Eighth Meeting of the Child Health Accountability Tracking (CHAT) Technical Advisory Group

Co-organized by WHO and UNICEF

Meeting Report

Grand Hotel Suisse Majestic, Montreux, Switzerland
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Executive Summary

This report summarizes the key points discussed during the fourth in-person meeting (and eight overall meeting) of the Child Health Accountability Tracking (CHAT) group, held in Montreux, Switzerland October 18 and 19, 2022. CHAT was formed in 2018 to support the harmonization and standardization of child health and well-being indicators, across a variety of domains, and brings together global child health measurement experts in a Technical Advisory Group (TAG). CHAT focuses specifically on indicators in child health, ages 28 days to 9 years of age, and aims to harmonize with the groups covering other age groups. The Maternal and Newborn Information for Tracking Outcomes and Results group, MoNITOR, works on maternal and neonatal/newborn indicators, while the Global Action for Measurement of Adolescent Health, GAMA, focuses on indicators for those aged 10 to 19 years of age.

The agenda included updates on emerging issues and working sessions to develop CHAT’s ongoing workplan and discuss on-going efforts. (The agenda is provided as Appendix A.)

All 12 of the current CHAT TAG members participated, in-person and remotely, along with several experts from WHO, UNICEF, USAID and other organizations. TAG members and meeting attendees are listed in Appendix B. The meeting was organized by the CHAT Secretariat, Kate Strong of WHO and Jennifer Requejo of UNICEF. CHAT is funded by a grant from USAID.

CHAT has accomplished much in the four years since it was established. Specifically, CHAT developed a core set of indicators for child health, described in three peer reviewed journal articles and shared globally via an online toolkit, launched in October prior to the meeting. The group has also contributed to the revision of the SPA and DHS surveys, helped advance work on effective coverage measures and cascades of care for childbirth, newborn, and child health in low-and-middle-income countries, and contributed to the selection of a core set of indicators for measuring WHO’s paediatric quality of care standards in health facilities.

Emerging issues discussed at the meeting included violence against children, the impact of climate change on child health, and measurement of early childhood development and nurturing care. CHAT received updates from experts in measurement of child health on topics including birth defects, eye care, childhood cancer, COVID-19, and early childhood development.

CHAT members discussed two new papers they are developing, the first focused on advocating for the use of globally agreed-on indicators, and second on the proliferation of dashboards and measurement efforts. Another discussion was held on CHAT’s criteria for adding or changing its indicators.

TAG members also continued discussions of a new CHAT effort, measurement roadmaps, responding to recommendations made in the CHAT’s article in the *Lancet Child and Adolescent Health* on the need for investments to address measurement gaps. The roadmaps are designed to guide prioritization of measurement efforts (e.g., short and longer term) and harmonization across datasets and data collection instruments, using the following goals:

- If using the same indicator, it should be collected and defined the same way
- Within each type of data collection tool or platform, indicators should be the same
- Aiming to be as consistent as possible in the measurement.
One of CHAT’s priorities is to provide input to partner efforts around measurement of child health, and in this role, they learned about changes in measurement priorities for the Every Woman, Every Child monitoring framework, which was developed to support the Global Strategy for Women’s, Children’s, and Adolescents’ Health. They also reviewed the Maternal, Newborn, Child and Adolescent Health (MNCAH) module of Health Management Information Systems (HMIS) used to capture routine data from health systems. The TAG’s inputs at this meeting were used to compile feedback to the WHO unit that manages this module. The TAG learned about pending updates to WHO’s “Pocket book of hospital care for children.”

Finally, CHAT members discussed several important structural issues and developed a workplan for 2023.
Background:
The Child Health Accountability Tracking (CHAT) group was formed in 2018 to support the harmonization and standardization of child health and well-being indicators, across a variety of domains including communicable and noncommunicable diseases, nutrition, violence, child development, disability, and injuries. The group is co-convened by both the World Health Organization and UNICEF. The first meeting of the CHAT TAG took place in November 2018, followed by a second face-to-face meeting in June 2019 at UNICEF headquarters in New York, and a third meeting in Switzerland in December 2019. While no face-to-face meetings took place in 2020 and 2021 due to the COVID-19 pandemic, the TAG continued to meet virtually throughout that time frame, and substantial work has taken place since the last in-person meeting. CHAT published three peer-reviewed journal articles,\(^1,2,3\) contributed to the revision of the SPA and DHS surveys, helped advance work on effective coverage measures and cascades of care for childbirth, newborn, and child health in low-and-middle-income countries, and contributed to the selection of a core set of indicators for measuring WHO’s paediatric quality of care standards in health facilities.

The October 2022 meeting described in this report provided an opportunity for CHAT to take stock of current activities, assess its workstream structure, hear updates on emerging issues, and develop a work plan for 2022-2023 (please see Appendix A for the agenda). Most of the TAG was in attendance, while three participated virtually. A list of participants can be found in Appendix B. Funding for CHAT is provided through a USAID grant to WHO.

Meeting Objectives:

1. **Working sessions on two new papers:** 1) Advocating for the indicators that we recommended in *Lancet Child and Adolescent Health*, Volume 6, May 2022, 345-352.; and 2) Harmonizing indicators presented in different dashboards/country profiles and visualizations across agencies and initiatives.

   a. **Expected outputs:** Plan for completing the next drafts, timelines for final review and submission of the two papers, and agreement on target journals

2. **Working session on measurement road maps for pneumonia, malaria, diarrhea** which builds on CHAT’s recommendations stated in the *Lancet Child and Adolescent Health* article on the need for investments to address measurement gaps, starting with leading infectious killers of


children. The group noted that these are probably the “oldest” indicator areas, yet considerable work is still needed to enable better measurement and monitoring of them, and to increase their use in programme planning.

a. **Expected outputs:** Agreement on the scoring criteria and process for prioritizing the indicators including broader consultation for the road maps; steps for finalizing the road maps (the pneumonia road map is furthest along); plan for developing a fundraising proposal to support the measurement work.

3. **A session on criteria for adding, dropping, changing indicators and approach for applying the criteria**, which is fundamental to how we go about revising our recommended indicator list as the evidence base and priorities shift. This is also linked to our work on the on-line indicator toolkit which now contains CHAT core indicators and metadata reference sheets.

   a. **Expected outputs:** Agreed upon criteria and process for determining if indicators will be added, dropped, or changed from the recommended core list (for global monitoring).

4. **Specific presentations/discussions** including advising on a revision of the *Every Women, Every Child Global Strategy* indicator list and on improving the child health indicators presented in the HMIS module. These are part of CHAT’s technical advisory remit and the Secretariat will collate the TAG’s advice on these important areas.

   a. **Expected outputs:** Draft set of recommendations for the Global Strategy indicator list, final set of recommendations for the HMIS module

5. **Discussion about work plan and production of a calendar for 2022-2023** will take into account the updates on WHO and UNICEF child health activities (See background documents folder) and selected presentations from external groups in the newer indicator areas, for example, child development, health promotion, and NCDs

   a. **Expected outputs:** Workplan for 2022-2023.

Background documents and slide decks presented at the meeting are available on the CHAT SharePoint site (for internal use of the group only).
Review of proposed CHAT Working Papers: CHAT Secretariat

Advocacy for child health indicators: making use of the indicators that we have to promote accountability for children’s health and well-being

Kate Strong distributed a draft of this paper, on adapting global measurement tools for programmatic measurement, in advance of the meeting (available in the “background documents” folder in the CHAT SharePoint). The paper addresses the problem of the rise of global child health initiatives linked to monitoring SDG and EWEC GS, inconsistently defined indicators, fragmented monitoring, and increased reporting burden on countries. The proposed solution: Standard indicators that have been validated with known collection mechanisms; a core set has already been proposed and published by CHAT. These existing indicators can be used to monitor progress at programmatic, national, and global levels. The current draft of the paper describes where data come from to report on the indicators, the reasons for using certain data types, their advantages and limitations, and calls for donor to unite and push for better data collections tools, particularly administrative data, at the country level.

