [GSED](#) (5) provides measures to monitor children's development from birth to the age of 3 globally. Developed by a consortium, coordinated by WHO, it has two components: a short and a long form. The short form, designed to be used in surveys, consists of questions that can be answered by the caregiver in a limited time. The long form, designed for programmes, takes more time and includes observations of the child. Both forms have been validated in seven countries and used in many more. Materials are made available on request by contacting the GSED team.

Figure 1. Examples of indicators to monitor nurturing care components and the enabling environments



For more details on these indicators and their definitions, read the Technical Appendix of the full report Countdown to 2030 *Country profiles for early childhood development* (2).

Assessing responsive caregiving and early learning activities

Caregiver child interactions are at the heart of responsive caregiving and early learning activities. Caregivers who are responsive are more likely to be sensitive to the child's signals and able to respond appropriately. To date there are few indicators to assess responsive caregiving and early learning activities. However, simple tools have been developed to fill this gap (see box *Assessing responsive caregiving and early learning activities*).

ASSESSING RESPONSIVE CAREGIVING AND EARLY LEARNING ACTIVITIES

Responsive interactions for learning

The **Responsive Interactions for Learning (RIFL)** observational tool was first developed in Canada and then adapted and validated in Brazil (6) and Peru (7). It is freely available, uses a tool to observe dyadic caregiver–child interaction, and can be completed in approximately 10 minutes. Open-source, culturally appropriate, online training for coders is available in English, Portuguese, and Spanish. To find out more, view the [website](#) and read this [blog post](#).

Proposed indicators

Using a similar approach but with greater depth, a protocol is being validated for new indicators for responsive caregiving and early learning activities. Supported by the World Health Organization, the draft instrument can be accessed upon request. To find out more, read *Indicators for measuring responsive care and early learning activities* (8).

Compile existing information

Data from past surveys can give you a baseline. Data from future surveys will then allow you to measure progress, provided the indicators used are comparable. Compile the available data from previous surveys, and review the metadata, such as the definition of each indicator and the methodology for collecting data. Data can be compared if samples are comparable and data were collected in the same way.

When planning a survey, ensure it is representative

Population surveys provide a representative snapshot of the population. Results can then be broken down by gender, socioeconomic status, age, area, disability, and mother's education level. But large-scale surveys are quite expensive. So plan carefully and make sure the survey is representative. Survey representativeness not only depends on sample size but also on sample design. Sample size considerations are important when generating indicators for children younger than five, especially in contexts of low fertility. To make a survey representative, seek expert advice. Consult with local statistics office and with partners such as UNICEF as they are likely to house relevant expertise.

Use the data

Analysis of the data can point to gaps in progress and what to do next, as well as helping different sectors see what role they can play. The MICS and DHS provide information across the different components of nurturing care, and data from different modules can be analyzed together. For example, data from the MICS ECD module can be analyzed together with data from the nutrition and health modules. Discuss all of this with a wide range of stakeholders (see box *Using population data for local action in Australia*). And use the opportunities that regular health and other sector reviews provide at national and sub-national level to present the data and inform future actions.

Suggested actions

Plan early how to use population surveys

Many countries invest in regular household surveys or censuses that collect data relevant to the *Nurturing care framework*. Make links with people in government who are responsible for managing these population-level surveys – such as officials in the national statistics office or the ministry of health – and find out their plans for the future. In general, surveys are planned well in advance and carried out every three to five years.



Using population data for local action in Australia

Every three years since 2009, Australia has been assessing all its 6-year-olds using the Australian Early Child Development Index (AEDI). This is a survey that asks around 100 questions, filled in by the children's primary school teachers. It is the basis of the Australian Early Child Development Census (AEDC), run by the Australian government in partnership with the Centre for Community Child Health.

The data can be broken down for each community, allowing local people to see how their area's performance is changing and how it compares with other places. This has made people more aware of the importance of multisectoral support for families during the early years. These mechanisms have strengthened the links between caregivers, policy makers, government agencies, preschools, health services, and libraries.

To find out more, visit the Australian government's [webpage about the Australian Early Child Development Census \(9\)](#).

You do not always need a new survey: older ones are useful, especially for baseline information. Unless there have been major changes in programming for nurturing care, conditions for children and families may not have altered significantly over the last two or three years.

Population-based data from large surveys, even when disaggregated, can mask progress in specific areas where a programme operates at small scale. Results that have been achieved may not necessarily be captured or be diluted because of the size of the survey. This enforces the point that continuous programme monitoring of any implementation initiative including periodic assessment of outcomes and impact is important.

Lack of coverage, quality or time

Once an intervention has been shown to work, there is an understandable desire – especially by policy-makers – to roll it out nationwide and see the effect. But for a meaningful impact at population level, you need to get three factors right. The coverage needs to be comprehensive enough to reach the most vulnerable. The quality, in terms of factors such as participation, duration and intensity, needs to be high enough. And you need to allow enough time for it to have an effect. So wait until any routine data you have is indicating improvements in access, quality and utilization of services. We will discuss this in the next section.

Overcoming the barriers

Data that are not comparable

When countries and organizations use different indicators, or focus on different ages, it becomes impossible to compare their data – over time or between places. That can make it impossible to tell whether conditions are improving, and which interventions are most effective. Everyone benefits if we all adopt international standards, use standardized tools, and train the people who collect data in a standard way.

The high cost of population surveys

Programme implementers should not plan their own population-level survey. Population surveys are expensive, especially when they aim to be representative of a whole country or a large population. This is even more so when they are big enough to allow for disaggregation of results, for example by gender, income or other important variables. Work with partners to make sure the surveys include the recommended information about early childhood development.

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Implementation monitoring

Implementation monitoring covers inputs (such as policies, the workforce, finances) and outputs (such as the proportion of facilities offering services, and their quality). It also periodically generates data on outcomes (such as the proportion of children with an acceptable diet), impact (such as children's growth and development) and equity (are the most vulnerable families and children being reached).

This section deals with how to monitor what actually happens in an intervention or programme. That allows you to see what has been done, what has been missed, and what needs improving.

What and how you monitor depends on the intervention and what it is designed to achieve. The terminology for talking about this can be confusing, as people use the terms in different ways, and usage has also changed over time. This is how we use the three main terms (also shown in Figure 2).

• Theory of change

A theory of change is your explanation of all the ways in which it would be possible to achieve the outcomes you want. Beginning with outcomes keeps this practical.

