

2017 ANNUAL REPORT

WHO/UNICEF
Joint Monitoring
Programme for
**Water Supply,
Sanitation and
Hygiene (JMP)**



WHO
UNICEF



JMP



World Health
Organization

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1. INTRODUCTION

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has produced regular updates of progress since 1990 and is responsible for global monitoring of the Sustainable Development Goal (SDG) targets related to drinking water, sanitation and hygiene (WASH). WHO and UNICEF, through the JMP, serve as custodian agencies responsible for global reporting on **SDG targets 6.1 and 6.2**, and contribute towards the wider UN-Water integrated monitoring initiative on SDG6. The JMP also collaborates with custodian agencies responsible for monitoring other SDG goals and targets related to WASH including **SDG target 1.4** on universal access to basic services, **SDG target 3.9** on the disease burden from inadequate WASH, and **SDG target 4.a.** on basic WASH in Schools.

The 2017 update report introduced updated service ladders for enhanced monitoring of WASH during the SDG period. These build on established indicators of the types of infrastructure households use and introduce additional criteria relating to level of service provided. The JMP has significantly updated and expanded its global databases and country files to incorporate this new information and further refined the methodology used to produce national, regional and global estimates. The 2017 update is the most comprehensive assessment to date and establishes baseline estimates for the SDG period.

In recent years, and in response to the 2030 Agenda for Sustainable Development, both WHO and UNICEF have developed WASH strategies (UNICEF 2016-2030, WHO 2018-2025), and global and national monitoring systems and accountability mechanisms are key elements of both strategies. The JMP as well has developed a 5-year strategy focused on further enhancing global monitoring of drinking water, sanitation and hygiene in the context of the 2030 Agenda (Box 1). This Annual Report summarises the main activities and results achieved and provides an overview of income and expenditure in relation to the JMP 2017 work plan and budget. It serves as a generic report for all JMP donors and stakeholders and follows the standard UNGD format for Annual Progress Reports approved by the OECD-DAC.





BOX 1

WHO/UNICEF JMP Strategy 2016-2020

Vision: progressive realization of universal access to drinking water, sanitation and hygiene (WASH) and the reduction of inequalities in service levels by 2030

Mission: to produce reliable estimates of national, regional and global progress on WASH to inform decision making by government, donor and civil society organisations

Strategic aims:

1. Normative role: to develop indicators and methods for enhanced monitoring of WASH
2. Global data custodian: to maintain global databases and produce reliable estimates of status and trends, including progress towards SDG targets
3. Country engagement: to provide guidance and tools to support countries to collect, analyse and report progress on WASH
4. Integrated monitoring: to collaborate on analysis of interlinkages between WASH and related SDG targets

2. RESOURCES

JMP STAFF POSITIONS

The WHO/UNICEF JMP core team is comprised of four full-time professional staff, two part-time professional staff, and two part-time administrative assistants (Table 1). During 2017 the JMP also employed a number of short-term consultants for specific tasks. The JMP is jointly overseen by the Chiefs of the Water, Sanitation and Hygiene and the Data and Analytics Sections at UNICEF, and the Coordinator of the Water, Sanitation, Hygiene and Health Unit at WHO.



TABLE 1

JMP staff positions in 2017

WHO

Technical Officer, WASH
Technical Officer, Statistics
Technical Officer – part-time
Administrative assistant – part-time

UNICEF

Sr Statistics & Monitoring Specialist
Statistics & Monitoring Specialist
Sr WASH Advisor – part-time
Administrative assistant – part-time

The JMP team is very grateful for the generous support it receives from external donors and from within WHO and UNICEF. During 2017 the JMP received a total of US\$ 3.3 million, compared with 3.2 million in 2016, including a combined total of US\$ 279,000 in core funding committed by WHO and UNICEF. Development partners have already pledged approximately US\$ 2 million for 2018 and smaller amounts for subsequent years (Table 2).

