

Ex post evaluation – Tanzania



Sector: Health, family planning, HIV/AIDS (12250)
Project: Promotion of national vaccination programme in cooperation with GAVI Alliance, Phase I and II (BMZ no. 2011 66 586 and 2012 66 782)*
Implementing agency: Ministry of Health, Community, Development, Gender, Elderly and Children (MoHCDGEC, formerly Ministry of Health and Social Welfare, MoHSW), United Republic of Tanzania



Ex post evaluation report: 2017

		Project (Planned)	Project (Actual)
Investment costs (total)	EUR million	94.1	94.1
Counterpart contribution	EUR million	4.1	4.1
Funding	EUR million	90.0	90.0
of which BMZ budget funds	EUR million	34.0	34.0

*) Both projects in 2016 random sample

Summary: The objective in both phases was to cover procurement costs for the 5-in-1 vaccine (diphtheria, tetanus, whooping cough, hepatitis B, and Haemophilus influenzae type b infections) and vaccines against rotavirus infections (which result in severe diarrhoea) and pneumococcal infections (the leading cause of pneumonia), which came to EUR 34 million in 2012 and 2013 in Tanzania; this was to take place under a bilateral provision financing mechanism for the multilateral GAVI Alliance organisation (Global Alliance for Vaccination and Immunization), used for the first time in FC. The vaccines were used for the nationwide routine vaccination of children in the first year of their life, and for children up to five years old who had not been adequately vaccinated. The project-executing agency was the Tanzanian Ministry of Health.

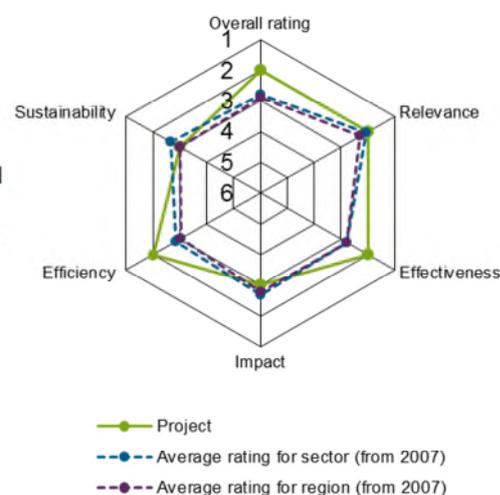
Objectives: The development objective (impact) of this measure was to contribute to improvements in the general health of all Tanzanians, with particular attention to specific at-risk and disadvantaged population groups, thus contributing to achieving the Millennium Development Goal of reducing child morbidity and mortality (Goal 4). The project objective was to increase the vaccine coverage rate.

Target group: The target group was children under the age of five throughout the country (roughly 8 million children, 17.3% of the population in 2011).

Overall rating: 2 (both phases)

Rationale: Disease prevention for children through the national vaccination programme is highly relevant in terms of development policy; it has a positive effect on the health of the population, and therefore on the health care system as well. Programme implementation by the MoHCDGEC — with support from GAVI Alliance and the United Nations Children’s Fund (UNICEF), which is responsible for procurement and delivery of the vaccines — is effective and efficient. The Tanzanian government has made the vaccination programme a high priority, and its counterpart contributions are gradually increasing. However, the health care sector and the vaccination programme will remain dependent on international donor commitments for the medium term as well.

Highlights: A notable highlight here is the willingness and ability of the Tanzanian partners to successfully establish and implement the nationwide vaccination programme on both a political and practical level. However, the limited finances available impose sharp restrictions on this commitment.



Rating according to DAC criteria

Overall rating: 2 (both phases)

Viewing the annual tranches in isolation is neither possible nor practical, since this is an ongoing programme with medium and long-term effects. The two phases are not distinct in terms of their content, and are therefore evaluated together.