<table>
<thead>
<tr>
<th>Where does the data originate?</th>
<th>Data collection type</th>
<th>Level of the population measured</th>
<th>Cycle of reporting</th>
<th>How can it be used?</th>
<th>Indicators (SDG#)</th>
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<tbody>
<tr>
<td>Health Information Management Systems, including DHA2 and other platforms</td>
<td>Routine Health Information Systems</td>
<td>Facility</td>
<td>Quarterly or monthly</td>
<td>M&amp;E of health facility service use, preventive and treatment services</td>
<td>Careseeking for ARI and fever, diarrhoea treatment, exclusive breastfeeding, nutrition screening, asthma, anemia, malaria treatment &amp; diagnostics, immunization</td>
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<tr>
<td>Cancer registration, birth defect registries, death audits</td>
<td>Disease-specific Registries, International Clearinghouses</td>
<td>Subnational, National</td>
<td>Semi-annual or annual</td>
<td>Surveillance of specific diseases, conditions or causes of death</td>
<td>Neural tube defects, Thalassemia, TB &amp; HIV incidence, cause-specific child mortality,</td>
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<tr>
<td>Administrative records, population-based surveys</td>
<td>CRVS, national health surveys, DHS, MICS, Censuses, malaria programme surveys,</td>
<td>National</td>
<td>Annual for CRVS 3 to 5 years for survey instruments</td>
<td>National or subnational estimates derived from admis records or survey data</td>
<td>ECDI2030, road traffic injury YLDs, use of insecticide treated bednets; Careseeking for ARI &amp; fever, Diarrhoea treatment, Uncorrected refractive error, immunization (A.b.1), Maltreatment, harsh punishment by caregivers, Vitamin A Supplementation</td>
</tr>
<tr>
<td>Inter-Agency and Consortium computed comparable estimates</td>
<td>Comparable Estimates</td>
<td>International</td>
<td>Annual or every 2 to 3 years</td>
<td>Global, regional, and country comparable estimates and projections</td>
<td>Under-5 (3.2.1) and 5 to 9 year mortality; child cause of death; wasting (2.2.2); overweight (2.2.2), stunting preva lence (2.2.1); TB (3.3.2) and HIV (3.3.1) incidence; Immunization (6.b.1)</td>
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Questions posed to the CHAT members included: How fragmented are data systems? Is a data collection type missing? What drives indicator use? What are other solutions that could be added?

Discussion points included:

- This is an important paper and an important issue. The paper is not quite making the argument for WHY. If we can do this the rest will flow more naturally. The “hook” is not that clear yet – what is the evidence for the problem? Is this actually a burden for countries?
• Some felt the title could be more specific. The word “hierarchy” vs “harmonization” was discussed; the word hierarchy is used deliberately to describe the hierarchical nature of the levels of data capture.

• Why are certain indicators available? What are other considerations that should be kept in mind related to core indicators?

• The issue addressed in this paper isn’t specific to child health – can we make the paper more specific to child health? Discuss certain specific indicators that are relevant to child health?

• Suggest making the point that the prevalence and impact of an issue should be correlated with the importance attributed to measurement and monitoring of associated indicators. Note that some indicators are more proximally related to children while others are more distal (such as legislation or regulations to prevent traffic accidents or for wearing helmets and seat belts).

• The paper could include more emphasis on strengths and weaknesses of the indicators, and how countries should prioritize them. It was suggested to “unpack” the hierarchy and put in context of country investments.

• The issue of paperless records might be mentioned.

• The audience for the paper should be clearer. While some felt that the paper was not aimed at high-income country audiences, others felt it was relevant for all countries.

• In the data hierarchy table: should we separate population-based surveys from others? And are we missing additional sources of data, such as SPA, SARA from WHO, and census data, which can be used for some key indicators (e.g., mortality).

• It is important to point out denominators – who gets missed from survey data, who gets missed in administrative data? Advantages and disadvantages of using health facility data. Some indicators are collected well and others, not so well. Can we add a paragraph on indicators that are less collected and advocate for more collection of them? Maybe a deep dive into indicators that are often missed?

• What makes a good advocacy paper? Who is the paper targeting? Why is it beneficial to the reader/user? Could it be a little less technical and make the argument more forceful and less technical?

• Specifically, focus on the objective of the paper early in the text (it is currently on Page 3). The title could be more strategic. We need to make our case on evidence – can we provide analysis of current state of child health indicators? We may not have resources to do a systematic analysis but maybe do a case study? The title, abstract and key tables should be very much aligned to key messages as many people don’t read full papers.

• How should a country use certain core indicators? Are we talking to countries? Perhaps a box with an interview with a country perspective?

• Might be beneficial to show how data can be used to improve quality of care – for example, facility data.

• Should emphasis be placed on validated and tested indicators? There are many different definitions of validation. We should acknowledge the use and abuse of the word – clarify what we mean.

• A suggestion was made that the paper advocate for complimentary data sources as some countries have gaps. There is a misunderstanding of what data sources are best suited to different tasks. We talk about “there is too much data” but in many countries there is not enough data (often in countries experiencing conflict).
• Equity is also key and should be highlighted in this paper. In many countries we have high coverage, but mortality is still high. There are not many sources of data that provide insights regarding equity.

Harmonization and streamlining for effective use of dashboards (child health and well-being dashboard a good example of inter-agency coordination)

Jennifer Requejo distributed a draft of the paper, which recognizes that there is a proliferation of data visualization tools (DVTs), in advance of the meeting (available in the “background documents” folder in the CHAT SharePoint). The paper intends to present a set of recommendations for harmonizing and streamlining data visualizations (profiles/dashboards/infographics) on child health and well-being for global and national monitoring, with the ultimate aim of fostering greater coordination across agencies and initiatives on the range of DVTs; reducing confusion on which tools to use for which purposes; reducing confusion on what data is the most accurate for the same indicators; and improving the utility of DVTs to increase the uptake of data for decision making for child health and well-being.

The paper is structured with an introduction, background and rationale, examples of good practices, and recommendations. Specifically, the recommendations that Jennifer listed are:

• Promote co-creation of future dashboards across UN agencies to reduce duplication, to increase impact, and for sustainability purposes.
• Encourage donors to coordinate their requests for new data visualization tools and data platforms to reduce inefficiencies and the development of one-off data visualization tools that have limited use or shelf-life.
• Engage countries and civil society organizations at the beginning and throughout the process to generate any new dashboard/data visualization tool to ensure it meets their decision-making needs and adds value (selection of indicators, and agreement on the visualizations).
• For DVTs that support global monitoring efforts for WCAH, these should be consistent with recommendations from the CHAT, MONITOR, GAMA groups and use standard definitions and recommended data sources for the indicators.
• Make sure that data visualization tools are developed with a plan for dissemination, and regular collection and incorporation of feedback to ensure they remain relevant for intended users and for saving children’s lives.

Discussion questions:

• Agreement on the aim/purpose and focus on global and national monitoring?
• Agreement on the structure of the paper as a perspective piece?
• Agreement on the current organization of the paper (history to outline the problem, examples to demonstrate good practices, recommendations)?
• Important to add in the role of CHAT in making these recommendations as part of its remit?

Discussion points included:

• Overall agreement with purpose of paper, and a suggestion to possibly exclude or shorten history (although others liked the history). Perhaps history could be included in a box?
• One person suggested that perhaps the focus on global data visualization initiatives, not mentioning country level DVTs, could discourage work at country level. However, others
believed that the paper should be “unashamedly global.” The role of global agencies vs. countries could be mentioned, possibly acknowledging that some organizations have a strong influence on global monitoring.

- Possibly add more evidence for statement on problem with dashboards.
- In general, aim at a more “general reader” tone and don’t use abbreviations. The word “cacophony” was thought to be a little harsh.
- Case study seems quite self-congratulating. A little humility – acknowledging that the work on harmonizing data visualization tools across UN agencies is overdue. Would be good to add another example.
- Make sure it is not just an attack on dashboards. The next steps could be more practical – how this can be used by real world decision-makers? Mention the need for investment in the USE of data, not just data visualization.
- Can this paper be linked to Kate’s paper by including the issue of WHAT indicators should be used, describing where the data should come from? Suggestion to include a table showing different tools already in place. Data visualization is one step in a flow from that includes obtaining the data and using the data – DVT is a middle part of this process and can be the part that actually helps people understand and care about the data.
- Consider noting regional gaps, such as that for the Arab region.
- Could make the point that providing good data in an urgent situation is an important public service. One example is the failure of the US CDC to provide good data during the early days of the COVID-19 pandemic, and gap that was filled by Johns Hopkins University. If you have good data that journalists and others can understand and use, it is much more likely to be used.
- How to talk about CHAT and its role, as well as the role of quality data? How do we ensure data quality?

The discussion on these two papers led to a conversation about the best dissemination strategies for CHAT’s messages. CHAT has published three articles in high-impact journals and will continue to publish in journals, but perhaps there are other ways to share CHAT’s messages, such blog posts (the British Journal of Medicine, UNICEF and others have blogs) or a CHAT corner on website.