TABLE 2

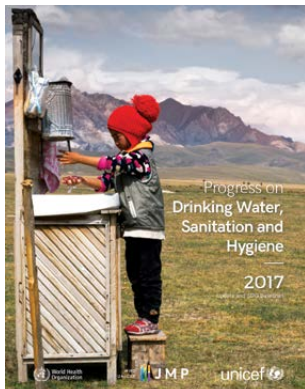
JMP Funding Overview 2017-2021 (US\$ x 1,000)

Donor	Received 2017	Pledged 2018	Pledged 2019	Pledged 2020	Pledged 2021
AfD (France)	42	42	*	*	*
BMGF (Bill and Melinda Gates Foundation)	240	215	*	*	*
DFAT (Australia)	170	126	90	90	53
DFID (United Kingdom)	1383	585	585	801	
DGIS (The Netherlands)	1035	927	927	927	
SDC (Switzerland)	101	*	*	*	
USAID (United States)	100	100	100	100	
Sub-Total Donor Funds					
Core funding (est.)	279	48			
Grand Total	3349	2043	1702	1918	53

* proposal under development or review



3. RESULTS



JMP 2017 REPORT

In July 2017 the JMP published *Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines*.

This first SDG report introduced a new set of indicators which the JMP will use for global monitoring of WASH in the context of the 2030 Agenda for Sustainable Development. It established global baseline estimates of the population using *safely managed drinking water services* (SDG target 6.1) and the population using *safely managed sanitation services* (SDG 6.2), and presented national estimates for 96 and 84 countries respectively. National estimates of the population with a *basic handwashing facility at home* (SDG 6.2) were available for 70 countries but insufficient data were available to generate a global estimate. The report also presented estimates of the population using *basic drinking water* and *basic sanitation services*, which will contribute towards monitoring of SDG target 1.4, while continuing to report on progress towards ending *open defecation* (SDG 6.2).

UNICEF and WHO regional and country offices facilitated formal country consultations with national authorities on draft estimates prior to publication. Feedback was received from an unprecedented number of countries, reflecting intense interest in the new SDG indicators and estimates. In many cases middle- and high-income countries showed a strong interest in the estimates, in contrast to their relatively limited engagement with MDG monitoring.



The final report was produced in English and translated into Arabic, French, Russian and Spanish. Highlights from the report were also produced in each language, and additionally in Chinese. The JMP baseline estimates and key findings were subsequently included in the UN Secretary General's 2017 SDG Progress Report and a series of other global flagship publications during 2017. They will also feature in the UN Water SDG 6 Synthesis Report which will be launched in preparation for an in-depth review of SDG6 during the 2018 High Level Political Forum on Sustainable Development. The JMP estimates have been disseminated widely and incorporated into all major global development databases.

The JMP global database was completely overhauled for the 2017 report to incorporate new types of data required for monitoring the new indicators. Over a thousand new national datasets were added to the database following publication of the 2015 report, many of them coming from administrative data sources which are increasingly being used to complement the core data from household surveys and censuses. The methods used to produce national, regional and global estimates from national datasets, were described in detail in the *JMP Methodology: 2017 Update* and SDG Baselines. This is an important step towards increasing the transparency and understanding of the new JMP methods, especially given the complexity of the new SDG indicators.



Following publication of the 2017 report the JMP held a series of workshops, webinars and presentations to discuss and disseminate the new indicators and baseline estimates:

- Meetings of the Inter-Agency and Expert Group on SDG indicators (IAEG) in Ottawa and Bahrain, and the UN Statistical Commission (New York).
- Global conferences including World Water Week (Stockholm), a plenary presentation at WEDC (Loughborough), and a keynote plenary presentation at Water and Health (Chapel Hill).
- JMP inputs were also used to inform deliberations at the High Level Meeting of the Sanitation and Water for All global partnership (Washington, DC).
- Global and regional WASHNET meetings of UNICEF WASH staff and key partners.
- Regional meetings of WASH sector professionals in the Southeast Asia and Southern Asia (Thailand), AMCOW (Ghana), the European Protocol on Water and Health (Switzerland), ASEAN (Thailand), MENA (Jordan), and the Caribbean (Saint Lucia).
- Presentations on SDG monitoring to graduate students at the London School of Hygiene and Tropical Medicine, the Ecole Polytechnique Fédérale de Lausanne and Kabul University.