General conditions and classification of the project

GAVI Alliance is a globally active public-private partnership with its headquarters in Geneva. Its objective is to improve access to vaccinations against potentially life-threatening illnesses in developing countries. The Vaccine Alliance's partners include governments in industrialised and developing countries, the WHO, UNICEF, the World Bank, the Bill & Melinda Gates Foundation, non-governmental organisations, vaccine manufacturers from industrialised and developing countries, health care and research institutions, and other private donors. Developing countries are increasingly taking responsibility for this initiative themselves, thereby ensuring its effectiveness and sustainability. The Federal Ministry for Economic Co-operation and Development (BMZ) is represented on GAVI's board by a constituency group and various working groups. GAVI's strategic objective is to influence the vaccine market to increase the number of manufacturers, leading to increased competition, and to hold intense negotiations to make vaccines available for developing countries at a fraction of the costs seen in industrialised countries. In the 2013 Aid Transparency Index, GAVI was listed in second place among 67 development organisations.

Responsibility for implementing the content of the national vaccination programme in Tanzania lies entirely with the Tanzanian Ministry of Health. The involvement of the GAVI Alliance provides financing for the vaccination programme. In terms of financing/procurement, the GAVI programme is thus a vertical programme, not integrated into the health care system as a whole that focuses on fighting specific diseases. Vertical programmes are generally provided through benefit systems that have their own administration and budget, and which can vary in how extensively they are interconnected with the overall health care system in structural, financial and operational terms. In the case of the GAVI Alliance, the vaccinations are provided by Ministry of Health personnel. The GAVI Alliance bundles the donor and counterpart contributions and ensures that sufficient funding is available. The advantage of this division of labour is that vaccines are available in a timely manner and in sufficient quantities. The measures offered through the vaccination programme were procurement of vaccines and consumables, training measures, and maintenance of the cold chain. The FC financing was used exclusively for vaccine procurement.

Relevance

Despite significant progress in the health care sector, the health situation of the Tanzanian population was unsatisfactory at the time of the project appraisal in 2011. The maternal mortality rate was 454 per 100,000 live births, and the child mortality rate for children under five years of age was 81 per 1,000 live births. The latter had gone down significantly since 1996 (143%), due in part to successful malaria-fighting efforts and a drop in the prevalence of HIV, but it was still at a very high level. With annual population growth of just under 3% per annum at the time of the project appraisal, and with children under five years old making up over 17% of the total population, vaccination programmes are seen as an effective preventative tool to protect children from life-threatening illnesses. Reducing child mortality rates and improving children's development prospects leads to long-term improvements in the health of the overall population, thereby reducing the burden on the health care system. This results chain is also plausible from today's perspective.

However, the Tanzanian government has never been in a position to finance a national vaccination programme on its own. The international community has therefore agreed with the Tanzanian government to provide financing for the procurement of new vaccines through GAVI, while leaving the responsibility for implementing vaccination measures with the government. UNICEF provides technical support in this process.

The national immunisation programme in Tanzania – in which serums financed by FC and procured through the GAVI Alliance are used to provide vaccinations against five potentially deadly diseases (tetanus, whooping cough, diphtheria, hepatitis B, and Haemophilus influenzae type b infections), as well as pneumonia and diarrhoea, which are two of the leading causes of death in young children in Tanzania – is therefore highly relevant in terms of development policy. UNICEF and the WHO provide expert assistance with these measures. To increase vaccination rates, however, the health care system must also be strengthened. The FC project fits in well with the DC health programme in Tanzania, which includes efforts to improve the supply of drugs and vaccines to clinics by upgrading logistics operations in the health care domain as part of a regional project.

Relevance rating: 2 (both phases)

Effectiveness

The achievement of the project objective was measured with indicators relating to the vaccine coverage rate and the drop-out rate, i.e. the percentage of children who do not receive all doses of the 5-in-1 vaccine. The achievement of the project objective can be summarised as follows.

