



CanWaCH

DATA EXCHANGE

GLOBAL HEALTH IMPACT REPORT 2024

MAY 2024

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MAIN ACRONYMS USED

CanWaCH	Canadian Partnership for Women and Children’s Health
CSO	Civil Society Organization
DALY	Disability Adjusted Life Years
FIAP	Feminist International Assistance Policy
GAC	Global Affairs Canada
GIS	Geographic Information Systems
IDP	Internally Displaced Persons
LGBTQ2I	Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Two-Spirit, Intersex
LMIC	Low and Middle Income Country
MEAL	Monitoring, Evaluation, Accountability and Learning
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
SDGs	Sustainable Development Goals
SDoH	Social Determinants of Health
SES	Socioeconomic Status
SRHR	Sexual and Reproductive Health and Rights
WASH	Water, Sanitation and Hygiene

ABOUT

The Canadian Partnership for Women and Children’s Health (CanWaCH) is a proud membership of more than 100 nongovernmental organizations, academic institutions, health professional associations and individuals partnering to improve health outcomes for women and children in more than 1,000 communities worldwide. Learn more at www.CanWaCH.ca.

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Comments or questions on this report may be directed to impact@CanWaCH.ca.



DISCLAIMER

The insights and data referenced in this report have been provided by contributing organizations and have not been independently verified by CanWaCH. Numbers are accurate at the time of publication and may change as projects are updated. As such, the figures in this report may differ from current data shown on the Project Explorer database. CanWaCH does not endorse or recommend specific programs or activities, and the content of this report is intended to be inspirational and not prescriptive. The designations and maps in this report or on our website do not imply the expression of any opinion on the part of CanWaCH concerning the legal status of any country, territory, city or area, its authorities or the delimitation of its frontiers or boundaries.

A MESSAGE FROM CANWACH

We have a well-worn mantra at CanWaCH: Get the right people, in the right place, at the right time. We see this as central to our role as conveners. But there is an unspoken truth at the heart of that mantra — It's guided by a profound thirst for the right *knowledge*.

CanWaCH members and partners are at the forefront of transformative work in global health and rights. Their collective knowledge is vast, drawing from firsthand experience, innovative projects and research, and of course, data. By harnessing the right data, we can leverage the work on the ground to drive change at every level. We can write a powerful narrative that demands attention. The Global Health Impact Report serves as a conduit for this narrative, highlighting the rigor and results of Canadian engagement on a global scale.

For most of us, raw data doesn't go far enough. We need colour, context and nuanced analysis. That is what you'll find in the pages of this report. It is not just a compilation of numbers, but an exploration of the stories they tell, the limitations they expose and the pathways they reveal. Central to our endeavor is the [Project Explorer](#), our open data platform that aggregates project data from our members and partners. This year contributors were offered a new way to add and update project data to the platform that allows teams to collaborate on their projects, thus streamlining the process and offering unprecedented insight into the accountability and impact that define Canadian global health efforts.

In this edition of the report, you'll see an emphasis on climate data. It has become increasingly clear that to move the needle in global health, especially when it comes to women and children, we cannot ignore the effects of the climate crisis. To do so would be to dismiss the disproportionate consequences of climate change on the world's most vulnerable.

Likewise, we cannot ignore the realities of the world we live in today. Converging humanitarian crises, global conflicts and growing instability have made the work of this sector more challenging and more critical than ever before. We hope that this report makes both urgency and impact abundantly clear.

We know that this work, and our knowledge mobilization efforts more broadly, are far from over. As CanWaCH continues to bring the right people together, in the right place, at the right time, we will be steadily building our knowledge base. This is not a responsibility we take lightly, but one that is rooted in the belief that by working, sharing and learning together, we can create a world where every woman and child can realize their right to thrive in full health.

In solidarity,



Julia Anderson
Chief Executive Officer

METHODOLOGY

This report was produced using data from the [CanWaCH Project Explorer](#), an open access tool that showcases the full spectrum of Canadian contributions in global health and gender equality through interactive maps, visuals and detailed project level data.

Data in the Project Explorer is gathered through a variety of sources including direct targeted outreach by CanWaCH to member and non-member organizations. Between March and October 2023, CanWaCH implemented data drives to gather detailed data from program partners on their programming efforts to address and support the adaptation and mitigation of the harmful impacts of the climate crisis. This information is supplemented by or triangulated with online searches of websites and published materials, including the Global Affairs Canada [Project Browser](#). Organizations are also able to contribute data at any time of year, via CanWaCH's Project Explorer platform.

The Project Explorer captures projects from [CanWaCH members](#) and non-members, including Canadian and non-Canadian CSOs, academia, multilateral institutions, bilateral commitments, and private sector actors. With over 1500 projects currently available for analysis at the time of publication, the Project Explorer provides valuable aggregate analysis of Canada's work in global health and gender equality. This bilingual open access tool provides up-to-date and detailed information on the scale of Canadian investments and programming in these areas. CanWaCH collects robust data across [20 primary data fields](#) in both English and French, with translation provided.

All collected data is publicly available for download and independent analysis. As the Project Explorer is a living tool generated with the sector from projects that are very new or have long-since closed, it contains some projects that have limited available data. It may also not include data on active projects that, for reasons of safety for participants and staff, cannot be fully disclosed publicly. In addition, as the Project Explorer is continuously updated with new information, the most recent data will be available online and may differ slightly from the content in this report. Wherever relevant, sample sizes are noted. Unless otherwise specified, all financial figures presented in this report are in Canadian dollars.

PROJECT EXPLORER OVERVIEW

The Project Explorer captures and shares the most comprehensive information on global efforts with a link to Canada through a collection of detailed information on a wide range of development, humanitarian, human rights and gender equality projects, funded by both the Government of Canada, as well as other funding sources. Data is used in aggregate to provide a complete picture of what is happening globally and offer useful insights about where more work is needed.