Revisiting the Global Strategy for Women’s, Children’s, and Adolescents’ Heath (2016-2030) monitoring framework: Dr. Theresa Diaz, WHO

Dr. Theresa Diaz presented a detailed slide deck (available in the CHAT SharePoint) outlining changes in measurement priorities that have taken place since the Every Woman Every Child (EWEC) global monitoring framework was developed in 2016. The Monitoring Framework for EWEC, available online, is based on technical reviews and an open consultative process, resulting in the selection of 60 indicators in 2016, which aimed to minimize the burden of country-to-global reporting by aligning with 34 indicators from the Sustainable Development Goals (SDGs). An additional 26 indicators are drawn from established global initiatives for reproductive, maternal, newborn, child and adolescent health (RMNCAH) that existed in 2016 or earlier. From the 60, 16 key indicators are selected as a minimum subset (“core”) to provide a snapshot of progress on the Global Strategy:
Since this monitoring framework was established in 2016, several new groups focused on measurement have been formed, including CHAT (as well as MoNITOR and GAMA).

Theresa reviewed how the member states are performing on collecting and reporting on the key data in the Survive, Thrive and Transform areas. She challenged the CHAT TAG with the following questions:

- Adolescent mortality rate, aligning GHE and UN IGME? What to use in the meantime? Adolescent mortality is still being aligned. Confusion around GHE and UNIGME. Causes of death become more complicated along the life course. UN organizations need to align around a single source of all-cause mortality. UN IGME for all cause, GHE for cause-specific mortality data.
- Indicator that combines two SDGs, one that is tier 2, should we just restrict to tier 1? What to do with tier 2?
- Should any non-core move to core, looking at all 60 indicators? (Distribution of core indicators: 5 Survive, 7 Thrive, 4 transform.) Is there any process for non-core indicators to be added to core indicators?
The CHAT TAG discussed these questions, while noting that the CHAT remit is focused specifically on child health. The 16 core indicators prioritize outcome indicators and only include one process indicator. It is important to balance aspirational and realistic indicators. If you want to refresh these indicators, it would be important to look at the original indicator selection process – which was clarified by Theresa as being focused on aligning with the SDGs. At that time, the availability of data at the country level was not taken into account: should data availability be part of the criteria for indicator inclusion now? (To this point, it was noted that data availability also relates to data need; in other words, many countries may not have malaria data because there is no local prevalence of malaria – this does not mean that malaria should not be a core indicator.)

CHAT TAG members noted that we have an opportunity for harmonization. There is some overlap between these EWEC indicators and CHAT core indicators, yet there are 6 CHAT core indicators that are not part of the EWEC 60 indicators. We can recommend CHAT core indicators here and can go through a similar process with the other indicators.

Theresa left the group with some challenging questions:

- Should we revise the monitoring framework?
- Should we get some consensus across expert groups for keeping, removing indicators or moving to or removing from CORE? If so, how?
- Are ENAP/EPMM priorities included? (this question is more relevant to MONITOR, although the priorities of the Child Survival Action plan could be considered)
- How can we review metadata for definitions and sources to make sure aligned with advisory groups?
- Should we get inputs from public, countries, other stakeholders etc?
- Shall we use something like PMNCH accountability WG or another process to make final decisions?
- Should we ultimately revise monitoring framework and readiness document (perhaps combined and make one document)?

Many of these were to be addressed throughout the remainder of the CHAT TAG meeting, specifically during the session on criteria for selection of new indicators. TAG members suggested that some of these larger questions should be discussed with MoNITOR and GAMA to ensure harmonization in the selection of core and non-core indicators for the Global Strategy list.

Feedback on the MNCAH module of HMIS: CHAT Secretariat

Health management information systems (HMIS) capture routine data from health systems: CHAT has been asked to review the module focused on Maternal, Newborn, Child and Adolescent Health (MNCAH). Jennifer led a discussion on CHAT’s input to this module:

There are a number of modules in the HMIS “toolkit”, and it should not be assumed that programme managers are going to review all the different modules. This means the child health module should be complete by itself and not rely on data from other modules (that may or may not be used at the country level). Focusing on practical recommendations, TAG members suggested that indicators about care-seeking (or utilization), referral and outcomes should be included. Some cautions about collecting data on care-seeking/utilization were mentioned: what denominator would be used? How would one collect
information on the content or quality of care provided and whether a referral, if needed, was actually provided? It was noted that referral can be collected at the hospital level, but it is hard to capture at lower levels. Should transportation be addressed?

Other questions raised were how to correctly measure pneumonia and diarrhoea – one suggestion was that a diagnosis would automatically result in treatment with antibiotics, and so a supply-related indicator, such as drug stock-outs, would be more useful. However, others questioned how we know that cases are being correctly identified by providers: are clinical signs being correctly documented?

The question of what is feasible to look at was also mentioned by several. For instance, some data is more feasible to collect in certain settings (as an example, ADHD data is collected in Sweden but not in sub-Saharan Africa). The sophistication of each country’s data collection system is an important factor.

There was a request to include a question on anemia. Another practical suggestion regarding an indicator on emergency care was to complement the indicator “newborns admitted to for in-patient care” with a similar indicator on “children admitted for in-patient care.” Similarly, a simple indicator on outpatient visits for child health could also be included.

CHAT will compile recommendations and send to the WHO unit that manages the module, with a focus on utilization/care seeking. (One TAG member noted that utilization and care seeking are synonymous in HMIS data.)

Introducing the CHAT on-line toolkit of indicators
Kate introduced CHAT’s new online toolkit, available at: https://chat.srhr.org/. The CHAT toolkit is built to mirror one that was developed by MoNITOR and is aimed at researchers and country implementers, to encourage harmonization of indicators.

Several TAG members offered to conduct a final review of the Metadata Sheets (or Reference Sheets) and suggested that we keep a log of revisions. Dissemination was discussion, with suggestions to develop a blog post, post in WHO’s official Twitter page, or get the word out through other means. This resource is a direct outcome of the work of CHAT, and specifically the development of core indicators as published in CHAT’s paper in The Lancet.

Updates to Inform CHAT’s Workplan

Acute and Prevention topics
Management of Common Childhood Illness: WHO
Wilson Were of WHO presented on a process to update the “Pocket book of hospital care for children” – a key WHO document. As background, he reviewed the causes of death and disability for neonates and children, and noted there are currently three key WHO guidance documents related to the management of childhood illness:

- Community level recommendations (Integrated Community Case Management (iCCM) guidelines),
- Primary care level: Integrated Management of Childhood Illness (IMCI) guidelines, and
- Hospital level: Pocket Book of hospital care for children CME recommendations.
Launched with an editorial in BMJ in May 2020, WHO is updating the recommendations for the management of common childhood conditions. (The last recommendations were published in 2012). This revised document will be aimed at a wide audience concerned with clinical care services, policies, regulations and programmes for children and young adolescents. The revised recommendation will be used to update the Pocket Book, both to add new content (for instance, on diabetes and sickle cell disease) and to focus on how patients present (a chapter on breathing difficulties will include cough or cold, pneumonia, asthma, etc., while a chapter on fever will include malaria, meningitis, measles, etc.). The overall goal of this update process is to provide member states with consolidated evidence-based recommendations and approaches for clinical management of common childhood illnesses at primary health care level.

The new document aims to bring all the key evidence together, packaging it for countries. Work to date has identified three categories of recommendations based on a review of existing guidance documents:

- Existing published recommendations
- Recommendations from the ongoing or planned disease specific conditions
- Recommendations for those conditions where new evidence or gaps were identified: In this category, 45 review questions prioritized for the guidelines development. (These questions include Cough (Asthma, Acute Bronchiolitis), Fever (Urinary tract infections, Acute media, Mastoiditis), Non-communicable diseases (Sickle cell disease, Diabetes mellitus, Anaemia).

In discussion, TAG members asked about the schedule for updating: Wilson responded that WHO is moving towards making guidelines “living” and updated continually and moving away from paper-based guidelines. For instance, an app is under development for humanitarian settings where connectivity may be challenging. WHO Academy is producing a digital IMCI course initially focused on newborn health for individual or group training to launch soon. The aim is to have prototype for testing early 2023. The Pocket Book will still be published, however, and it was noted that Ministries of Health often adapt it for their own country.

Regarding policy implications at the country level (for instance, who is allowed to give antibiotics), WHO provides a list of competencies that must be met to provide certain services but will not dictate: it is unlikely that we will ever get to the point where everything is the same from country to country. WHO will define the competencies and countries can adapt within their local context.