• Pathway of change

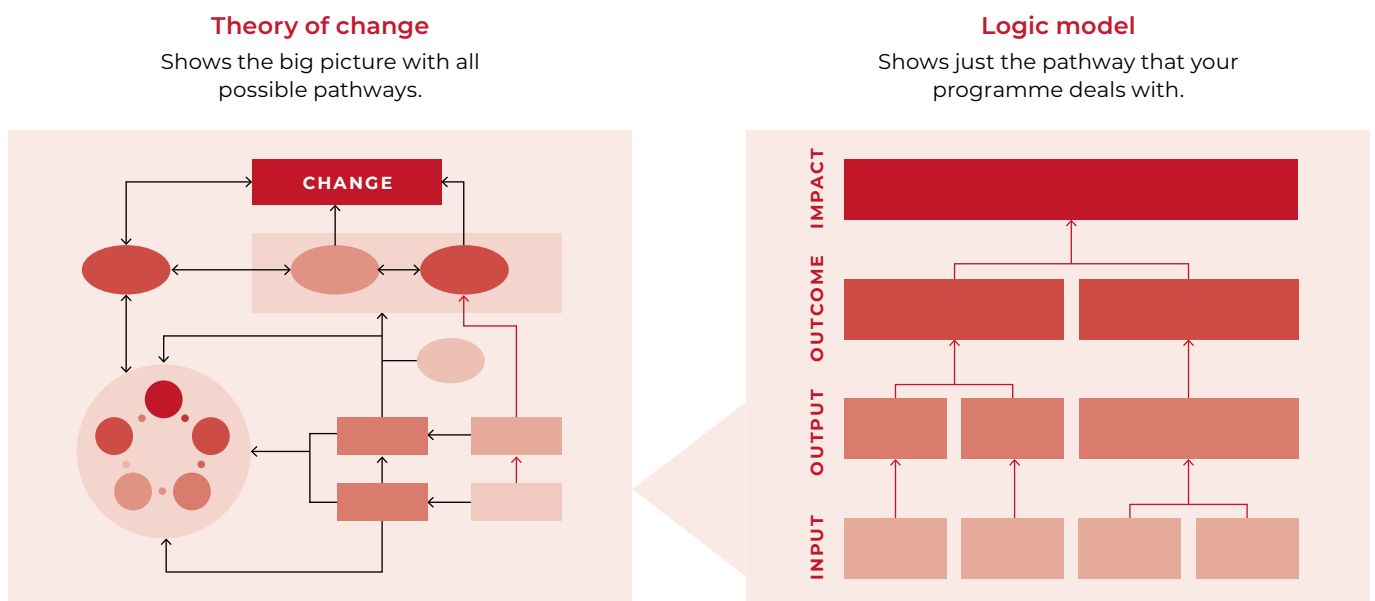
Each of the ways of producing this change is called a pathway. For every pathway, you should say why you think it would produce change. That forces you to write down your assumptions, so that you can test and measure them.

• Logic model

You then take the single pathway of change that your particular programme will deal with – how you will get from where you are now to where you want to be. From this, you develop a logic model. This sets out the inputs and outputs required, along with the outcomes and impacts you expect them to produce. These are the things you need to monitor.

The *Nurturing care framework* includes a general theory of change, pathways of change, and logic model. You can use these in developing your own, tailored to where you are and what you want to achieve. Collaborate closely with your stakeholders on this, as the consultation process can be just as important as the final product.

Figure 2. Using the *Nurturing care framework*'s logic model to develop your own



Implementation monitoring involves measuring all the elements of your logic model, starting with the inputs (such as introducing training standards) and outputs (such as health care workers supporting caregivers in responsive caregiving and early learning activities). Tracking these is essential for achieving outcomes (such as language-rich communication in the home) and eventually impacts (such as children being developmentally on track). That means starting by carefully documenting what is being implemented, before moving on to the outcomes being achieved.

What to measure changes as the programme cycle goes on. In the design and testing stage, you pay attention to the basics, adding in other elements when you begin to scale up (see box *How monitoring changes as the programme cycle goes on*).

The way an intervention is delivered can change, even during scale-up, so you need to be flexible about what you measure and how. The COVID-19 pandemic showed this, with face-to-face contact between frontline workers and clients being limited, and digital solutions used instead.

Work is in progress on a full catalogue of indicators for all the different inputs, outputs, and outcomes in the *Framework's* logic model. This catalogue will expand on the 24 core indicators, set forth in the *Nurturing care framework*, acting as a menu from which countries can choose those that are most useful.

HOW MONITORING CHANGES AS THE PROGRAMME CYCLE GOES ON

Stage 1 – design and testing

At the beginning, when designing and testing interventions in demonstration sites, you need to focus on three areas:

- frontline workers' performance – how they deliver the services;
- clients' demand for the services and satisfaction with them;
- the target population – and the services' coverage and equitable distribution.

Monitoring these areas will help adapt what is included in the intervention and how it is delivered, helping to make interventions acceptable, feasible, effective and scalable.

Stage 2 – scaling up

Once the intervention is well developed, it becomes important to monitor two more areas:

- quality – that is, whether care is given safely, at the right time, based on evidence, without waste, equitably, and in a way that suits the people receiving it;
- fidelity to what was intended – that means sticking to the design that you have proved is essential for achieving the intended outcomes.

Read the article *Measuring the implementation of early childhood programmes (10)* to learn more about how to prioritize what to monitor and how.