AT A GLANCE:

The Project Explorer currently houses detailed project level data on **1586** global development and humanitarian initiatives which were operational and/or launched between 2010 and 2023, across **163** countries, with a combined funding of **\$17,666,374,640**.

WHERE ARE THESE INITIATIVES HAPPENING?

Based on total investments by country available in the Project Explorer, the top countries supported are fairly consistent between completed projects and ongoing projects.

Top countries ranked by total funds for completed and ongoing (active) projects¹

Table 1a. Completed projects		Table 1b. Active projects	
TOP 10 COUNTRIES BY INVESTMENT	TOTAL COMBINED VALUE	TOP 10 COUNTRIES BY INVESTMENT	TOTAL COMBINED VALUE
Ethiopia	\$741,945,717	Mali	\$258,373,646
Tanzania	\$717,119,616	Bangladesh	\$137,111,094
Afghanistan	\$633,197,137	South Sudan	\$127,841,060
Haiti	\$598,632,310	Tanzania	\$85,520,794
Mali	\$565,050,541	Mozambique	\$82,967,222
Mozambique	\$527,396,781	Ghana	\$80,970,162
Bangladesh	\$523,963,378	Uganda	\$79,747,507
Ghana	\$498,675,242	Kenya	\$65,747,672
South Sudan	\$441,723,516	Haiti	\$65,659,556
Nigeria	\$365,159,774	Senegal	\$55,454,485

¹ Sample size: 1322 projects.

WHAT ARE THE GLOBAL HEALTH PRIORITIES?

Understandably, Canada’s areas of focus vary by year based on priorities, financing, and organizational and contextual factors. The following table provides an overview of the top global health priorities receiving the highest amount of funding between 2010 - 2023.

Top priority areas by total funds²

Table 2a. Completed projects			Table 2b. Active projects		
TOP HEALTH PRIORITY AREAS BY INVESTMENT	TOTAL FUNDS COMBINED	% FUNDS	TOP HEALTH PRIORITY AREAS BY INVESTMENT	TOTAL FUNDS COMBINED	% FUNDS
Infectious & Communicable Diseases	\$2,507,126,241	23.9%	Reproductive Health & Rights incl. Maternal Health	\$218,271,873	20.8%
Nutrition	\$1,625,233,457	15.5%	Health Systems, Training & Infrastructure	\$160,432,924	15.3%
Sexual Health & Rights	\$1,306,149,240	12.4%	Primary Health Care	\$109,944,899	10.5%
Food Security & Agriculture	\$1,142,931,365	10.9%	Health Promotion Education	\$100,382,901	9.6%
Reproductive Health & Rights incl. Maternal Health	\$1,028,277,597	9.8%	Sexual Health & Rights	\$87,967,609	8.4%
Primary Health Care	\$969,969,270	9.2%	Adolescent Health	\$87,068,605	8.3%
Health Systems, Training & Infrastructure	\$919,484,009	8.8%	Food Security & Agriculture	\$82,603,560	7.9%
WASH	\$497,544,085	4.7%	Nutrition	\$67,919,929	6.5%
Health Promotion & Education	\$256,486,311	2.4%	Sexual & Gender-based Violence	\$67,821,164	6.5%
Environment & Climate Change	\$247,451,265	2.4%	Environment & Climate Change	\$66,636,652	6.4%

² Sample size: 1458 projects

WHO ARE THE PARTNERS AND FUNDERS?

These projects³ were led by 410 organizations, and their 900+ Canadian and global partners. Approximately 59% of the projects were led by international and national NGOs both Canadian and non-Canadian, followed by multilateral organizations, government and academia respectively.

Lead organizations by investments per organization type

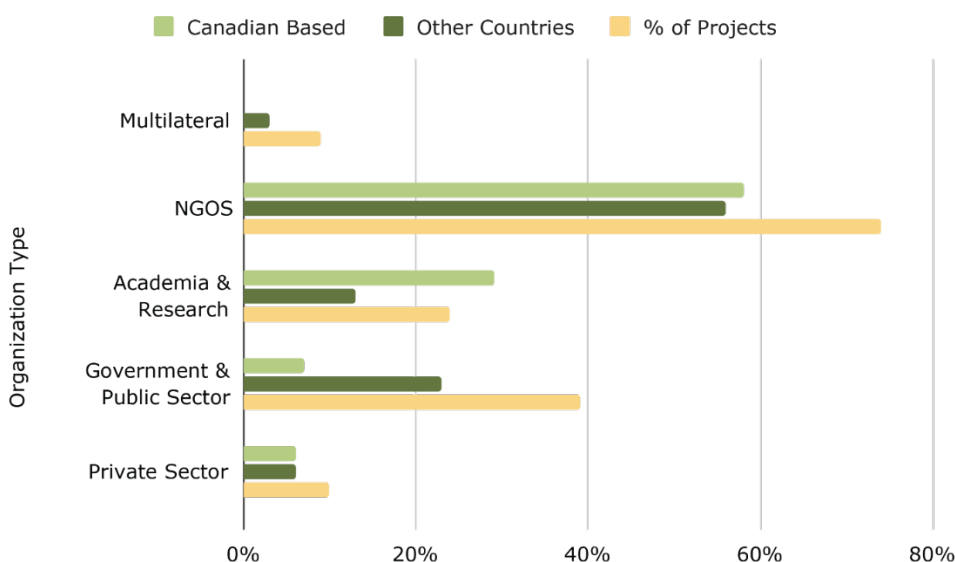
ORGANIZATION TYPE	% OF PROJECTS	TOTAL FUNDS	% OF FUNDING
Multilateral	27.3%	\$8,649,927,758	49.4%
NGOs	57.8%	\$6,045,785,941	34.5%
<i>Canadian based</i>	45.9%	\$5,008,600,308	28.6%
<i>Other countries</i>	11.9%	\$1,037,185,633	5.9%
Academia & Research	7.3%	\$490,432,439	2.8%
<i>Canadian based</i>	5.9%	\$272,168,224	1.6%
<i>Other countries</i>	1.4%	\$218,264,215	1.2%
Private Sector	2.5%	\$888,182,652	5.1%
<i>Canadian based</i>	0.6%	\$110,925,395	0.6%
<i>Other countries</i>	1.9%	\$777,257,257	4.4%
Government & Public Sector	5.2%	\$1,433,043,091	8.2%
<i>Canadian based</i>	2.3%	\$331,787,870	1.9%
<i>Other countries</i>	2.9%	\$1,101,255,221	6.3%
TOTAL	100	\$17,507,371,881	100

