Ex Post-Evaluation Brief
Vietnam: Health Programme Hospitals

Programme/Client	(1) Health Programme Hospitals - 2001 66 140,* (2) Complementary measure 2003 70 148	
Programme executing agency	Provincial People's Committees in 4 provinces	
Year of sample/ex post evaluation report: 2012*/2012		
	Appraisal (planned)	Ex post-evaluation (actual)
Investment costs (total)	(1) EUR 9.1 million (2) EUR 1.5 million	(1) EUR 11.0 million (2) EUR 1.5 million
Counterpart contribution (company)	(1) EUR 1.2 million (2) EUR 0.2 million	(1) EUR 3.1 million (2) EUR 0.2 million
Funding, of which budget funds (BMZ)	(1) EUR 7.9 million (2) EUR 1.3 million	(1) EUR 7.9 million (2) EUR 1.3 million

* random sample

Programme description: The overall objective of the programme was to make a contribution to improving the health of the population in four provinces. Two of these provinces number among the poorest in Vietnam, the other two equal or exceed the national average. For this purpose, medical equipment for diagnostic, therapeutic and functional departments of hospitals were replaced or supplemented. Furthermore, the programme comprised further clinical training measures in servicing and hospital waste disposal and in hospital management (including financial management). The three provincial hospitals and a specialist children's hospital play a key health care role in the respective province. The counterpart contribution of the programme executing agencies consisted of structural rehabilitation or construction measures.

Objective: Improving the equipment of programme hospitals and qualification measures for the administrative, technical and medical staff aimed at raising the quality, efficiency and sustainability of their services (programme objective). The programme was also supposed to have beneficial effects on upstream and downstream hospital levels to make a contribution to improving the health of the population in four provinces (overall objective).

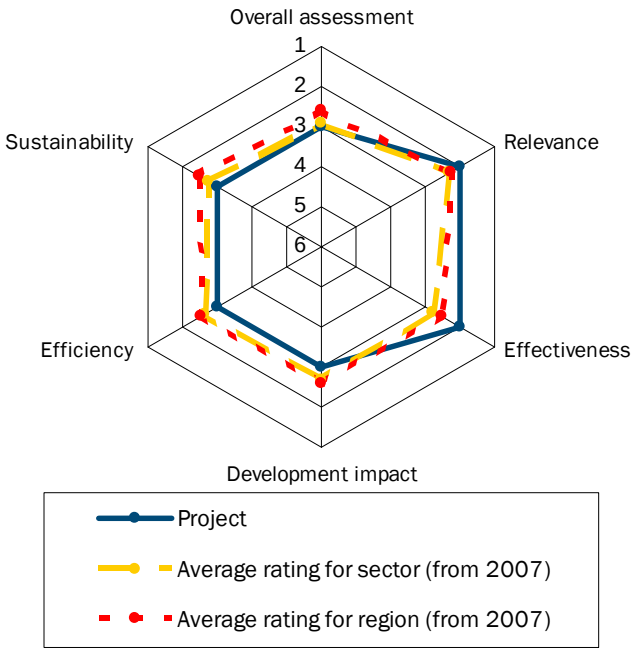
Target group: The target group was the total population in each province, particularly, however, mothers and children. A total of about 4.5 million people live in the programme area, about 18% of whom are classified as poor.

Overall rating: 3

The relevance and effectiveness of the programme are assessed as good, efficiency and impact, as satisfactory and sustainability, as just about satisfactory.

Of note: Unlike in other programmes, innovative approaches were adopted for ensuring the maintenance of the equipment supplied (e.g. maintenance contracts). A large part of the personnel trained in the complementary measure is still engaged in the hospitals. Knowledge is also systematically imparted case-by-case to new personnel. Sustainability was therefore assessed as still satisfactory, despite remaining risks. Also of importance was addressing the issue of waste management, which has previously been rather neglected in the sector. Much still needs to be done here, however.

Rating by DAC criteria



EVALUATION SUMMARY

Overall rating: Due to just about satisfactory sustainability, the programme is assessed altogether as satisfactory, despite good relevance and effectiveness (**Rating: 3**).