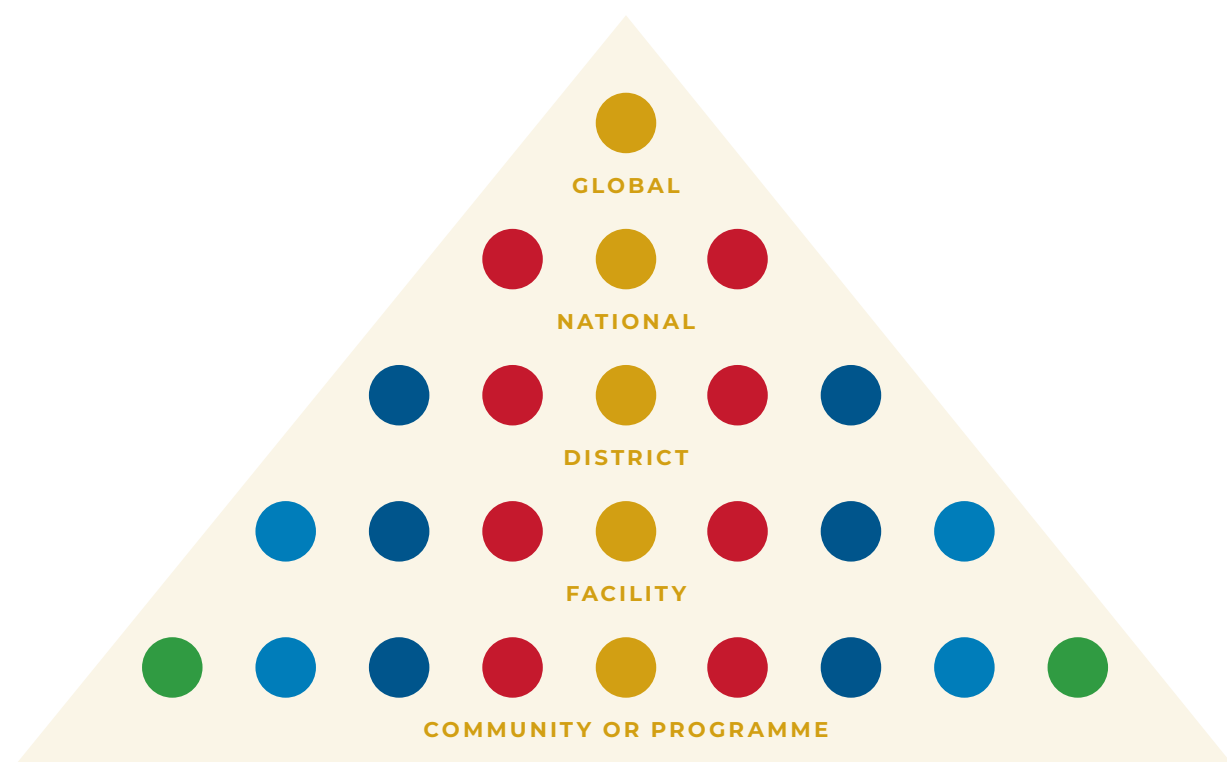
A comprehensive monitoring system works on several levels, moving up from data on individual clients, to programmes, facilities, districts, the whole country, and finally the world (see Figure 3). At each level of monitoring, data are collected and used differently, because nobody needs all of the data all of the time. Figure 3 shows that more information is needed to make decisions and monitor performance at the lower levels of management and service delivery than at the higher levels.

Every level needs to include a consistent set of core indicators – shown in Figure 3 by the yellow circles – such as the rate of exclusive breastfeeding. Each level also has its own specialized indicators – shown in Figure 3 by the circles of other colours – which are useful for those working at and managing that level, such as frontline workers or service managers. For example, at community level it would be useful to know the number of trained breastfeeding counsellors. But each level defines the core indicators in the same way, allowing comparisons to be made, so we can see variations over time and between countries.

Reporting on these indicators requires contributions from different sources, including population-level surveys, administrative data collection (such as civil registration and vital statistics systems), facility service data (including health management information systems, laboratories and supply-chain systems), community health workers' systems and programme management information systems. So, a good protocol should offer standardized options for each level, beyond the recommended core set.

Annex 1 shows the 24 core indicators proposed in the *Nurturing care framework* which are relevant to all countries. They come from the monitoring frameworks of the Sustainable Development Goals (SDGs), and the 100 core health indicators developed to accompany *Global strategy for women's, children's and adolescents' health*. These examples are not prescriptive or exhaustive, but show the importance of using different types of indicators for monitoring programmes.

Figure 3. Pyramid of data collection and use



Source: This diagram is adapted from UNICEF's training material for *District Health Information Software 2* (11).

Suggested actions

Involve all stakeholders in creating a monitoring plan

While planning activities, develop a monitoring plan to accompany the implementation plan. Involve all stakeholders who are responsible for implementation, and develop your logic model together so that all stakeholders can efficiently agree on the indicators and the way data will be collected and used. Also plan joint meetings to review the data regularly – every year or six months, for example. It has been shown that this strengthens multisectoral action, so that it responds quickly to any gaps that emerge.

Choose the indicators to use

Once your programme has a solid logic model, describing inputs, outputs, outcomes and impact, along with their underlying assumptions for success, it is time to choose indicators. These indicators should be SMART.

That stands for:

- **specific** to your expected output or outcome;
- **measurable**, with defined numerators and denominators from programmatic data;
- **achievable** in the programme;
- **relevant** to the intervention being measured;
- **timebound**, according to the programme cycle.

It is important that you define your indicators early in the programme's implementation, because that allows monitoring to be built into programming from the start. The earlier you begin monitoring, the earlier you get data, which allows you to learn lessons, make changes and become more efficient and effective in your programme implementation.

Identify and strengthen existing indicators

Because creating enabling environments for nurturing care builds on existing policies and services, some relevant indicators are probably being monitored already. For example, in maternal, newborn and child health and in infants' and young children's nutrition.

List those indicators, along with who collects them, when and how. Also summarize how the data are analyzed and used. For each indicator of a major outcome you will also need indicators of the required inputs and outputs. Existing data, and data collection, may take you a long way. But when you find gaps in their quality, comparability or completeness, this exercise will also allow you to discuss ways to overcome them.

Create new indicators

For activities and outputs where there are no indicators, you may need to create new ones. In doing this, bear in mind that, for the components of nurturing care, measures of inputs and outputs are less standardized than those for outcomes and impacts. Define the new indicators so that they specifically measure your intervention the way it works on the ground. Make sure the new indicators are relevant to your logic model and that they can be measured reliably. Analyze whether the indicator is simple and meaningful, and can be effectively sustained and tracked over time.

Take an equity lens

Monitoring inequalities is crucial to identify differences in health and development between different population subgroups. It provides evidence on who is being left behind and informs health policies, programmes and practices that aim to close existing gaps and achieve health equity. Inequalities occur because of differences in determinants of health and wellbeing including the access and coverage of essential interventions. In many settings, available data already give an indication of the communities or population groups that are mostly left out. They can include refugees, migrants, and displaced populations. Assess who are the disadvantaged populations in advance and tailor your monitoring plan to track progress services and outcomes in these groups deliberately. Present data in a disaggregated way.

The WHO Health Equity Monitor is a global tool that provides evidence on existing health inequalities and makes available tools and resources for health inequality monitoring (72). For details visit, <https://www.who.int/data/gho/health-equity>.