During 2017, the JMP team completed country missions to Afghanistan, Bhutan, Colombia, Lao PDR and Mexico to review the new indicators and their alignment with national monitoring systems and sector plans. The JMP also provided remote technical support to national consultations on SDG baselines and monitoring in many other countries during 2017 including: Cambodia, Colombia, Ecuador, Ethiopia, France, Lebanon, Madagascar, Nigeria, Senegal, the Philippines, and the USA.

AFFORDABILITY

The SDG indicators developed and introduced in the 2017 report include many aspects of quality of service drawn from the human rights framework. Although affordability of drinking water and sanitation services is referenced in the text of the SDG targets, affordability is not monitored as part of the safely managed services indicators. This is in part because affordability is not absolute, but relative to the characteristics of the service and the user, and in part because there are not yet agreed definitions and methods for measuring and monitoring affordability. In order to build a consensus around appropriate methods for monitoring the affordability of WASH services, the JMP has convened an Expert Working Group on global monitoring of WASH affordability, with members drawn from academia, the human rights community, multilateral development banks, national authorities, and UN agencies. The first virtual meetings of the Expert Working Group will be held in early 2018, and a methodology for monitoring affordability will be developed and tested in pilot countries.

WASH IN SCHOOLS AND HEALTH CARE FACILITIES

The JMP team has also been preparing to publish its first global reports on WASH in Schools and WASH in Health Care Facilities during 2018.

In 2017 the JMP team created a new database for WASH in Schools containing national datasets for 150 countries. Core questions and indicators which had been recommended in a 2016 global Expert Group Meeting were used to structure the new data management system. In September 2017 draft estimates were shared via UNICEF and WHO offices for country consultation, and technical feedback was received from over 50 countries. The first JMP global report on WASH in Schools will be launched during 2018 and the estimates will be shared with the UNESCO UIS which is





the custodian agency for monitoring SDG Target 4a which covers electricity, computers, internet and disability adapted infrastructure as well as basic drinking water, sanitation and hygiene in schools.

The JMP is also developing a global database on WASH in Health Care Facilities which already contains data from over 170 nationally representative facility assessments conducted in 62 countries. Many of the assessments were conducted before the development of core questions for WASH in Health Care Facilities, and include data on some but not all aspects of basic WASH services. The first JMP global report on WASH in Health Care Facilities is scheduled to be launched towards the end of 2018.

The JMP has also convened an Expert Group Meeting to draft core questions and indicators for WASH in delivery rooms. The new core questions and indicators for both general facilities and delivery rooms have been shared broadly among agencies working on WASH and on Infection Prevention and Control and are feeding into revisions of major facility assessment programmes, especially the Service Availability and Readiness Assessment (SARA) hosted by WHO.

SAFELY MANAGED DRINKING WATER

The sixth round of UNICEF Multiple Indicator Cluster Survey (MICS) programme¹ has adopted the Water Quality Testing module developed in collaboration with the JMP as a standard option within the household questionnaire, and the JMP presented the module in regional workshops convened by the MICS team in Africa, Latin America, Eastern Europe, and the Middle East. The module has already been adapted for other national household surveys including those supported by World Bank Living Standards Monitoring Survey (LSMS) and the USAID supported Demographic and Health Survey (DHS) programme has expressed interest in piloting the module during 2018.