Child Survival Action Partnership: USAID

Patricia Jodrey (USAID) provided an update on the work of the Child Survival Action Partnership, with a focus on areas where CHAT should be involved. Fully 54 countries are still in need of accelerated action to meet the SDG target for under-5 mortality (based on the UNIGME 2021 report). The following graph, showing mortality by country and divided into deaths occurring in the newborn period (first month of life) and those occurring from the age of 1 month until 5 years old, demonstrates that a substantial proportion of these deaths occur after the first 28 days of life. In 43 out of the 54 countries, deaths after the newborn period make up more than half of mortality for under-fives.
In addition, many countries have substantial subnational inequities in their under-five mortality rates. Pneumonia, diarrhea and malaria (where endemic) remain the leading causes of death. The continued high post-neonatal mortality, with common infections remaining key causes of death, is an expression of increasing inequities and the multiple deprivations children in these countries face, caused by an accumulation of risk factors (poverty, food insecurity, lack of access to clean water and sanitation, air pollution, and humanitarian contexts), as well as underperforming health systems. **Primary Health Care (PHC) is at the core of a comprehensive approach.** We need to intensify commitment and expand strategic investments in child survival in infancy and early childhood (1-59 months), and address the programmatic and health system challenges that hamper progress especially in those countries that are not on track to meeting their 2030 targets. The Child Survival Action Plan operates in three workstreams: Country engagement, Results framework and accountability, and Advocacy & resource mobilization, and brought together Ministers of Health and others in May 2022 to review the action plan and develop next steps. Specifically, the action plan calls for the following:

- More effective multi-sectoral responses that align with national strategies and plans and bring multi-stakeholders from WASH, nutrition, protection and health, etc. together;
- People-centered and quality primary health care in facilities and communities, that is able to provide fair remuneration, training and skills building of the community health workforce;
- An equity-sensitive approach that combines, not only domestic financing, external pooled investments and innovative approaches, but also a commitment to making better use of existing resources;
• Engaging communities in the design and implementation of the multi-sectoral responses;
• Utilizing country system data on a continuous basis to focus on vulnerable children is critical to ensure accountability at all levels for change.

The CHAT TAG discussed the issues raised in the presentation, noting that CHAT will participate in the M&E working group. The theory of change that Patricia presented does not include referral to the hospital level (the outcomes in the theory are “primary health care strengthened” and “equity gaps eliminated and UHC achieved”), and it was suggested the theory of change might be updated to capture the fact that determinants of child survival are a moving target and hospital care might be important in some situations.

Patricia emphasized that what is specifically needed from CHAT is help for countries to analyze and understand their data, to help them think critically about their drivers of child mortality and plan for the most strategic approaches to improve child survival. Jennifer and Kate are both part of the M&E group and will update the CHAT group as the workplan of the M&E working group becomes more clear.

Update on COVID-19 including long COVID in children and adolescents: WHO
Kate Strong presented a slide deck on COVID-19, noting that:

• Children and adolescent have milder symptoms but can develop multi-inflammatory syndrome.
• WHO is analyzing 35,000 records contributed from around the world. Prelimarily it appears that risk factors for poor outcomes from COVID19 include asthma, diabetes, cancer, and HIV infection. However, the TAG cautioned that much of the data submitted to date comes from one country (South Africa) and more data from other countries is needed.
• Post-Covid syndrome has been defined, but a different definition is still being defined for children.
• Studies of indirect effects of COVID are ongoing, including: mental health outcomes, educational attainment, orphanhood. The TAG noted that these indirect effects, including lack of schooling, domestic violence, skipping vaccinations, and orphanhood, are all important to measure.
• Emma and Jennifer are working on a comment on data needs emerging from COVID19 (Theresa Diaz requested that the challenges of different approaches to data disaggregation, especially for ages, could be woven into CHAT’s upcoming paper on advocacy for better data utilization).

Effective Coverage Topics
IMPROVE webinars on effective coverage and child health & nutrition
Melinda Munos, TAG co-chair, presented on the work of IMPROVE, a collaborative group of researchers working together to increase the availability of evidence for the validity of existing and new MNCAH & Nutrition coverage indicators and questions collected through household surveys, and evidence-based tools and protocols for routine national-level linkage of data on care-seeking from household surveys with results from service provider assessments. The work focuses on two key questions:

• How to link household and health facility data to obtain valid estimates?
• How should we define facility readiness and quality of service provision?
The group recommends using ecological data and linking by stratum. In other words, data from a person who reports receiving care from a facility in a specific location should be linked to a readiness score for all facilities in that location. Cautions are that readiness and quality are complex constructs, and readiness cannot tell us by itself whether services are of high quality.

**Validating measures of breastfeeding and infant and young child feeding (IYCF)**

Melinda also presented on work to validate measures of breastfeeding and IYCF. New questions were added to the Demographic and Health Surveys (DHS) in Nepal, Kosovo and India asking whether women had received counseling on breastfeeding or infant feeding. The questions were asked in different ways and with different recall periods in the three countries (e.g., six months after delivery in Nepal, in exit interviews in Kosovo). These survey results were compared with observation of counseling sessions; results showed that obtaining gold standard measures from surveys is challenging; reporting on counseling received in the surveys was moderate, but still useful for measuring breastfeeding and infant feeding counseling coverage.

**Validating measures of diarrhoea severity for household surveys**

Finally, Melinda presented on work on diarrhoea (led by Margaret Kosek), comparing the Community Diarrhoea (CODA) Score, collected for children presenting with diarrhoea in facilities in a region of Peru, with parent interviews about child symptoms two weeks later. Comparing these two sets of results, the researchers suggest using the following three questions in surveys:

- days with ≥4 liquid stools
- maximum number of stools in 24 hours
- days with vomiting

TAG members discussed validity of surveys, noting that specificity and sensitivity is only one measure of validity. Validity is setting specific; cultural differences as well as different recall periods could influence the results. The question about how best to measure breastfeeding in surveys was raised, and new evidence about indicator validity was mentioned as a possible focus for CHAT. Measuring effective coverage is more challenging than other indicators.

**Effective coverage of Refractive Error in Children and Adults: WHO**

Stuart Keel, with the Vision and Eye Care Programme at WHO, presented on efforts to meet ambitious targets adapted by member states: 40% increase in effective coverage of refractive error. Refractive error is the leading cause of vision impairment, linked to very cost-effective intervention (spectacles), and has very high prevalence and expected to increase. In the World Health Assembly (WHO) in 2020, the request was made to develop global targets for 2030 on “integrated people-centered eye care, focusing on effective coverage of refractive error and effective coverage of cataract surgery.” The global target of 40 percent increase in effective coverage of refractive error by 2030 was set at the 2021 WHA. Refractive error is the leading cause of vision impairment in children and adults and is expected to increase.

WHO launched Report of the 2030 targets on effective coverage of eye care the week before the CHAT TAG meeting, available [online](#) and also published two papers in the Lancet Global Health. The report presents estimates of effective refractive error coverage to serve as reference points to begin monitoring progress, highlights key gaps in current data, and presented suggestions for additional
efforts required to advance surveillance. Surveys from 62 countries were reviewed, and showed a large range in coverage, from 3.5 percent to 89.9 percent, very much correlated with income levels. Only 35.7% of people with need have received quality spectacles. Males had higher rates of coverage, and there is a significant paucity of data on young people. Now, WHO is collecting historical data, such as from school health surveys, including a vision module within existing WHO surveys (the World Health Survey Plus will include some of these measures in five or six countries), exploring other opportunities to incorporate eye care modules into other surveys, and modeling data to produce country level estimates. A standalone functional testing module, including both vision and hearing, is being developed, and a second report on eye care will be released in 2025.

TAG members had a number of questions, including, is there a companion related to hearing? The hearing unit at WHO has proposed two new hearing questions, but there is currently no data available at all. The vision field has benefited from a strong NGO sector that has funded surveys in the past.

In terms of how to collect data on need, WHO measures visual acuity at the population level under different scenarios – uncorrected, corrected, using a pinhole device. The target age for this measurement is between ages 7 and 8, the age at which myopia is picked up, making it a good fit for school health surveys. The epidemiology of refractive error varies greatly by region, with very high rates measured in East Asia, related to lifestyle risk factors, including high amounts of time focused on screens and lower time spent outside in daylight. It was noted that this is a great indicator, easy to measure; it would be ideal if similar indicators could be found for other issues.

A suggestion was made to focus on health system performance, since outcomes generally depend on the performance of health systems.

Chronic conditions, injuries, and disability topics

Childhood Cancer: WHO

Roberta Ortiz (WHO) presented an update on WHO’s Global Initiative on Childhood Cancer (GICC), which is being implemented through the CureAll Initiative. Over 400,000 children are diagnosed with cancer each year, and there are profound inequities in outcome determined by country of residence and socioeconomic status. These inequities are caused by differences in both diagnosis and treatment. The initiative’s targets are >60% survival and suffering alleviated for all, and to save one million children by 2030. Objectives to meet these targets are to increase capacity of countries to provide quality services for children with cancer, and increase prioritization of childhood cancer at the global, regional, and national levels. WHO is working in six regions, conducting case studies in Peru and the Philippines, and developing guidance for partners as well as assessment and costing tools, a community of practice, and a knowledge repository.