When deciding on the indicators, pay careful attention to these issues:

- **Fidelity to core features and flexibility in monitoring**

Identify the intervention's core features and agree on quality standards for delivering them. For example, core features of supporting caregivers include paying attention to their mental health and counselling them on responsive caregiving and early learning activities. Fidelity, or faithfulness, to these core features is essential. But they will need to be adapted for local culture – in terms of language, illustrations, toys, songs and stories. So flexibility in how they are monitored is also important.

- **Monitoring every aspect of training**

Frontline workers' performance depends on the quality of their training. That is affected by its length, average class size, ratio of facilitators to participants, the methods used, the balance between classroom sessions and practice, how its success is assessed, and follow-up. You need criteria for each of these elements, and they need to be monitored. That is as important as the number of frontline workers who are trained, where they are, and the frequency and quality of supervision they receive.

- **Checking coverage and dosage**

An intervention's impact depends on its coverage and dosage – that is, how many people it helps, and how much help they are given. Getting this right at the design stage is vital. So is monitoring to ensure that this is what actually happens. Monitor how much services are used, the length and content of consultations, and group sessions' attendance, length and quality. Also carefully assess who in the targeted population has been reached, and which families and children have been left out.

- **Finding out whether families are satisfied**

Demand for services – and their take-up – depends on clients understanding and being satisfied with those services. Use exit interviews to find out caregivers' perceptions, recollection of key messages, and ability to put them into practice at home. If there are home visits, use them to observe whether the intended changes are happening.

For more ideas, refer to the indicators provided in the *Nurturing care framework* logic model (Table 1) or read the article *Measuring the implementation of early childhood programmes* (10). Work is in progress on a full catalogue of NCF indicators, along with guidance on how to use them.

Decide how to measure

There are many good sources of data (see the boxes *Sources of data* and *Collecting the data you need*). Combining several of them will minimize gaps in your data, and they can complement one another. If, for example, data from the health information system are incomplete or of variable quality, it can be complemented and validated by a facility assessment or population survey. Implementation research, described in the guides to *Strategic actions 3 and 5*, usually uses a mixture of sources to generate data that are helpful for programme strengthening and impact assessment.

SOURCES OF DATA

Good sources of continuous data are:

- facility records;
- health information systems;
- human resources and staff training databases.

Good sources of intermittent data are:

- client surveys;
- interviews with frontline workers and observations of them, often in surveys;
- assessments of facilities;
- population surveys;
- interviews with stakeholders.

Assist frontline workers to build their data literacy and use data for improvement

When the monitoring plan is finished, make sure the whole workforce knows what they need to monitor and why. Frontline workers often report large amounts of information without using it to improve outcomes where they are. Make sure, for example, that they not only report how many mothers are exclusively breastfeeding, but also know what to do if rates are low. Build skills and use regular reviews to assess the quality of routine data-entry and work to improve it. Keep a constant focus on helping frontline workers to use data to improve the quality of services. For an example, see the box *Child-centred monitoring in Peru and Chile*.

Use supervisory visits to review data

Staff in supervisory roles can assist frontline workers better when they use the data that are generated at the primary care level. Besides a review of records, direct observation of a provider-client interaction is another way of generating information on quality of care. In the absence of actual caregivers and young children, the use of vignettes with stories can be an entry point for assessing performance, followed by support supervision and mentorship. Using a mix of methods will strengthen the monitoring effort and has the potential to build trust and confidence of frontline workers.



CHILD-CENTRED MONITORING IN PERU AND CHILE

As part of their national strategies on early childhood development, Peru and Chile defined packages of interventions to be delivered at specific times from the beginning of pregnancy until the age of 4 or 5.

The countries needed to know whether children were receiving the interventions they were entitled to. That meant building innovative social information systems that put children at the centre of the analysis. Their ministries of social development used web-based platforms to house databases from different sectors, as well as a registry covering pregnancy and the first years of life.

Peru's system is driven by the government's focus on results-based financing. It includes indicators covering inputs, processes and results for each region and district. It shows the coverage of each intervention, as well as the proportion of children receiving the complete package. This makes it easy to see, for example, what percentage of one-year-olds have a birth certificate, were vaccinated against rotavirus and pneumococcus, received micronutrients, and had visits for growth and development monitoring. Data from surveys of living conditions, demographics and health are also included, showing the proportion with, for example, safe water, sanitation and pre-kindergarten education.

Chile's system gives reports and data for each region and municipality. It monitors the health and development of each child and family; which health services children and pregnant women have received; which families have social, economic or health risks, and how services have responded; participation in the parenting programme; which home visits families and children have had; and how well coordination between sectors has worked. To give a more integrated picture of coverage and unmet needs, the system is being upgraded to add data on living and employment conditions.

Both countries aim to bring together data from different sectors to monitor each child and family's development, making their systems more seamless and interconnected, and promoting children's rights. To find out more, visit Peru's [Redinforma \(13\)](#) website, or read Chile Crece Contigo's [full case study \(14\)](#) or [blog \(15\)](#).

Assess data regularly

Health-facility managers and staff could collate and interpret data every month, then district managers could review it and give feedback every quarter, with national authorities reviewing progress every year. Involving experts who are not directly responsible for implementation in the review process can also be helpful for making fair assessments of the data (see box *Involving independent monitors*). As discussed in the previous section, we also recommend regular independent and standardized assessments, such as a population survey or facility assessment, at the right time.

Learn and adjust implementation

Make those regular reviews part of the implementation cycle (described in [Start here](#)). Use them to help you learn and make changes, so that you overcome barriers and improve performance. Having data enables you to tell whether you are doing what you planned, and whether progress is on track. If progress is slow, data – on inputs, processes, outputs and outcomes – allow you to track down the problems.

INVOLVING INDEPENDENT MONITORS

When developing a new service, it can help if monitoring is supported by people who have expertise in the field but are not responsible for doing the work – allowing them to have an unbiased view. For example, you could partner with an academic institution or an expert group. Ask them to help with regular data collection and analysis, and get them to work with everyone to identify barriers and find solutions. One option is to conduct small scale implementation research that is targeted to improve operationalization.

Overcoming the barriers

Starting too late

Monitoring activities are often not planned, but are included later, as an afterthought. This makes it harder for managers to track what is happening in the field, make adjustments and achieve results. It also makes it much harder to know what affected progress before monitoring began. Data – knowing what is going on – motivates managers and frontline workers, so include monitoring in your planning from the start.