¹ <http://mics.unicef.org/>



Water quality testing in Afghanistan (top) and Sierra Leone (bottom)

Numerous countries have indicated their interest in implementing this module with JMP technical support. The JMP has established and trained a pool of trainers to support these surveys, and provided support to the planning and implementation of national household surveys in 18 countries during 2017:

- Afghanistan*
- Central African Republic*
- Democratic People's Republic of Korea*
- Democratic Republic of Congo*
- Gambia*
- Ghana*
- Honduras*
- Iraq*
- Lao PDR*
- Lebanon (institutional surveys)*
- Pakistan (subnational surveys in Balochistan, Khyber Pakhtunkhwa, Islamabad, Punjab, and Sindh)*
- Philippines*
- Rwanda (rural areas only)*
- Senegal*
- Sierra Leone*
- Suriname*
- Togo*
- Tunisia*

A further ten countries have already committed to include the water quality testing module in national household surveys during 2018 (Bangladesh, Chad, Georgia, Guinea-Bissau, Kiribati, Lesotho, Madagascar, Mauritania, Mongolia, and Zimbabwe) and several other countries have expressed interest but have not yet confirmed.

A manuscript is being prepared for publication in a peer-reviewed journal reviewing the experiences and results from the integration of water quality testing in national household surveys to-date.

In November 2017 the JMP convened a meeting of managers of global household survey programmes to review and update the Core Questions for Household Surveys document first published by the JMP in 2006. New questions were added to address the accessibility and availability of drinking water. The updated Core Questions document will be finalized and published in 2018.



Waste stabilization pond in Thimphu, Bhutan

SAFELY MANAGED SANITATION

The updated Core Questions for Household Surveys include new questions on sanitation (especially on emptying of on-site sanitation systems) to improve reporting of safely managed services for Target 6.2.

At the Inter-Agency and Expert Group on SDG indicators (IAEG) meeting in Bahrain, WHO and UNICEF were successful in advocating that SDG global indicator 6.2.1 (Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water) should be split into two sub-indicators, “proportion of population using safely managed sanitation services” and “proportion of population with access to handwashing facilities with soap and water on premises”. This will allow hygiene to be reported independently of sanitation for SDG tracking.

The JMP Thematic Report on Sanitation and Hygiene, prepared after the launch of the 2017 report, has been revised following feedback from reviewers and will be laid out and published during 2018.

Following a request for technical assistance from the Government of Bhutan, the JMP supported two missions to the country in 2017. The first mission reviewed the overall situation of data availability for SDG baselines which could be used for the Government’s upcoming 5-Year Plan. The second mission included an in-depth review of sanitation and faecal sludge management, including septic tank emptying services and wastewater and faecal sludge treatment plants. The mission resulted in recommended baseline estimates that could be used for the 5-Year Plan, as well as short-term and long-term actions to take to improve data collection for SDG monitoring. The Government has used these inputs to set national targets over the next five-year period.

INPUTS TO DEVELOPMENT OF METHODS FOR SDG 6.3 MONITORING

The teams at WHO and UN-Habitat responsible for monitoring SDG Target 6.3 held an Expert Group Meeting on Monitoring of Wastewater Treatment in March 2018, which included significant inputs from the JMP team, to review and revise the proposed methods for monitoring SDG indicator 6.3.1 (proportion of wastewater safely treated). The majority of data available for monitoring the domestic component of indicator 6.3.1 are already collected by the JMP for tracking indicator 6.2.1 (proportion of population using safely managed sanitation services). However, the indicator for 6.3.1 will focus on flows of wastewater (both blackwater and greywater) rather than excreta, and as such will require a different estimation method which is now under development.