Indicator	Status PA, Target value PA* (%)	Ex post evaluation*(%)
(1) DTP3** coverage rate	Status: 88 (2010) Objective: 90 (2015)	98 (2015)
(2) DTP-Hep.B - Hib*** vaccine coverage rate	Status 92 (2011) Objective: 94 (2013)	97 (2015)
(3) Pneumococci vaccine coverage rate	n.a. Objective: 93 (2015)	98 (2015)
(4) Rotavirus vaccine coverage rate	n.a. Objective: 93 (2015)	98 (2015)
(5) DPT1 to DPT3 drop-out rate	Status: 7 (2010) Objective: 7 (2015)	7 (2015)

* GAVI Alliance Annual Reports

** Vaccination against diphtheria, tetanus and whooping cough

*** Vaccination against diphtheria, tetanus, whooping cough, hepatitis B and Haemophilus influenzae type b (Hib)

The vaccine coverage rate was achieved for these vaccines (indicators 1—4). One point worth noting here is the increase in the vaccine coverage rate following structural improvements to the cold chain in 2014 and 2015. While 56 districts (out of 169) still had a vaccine coverage rate below 80% in 2010, there were only 20 such districts in 2014. This is due to continuing improvements to national supply structures through the addition of new health units, and especially through improvements to the cold chain. Communication options have also improved, even in remote rural areas. Nevertheless, certain difficulties still remain, especially when it comes to reaching children in remote areas. The 98% vaccine coverage rate reported by GAVI for 2014 and 2015 should be interpreted with caution, given that 7% of children do not receive all doses of the 5-in-1 vaccine (indicator 5). However, this rate still falls within the target range. Another point to consider is that in 20 districts, less than 80% of children were vaccinated. However, the high overall vaccine coverage rates still result in “herd immunity”, leading to a significant reduction in the outbreak of epidemics.

The vaccination programme’s effectiveness is closely tied to the financing mechanism through the GAVI Alliance. Without reliable funding and timely procurement of vaccines, neither vaccine coverage nor the targeted immunisation results could be achieved. The national vaccination programme is now among the

most effective of its kind in Sub-Saharan Africa and the East African Community. Due to its high degree of target achievement, we assess the project's effectiveness as "good".

Effectiveness rating: 2 (both phases)

Efficiency

Overall, the national vaccination programme is implemented efficiently. The division of labour between the MoHCDGEC as the organisation in charge of implementation, and UNICEF as an expert partner for technical support and centralised, cost-effective vaccine procurement, has proven to be effective. The implementation structures in the health-care sector, which fall entirely under the purview of the MoHCDGEC, have seen continual improvement. The MoHCDGEC sees the vaccination programmes as an integral part of basic health care services for the Tanzanian population. The Ministry provides and pays the necessary personnel (more than 12,000 people). On the one hand, this means that part of its staff is unavailable for other activities in health care facilities, but on the other hand, vaccination results in significant reductions in the incidence of disease, thereby freeing up capacity in the system. Ultimately, then, the implementation of the vaccination programme has a net positive effect on the efficiency of the health care system.

In some cases, inadequate funding from the Tanzanian government and poor management at the district level present obstacles to efficient implementation of the programme at the district or health-facility levels. The financing mechanism through the GAVI Alliance, in which FC finances the vaccine procurement costs approved by the GAVI Alliance, is a secure and reliable means of procuring vaccines through UNICEF and delivering them on site in a timely fashion. The MoHCDGEC explicitly supports this mechanism, since budget restrictions and complex decision procedures within the Tanzanian government are unable to support this efficient implementation.

The central procurement of vaccines through UNICEF allows the programme to obtain the lowest possible prices for vaccines, a result that the MoHCDGEC would not be able to achieve on its own in direct negotiations with suppliers. For example, the price of a single dose of the 5-in-1 vaccine has gone from about USD 3 in 2010 to USD 1.50 in 2015, well below the market value (which was about USD 15.40 on the open market in 2014). GAVI reports that the organisation's efficient partnership model ensures that 97 cents out of every US dollar invested is spent on supplying vaccines and on vaccinating children in need. The project itself does not directly generate any overhead costs. UNICEF does not charge any overhead costs in Tanzania for its technical support to the Tanzanian government. Administrative expenses for the GAVI Alliance and UNICEF's vaccine procurement department in Copenhagen are calculated at the global level and financed through other means. The vaccination campaigns are efficiently implemented too, with the 5-in-1 vaccine being used for combined immunisation (but separated in time from other basic health care, as prescribed). As a result, the indicator for the wastage rate (the percentage of vaccines made available but not used) has decreased continuously since the project appraisal (15%). The rate has now reached 5%, and is thus below the target value of 10%.