³ Information here refers to all projects in the Project Explorer (both ongoing and completed)

PROJECT PARTNERS

The Project Explorer boasts a robust database of over 900 unique participating organizations of various types, where applicable, collaborating on these projects globally. 74% of projects⁴ report partnering with Canadian and non-Canadian NGOs, while 39% reported partnering with national governments and the public sector. The majority of reported partner types at the global level were national and regional civil society organizations, governments and academic institutions.

Total participating organizations by organizations type



FUNDERS

From the proportion of projects⁵ reporting funders, 86% are funded by the Government of Canada while the others received funding from other sources including Non Canadian Governments and Civil Society Organizations.

Main funders:

- Global Affairs Canada (GAC)
- International Development Research Centre (IDRC)
- Grand Challenges Canada
- USAID
- Bill and Melinda Gates Foundation
- Guttmacher Institute
- The LEGO Foundation

⁴ Sample size: 445 projects

⁵ Sample size: 1338 projects

WHO IS BEING REACHED?

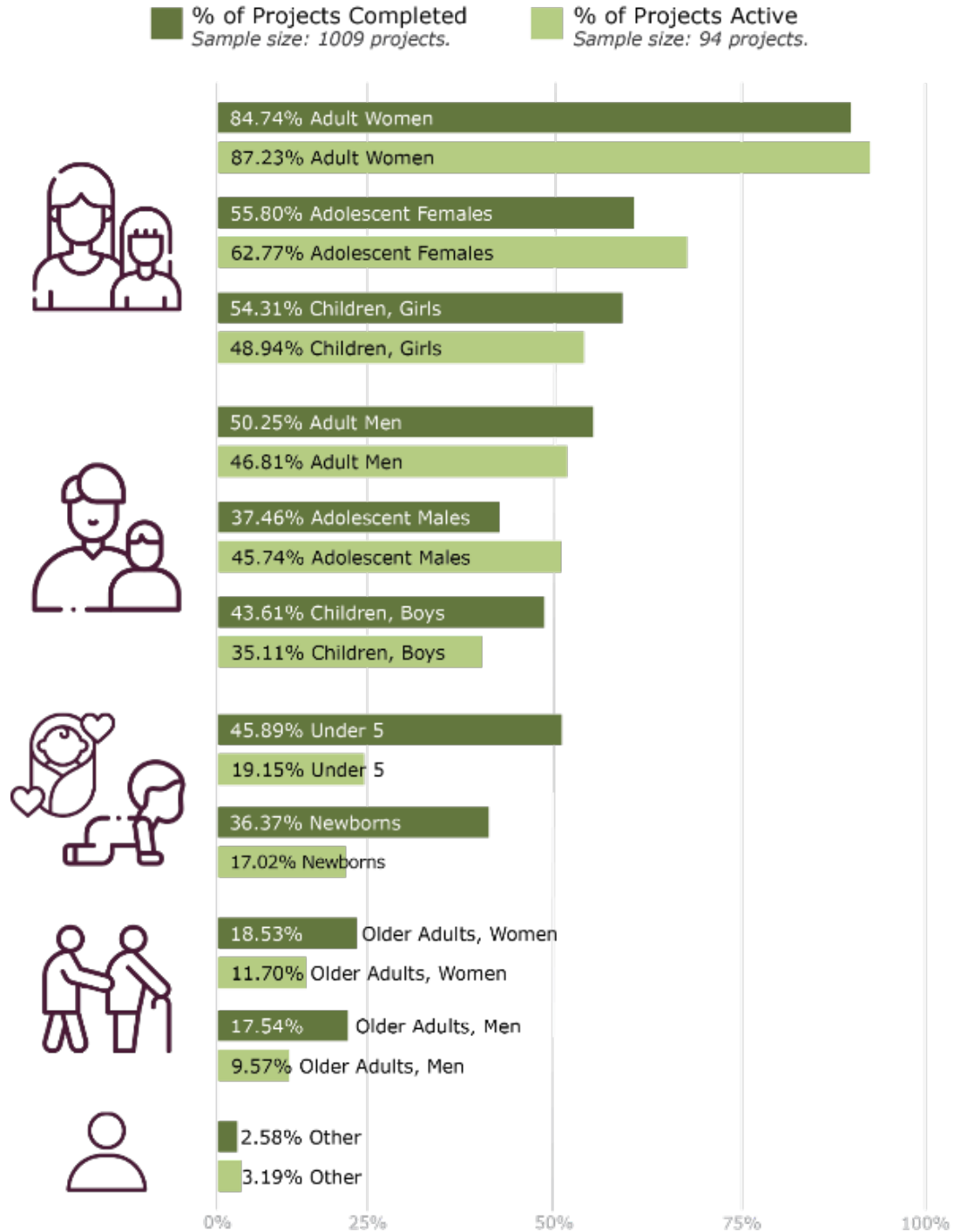
We recognize that disaggregated population data is not always available for all projects when we consider the current stage of a project lifecycle, however from the data analyzed⁶, a subset of projects with detailed population data reported reaching or planning to reach over 2 billion people (directly and indirectly) of all ages and genders.