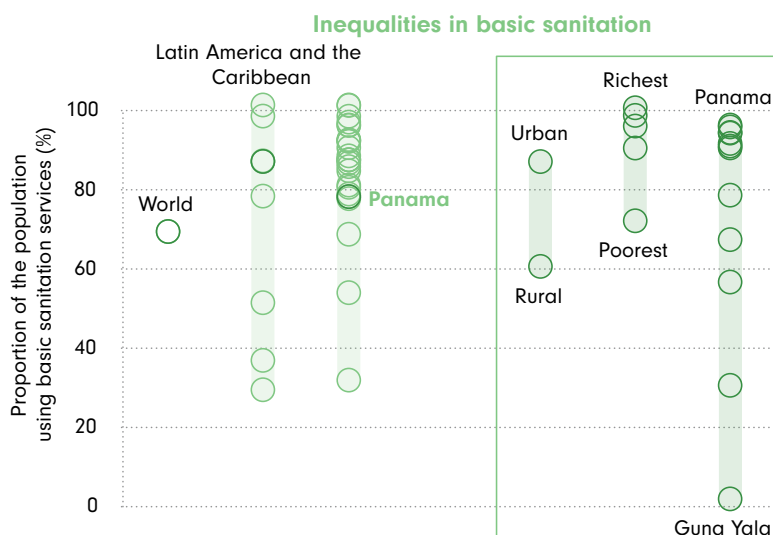


With help from his son, a man digs a pit for sanitary latrine near his house in Tellou Aljouba village, 6 km East of the town of Kadugli, in South Kordofan province. Sudan.

INEQUALITIES

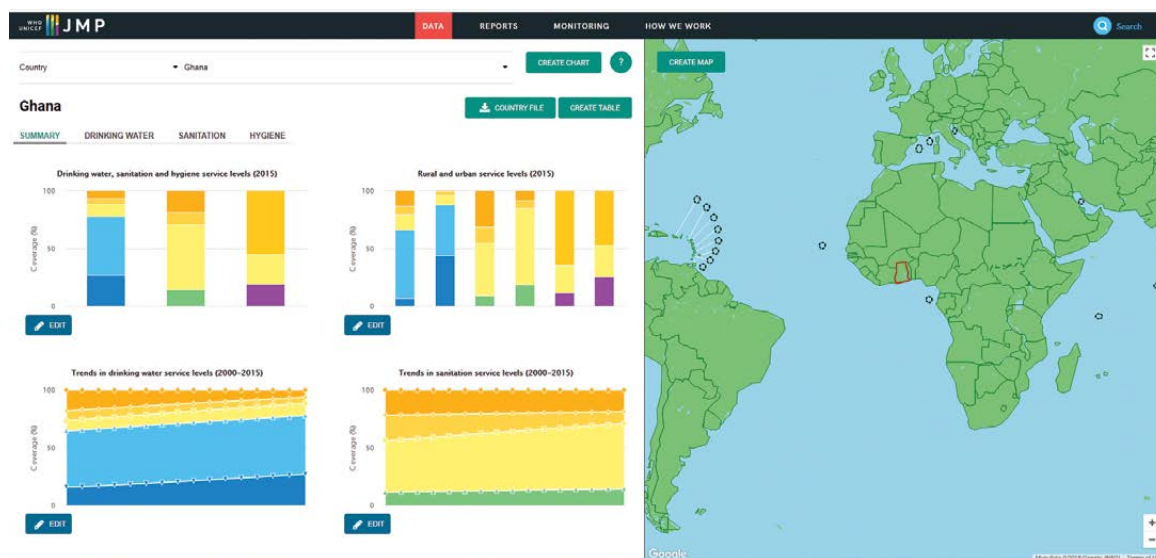
In the 2017 report the JMP produced for the first time subnational analysis of basic drinking water, sanitation and hygiene services, at the state, province or division level. Subnational analysis provides a powerful new way to highlight inequalities in WASH services, complementing the inequality analysis that the JMP has been making for years using urban/rural differences and wealth quintiles.

In the 2017 report subnational data were available for 80 countries. Work is underway to increase the number of countries for which disaggregated data are available to over 100 countries for the 2019 report. The JMP team is also exploring the potential for GIS mapping of emerging data on subnational inequalities.



NEW JMP WEBSITE

The JMP website was completely rebuilt and rebranded as washdata.org, which was launched at the same time as the 2017 update. The new website runs on a more modern and efficient content management system, and features more possibilities for dynamic visualization and interrogation of the JMP dataset. Users are now able to create, download and share charts and tables for selected countries and regions of interest. Feedback on the new website has been very positive, and the JMP has held a series of webinars for regional UNICEF and WHO offices and external partners, to demonstrate and promote the new data visualisation tools.