Efficiency rating: 2 (both phases)

Impact

Implementing the vaccination programme and supporting the health care sector in Tanzania through the German contribution was intended to help improve the health of the Tanzanian population, and especially at-risk and disadvantaged population groups. Child mortality can be cited as an indicator for achieving the development objective.

Indicator	Status PA, Target value PA*	Ex post evaluation*
(1) Child mortality rate (per 1,000 live births)	Status: 81 (2009) Objective: 48 (2015)	67 (2015)

* Data: Tanzania Demographic and Health Survey and Malaria Indicator Survey 2015/2016

Vaccinating children through the vaccine programme has a long-term effect on improvements to the health of the overall population.

The intended target value of 48‰ was not achieved for this indicator. Nevertheless, a continuous decline in child mortality from 2009 (81‰) to 2015 (67‰) can be observed. The national vaccination programme has made a significant contribution to this trend, but is only one aspect of the Tanzanian health care system. A further goal of many of the vaccinations financed through the FC project is reduced morbidity, which is not considered as an indicator here. There have been no epidemics in the last six years for the diseases covered by the FC vaccination project (although no statistics are available on those diseases). In addition, reports from implementation partners indicate that the vaccinations have had no significant negative side effects for the children.

Therefore, even though the development objective was not achieved, the impact is assessed as satisfactory given the positive trend and the good performance of the indicator relative to regional averages.

Impact rating: 3 (both phases)

Sustainability

Two distinct aspects must be considered when assessing sustainability: the sustainability of health effects, and financial sustainability.

The national vaccination programme has been in place and continuously improving since 2002. Vaccinations were also being administered before 2002, but not on a large scale or with coordinated efforts by the state. Vaccinations immediately protect children from diseases, which leads to improved health in the long term. Continuing the vaccination programme is a high priority for national health policy, and one that is supported by the international community as well. The main organisations supporting the content and financing of the Tanzanian vaccination programme are the WHO, UNICEF, USAID and the Clinton Health Initiative (CHAI). The sustainability of programme effects is therefore secured for the medium term.

The financial sustainability of the vaccination programme will be dependent on Tanzania's ongoing political and economic development. At present, the vaccination programme is financed through the GAVI Alliance, primarily by international donors. The Tanzanian government's co-financing portion for 2012 and 2013 came to EUR 4.1 million in total. In addition, the programme has been funded through national health care structures that are also financed entirely by the Tanzanian government. However, funds were also drawn from the donor-financed health care basket (roughly EUR 50 million in 2015).

The GAVI Alliance and the international donors have agreed that international support for the vaccination programme should be gradually reduced. The Tanzanian government is already contributing to vaccination costs now. The current plan is for the country to increase its financial participation in the vaccination programme as its economic output improves, eventually doing without any donor-financed support at all (target date of 2025). For 2016/2017 the Tanzanian government is already planning a significant increase in its direct counterpart contribution for the vaccination programme, to EUR 16 million.

From today's perspective, the project's financial sustainability and the sustainability of its effects can be considered mostly assured, since long-term commitments from donor countries to GAVI are in place to ensure price stability and vaccine availability. Furthermore, the project concept of bilateral provision for GAVI was extended to include the East African Community in 2013, so that Tanzania, as an EAC member state, will continue to enjoy support for the vaccination programme in the future as well.

In light of Tanzania's political and economic development, however, it cannot yet be assumed that the Tanzanian government will be able to maintain the vaccination programme in the long term without external financial support.

Sustainability rating: 3 (both phases)

Notes on the methods used to evaluate project success (project rating)

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness, efficiency **and** overarching developmental impact. **The ratings are also used to arrive at a final assessment of a project's overall developmental efficacy. The scale is as follows:**

Level 1	Very good result that clearly exceeds expectations
Level 2	Good result, fully in line with expectations and without any significant shortcomings
Level 3	Satisfactory result – project falls short of expectations but the positive results dominate
Level 4	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
Level 5	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
Level 6	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).