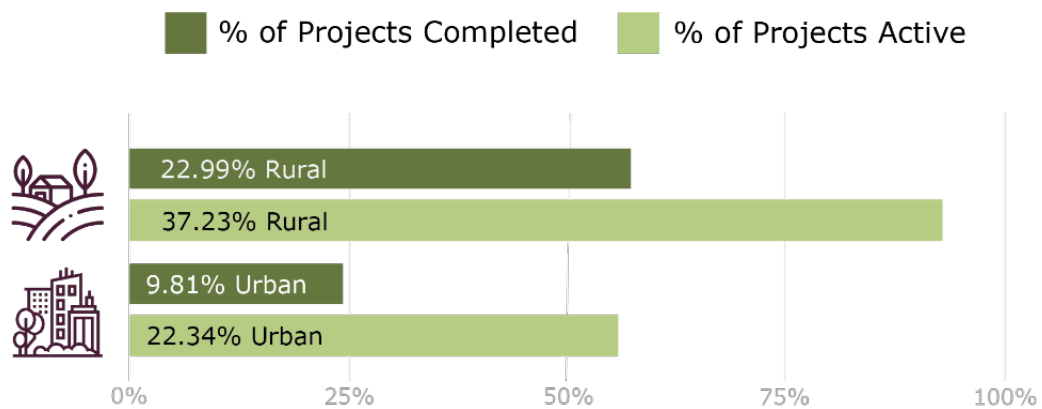
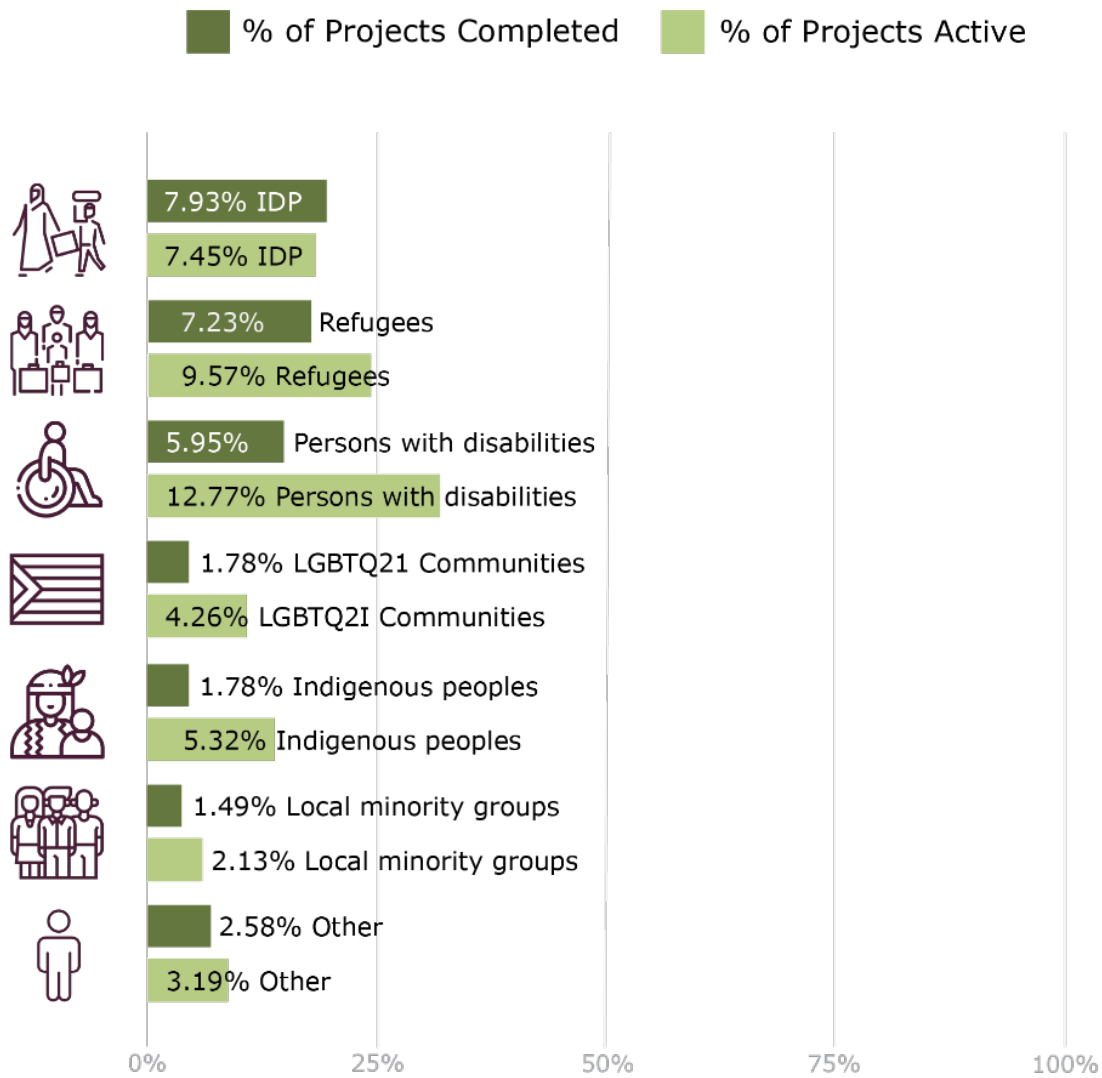
When age and gender are combined, adults and adolescents are the main populations targeted by these projects, followed by children for both completed and ongoing projects. Overall, more adult women and adolescent females were reported as target populations.

When it comes to specific communities and population groups, the main groups targeted by projects were persons with disabilities (12.8%), refugees (9.6%) and internally displaced people (7.5%). The data shows an increase in support for LGBTQ2I+ Communities in more recent projects (4.3%) compared to past projects (1.8%).

⁶ Projects include information on population reached (achieved or expected), including the direct population served as well as the indirect population reached if applicable.