UPDATING WASH BURDEN OF DISEASE ESTIMATES

In 2017 WHO initiated an update of its estimates of the global burden of disease attributable to inadequate water, sanitation and hygiene. These estimates draw on the JMP global database, and contribute directly to the monitoring of SDG target 3.9. With JMP support, an epidemiologist was contracted to review the literature and data used to support the global burden of disease statistics, including the growing body of data on availability of handwashing facilities with soap and water on premises. Journal articles based on the review have been submitted for publication in the *International Journal of Epidemiology*² and *Tropical Medicine & International Health*³.

The results of these studies will be combined with data on prevalence of diarrhoeal disease to update the global, regional and national estimates of the number of diarrhoeal disease deaths which could be averted by improvements in WASH services. The new model includes sanitation coverage at both the household and community levels.



SDG Target 3.9

By 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination

2 Handwashing with soap after potential faecal contact: Global, regional and country estimates.
3 Impact of Drinking Water, Sanitation and Hand Washing with Soap on Childhood Diarrhoeal Disease: Updated Meta-Analysis and Regression. <<https://doi.org/10.1111/tmi.13051>>

Strategic Advisory Group and Partners Meeting

In January 2018, the JMP and GLAAS convened a meeting in Porto to consult partners on how best to support countries to localize the global SDG targets within national policies, plans and strategies and set their own national targets 'guided by the global level of ambition, but taking account of national circumstances'⁴. The same question was the main theme of the 9th meeting of the JMP/GLAAS Strategic Advisory Group (SAG), which directly followed the Partners meeting.

The partners meeting was well attended, with representatives from three main types of constituencies: national governments (Bhutan, Cabo Verde, Portugal, Serbia, and Serbia), regional and global partners (Stockholm International Water Institute, Sanitation and Water for All, WaterAid, World Bank), and external support agencies (Bill & Melinda Gates Foundation, UK Department for International Development, United States Agency for International Development).

Participants agreed that countries need support to mainstream the 2030 Agenda within national development plans, and suggested that the JMP and GLAAS develop guidance and share best practices around national target setting. While the JMP and GLAAS teams have limited capacity to provide in-depth support to national target setting and monitoring, UNICEF, WHO, and other SWA partners could potentially play this role at the country level.

The SAG recommended that the JMP and/or GLAAS teams produce a general guidance document on the localization of global SDG targets and indicators within national development plans in line with emerging guidance being developed by the IAEG-SDG⁵ and wider UN system⁶. In addition to reporting on the global indicators the SAG recommended that the JMP develop new metrics for comparing relative rates of progress towards achieving each of the rungs on the JMP service ladders. The concepts of "universal coverage" and "for all" should be further defined and operationalised, acknowledging the limitations of national and global data in identifying and quantifying small unreached populations, and calling upon states to demonstrate that mechanisms and measures are in place to identify and target such populations.

It was further agreed that the membership of the JMP/GLAAS SAG should be expanded to bring in additional expertise relevant to monitoring WASH in schools and healthcare facilities and translating the global 2030 Agenda into national plans and programmes.

4 United Nations (2015) Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly Resolution A/RES/70/1, 21 October 2015 (Paragraph 59).

5 <https://unstats.un.org/sdgs/iaeg-sdgs/report-iaeg-sdgs/>

6 <https://undg.org/2030-agenda/mainstreaming-2030-agenda/tailoring-sdg-to-national-context/>



5. JMP 2018 WORKPLAN AND BUDGET

The JMP 2018 work plan outlines and major activities planned under each of the pillars of the JMP 5-year strategy. Note that the budget for each item includes both activity costs and staff time. The total budget required for the regular operation of the JMP is \$US 2.5-3.0 million including staff costs. The JMP budget for 2018 is \$2.6 million, subject to the availability of funding.