GICC is working on measurement issues, with the goal of at least 100 countries having completed assessments. A detailed monitoring and evaluation framework has been developed, containing about 50 indicators in a range of domains.
GICC is eager to collaborate with CHAT in its work to develop core global indicators for child health. The CHAT TAG asked about priorities among the 50 indicators, which fall into several categories. Some of the indicators are aspirational, and they cover a very large area of effort. Specific questions were posed about the indicators around human resource requirements for managing childhood cancers, and how to capture acuity of care.

**Birth Defects: WHO**

Kate provided an overview of birth defects in the context of global goals and measurement frameworks. Surveillance, prevention, and providing care for children with birth defects are important strategies to reach child survival targets in the Sustainable Development Goals. As a first step, she reviewed data on prevalence and mortality related to birth defects: the most recent estimates date from 2006 (in a March of Dimes report). Data shows that the majority of deaths (around three quarters) occurred among infants. The lower a country’s overall under-5 mortality, the higher the percentage of mortality caused by birth defects. Data from 2019 shows that congenital heart anomalies were the leading cause of mortality related to birth defects, followed by neural tube defects.

A technical working group on the Burden of Birth Defects was formed and held their first meeting (virtually) in September 2022. The group’s first product will be a peer-reviewed journal article on mortality from congenital abnormalities. In addition, WHO, the US Centers for Disease Control (CDC) and the International Clearinghouse for Birth Defects Surveillance and Research (ICBDSR) are working together to update and publish a Birth Defects Surveillance Toolkit.
Cross-cutting Issues: Environmental Health and climate change

Based on initial discussions within chronic conditions group in their meeting on August 8th, Ralf Weigel led a discussion on how CHAT might incorporate the health impacts of a changing climate into its work to develop indicators for child health.

Environment has always been recognized as an important determinant of child health (lead, pollution, water quality, etc). Now, what does environmental health cover, and how does climate change fit into providing and measuring child health? How do we respond to and measure heat, pollution, extreme weather events and their multiple effects on food, water, housing, energy, mental health, trauma. These environmental factors result in different vulnerabilities for different populations, and as well result in unpredictable dynamics – we don’t know exactly what is coming or when. In this dynamic environment, what is the role of indicators to measure our current situation, measure change, and hold actors accountable? What is the role of providers towards their patients? How should medical services be set up to protect the environment and avoid waste while providing the best medical care for children?

Ralf reviewed UNICEF’s document Healthy Environments for Health Children: Global Programme Framework, which provides of risks to children, including five categories of major hazards:

1. Environmental risks (noise, air pollution, mold, radiation).
2. Toxic metals (lead, mercury)
3. Hazardous waste (landfills, e-waste, conflict-related such as land mines)
4. Toxic chemicals (such as pesticides and dioxins)
5. Climate change (including extreme weather events, heat, effects on natural systems)

Another UNICEF document, Promoting Healthy Environments for Children by Using Indicators, outlines the role of indicators:

1. Health outcomes as a result of environmental hazard
2. Exposure that affects health
3. Context, including social conditions
4. Actions that we can take to reduce exposure

The TAG felt this work was interesting, useful, and important, and that we cannot ignore the environmental factors. While these environmental indicators are very different from what CHAT has considered before, consensus was that they should be considered by CHAT, based on a reconsideration of our inclusion and exclusion criteria. These new indicators may cross different sectors, while CHAT’s initial criteria focused on the health sector. The importance of input indicators, not just outcome/impact, was also discussed, and it was noted that many of the original 16 core indicators focused on inputs; perhaps an environmental input indicator could be considered.

Another question raised: is climate change an “exposure” and does it have impact on health system access, as well as WASH, mental health? We have indicators for many of these factors already. Can we stratify our data based on vulnerability to climate factors? Should we measure impact of climate change on other indicators? Others felt that climate change really does matter on its own, and CHAT should aim to have an indicator that is specifically called out as climate change and health related.

Additionally, would policies around children in schools, exposure to advertisements, etc. be included in this discussion of environment? Do we need to define the scope when we are talking about
environment? Are we looking just at climate or at other factors related to health and wellbeing? And, importantly, what does CHAT and the field at large want to achieve?

Implications for CHAT of other Measurement Efforts

GAMA and MoNITOR: WHO

Kate provided an update on GAMA (Global Action for the Measurement of Adolescent Health) and MoNITOR (Mother and Newborn Information for Tracking Outcomes and Results).

GAMA’s activities include:

- a mapping of adolescent health measurement initiatives
- identification of priority areas for adolescent health measurement, considering (1) the adolescent health burden, (2) input from young people, (3) input from countries, and (4) existing measurement initiatives
- a mapping of over 400 indicators currently used in adolescent health measurement
- a selection of priority indicators within the defined priority areas, based on agreed selection criteria and resulting in a draft list of priority indicators including 36 core, 1 alternative, and 15 additional indicators. As part of the process, measurement gaps within the priority areas were also identified

MoNITOR focuses on maternal and newborn health, and this group developed the MoNITOR Indicator Toolkit, on which the CHAT Indicator toolkit is based. The Toolkit has been piloted in six countries and includes a searchable database, indicator metadata references sheets for core indicators, and a document on “Case studies and recommendations on indicator testing and validation.” The toolkit is available in English, French and Spanish.

The possible differences in funding for each of the three groups was mentioned (GAMA looks better resourced). Theresa mentioned that WHO needs to think about other potential donors.

What is the process for harmonizing the indicators of CHAT, GAMA and MoNITOR? This question came up several times during the meeting.

Developing an adolescent well-being measurement approach

Jennifer presented slides describing a consultative process being undertaken by the UN H6+ Technical Working Group on Adolescent Health and Well-being, including representatives of PMNCH, UNAIDS, UNESCO, UNFPA, UNICEF, UN Major Group for Children and Youth, UN Women, World Bank, World Food Programme and WHO, bringing together experts to develop an adolescent well-being approach. The group published a framework (by David Ross et al in the *Journal of Adolescent Health*) in 2020 proposing five domains for adolescent health: (a: good health and optimum nutrition, b: connectedness, positive values, and contribution to society, c: safety and a supportive environment, d: learning, competence, education, skills, and employability, e: agency and resilience; illustrated in the wheel below). The group began work in 2022 with the operationalizing of the Adolescent Well-being Framework (AWF) group, holding their first meeting and compiling and mapping existing indicators for each domain. The work will continue in 2023, with further reviews, and the full draft of the measurement approach will be finalized next year and presented at the Global Forum on Adolescent Well-being in October 2023.
Discussion:
The TAG discussed how the CHAT toolkit will be integrated into an overall “life course” tool. The suggestion was made to look into whether CHAT would want to do more systematic reviews, scoping reviews, or mapping of indicators. As well, the group wanted to know more about how MoNITOR is piloting indicators and conducting country validation for its toolkit. Does CHAT need to do the same thing, and if so, how would this be conducted?

Defining CHAT’s criteria for changing and adding indicators
In working group meetings earlier in 2022, CHAT TAG members requested more clarity around the process of changing and adding indicators. Jennifer Requejo presented a slide deck, first listing CHAT’s initial exclusion criteria used to develop the first 16 core indicators:

- Limited to the health sector (exclusion of transform/contextual indicators, and other sectors)
- Limited to outcome and impact measures (exclusion of input, output, process type measures)
- Exclusion of indicators for which there is evidence of invalidity

The first two criteria are up for discussion, but the third should be kept; CHAT should not endorse any indicators that cannot be validated. Note there are no indicators explicitly on development/well-being.
Additionally, CHAT used the following criteria for inclusion in developing the core indicators:

First set:
- Related to a leading cause of child death, disease, disability, or injury within the age range of 1 month to 9 years
- For outcome indicators, effective in addressing one or more of these causes and with programmatic relevance
- Consensus on a standard definition and data collection approach (like a Tier 1 indicator)
- Feasibility (a reliable mechanism is in place for regular data collection across most countries)
- Stability (possible to track trends)
- Child specific or child centered (rather than applying to all age groups)

These seem still to be valid.

Second set:
- Elimination of duplicates (i.e., indicators that capture the same construct)
- Ensure a balance across all leading causes of child death, disability, disease, or injury
- Consideration of equity – should this receive more attention?

The elimination of duplicates could be changed to “construct not already covered by existing indicator set/or proposed indicator better captures the construct of interest.”