Target populations by age/gender and other population groups descriptors by projects

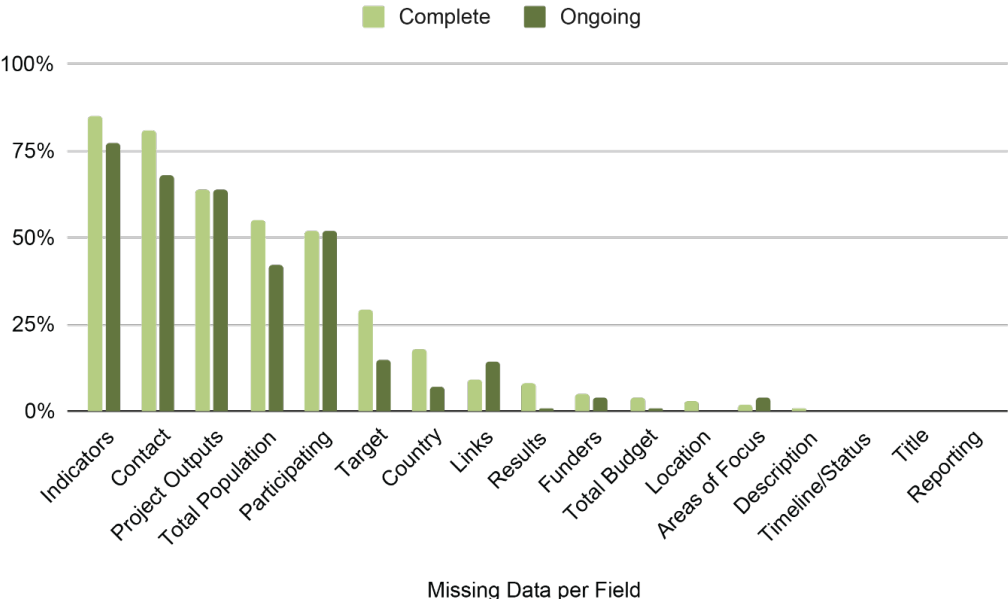




As the Project Explorer is a living tool, the data available shows varying levels of completeness, from projects that are very new and in the very early stages of implementation to projects that have long since wrapped-up. A recent audit of the tool revealed where we are most challenged in terms of data collection and sharing. From the data analyzed, over 50% of projects are missing information on indicators, contact details, project outputs and population reach fields, which are the most challenging to fill.

Conversely, the fields with the most complete data per project are the reporting organization, title and project status/timeline (i.e., ongoing or completed) followed by description, areas of focus and budget fields. Some of these are mandatory fields needed to publish a project and also the easiest information to share for most data contributors.

Projects with Missing Data Fields by Project Status (Completed or Ongoing)



FOCUS ON CLIMATE:

The CanWaCH Project Explorer not only showcases data related to health, but also includes data on cross-cutting themes related to the SDGs and Canada’s [Feminist International Assistance Policy \(FIAP\)](#), such as gender equality, environment and climate change, and human rights. Priority has been given to gathering and analyzing data from projects with a focus on the priorities of the Canadian sector at any given time, such as Canada’s commitments to Maternal and Child Health and Sexual and Reproductive Health and Rights (SRHR) in the past decade.

In 2023, CanWaCH collected programmatic data directly from lead organizations on climate conscious global health initiatives, especially those that focus on the intersections between climate, environment and health. Thematic priority areas such as water, food and nutrition were also included. In particular we

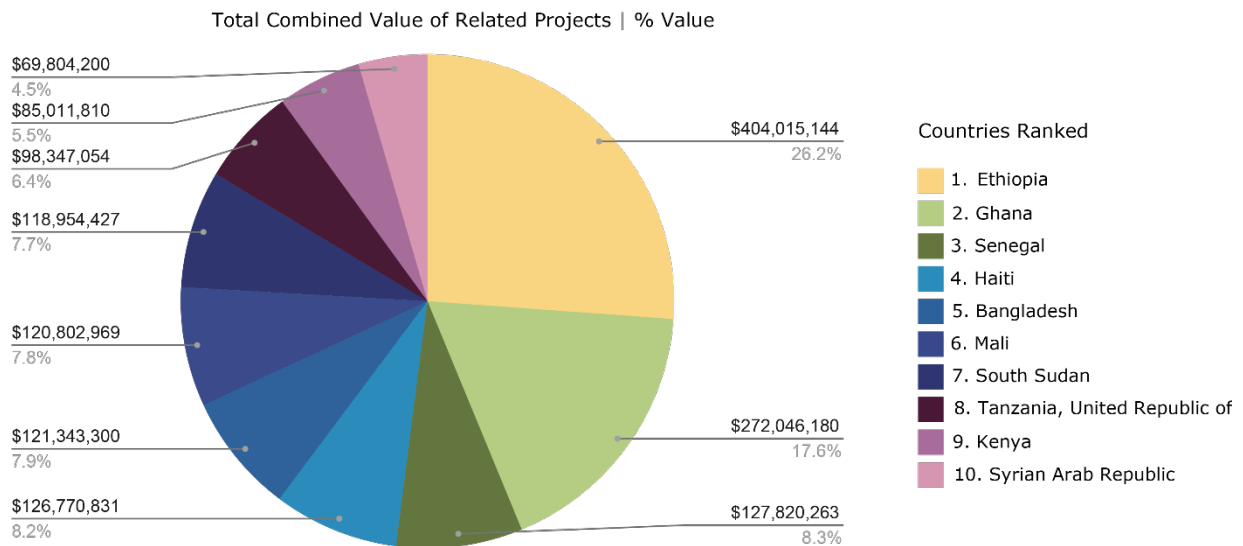
wanted to understand how partners are adapting and responding to the health and gendered impacts of the climate crisis. A subset of projects providing information on climate-related programming were analyzed and this section highlights the efforts and progress made from 2010 to 2023⁷:

- **333** climate related initiatives
- across **114** countries
- **\$4,281,993,235** in combined funding value

COUNTRIES

When it comes to countries, those highlighted below received the most funding allocated to issues related to climate. The data shows a geographic spread of countries similar to that of countries receiving the most funds in all other sector areas as well.