Lack of time and money

It takes a lot of time and money to monitor results and then bring stakeholders together to discuss them. These activities often take a back seat as a result. But this usually means the programme is less effective and responsive than it could have been. It is better to do less and monitor it, than to do more and monitor less well. And when stakeholders take part in monitoring, they are more likely to agree on what is needed to achieve results, and to invest more in doing so.

Lack of data

There is a lack of routine data collection on some components of nurturing care, such as responsive caregiving, early learning activities, and safety and security. This can make it harder to assess programmes' performance and improve them. But there are tools that can help you fill in these gaps (see box *Collecting the data you need*). Use these to identify indicators, and to increase frontline workers' and managers' capacity to gather information and use it. Coordinate and compile data from different sectors, for example through dashboards.



Collecting the data you need

The World Bank's *A toolkit for measuring early childhood development in low- and middle-income countries* (16) is a practical guide that will help you choose measures and adapt them for use in low- and middle-income countries. It includes a step-by-step process for working with data for different purposes and projects.

Another useful resource is from the Annals of the New York Academy of Sciences: the supplement *Implementation research and practice for early childhood development* (17). We also recommend *UNICEF's Programme guidance for early childhood development* (18).

Work is in progress on a full catalogue of indicators for nurturing care along with monitoring guidance. Once ready, these will be available on <https://nurturing-care.org>

Monitoring individual children's development

Most programmes that invest in nurturing care have the goal of supporting children's optimal development, and leaving no child behind. To achieve those goals, it is important to be able to identify children who are at risk of a developmental difficulty, or who experience a delay or disability, and to assist them, and their caregivers, to realise their developmental potential.

Even in high income countries such as the United States of America, at least one in six children experiences developmental difficulties, according to the Centers for Disease Control and Prevention (19). However, few young children are identified before they reach preschool or school-going age, which means they cannot benefit from even earlier intervention.

Children's development is affected by many factors, including risks such as poverty, maternal depression, and maltreatment, as well as whether they have good family or community support. These environmental factors are often strong predictors of long-term outcomes, so we need to find ways of taking them into account in the monitoring of children's development.

Milestones are a common way of doing that. These are developmental abilities that children are, on average, expected to acquire by a certain age. Children naturally develop at very different speeds, and they reach milestones at a wide range of ages. Therefore, if you only use milestones to assess children's development, you are likely to miss children with developmental difficulties, or wrongly identify children as having them.

If a child misses a milestone – if he or she is still not able to sit, for example when most others can – it does not in itself indicate a developmental difficulty. Rather, it is a cue for health care workers to ask more questions and look for explanations or other signs of problems.

There are no hard and fast rules for when to refer a child and their caregiver. First and foremost, it is important that services are available with staff that have greater expertise in the area of child

development. When a child reverses on a milestone that was previously achieved, this is a reason for concern and requires more in-depth assessment, often through referral to a more specialized provider. When a child has not acquired a milestone of the age-group preceding his or hers, that should also ring an alert and actions should be taken to intensify support at primary care level or refer, as appropriate.

This means that mass screening – where all children of a certain age are assessed to see if they have hit specified milestones – is unlikely to be effective, as well as being very expensive. A better solution is for milestones to be just one part of a regular and flexible monitoring of children's development, integrated in primary care services, such as growth monitoring and counselling, well-child and sick-child visits, and immunization (see box *Definitions*).

This should be the starting point for building comprehensive services for identifying and supporting children at risk of developmental delays, who have behavioural difficulties, or who are maltreated. For this, frontline workers not only need skills to support caregivers in optimizing their child's development, they also need to know where and when to refer children and their families.

DEFINITIONS

Developmental monitoring

This means tracking the child's growth and development, in collaboration with the family, to support nurturing care in the child's daily life. Monitoring looks at risk factors in family life and the environment, and how the family is coping with these risks. It looks at the child's development and what the child can understand and do in relation to what is expected for his or her age. Families can be given anticipatory guidance on the next phase of the child's development, along with information about children's rights and community-based support.

Screening

This is a brief one-off assessment of all children or a targeted subset. It consists of specific tests for conditions that can be treated. Examples of screening include genetic testing during pregnancy, sight and hearing tests, metabolic and hormonal testing in the neonatal period, and screening for motor deficits and poor coordination.

Suggested actions

Raise awareness

Talk to frontline workers about the critical role they can play in listening to caregiver concerns and identifying children at risk of suboptimal development, or those with developmental delays. Discuss the importance of timely screening for vision, hearing, cerebral palsy and selected other conditions. And ensure frontline workers know where to refer families if required.

Discuss the stigma associated with disabilities and how to help communities overcome it. Help frontline workers move away from the medical model that sees disability as a problem, and towards a social model that looks at inclusion and participation (see box *The medical and social models of disability*). Discuss how they can counsel caregivers and support them to overcome barriers they face in their community, in interpersonal communication, the physical environment, or accessing services.

Take a family-centred approach

Supporting early childhood development calls for a partnership between caregivers and frontline workers, starting from pregnancy or even before. Frontline workers need to know the strengths and vulnerabilities of the child and family, and to watch, appreciate, and support their development. This family-centred approach encourages frontline workers and caregivers to jointly identify solutions to difficulties, and it enables caregivers to strengthen their knowledge about how to support their child's growth and development and ask for advice when they need it.

The international *Guide for Monitoring Child Development* (20) is a tool designed to build the skills of frontline workers to use this approach.



The Guide for Monitoring Child Development (GMCD)