Domain Specific:
- Health promotion and child development: Extra weighting for children 5-9? Or review of indicator set to be sure balance of indicators across the two age groups of 1 month – 4 yrs, 5-9?
- Chronic conditions, injuries, disability, violence against children: Used YLDs for prioritization purposes

The following process was suggested for developing new indicators:

1. Develop a template for adding, dropping or revising an indicator, possibly based on templates used by DHS, etc.
2. CHAT group reviews new indicators submitted via the template.
3. Consensus reached by CHAT TAG.
4. Online toolkit updated.

Discussions covered the following points: given that CHAT focuses on the age group 1 month-9 years of age (between MoNITOR and GAMA), we could choose indicators that are used by MoNITOR and/or GAMA and look to see what data are available for CHAT’s age group, looking at the overlap or gaps between CHAT and both MoNITOR and GAMA.

Do we now need to go beyond health sector indicators, and outcome and impact? It was noted that the indicator design started with a rubric that was narrowed down – perhaps now we need to go back to the rubric and expand it again, opening up the process to fill in the gaps. Several people agreed that CHAT should expand its indicator list beyond the health sector and beyond outcome and impact indicators, perhaps also taking on policy type indicators, especially if the group engages in some work around environmental health and given that policy and regulatory actions may be the most appropriate for impacting child health for specific chronic conditions and for injuries. There was also concern about CHAT’s resources and ability to greatly expand its scope and focus. Is there a more formal process for requesting suggestions of new indicators, and can this group be more centralized and proactive?
Different countries have specific requirements – how does CHAT adapt to these different needs? This work should also be relevant to high income countries.

The question was raised about possibly doing another indicator mapping. The merit of CHAT’s work is in documenting and undertaking a rigorous selection process, and systematically making choices about what should be in the core list. It was suggested that we could further disseminate the processes we have used for various tasks – i.e., disseminating the process CHAT used for the first selection round of core indicators, and the process used to assess recommendations for changes to the DHS and SPA tools.

For instance, we went through a process of scoring our work in the quality of care domain, but did not share the process. There is a merit in showing all this analysis.

Do we need indicators on motor development and cognitive development? Maureen pointed out that thanks to recent work we now know a lot about the Thrive indicators (see later discussion), and if CHAT is to move beyond Health, it makes sense to go into the Thrive area. Other important gaps are in chronic conditions and policy.

Jennifer and Kate will incorporate feedback received and share a revised proposal on criteria for adding, dropping or modifying CHAT indicators for review during the next CHAT call.

Measurement Road Maps for Pneumonia, Diarrhea, and Malaria

Emma Sacks presented on work she has been doing with the Acute and Prevention sub-group on the measurement road maps and shared an excel spreadsheet containing the different indicators.

As background, there are currently many measurement gaps for childhood diseases causing challenges for planning, resource allocation, and assessments of progress in improving child survival at global, national, and sub-national levels. Acute Respiratory Infections (including Pneumonia), diarrhea, and malaria continue to be leading causes of death among children. There are notable Inconsistencies between current household survey programmes, and we are unable to measure antibiotic treatment via household surveys (indicators shown to be invalid by Child Health Epidemiology Reference Group – CHERG, now known as the Maternal and Child Epidemiology Estimation Group - MCEE). Pneumonia is still one of the leading causes of death for children under 5 and could benefit from better measurement and more recognition globally.

To help address these gaps, CHAT is preparing measurement roadmaps for pneumonia, diarrhea, and malaria. Each road map includes a compilation of key indicators including metadata and details on measurement issues. The next step in completing the roadmaps is to prioritize the indicators for measurement improvement through a consultative process.

The roadmaps are designed to guide prioritization of measurement efforts (e.g., short and longer term) and harmonization across datasets and data collection instruments, using the following goals:

- If using the same indicator, it should be collected and defined the same way
- Within each type of data collection tool or platform, indicators should be the same
- Aiming to be as consistent as possible in the measurement
The process is to design a framework that can be used for pneumonia now, and then malaria, diarrhea, etc. later. The roadmap will also identify the measurement challenges for each indicator; next steps will be thinking about how to address each of the gaps.

In the work to develop the roadmap for pneumonia, the following steps have already occurred:

- Mapping of existing indicators
- Consultation with pneumonia experts
- Categorization of existing indicators according to IMCI framework
- Feedback from CHAT’s Acute and Preventing Working Group
- Developing criteria for scoring to prioritize
- Updating of IMCI framework to take into account current thinking on health systems and primary health care, per the text box below:

<table>
<thead>
<tr>
<th>Health systems</th>
<th>Family and community practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health worker knowledge and skills (training, private, competence)</td>
<td>Planning and management</td>
</tr>
<tr>
<td>Supplies and infrastructure</td>
<td>Preventive and protective care (including nutrition, immunization, and WASH)</td>
</tr>
<tr>
<td>Case management</td>
<td>Care seeking (deciding to seek care)</td>
</tr>
<tr>
<td>Policies and leadership (including guidelines and standards)</td>
<td></td>
</tr>
<tr>
<td>Health information systems (should be linked to community surveillance)</td>
<td></td>
</tr>
<tr>
<td>Referral pathways</td>
<td></td>
</tr>
</tbody>
</table>

Based on this preliminary work, Emma has created list of measurement indicators for pneumonia in a spreadsheet format. She will ask CHAT members and other experts to participate in scoring the indicators on the sheet, bearing in mind that countries should be able to reasonably collect them. Additionally, as a group, we will review the ranked indicators and ensure the following:

- If possible, identify at least one indicator per step in the “care pathway” (e.g., at least one indicator per category or sub-category)
- Keep in mind the context of limited resources and many measurement needs
- The amount of work needed to improve the measurement varies greatly between indicators
- The core set should include some ability to measure equity (e.g. social/economic, education, geographic, urban/rural, sex, etc.)
- Focus on coverage and health outcomes; agree to focus on policy later

The excel spreadsheet, scoring criteria, and concept note will be distributed to CHAT TAG members.

A question was asked about where community health workers are now located: based on the revision of the IMCI framework, they have been put into the health systems component following discussions with CHAT members, recognizing their role in health systems.
The goal at this stage is not to develop new indicators but to select ones for improvement that are already in existence. However, the group was very interested in whether this roadmap and spreadsheet format could be applied to other areas, specifically for child development indicators.

Regarding the measurement of pneumonia, several elements of the roadmap focus on the more severe forms of pneumonia, but a lot of pneumonia is self-limiting, and questions could be added about identifying the need for antibiotics; there also should be a question about assessment for hypoxia. Given the increasing recognition of the use of pulse oximetry, it should possibly be added to the supply chain questions. Post-discharge follow-up also needs to be addressed. These questions will be considered in finalizing the list of indicators to be sent for scoring. Emma and Jennifer will also align the roadmap with the domains in the Global Action Plan for Pneumonia and Diarrhea (GAPPD).

Regarding the health workforce, we emphasize training a lot, but an important question is simply numbers of health workers or ratio of health workers to population. Health worker density could be cross-cutting or integrated set of indicators.

Specific attention is needed to children older than 5; there is a gap is for the 5-9 age group.

Spotlight on Key Areas in the Nurturing Care Framework

Update on child development and health promotion indicators: WHO
Bernadette Daelmans and Sheila Manji of WHO presented a slide deck detailing how progress in early childhood development is being measured. The evidence for a nurturing care approach, focusing on birth to age 3, was published in the Lancet’s 2016 series, Advancing Early Childhood Development: from Science to Scale. The Nurturing Care Framework was launched at the 2018 World Health Assembly, as a road map that outlines:

- Why efforts must begin in the earliest years, from pregnancy to age 3
- How nurturing care protects children from the worst effects of adversity
- What caregivers need in order to provide nurturing care

The framework has two dimensions: what the child needs (safety and security, good health, adequate nutrition, responsive caregiving, and opportunities for learning) and the enabling environments (enabling policies, supportive services, empowered communities, caregivers’ capabilities). Five strategic actions have been identified, of which the 4th, monitor progress, is directly relevant to the mission of CHAT. A measurement framework has been developed, and data are already being collected at population level for countries around the world. These data are reported in 2021 Early Childhood Development country profiles. Countries are looking to establish a number of children identified as needing assistance.

The group is also working to develop tools to monitor implementation of the Nurturing Care Framework, including compiling globally recommended indicators, developing and testing a new protocol to assess responsive care-giving and early learning, reviewing the literature, and adapting indicators from the
MoNITOR toolkit. A report on Monitoring Children’s Development in Primary Care Services was published by WHO in 2020.