Top 10 countries by total value of climate related projects



Although these projects include a component of climate-related activities, they are a part of broader initiatives that also include a focus on areas such as:

- Food Security & Agriculture (22.8%)
- Humanitarian Response (13.2%)
- Environment & Climate Change (7.5%)
- Nutrition (5.1%)
- WASH (4.5%)

⁷ Data in this area must be interpreted carefully, and it should not be considered representative of the entirety of Canadian investments in climate action.

Other global health priority issues being addressed by these projects include Human Rights & Advocacy, Primary Health Care, Health Systems, Training & Infrastructure and SRHR.

POPULATION GROUPS

Programming around climate action largely follows global trends on target population when it comes to age, sex and community groups. Similar to the proportion to all global projects above, the majority of projects target adult women (96%) and adult men (70%). A high proportion also target children (F,63%; M,52%) and adolescent girls (59%). Notably, a significant proportion targeted Internally Displaced People (44%) and refugees (25%) as compared to 8% and 7% respectively for all other global projects.

OUTPUTS AND ACTIVITIES

Canadian organizations continue to prioritize the health of women, children and adolescents even more with ongoing/protracted crises and impacts of climate change, and ongoing economic challenges and the strain on communities and health systems. Where data exists⁸, we analyzed project outputs and results and found these to be the most commonly reported interventions related to adapting to climate change:

- People trained: clinical and community health care workers trained, community groups (e.g. religious leaders, youth), people provided with gender sensitive training using environment-friendly approaches
- Climate change adaptation and resilient management: national policies and frameworks strengthened; support for land and infrastructures rehabilitation
- Increased access to water and WASH services: examples include water points and resources built or rehabilitated, improved culturally appropriate and gender sensitive WASH practices adopted
- Awareness campaigns: people reached through climate and gender transformative awareness campaigns
- Food security and agriculture management: provision of basic food rations, cash grants, drought-resistant seeds and equipment as well as educating communities on improved planting and fertilizing methods, women trained in techniques for producing farm seeds and storing produce
- Health services delivered: people provided with primary health care services, SRHR services, gender based violence and protection services.

⁸ Sample size: 83 projects

EXAMPLE IN SENEGAL:

Led by the Jane Goodall Institute of Canada and funded by Global Affairs Canada, the [Building Community Resilience to Climate Change in Senegal](#) project is an initiative working to improve resilience of vulnerable rural communities to climate change, especially for poor women in the Kédougou region of Senegal.

Through community driven solutions, the project will:

- increase women's role in decision-making for sustainable livelihoods through building the capacity of women's cooperatives to produce and market biomass brique
- enhance forest carbon sinks by supporting agroforestry, including the promotion of indigenous species, along with training local authorities and community members on forest conservation and protection, including bushfires prevention and management.

Key project results and impact:

- 1392 community members (54% women) trained on gender-sensitive climate agriculture and sustainable forest management.
- 100% of trained community members increased their technical knowledge on how to effectively contribute to sustainable forest management, and how to prevent forest fires.

Implementing Partners: The Jane Goodall Institute Senegal, the Réserve Naturelle Communautaire de Dindéfélo and community members.

2024 SPOTLIGHT: CLIMATE-CONSCIOUS MEASUREMENT IN GLOBAL HEALTH

Key Messages

Adopting climate-conscious measurement approaches lead to more equitable and effective responses.

We need inclusive quantitative and qualitative data that reflects the needs and contexts of vulnerable communities, through the development and uptake of reliable and relevant data collection methods, frameworks, processes and indicators.

It is critical to develop toolkits, methods and guidelines for measurement and management which reflect the multisectoral nature of effective climate-health collaboration, and which include exposure, sensitivity and adaptability considerations.

Climate-conscious global health monitoring, evaluation, accountability and learning (MEAL) systems must be co-created by those communities most affected by the impacts of climate change, using inclusive and community-centred approaches.

Resilience. Adaptation. Mitigation. Repair. Anticipation. The climate crisis and its multifaceted impacts on the health and well-being of vulnerable people are undeniably complex. Deepening existing inequities and creating new vulnerabilities, the crisis unsurprisingly leaves women and children particularly vulnerable. Intersecting identities including race, socioeconomic status, ability, education, geography and many others profoundly influence the health and well-being of women and youth in all their diversity. Owing to the constant change brought forth by the climate crisis, new intersections and concurrent health hazards^[1] are sure to emerge.

The importance of quality data has long been recognized as a priority for supporting global cooperation and humanitarian action^[2]. However, standard MEAL systems, insofar as they currently operate, are rarely well-positioned^[3] to adequately capture the breadth and depth of the reciprocal relationship between climate and health, and few research or data collection tools are available to adequately measure these effects^[4].

WHAT DO WE NEED TO MEASURE?

Measuring climate-related vulnerabilities requires multi-pronged, agile approaches. The risks to communities in crisis from climate change are rapidly expanding and as such, conventional indicators may need to be examined through a climate-conscious lens. To improve the efficacy of measurement of

climate vulnerability, we need to enhance our strategies and indicators through advancement in three key areas: exposure, sensitivity and adaptability.

Exposure: Assessing exposure involves examining vulnerability by looking at the elements of a community that might be exposed to a climate event and therefore experience negative health or rights impacts. This ranges from geographic exposure (the extent to which communities are located in a geographic area where they might be more at risk), to infrastructure and assets (such as health care facilities, access to education, transit systems and health insurance, and how they may be affected by exposure).

Measuring exposure to climate crises creates a deeper understanding of how vulnerable communities are or might become. The global health community needs to effectively assess the exposure of communities to *both existing and future vulnerabilities* in order to adequately measure health and rights issues. Ideally, we must be able to identify populations and vulnerable subpopulations that could experience multiple risk factors (e.g., displacement), and then identify specific vulnerability indicators for measurement both at a global and local level (such as poverty, rates of pregnancy, certain chronic diseases, etc.)^[3]. Next, we must identify other indicators of vulnerability that are linked with social determinants of health, as well as any previous exposures that may be cumulative. These vulnerability indicators should then be linked with geographic factors that create greater risk of exposure^[5].