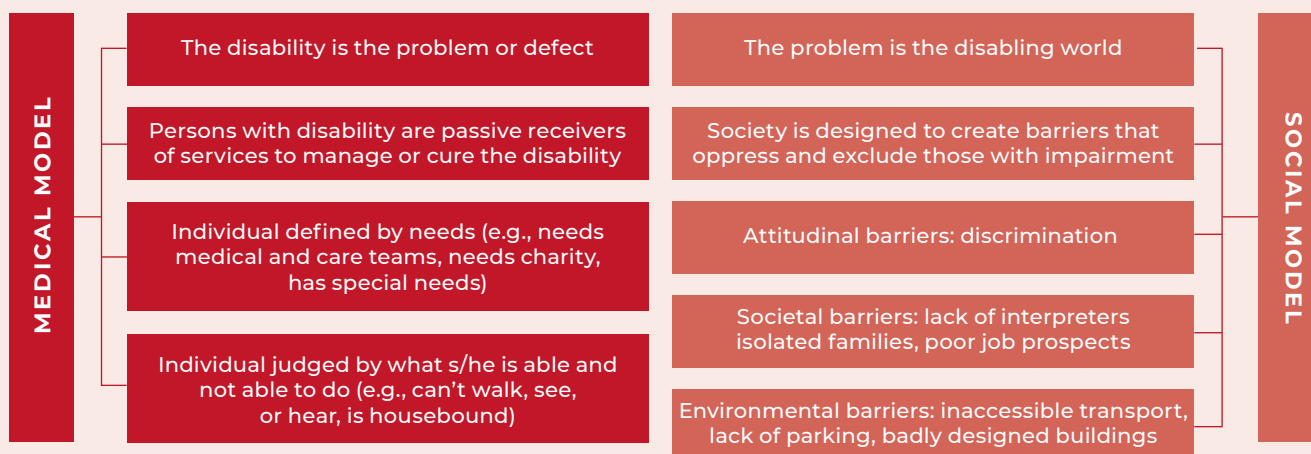
Using an open ended interview technique, health care workers build rapport and work together with caregivers to understand the child's development in seven domains. Through dialogue, they also assess the broader environment in which the family functions. The approach supports caregivers to appreciate in which areas their child is developing well and explore what they can do to further support their child's development.

Visit the Bernard van Leer Foundation's website for a more detailed article – *The international Guide for Monitoring Child Development: enabling individualized interventions* (20).

Decide what to screen for

Screening should begin during pregnancy for common conditions (such as maternal syphilis or anaemia), and from birth for essential functions (such as vision and hearing), movement disorders (cerebral palsy) and metabolic conditions (such as phenylketonuria). Beyond these examples, it is essential that all stakeholders agree on what to screen for, and that this follows an evidence-based approach. Knowing when and where to refer children and caregivers for treatment that can not be given at the primary care level is also necessary.

The medical and social models of disability



Source: See (21).

Decide what, when and where to monitor

Developmental monitoring and counselling can be integrated well in primary health care services, including in humanitarian settings. There are also opportunities in child day care, social services, and services for children living with chronic conditions. Some countries have set up a home visiting programme where professionals give families comprehensive support, referring them to facility-based or social services when needed. But that means frontline workers need to know how to do these things, so it is essential that they have training and mentorship. That should include skills, such as the one shown in Annex 2 *Skills for monitoring children's development*.

Here is some guidance for how to set a standard for follow-up and referrals, assuming that adequate care is available both at primary and referral levels.

• Follow up in primary care

If the child has risk factors for delayed development, is not meeting all milestones for the age group, is experiencing other developmental difficulties, or when parents express concerns provide extra follow-up in primary care with counselling. Use the tools described in the guide to *Strategic action 3*, such as *Care for child development* (22), *Parenting for Lifelong Health* (23), and *Caregiver skills training* (24). If this additional primary-care support does not help the child to improve, then refer.

• Refer to higher-level care

If the child already has signs of delayed development or has regressed from previously achieved milestones, or if the parents have serious concerns – and the primary care service is not equipped to offer a more in-depth assessment – then refer the child quickly to a skilled higher-level specialist.

Choose the right tools for developmental assessment

For more in-depth assessment of children identified as having signs of suboptimal development, tools should be valid, standardized, easy to use, publicly available and free or low cost. They should also improve conversations with caregivers, giving them guidance and leading to follow-up actions agreed with them (see box *Choosing in-depth developmental assessment tools*).

When integrating milestones, it is important to choose the right upper age for them. Setting milestones at the 85th percentile – that is, the age at which 85% of children achieve these milestones – will mean fewer are wrongly flagged as having developmental difficulties than if you set them at the 70th percentile.

To find out more, see the WHO report *Monitoring children's development in primary care services: moving from a focus on child deficits to family-centred participatory support* (25).



Choosing in-depth developmental assessment tools

Children's developmental milestones are usually grouped together in domains, such as motor skills, cognitive and language. To assess a child's overall development across all these domains, use multidomain developmental test instruments. To find out more about these tools and when to use them, see *A toolkit for measuring early childhood development in low- and middle-income countries* (16).

WHO and UNICEF are currently reviewing the available tools, and will release more guidance. In the meantime, you can find ten tools that are quick, low-cost and usable by trained frontline workers in *A review of screening tools for the identification of autism spectrum disorders and developmental delay in infants and young children: recommendations for use in low- and middle-income countries* (26).

Build the skills of frontline workers for developmental monitoring

Primary care workers, including community health workers, need the knowledge and skills for developmental monitoring, basic communication, and counselling. To be competent and feel confident, they need regular supervision and mentoring, and a clear way of referring children for more advanced care. They should also be able to help caregivers problem-solve concerns about children's development, such as sleep and crying.

For a variety of reasons, WHO guidelines do not recommend routine monitoring or screening for child abuse. But all frontline workers should be alert for signs that a child or caregiver could be exposed to abuse. For children, those signs include regression (losing skills or behaviours), unexplained injuries, poor interaction between the caregiver and child, and the caregiver having a negative perception of the child.

Also build frontline workers' capacity to carefully observe how the caregiver and child interact, picking up signals indicating strengths or difficulties in their relationship (see box *Helping frontline workers interact with caregivers*). UNICEF and WHO's [practice guide Strengthening nurturing care through health and nutrition services \(27\)](#) has more guidance on this.

HELPING FRONTLINE WORKERS INTERACT WITH CAREGIVERS

It is a good idea to update frontline workers' counselling material so it includes guidance on asking caregivers how they and their child are doing, observing how caregiver and child interact, giving information and support, and advising on community resources.

Frontline workers should be able to:

- tell the family about early childhood development;
- listen to caregivers' concerns and respond to them;
- ask open-ended questions to discover more about the child's development (including health, functioning, activities and participation), the nurturing care they are getting, and how the family functions;
- find out about health-related and psychosocial developmental risks;
- learn about the family's strategies for coping with risk factors and whether they need additional services;
- praise the family and acknowledge the support it already gives the child;
- give guidance on the next stage of development and information on community resources to support it.

Choose how to support children and families with identified needs

In many countries, developmental paediatric services are still developing. That means children identified as having developmental disorders or disabilities may not always get the support they need. To overcome this problem, invest in training frontline workers and specialists, helping them build up expertise in several disciplines, and acquire skills such as listening, empathy, and problem-solving. Tools such as the international *Guide for Monitoring Child Development* are useful to build such capacities at the primary care level and in specialized services.