The following issues related to monitoring have been identified:

- Monitoring inputs, outputs and outcomes is essential on the pathway to impact.
- For early learning, responsive caregiving, and safety and security: considerable variation in constructs assessed, measures used, and construction of variables (measurement of health and nutrition is better established). More attention is needed to protective and risk factors – child, family, environment.
- To assess responsive caregiving, direct observations are necessary but may only be feasible in smaller-scale studies and less so at larger-scale.
- For monitoring individual children’s development, identification of a small set of standard measures can improve quality, effectiveness and efficiency. There is wide variation in “normal” development and the use of milestones is inadequate for measurement.
- For monitoring quality in service delivery, standards are needed that can then inform measurement.

Kate, Frances and Maureen are serving as bridges between CHAT and nurturing care framework work.

Stressing that countries are trying to measure the success of their early childhood development programmes and need guidance, Sheila and Bernadette posed the following questions to the CHAT TAG:

- What can CHAT contribute from lessons learnt from other areas of health measurement?
- Gaps in measurement have been identified, how do we prioritize these gaps?
- How can we develop a research agenda to address measurement gaps/validation of indicators?

The Global Scales for Early Development (GSED)

Vanessa Cavallera (WHO) next presented on the measurement of child development (under 36 months) at the population level: the Global Scales for Early Development (GSED). She identified two key needs for robust measurement: for measuring child development up to 24 months of age at the population level, and for programmatic evaluations, which calls for indicators that are reliable and valid globally, easy to administer and interpretable, free and open-access. In the past, measurement of child development has been done by proxy measures, not direct measuring. Now a new measurement strategy, termed the D-Score, has been developed. The D-Score (or the age standardized DAZ score) is planned to be a quantitative measurement functioning in the same way as centimeters and kilograms. The GSED team has already piloted the scoring system in Bangladesh, Pakistan, Tanzania, and is currently piloting in Brazil, China, Cote D’Ivoire, and The Netherlands. The scale is being validated against the gold-standard Bayley scales. The interim GSED package will be released in late 2022 with a revised version planned for release in early 2024.

Early Childhood Development Index (ECDI2030)

Claudia Cappa, UNICEF, presented on this index, which has been developed as a measurement tool for SDG 4.2.1, “proportion of children 24 to 59 months of age who are developmentally on track in health, learning and psychosocial well-being, by sex.” The index was developed over a period of five years with
the involvement of a number of experts and partner agencies. The 20-item questionnaire, measuring learning, psychosocial wellbeing, and health, has been integrated into several DHS and MICS surveys.

**International Classification on Violence against Children (ICVAC): UNICEF**

Claudia Cappa of UNICEF presented slides detailing the process of developing a classification system for violence against children (VAC), initiated recently. In this domain, there has historically been no official definition or standard data collection. In 2018 a codebook on classification of all forms of VAC was developed, based on International Classification of Crime for Statistical Purposes and following the United Nations Statistics Division’s principles on statistical classifications.

An expert consultation process was held in early 2022 and developed the following categories and definitions:

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homicide of a child</td>
<td>A non-essential, unwanted and deliberate act <strong>leading to death or intending to cause</strong> death of a child</td>
</tr>
<tr>
<td>Non-fatal physical violence</td>
<td>A non-essential, unwanted and deliberate act that uses physical force against the body of a child and <strong>results or can result in injury, pain, or discomfort</strong></td>
</tr>
<tr>
<td>Sexual violence</td>
<td>An unwanted, non-essential and deliberate act of sexual nature, either <strong>completed or attempted</strong> that is perpetrated against a child, <strong>including for exploitative purposes</strong></td>
</tr>
<tr>
<td>Psychological violence</td>
<td>A non-essential, unwanted and deliberate act that harms or has the highly likelihood to harm the self-esteem, identity, or development of the individual child</td>
</tr>
<tr>
<td>Neglect</td>
<td>A non-essential, unwanted, deliberate and <strong>ongoing failure to meet a child’s physical or psychological needs, protect the child from danger, or obtain medical, educational or other services</strong> when those responsible for the child’s care have the means, the knowledge, and access to services to do so</td>
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</table>

In addition, numerous disaggregating variables were established, related to the victim (gender, age, etc.), the perpetrator (gender, relationship, history, etc.), the setting (home, school, etc.), and circumstances. The ICVAC will be translated into 6 languages and UNICEF will develop tools and guidance, along with technical assistance and training, to help countries to better measure violence against children.

This work is very new and has already entailed passionate conversations about culture and context. Over 200 countries provided input and there is not, for instance, a standard age of sexual consent around the world.

CHAT TAG members had many questions, first of which is, what are obligations (legally and otherwise) after violence has been measured? Indeed, measurement brings up many issues around ethics; this work is not trying to regulate, only to measure. Because the unit of classification is the act violence can be captured in any setting, including in conflict zones. The tool can classify perpetrators and circumstances of the act. The CHAT group would like to stay informed about this work going forward.
Discussion on Nurturing Care Framework Measurement Presentations:
CHAT’s TAG members had several comments and questions on three measurement strategies: Nurturing Care Framework, GSED, and ECDI.

Regarding testing an indicator on counseling of women around responsive caregiving, this indicator was considered but was rejected by countries for inclusion in HMIS. Counseling is typically provided in response to a problem. Should everyone get counseled on early care and responsive stimulation? Early learning and responsive care measures can be easily measured in health care visit. However, health workers need training around responsiveness – they can then demonstrate and coach parents in responsive caregiving. But health workers tend to be instructive rather than responsive.

In response to questions about potential overlap between the different tools and scores presented, Claudia advised that WHO and UNICEF are meeting (this week) to look at overlap and the possible integration of GSED (which focuses more on infants) and ECDI.

The Quality of Care Working Group may be able to provide guidance on the question “what kind of screening do you expect a provider to do” -- could this then be measured?

Again, the gap for children over 5 was noted. The nurturing care framework originally focused on children up to age 3, and now has expanded up to age 19, with the same 5 domains, but operationalized differently depending on age range. For kids over 5 there are many different strategies, predominantly focusing on school achievement. Literacy and numeracy have been measured, often by Ministries of Education, but this is clearly an area in need of strengthening. There are possibly more indicators to measure for this age group: enrolled in school, attended school, progressing, disabilities, and other behavioral and psychosocial areas. The adolescent field is doing better in psychosocial measurement than the pediatric field.

In the cognitive domain, should we include measurement of executive function (development of the maturity of the pre-frontal lobe and ability to plan)? We are learning a tremendous amount from neuroscience. Things get very cultural as children grow up, but executive function is less cultural – emotion regulation, attention, impulse control.

We need strong impact measures, but we also need to know what we want to measure along the pathway to that impact. ECDI may not pick up impact. Many risk and protective factors are also complex to measure.

What is the common ground between Nurturing Care Framework (NCF) and CHAT toolkit? How does the NCF indicator catalog relate to CHAT’s online toolkit? As well, how does the Monitoring Framework for Early Childhood Development relate to CHAT’s online toolkit?

Frances: Work on Early learning 14 items – has been used in different settings for program evaluation.

Responsive Care: has been validated with several different groups in 2-3 countries but there is still a need for more survey measures. Early learning has been measured in different settings using 14 items, and more work needed on responsive care than on early learning.
Developing CHAT’s 2022-2023 Work Plan

The TAG discussed several structural issues:

1. CHAT has been organized into three working groups: 1) Acute and Prevention, 2) Chronic Conditions, Disability and Injuries, and 3) Health Promotion and Child Development. A discussion revolved around the question, “Do these groupings still serve the goals of CHAT?” Decision: The consensus was that these groups should be dissolved, and work should be organized by theme or work product going forward, with different TAG members participating as appropriate given their specialties. These smaller working groups with limited terms could report back to the full TAG periodically.

2. Membership: While TAG members do not have “term limits” and have not formally rotated off, there has been quite a bit of turnover in the TAG since CHAT was established in 2019. A structure for replacing TAG members has been developed and worked well for the recent recruitment of two new TAG members. At this point, another TAG member is rotating off due to work obligations, and recruitment of a replacement will need to take place. TAG members discussed the importance of continuing to seek representation from diverse parts of the world, as well as those who are involved in data collection at the country level. Suggestions were made to expand the size and scope of expertise of the TAG—A suggestion was made to ask GAMA and MoNITOR how they handle TAG recruitment and representation; there are possibly TAG members that could rotate between the different groups, depending on specialty. Decision: Strategically recruit new members of the TAG on an ongoing basis based on evolving needs and focus areas. Action: Kate and Jennifer to revisit the terms of reference for CHAT membership and share with the TAG.

3. Positioning CHAT within the measurement community: CHAT has succeeded in bringing together disease-specific measurement activities related to children from 1 month to 9 years of age. WHO and UNICEF technical teams present their work to CHAT to connect with the child health measurement community. We have a unique role to bring groups together and promote harmonized approaches to prevention, diagnosis and treatment of childhood illness and the monitoring of these activities. Capitalizing on our work with measurement efforts and groups came up in various ways in CHAT’s work planning, and coordination with GAMA and MoNITOR to “join up” the age groups was encouraged.