Sensitivity: Assessing sensitivity requires MEAL practitioners to understand the full scope of impacts and risks to human health from the climate crisis. Namely, how sensitive individuals and communities are to experiencing a specific health outcome when exposed to a climate-related health hazard. The actual impact of a climate crisis in communities requires a set of measures that assess *current impact as well as impact over time*, in order to understand the change in association between exposure and vulnerability. A focus on longitudinal impact and measurements will better allow health systems to plan and prioritize more effectively. Long-term measures of changes related to climate crises, such as DALYs, increases in vector borne diseases and others may be useful^[6].

Exposure and sensitivity are closely linked, as those with intersecting vulnerabilities will likely have greater exposure to harm and be more sensitive to the impacts (and potentially have lower adaptive capacity). An intersectional and equity lens is therefore critical in effectively measuring health and rights outcomes and assessing sensitivity^[7]. Experiences of racism, stress, workplace dangers and a multitude of other factors may increase biological sensitivity to climate events and therefore increase vulnerabilities^[8].

Adaptability: Assessing adaptability requires understanding the local community and health system ability to *prepare for, avoid or respond* to the impacts of climate change and its associated risks. This may include: long-term indicators to assess if systems are meeting goals; process indicators to understand if systems are working; and indicators focused on capacity, collaboration and commitment to assess systemic support for adaptation.

Communities need resources to be able to adapt to climate impacts. Therefore, it is imperative that MEAL mechanisms are designed to capture how supportive systems are in the face of climate crises to adequately measure risk^[9]. In particular, this should be done with an eye to equity and intersecting identities, as improperly designed adaptation policies and strategies may unwittingly reinforce vulnerabilities and existing harms ^[10]. Adaptability can also be measured at a more personal or

community level: this includes the availability (or absence) of individual skills (e.g., stress management, knowledge), social resources (e.g., community networks), and material supports (e.g., financial savings for short term emergencies) that individuals and communities may have^[11]. In particular, indicators that assess health workforce and leadership, health information systems, medical technologies, service delivery and financing are imperative in understanding adaptability^[12]. Of note, international standards for effective measurement of adaptability have yet to be agreed upon across these categories^[13].

WHAT LESSONS HAVE WE ALREADY LEARNED?

Balancing Standardization and Flexibility

Climate-related crises have shown us that a collective approach to both action and measurement are critical in measuring and mitigating impacts. A global approach to impacts on health and gender measurement could potentially allow for a more affordable and integrated system^[14]. Global indicators for measuring the health risk of climate change are still emerging, particularly in reference to gender-based issues. While there are a variety of recognized measures, lack of standardization means that results are not easily comparable. Currently, the Sendai Framework for Disaster Risk Reduction⁹ does not require national governments to disaggregate, and globally, census data is equally sparse^[25]. Similarly, where disaggregated and intersectional data collection is conducted, it may not be standardized with other governments, countries or organizations, making it hard to compare. At the same time, the very context-specific nature of climate impacts challenges the idea that uniform quantitative measures are feasible or desirable across geographies and communities. Balancing the need for agreed-upon multi-sector common guidelines and language with the need to be context-specific is a challenge.

Ensuring Policy Integration and Leadership

Strategies for measuring and managing health and gender impacts from climate crises need to be communicated between and across all decision-making levels. Measurements need to inform policy, and vice-versa. Evidence-driven policies based on findings from previous crises contribute to more effective responses to gender equality and climate-related health outcomes. Nationally decided upon adaptation plans need to be created and referenced by development actors in their programming to mitigate the long-term effects of the climate crises and prevent further harmful health impacts. While many countries have adaptive climate plans (less so in LMICs), there are still challenges, such as available evidence and tools, financial resourcing, and long-term measurement to assess the impact and actual capacity of these adaptation plans to address health and gender equality impacts. Evidence has also shown that policy and organizations in positions of leadership need to plan for longer measurement and implementation timelines to measure health and gender impacts of crises.

⁹ Learn more about the Framework here: <https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/dsstr-prvntn-mtqtn/pltfm-dsstr-rsk-rdctn/snd-frmrk-en.aspx>

Avoiding Maladaptation

Past outcomes and responses to climate crises have shown that gender has an impact on health and inequality outcomes — namely that women have disproportionately worse outcomes and fewer adaptation supports. Non-gender-transformative measures further exacerbate this inequity. Further action must be taken in measuring and adapting to the climate crisis in incorporating these gender transformative methods (see more below). The same is true for acknowledging other vulnerabilities based on SES, geography and other social determinants of health. Social, political and economic hazards have a subsequent impact on health and outcomes of climate crises. Results of these crises show that we need to account for these vulnerabilities more clearly in our measurement processes.

Expecting Change

Health and gender related outcomes are dynamic — there is not a linear approach to measurement from crisis to impact. This is certainly true as changing environments create new threats, not all of which are predictable. Rather, measurement needs to focus on characteristics and how they change before, during and after a climate crisis. Therefore, tools need to be flexible and proactively measure a variety of elements.

Looking Beyond the Health Sector

Given the extent to which climate impacts have escalated, we need more urgent responses that involve all the right players — a whole of society approach. Climate impacts cut across all areas — health, environment, food, water and more — meaning we need integrated, multisectoral solutions that are gender responsive and participatory. Measurement systems must adapt accordingly, drawing from the lessons learned within diverse sectors and learning from experts outside of the health silo.

Investing in Measurement Systems

With increasing demand for data and technical resources, decision makers need to prioritize resources and scale up finance to support skills development and build capacity towards strengthening MEAL systems at the climate and health nexus. Building capacity within health information systems is essential to strengthening existing MEAL systems both at the national and local levels.

APPROACHES AND METHODS

Applying a climate conscious lens to global health programming requires us to reassess our approach to advancing this work in terms of how we track, evaluate, report on/communicate impact and learn from our collective efforts towards progress on adaptation. Evidence points to a growing gap between what's needed and what's being done to address climate change ^[15].