Overcoming barriers

Primary care services just monitor and refer

Just monitoring and referring is not efficient and many children will be lost to follow-up. After all, this is not what happens with health problems – primary care services diagnose a problem, provide care and refer on to specialists, when that is necessary.

Strengthen the system so that developmental monitoring works the same way. Make sure frontline workers know how to observe the way a caregiver and child interact, and that they are sensitive to common developmental difficulties and risks, and can offer immediate suggestions and help – as well as referrals. When they do refer, make sure they have a good knowledge about where and when to do so. And make them part of a team that supports the child and family.

Poor coordination between services

Children and families with additional needs often need help from several services, but coordination between them is not always good. This makes it hard for families to access all the care they need, as well as making frontline workers' monitoring of children's development less effective.

Explore the options for setting up transdisciplinary care, meaning that one clinician – who can be a primary health worker – takes on the main responsibility for the child and family. This clinician can then find information about aspects of the child's or family's difficulties by reading or by talking to experts, so working across disciplines. In early intervention, this kind of transdisciplinary, non-fragmented care is regarded as the gold standard. This approach also saves families from confusion and uses resources more cost-effectively. Harmonization across sectors is also key so that adaptations in one sector can be matched by linked actions in another sector.

See the box *Three ways to support children and families with identified needs*, as well as the section on support in the guide to [Strategic action 3](#).

THREE WAYS TO SUPPORT CHILDREN AND FAMILIES WITH IDENTIFIED NEEDS

1 The one-stop centre

Provide multidisciplinary (and probably multiagency) support in a single place. This means clients are less likely to need to make many appointments at different places. It also makes a coordinated response more likely, with specialists and staff from several disciplines sharing information.

2 Team around the child (TAC)

Set up a team for each child and family. The team's members might include – as well as parents – an older child, a therapist, a teacher, a nurse, and perhaps a grandparent or childminder. Parents decide on the members, and the number is limited so as not to become intimidating. The aim is to prevent the fragmentation and chaos that result when various specialists working with the child do not share information with each other. Find out more on the approach at the [TAC Interconnections' webpage](#) (28).

3 Routines-based approach

Get frontline workers to work with the family and the child in natural environments, such as at home, in the playground, or at the education centre. Children benefit when they learn in their natural environments and when what they learn is also useful in daily routines, such as getting dressed or eating meals. And through daily routines, new opportunities for learning can be identified. Read *Using routine based interventions in early childhood special education* (29) to learn more.

Signs that you are making progress

You can work on the activities in this strategic action in different ways, and it is natural that progress in some will be faster than others.

The aim is to monitor what you are doing so you can understand whether the activities are reaching the children and families who need them most and services are implemented with quality and equity.

Here are some signs of progress and targets to aim for:

- A monitoring plan with indicators of inputs, outputs, outcomes and impact has been developed and methods for data collection and analysis are functional.
- Tools for monitoring children's individual development have been developed and integrated into frontline workers' counselling tools.
- Frontline workers have been trained and are supervised to contribute to implementation monitoring and monitoring individual children's development.
- The health information system has been updated and includes indicators for access, utilization and quality of the services that support and promote nurturing care.
- Plans have been made for population monitoring of early childhood development, and any available data have been collated and reviewed.
- Multistakeholder meetings to review available data are held regularly and inform planning, advocacy and investment in health and other sectors.



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Annex 1. The *Nurturing care framework's* 24 core indicators

IMPACT	EXISTING INDICATORS
Proportion of children 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex	SDG 4.2.1
Maternal mortality ratio	SDG 3.1.1
Under-five mortality rate	SDG 3.2.1
Neonatal mortality rate	SDG 3.2.2
Adolescent birth rate	SDG 3.7.2
GOOD HEALTH	
Coverage index of essential health services, including those for RMNCAH: family planning, antenatal care, skilled birth attendance, breastfeeding, immunization, and childhood illnesses treatment	SDG 3.1.2, 3.7.1, 3.8.1
Proportion of women aged 15–49 who received four or more antenatal care visits	Global Strategy
Proportion of mothers and newborns who have postnatal contact with a health care provider within two days of delivery	Global Strategy
Percentage of children fully immunized	Global Strategy
Proportion of children with suspected pneumonia taken to an appropriate health care provider	Global Strategy
Percentage of children with diarrhoea receiving oral rehydration salts (ORS)	Global Strategy
ADEQUATE NUTRITION	
Prevalence of stunting (height for age <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years old	SDG 2.2.1
Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years old, by type (wasting or overweight)	SDG 2.2.2
Prevalence of anaemia in women aged 15–49, disaggregated by age and pregnancy status	Global Strategy
Percentage of infants under 6 months old who are fed exclusively with breast milk	Global Strategy
Percentage of children aged 6–23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day (minimum acceptable diet)	Global Strategy
RESPONSIVE CAREGIVING	
Percentage of children aged 0–59 months left alone, or in the care of another child under 10 years old, for more than an hour at least once in the past week	MICS
OPPORTUNITIES FOR EARLY LEARNING	
Percentage of children aged 0–59 months who have three or more children's books at home	MICS
Percentage of children aged 0–59 months who play with two or more of the playthings at home	MICS
SECURITY AND SAFETY	
Proportion of population living below the national poverty line, by sex and age	SDG 1.2.1
Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month	SDG 16.2.1
Proportion of children under 5 years old whose births have been registered with a civil authority	SDG 16.9.1
Percentage of population using safely managed drinking water services	SDG 6.1.1
Percentage of population using safely managed sanitation services, including a hand-washing facility with soap and water	SDG 6.2.1

Source: *Nurturing care framework* (1).