4. Avoid duplication: This relates to CHAT’s position in the measurement space, above. With so many groups working on measurement, CHAT has an obligation to avoid duplication and to pursue partnerships where it makes strategic sense.

5. Address silos and fragmentation: On the same theme, there are many silos in child health. A key role of CHAT is the look across the groups and silos and work to integrate them.

Short-term plans to be completed by the end of 2022:

1. Revise and submit advocacy paper to a peer-reviewed journal
2. Revise and submit paper on dashboards to a peer-reviewed journal
3. Compile TAG’s recommendations on HMIS
4. Complete final review of Reference Sheets for Indicator Toolkit
5. Provide feedback (to Emma Sacks) on Measurement Roadmap. Seek input from MoNITOR on whether they have addressed Possible Severe Bacterial Infection (PSBI).
Longer-term and ongoing plans for 2023 and beyond:

1. Review other tools as requests to CHAT are received
2. Create and execute a dissemination plan for the CHAT Indicators Toolkit. Decide about possible user testing. Touch base with MoNITOR to learn what they are doing re: testing their indicator toolkit. If they are testing the functionality of the tool, we can piggyback on this work (as our functionality is the same).
3. Seek greater harmony with GAMA and MoNITOR on the Indicator Toolkits. Develop a common list of terminology. The goal is to “join up” the three toolkits to cover the whole life course from birth to the end of adolescence.
4. Continue to discuss the impact of climate change on child health and well-being, including exploring possible collaboration with other groups.
5. Develop and implement a communications strategy.
6. Consider developing concept note on gap areas in chronic conditions.
7. Review the indicators in the Nurturing Care Framework (NCF) indicator catalogue (potentially an excellent way to share our work on indicator harmonization with another audience).
8. Secure long-term funding: explore whether MoNITOR, CHAT and GAMA and link together to secure funding.
9. Continue to stay informed on work of the Life Course Quality of Care (LCQC) group through updates from Melinda, Marzia and Maiga (members of the LCQC group).
10. Strengthen CHAT’s attention to nutrition by deepening our connection with TEAM. Zeina is our link from the CHAT TAG. Action: Kate will invite TEAM to present or attend one of our meetings. Kate and Jennifer will work to facilitate connection between TEAM and Zeina.
11. Follow up on the effort to harmonize ECDI and GSED and review the Monitoring Framework for Early Childhood Development (or other related indicators) as it relates to CHAT’s online toolkit; decide if any of the non-health indicators in this Monitoring Framework should be adopted by CHAT.
## Appendix A: Meeting Agenda

### Day 1:

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:00-9:10</td>
<td>Kate, Jennifer, Melinda</td>
<td>Welcome and review of the agenda</td>
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<tr>
<td>9:10-9:45</td>
<td>Kate and Jennifer</td>
<td>Presentation of the two working papers</td>
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<tr>
<td></td>
<td>• Paper 1. Advocacy for core indicator use in programme management (Adapting global measurement tool to programmatic measurement); MICS issues. funding for HH surveys, WHS, DHS, MICS</td>
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<td></td>
<td>• Paper 2. Harmonization and streamlining for effective use of dashboards (child health and well-being dashboard a good example of inter-agency coordination)</td>
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<tr>
<td>9:45-10:30</td>
<td>All</td>
<td>Discussion</td>
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<tr>
<td>10:30-10:45</td>
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<td>Break</td>
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<tr>
<td>10:45-11:15</td>
<td>Theresa Diaz (WHO in person)</td>
<td>EWEC Global Strategy Indicators</td>
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<td></td>
<td>• Revision of Global Strategy Indicators (Theresa Diaz)</td>
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<td></td>
<td>• Discussion (feedback from CHAT members on the indicators; agreement on a process for compiling and sharing our recommendations)</td>
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<tr>
<td>11:15-11:45:00</td>
<td>Kate and Jennifer</td>
<td>HMIS guidance and module</td>
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<td>• Review our compiled feedback</td>
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<td>• Finalize recommendations</td>
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<tr>
<td>11:45-12:30</td>
<td>Kate and Jennifer</td>
<td>On-line indicator toolkit, criteria and guidance for the toolkit</td>
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<td>• Criteria and process for adding, changing, or dropping indicators into the tool kit</td>
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<td>• On-line toolkit Glossary and Guidance to programme managers and other users of indicators for core set (for inclusion in on-line tool)</td>
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<td>12:30-13:30</td>
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<td>Lunch</td>
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<tr>
<td>13:30-14:30</td>
<td>Acute and prevention topics:</td>
<td>WHO-UNICEF updates to inform the work-plan (See background documents folder) With discussion</td>
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<td></td>
<td>• Management of common childhood illness: evidence for update of pocket book and IMCI recommendations (Wilson Were, WHO in person)</td>
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<td>• Child Survival Action Partnership (update, and background documents – TOC and the plan for an M&amp;E working group and how CHAT can/should be involved)</td>
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<tr>
<td>Time</td>
<td>Event</td>
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<tr>
<td>14:30-15:00</td>
<td>Discussion &amp; questions</td>
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<td>15:00-15:15</td>
<td>Break</td>
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<tr>
<td>15:15-16:00</td>
<td>Updates continued</td>
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<tr>
<td>16:00-17:00</td>
<td>Measurement road maps for pneumonia, diarrhea, malaria</td>
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**Discussion & questions**

- Short COVID-19 update with clinical definition for long COVID in children and adolescents (Kate Strong)

**Effective Coverage**

- IMPROVE webinars on effective coverage and child health and nutrition measurement (Melinda Munos, JHU)
- Effective coverage of refractive errors in children and adults (Stuart Keel, WHO in person)

**Updates continued**

- Chronic conditions, injuries, disability
  - Childhood cancer (Roberta Ortiz, WHO, virtual)
  - Birth defects work (Kate Strong) *(postponed to Day 2)*
  - UNICEF expanded activities in these topic areas (Jennifer)

- Cross-cutting issues
  - Environmental health and climate change

- GAMA/MONITOR work *(postponed to Day 2)*
  - GAMA and MoNITOR updates (Virtual)
  - Adolescent well-being scope of work (PMNCH-GAMA led) and implications for CHAT work

**Measurement road maps for pneumonia, diarrhea, malaria** *(Postponed to Day 2)*

- Emma Sacks, Jennifer
  - Presentation of the road maps
  - Review of the criteria and scoring approach
  - Review of process for external consultation
  - Review of next steps for developing a fundraising proposal

**Discussion of the TAG**
# Day 2

<table>
<thead>
<tr>
<th>Activity</th>
<th>Presenter(s)</th>
<th>Time</th>
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<tbody>
<tr>
<td>Recap of day 1</td>
<td>Kate and Jennifer</td>
<td>9:00-9:25</td>
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<tr>
<td>Short update on GAMA and MONITOR</td>
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<tr>
<td>Indicator Criteria</td>
<td>Jennifer and Kate</td>
<td>9:25-10:30</td>
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<tr>
<td>Break</td>
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<td>10:30-10:45</td>
</tr>
<tr>
<td>Measurement road maps for pneumonia, diarrhea, malaria</td>
<td>Emma Sacks, Jennifer</td>
<td>10:45-11:45</td>
</tr>
<tr>
<td>• Presentation of the road maps</td>
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<tr>
<td>• Review of the criteria and scoring approach</td>
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<tr>
<td>• Review of process for external consultation</td>
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<tr>
<td>• Review of next steps for developing a fundraising proposal</td>
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<tr>
<td>Discussion of the TAG</td>
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<tr>
<td>Birth defects update</td>
<td>Kate</td>
<td>11:45-12:00</td>
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<tr>
<td>Working Lunch on Workplan</td>
<td>All</td>
<td>12:00-13:00</td>
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<tr>
<td>Spotlight on key areas in the Nurturing Care Framework:</td>
<td></td>
<td>13:00-14:00</td>
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<tr>
<td>• Update on child development and health promotion indicators (under 3 years and over 3 years, Overview and scene setting (Sheila Manji &amp; Bernadette Daelmans-WHO)</td>
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<tr>
<td>• GSED and UNICEF ECDi 2030</td>
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<tr>
<td>• International classification for violence against children</td>
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<tr>
<td>Implications for the workplan</td>
<td>Discussion</td>
<td>14:00-14:30</td>
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<tr>
<td>Discussion &amp; Conclusions and work plan wrap up</td>
<td>Co-Chairs and Jennifer and Kate</td>
<td>14:30-15:30</td>
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</tbody>
</table>
Appendix B: List of Participants:

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