Through effective MEAL, data collected by organizations and governments is (ideally) used to generate evidence-based interventions that target community needs in the most effective way. In particular, climate data allows health-focused organizations and governments to prepare in advance for potential crises, as well as to develop effective adaptation strategies leading to interventions that build greater

resilience when it comes to health risks. Quantifying environmental changes and qualitatively assessing their lived impact should allow communities and decision-makers to make informed decisions in a rapidly changing landscape. Measuring the health and rights impacts of climate-related crises require a balance of **reliable** (consistent, complete) and **relevant** (adaptive, contextual) data collection methods, indicators and tools, drawing on both established and innovative¹⁰ solutions.

COMMUNITY ENGAGEMENT AND PARTICIPATORY METHODS

An important strategy for adequate disaggregation and accountability is the development of equitable and engaged community partnerships. This allows community priorities to be in the forefront when developing measurement and accountability frameworks, and therefore incorporate truly intersectional disaggregation that is culturally appropriate. This will also ensure there is greater innovation, and more contextualized and appropriate approaches to data. Guidance from communities through participation also increases accountability and is the first step towards transitioning the balance of power^[17]. Current innovations in data collection methods often focus on community-based and community-led methods^[16]. These approaches are essential for gathering information and educating stakeholders on the various intersections regarding climate change impacts and vulnerabilities. Tools should be tailored using community knowledge to ensure the validity and relevance of the data and data collection strategies. Examples include, but are not limited to, community asset and vulnerability mapping, person-to-person surveying, and crowdsourcing^[18].

CAPACITY STRENGTHENING THROUGH CO-CREATION

It is vital to co-create under the leadership of local communities, women's groups and civil society organizations that take into account the specific needs of the community, including smaller and less statistically representative groups. A critical element of co-creation is capacity building, particularly for women and girls. Sharing climate science information, knowledge and general popular education will build capacity and allow the community to lead the planning process. Subsequent measurement and assessment require the representation of women and girls in decision making bodies and at all points in the process.

Building capacity of all involved stakeholders, including community leaders, researchers, policymakers and practitioners, on the execution and importance of intersectionality and disaggregation is a critical step to ensure it is incorporated at all points in the measurement process. Strategies may include increasing the expertise of those building frameworks to enhance understanding of the underlying reasoning, and specific needs of communities, sharing examples of intersectional and disaggregated indicators and frameworks, and communicating externally this information to ensure it is available to all stakeholders^[19]. This may also lead to more significant awareness of the need for intersectionality in addressing climate-related vulnerabilities in health and rights.

¹⁰ Modern technologies such as Geographic Information Systems (GIS) and imagery analysis; blockchain; mobile technology; biometrics; artificial intelligence and machine learning are possible tools that can help provide adequate data, linking it to locations and identifying risks and their root causes [16][24]. Organizations interested in using these methods may create their own databases for better adequacy or use open databases that are easily available online but may be limited in scope.

GENDER-TRANSFORMATIVE APPROACHES

Women, children and youth experience heightened and distinct health vulnerabilities following extreme climate events such as floods, droughts and heatwaves, making climate change a risk multiplier for gender-based health disparities ^{[20][2]}, with some studies suggesting that climate change is exacerbating gender disparities ^[21]. Increased risks during pregnancy, vulnerability to water- and vector-borne illnesses, malnutrition, displacement and climate-related anxiety are all correlated with age and gender, among other identities ^[22]. So too is increased risk of violence and limited access to essential services among vulnerable communities. It is therefore crucial to assess the methods and indicators needed to understand this risk and inform interventions. To ensure that women and girls in particular are heard in the co-creation process, it is critical that measurement is approached through a transformative equity-oriented lens. Commitments to integrating gender diversity in climate action should be more than tokenism.

Vulnerability assessments that consider gender-specific vulnerabilities and identify populations at heightened risk will facilitate understanding of risks. These assessments often have measures and approaches regarding SDoH, SES, geography and more. These assessments also focus on what drives vulnerability rather than exclusively outcomes of vulnerability from climate crises, and are therefore vital for prevention rather than treatment through interventions. Community-engaged methods of data collection are critical for understanding risk of violence and what services are available, accessible and desired. A particular focus on capacity building and empowerment is vital here. If women and girls in particular can participate in decision making about harm reduction and responses to climate crises, their needs will be more effectively met. This empowerment may be through methods such as education, training and leadership opportunities. Additionally, empowerment requires early and frequent involvement in programming to create transparency in processes, and to prevent the recreation of existing vulnerabilities.

Quantitative, and qualitative, gender disaggregated data collection and gender analyses, particularly when combined with intersectionality, helps us understand how these crises affect the most vulnerable populations. Examples include data on displacement, access to resources, health specific outcomes, availability of health services, incidents of violence, etc. Measures of early risk should be collected to warn communities and governments in anticipation of crises. Indicators of resilience in particular, as well as indicators of gender-specific adaptation, are useful for understanding gender-based risk from climate crises.

WHAT'S NEXT?

The climate crisis poses multiple, interconnected and emerging threats to human and planetary health, and health systems around the world must recognize the complex relationship between climate change and human health ^[23]. But the burdens and vulnerabilities are not equally shared across and within communities. Therefore, intersectional, relevant and reliable approaches to climate impact measurement are necessary to produce more equitable interventions that meet the unique needs of vulnerable populations, particularly women, children and youth.

Through this spotlight, we have endeavoured to highlight some critical considerations and lessons learned. In the year ahead, CanWaCH will draw on this literature as well as the lessons from our [2024 Healthy World Conference](#) to support the development of specific technical guidance and learning resources for Canada's global health and development sector at the nexus of climate and health. This will include more in-depth examination of the challenges and opportunities associated with measuring the impact of the climate crisis on the health of individuals and communities, as well as measuring the impact of the projects and interventions created to address these experiences. We look forward to continuing to learn with you.

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