Annex 2. Form to monitor child development with inclusion of internationally validated milestones – exemplar*

WHAT TO ASK	WHAT TO DO IF THERE IS CONCERN OR DELAY
<p>Orient the caregiver. “Just as it is important to follow [Child's Name]'s physical health and growth, it is important to follow and support development. A child's brain develops most rapidly during the early years. It is useful to monitor development and to see if there are any areas that need extra support. By development I mean, learning, communicating, understanding, relating to people, moving body, using hands and fingers, and also hearing and vision. Let me ask you about how [Child's Name]'s is developing in all of these areas. Please give me examples of what she does in her daily life.”</p> <p>1. Caregiver's concerns. “I'd like to first ask you, do you have any concerns about [child's name]'s development in any of these areas?”</p>	<ul style="list-style-type: none"> ■ Address all caregiver concerns ■ Assess and address child's health problems (eg: growth, nutrition, perinatal problems, chronic illness) using history, comprehensive physical and neurological exam, labs when needed
	<p>WHAT TO EXPECT BY COMPLETED AGE</p> <p>6 MONTHS</p>
<p>2. Expressive language. “How does your child let you know when she wants something? What kind of sounds, gestures words does she use?”</p>	<ul style="list-style-type: none"> ■ Laughs aloud ■ Vocalizes vowels (“aa, uu”)
<p>3. Receptive language. “How does she show you that she understands when you talk to her? For example, what does she do when you say: Where's daddy? Where's ball? Come here!”</p>	<ul style="list-style-type: none"> ■ Responds by making sounds when caregivers talk
<p>4a. Gross (large) movements. “Tell me about her movement, like holding and raising her head, sitting, walking.”</p>	<ul style="list-style-type: none"> ■ Lifts head 90° (prone) ■ Sits with support ■ When held erect, straightens legs, pushes against object rather than bending legs
<p>4b. Fine movements. “How does she use her hands and fingers, like holding objects?”</p>	<ul style="list-style-type: none"> ■ Reaches towards objects with hands ■ Holds, handles toys/objects
<p>5. Relating. “How does your child relate to people she knows? How does she show interest in them?” What does she do to engage them? How is her eye contact? <i>Wait for caregiver to respond, then ask: “How does she relate to strangers or show that she knows they are strangers?”</i></p>	<ul style="list-style-type: none"> ■ Has prolonged, meaningful eye contact ■ Shows preference, recognition and desire to engage with caregivers by reaching, smiling, inspecting their faces
<p>6. Play activities. “Tell me about your child's play. How does she play with people, with objects or toys?” Ask if needed: “What playthings or toys does she have, how does she play with them?”</p>	<ul style="list-style-type: none"> ■ Makes sounds in response to face-to-face play ■ Brings toys/objects to mouth
<p>7. Self-help activities. “What does she do for herself, like feeding herself?” (Ages of attainment of self-help skills may vary across cultures)</p>	<ul style="list-style-type: none"> ■ Children in this age range may not be expected to attain self-help milestones
<p>8. Nurturing care environment. “Thank you for telling me so much about (child name) development, you know her so well. Now please tell me about her daily life. What do you and your family do at home, in your daily life to help her develop, learn, communicate?” <i>Listen to what the caregiver is telling you. Prompt by asking: “What do other family members and friends do with her?” Support caregivers by acknowledging and praising all their efforts. Provide ideas from WHO/UNICEF Care for Child Development, or the “GMCD Support Component” or other interventions when necessary.</i></p>	
<p>9. Developmental risks. “Sometimes caregivers may have a lot going on. For example, they may feel overwhelmed, stressed or depressed, there may be financial problems or illness in the family, and caregivers may find it hard to support their child's development. Are there such or other difficulties in your family situation?” <i>Listen with empathy, identify and help address psychosocial risk factors.</i></p>	
<p>10. Planning for interventions and follow-up. “What are some ideas or plans you have to support (child's name) development despite these difficulties? At this early age when development is so important, what could you, your family, friends and community do to help her develop?” <i>Support caregivers' efforts. If caregivers do not have ideas or plans, tell them you would like to talk further with them about these. Provide your feedback on development, make referrals and plan follow-up together with the caregiver.</i></p>	

- Assess and address nurturing care, opportunities for learning, psychosocial risk and protective factors (Questions 8, 9, 10)
- Assess all domains of development using appropriately standardized, reliable, validated tool
- Follow closely (eg: see back in 1-month)
- Refer for consultations and/or services when needed
- Conduct valid hearing test and vision test as needed

	12 MONTHS	18 MONTHS	30 MONTHS
	<ul style="list-style-type: none"> ■ Babbles by repeating many syllables ■ Has one meaningful word ■ Uses arm or hand to point to people or objects 	<ul style="list-style-type: none"> ■ Uses at least 2 meaningful words ■ Uses index finger to point ■ Caregivers understand some of child's communication 	<ul style="list-style-type: none"> ■ Uses sentences with 3 words to communicate ■ Uses pronouns (I, me, you) ■ Caregivers understand most of child's communication
	<ul style="list-style-type: none"> ■ Understands names of familiar people (mummy, daddy) ■ Understands verbs/action words (come, take) ■ Understands names of objects (ball, toy) 	<ul style="list-style-type: none"> ■ Waves "bye" or uses other common gesture in response to command ■ Understands one simple command (bring shoes) 	<ul style="list-style-type: none"> ■ Understands one preposition (other than "in") such as "under" or "on top"
	<ul style="list-style-type: none"> ■ Sits steady without support ■ Pulls to stand holding on to objects ■ Stands alone momentarily ■ Walks holding onto objects 	<ul style="list-style-type: none"> ■ Walks alone ■ Kicks ball or other object 	<ul style="list-style-type: none"> ■ Climbs, jumps
	<ul style="list-style-type: none"> ■ Picks up small objects using pincer (thumb and index finger) only 	<ul style="list-style-type: none"> ■ Holds pencil or stick (in any way) and scribbles on paper or on ground/floor 	
	<ul style="list-style-type: none"> ■ Spontaneously seeks to share enjoyment and interest with others (cuddles caregiver, kisses, inspects toy together) ■ Shows recognition of stranger (turn away, stare) 	<ul style="list-style-type: none"> ■ Initiates specific interactions with people ■ Imitates others' behaviors (waving back, scribbling, washing hands, stacking clothes in imitation) 	<ul style="list-style-type: none"> ■ Initiates increasingly warm and varied interactions with people
	<ul style="list-style-type: none"> ■ Initiates game "peek-a-boo" ■ Inspects toys/objects with curiosity ■ Imitates gestures during play (clapping hands, make face) 	<ul style="list-style-type: none"> ■ Inspects how toys/objects work (how doll moves, bells ring) ■ Has simple imaginary play like feeding doll, driving cars 	<ul style="list-style-type: none"> ■ Involves others in play
	<ul style="list-style-type: none"> ■ Uses fingers to feed herself (knows it is food and eats) 	<ul style="list-style-type: none"> ■ May use one feeding utensil ■ Drinks from cup 	<ul style="list-style-type: none"> ■ Takes a piece of clothing off ■ Washes hands with assistance

*Adapted from the International Guide for Monitoring Child Development (GMCD) Training Package with permission from its authors. The milestones provided here were attained by at least 85% of healthy children in the international GMCD Study standardization sample at the given ages. For more details, see (25).

FOR MORE INFORMATION

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