ACTIVITIES	Budget
1. Normative role: development of indicators and methods for enhanced monitoring of WASH	417
1.1. Household surveys and censuses	36
<ul style="list-style-type: none"> • Development of new indicators with international household survey programmes • Revision of core questions • Pictorial guidance for enumerators updated 	
1.2. Safely managed drinking water services	63
<ul style="list-style-type: none"> • In depth analysis of data from water quality testing • Validation of microbiological test kits • Validation of chemical test kits 	
1.3. Safely managed sanitation services	51
<ul style="list-style-type: none"> • Thematic report: safely managed sanitation services • Further develop questions for service providers 	
1.4. WASH outside the home	152
<ul style="list-style-type: none"> • Collect data on WASH in Schools • Collect data on WASH in Health Care Facilities • Further develop indicators for WASH in Health Care Facilities (birthing settings) • Engage others working on WASH at Work and WASH in refugee camps 	
1.4. Real Time Monitoring tools	15
<ul style="list-style-type: none"> • Review of RTM experiences from UNICEF and WHO offices 	
1.6. Cross-cutting issues	101
<ul style="list-style-type: none"> • Briefing note on national target-setting and reporting • Develop indicators for affordability • JMP staff time 	
2. Global data custodian: maintain global databases and produce estimates	653
2.1. Database management	131
<ul style="list-style-type: none"> • Identify and compile new data sources • Prepare 2019 country files and estimates • Ongoing improvements to washdata.org 	

2.2. Wealth quintiles	38
• Data extraction of wealth quintiles for 100 countries	
2.3. Geospatial analysis	38
• Data extraction of subnational regions	
2.4. Produce estimates and reports	445
• WASH in Schools global baseline report	
• WASH in Health Care Facilities global baseline report	
• JMP team staff time	
3. Country engagement: provide guidance and tools to support countries	1,189
3.1. Engagement with countries	970
• Support water quality testing in MICS or other household surveys	
• Support countries to collect data on management of excreta from on-site sanitation	
• Support WHO and UNICEF country offices for SDG planning and strengthening national WASH monitoring systems	
3.2. Engagement with regions	218
• Support to regional platforms (AMCOW, SACOSAN, Observatorio, ACWA, SOPAC)	
• Support to WHO and UNICEF regional offices	
• JMP team staff time	
4. Integrated monitoring: collaborate on analysis of WASH interlinkages with other SDG targets	98
4.1 Engagement with relevant global data initiatives	31
• IAEG engagements	
• SDG6 Synthesis Report including production costs	
4.2 Integrated analysis	26
• New methods developed for integrated analysis of WASH and other global indicators under SDG6	
4.3 WASH inputs into other UNICEF and WHO activities	41
• UNICEF and WHO flagship reports, Education, Health and Emergencies programmes	
• JMP team staff time	
5. Management and planning	282
5.1. Strategic advisory group	35
• Jan 2018 meeting including venue and travel costs	
• Identify new SAG members	
5.2. Retreats and roundtables	10
• JMP retreat and roundtables	
5.3. Participation in key SDG6 global events, conferences	66
• UN-Water, Stockholm, UNC Water and Health, WEDC	
5.4. JMP administration	171
• Administrative support staff	
GRAND TOTAL	2,638

5. FINANCIAL IMPLEMENTATION

The JMP received \$3,070,000 from development partners in 2017 plus \$279,000 in core funding from UNICEF and WHO. The total funding available to the JMP in 2017 was \$3,349,000.

The combined expenditure by UNICEF and WHO on the JMP during 2017 was \$3,280,439, or 98.0% of the total amount budgeted. The remaining balance of \$68,561 was carried over into 2018.

JMP Balance Sheet, 2017

Income	Total
Donor funding received in 2017	3,070,000
Core funding from UNICEF and WHO	279,000

Expenditure	Total	Balance
<i>Normative role:</i> development of indicators and methods for enhanced monitoring of WASH	934,845	
<i>Global data custodian:</i> maintain global databases and produce estimates	748,238	
<i>Country engagement:</i> provide guidance and tools to support countries	1,243,164	
<i>Integrated monitoring:</i> collaborate on analysis of WASH interlinkages with other SDG targets	135,473	
Management and planning	218,719	
TOTAL	3,349,000	68,561