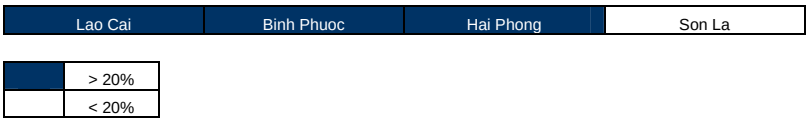
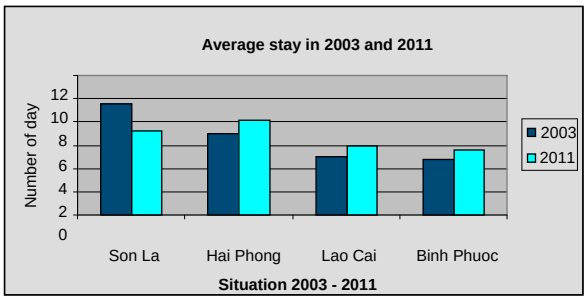
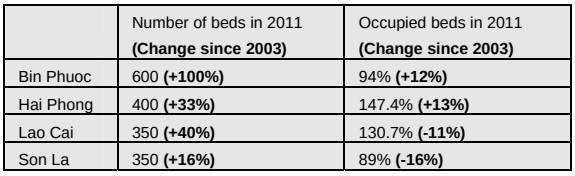
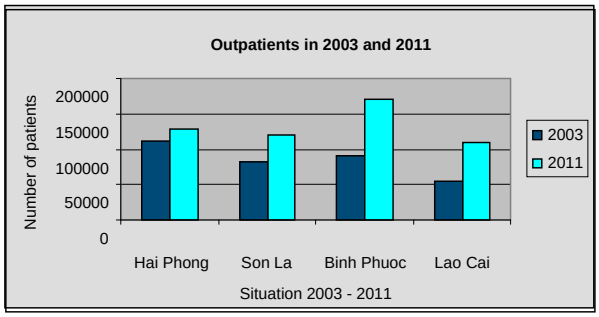
Relevance: The core problem of insufficient health care at provincial hospital level was correctly identified. As at programme appraisal, health is still a key issue today. Slightly below low income and above high food prices, households identified the illness of a family member as the second most important cause for the deterioration in their situation over the last four years (GSO 2010). Communicable diseases have decreased as a share of the total disease burden since the nineties, while non-communicable diseases (such as cardiovascular diseases, cases of cancer) made up about 60% of illnesses among men (77% among women) in 2010 and road accidents continue to rise (JAHR 2011). This change in the burden of disease calls for changes in diagnostic and treatment facilities, particularly in the provincial hospitals. The programme approach at provincial hospital level would therefore seem basically appropriate.

The results chain is largely plausible. Improving equipment and the qualification of hospital staff was to upgrade the quality and quantity of services provided by the supported hospitals and, with that, contribute to better health in the programme provinces. By supporting a children's hospital and particularly the improvement of infrastructure for the care of women and children (e.g. ultrasound scanning, incubators), the programme largely does justice to the special focus on this part of the target group. There is a risk that the poor population will benefit less than average from the programme, partly because the poor are put at a particular disadvantage by the remaining financial barriers to access, such as transport costs and informal payments. The direct costs of health services have been reduced through much extended public health insurance for the poor. The programme also did not contribute effectively to the adequate use of the different levels in the so-called referral system (district, provincial hospitals and specialist clinics, etc.). The partly insufficient incentives for an effective referral system (e.g. from district to provincial hospitals for more complex treatments and operations) are due to institutional reasons and can hardly be influenced by an individual programme.

Innovative approaches for strengthening hospital management and environment-friendly hospital operations were integrated in the complementary measure. This would also seem overambitious considering the necessary systemic changes.

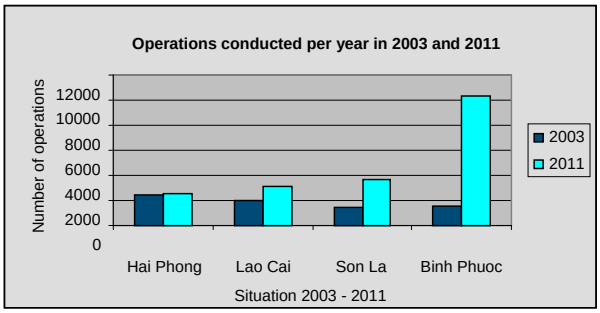
According to the Vietnamese partners, the health sector is accorded priority by the Vietnamese Government. Health is also one of the priority sectors of German development cooperation with Vietnam. In terms of the geographical locations and the selected intervention level, the programme complemented the programmes/projects of other donors (e.g. World Bank, ADB, JICA), while the government exerted heavy influence on the selection of provinces and level. Accounting for the shortcomings, relevance is assessed as (still) good (Sub-rating: 2).

Effectiveness: According to the appraisal report, the programme objective was the improved quality of care services in the four hospitals and a sounder overall health and/or referral system with a view to the adequate use of differently equipped and/or specialist health care levels. In keeping with today's state-of-the-art, the ex-post evaluation measures the use of the improved facilities. In the programme appraisal, the following four indicators were defined at programme objective level: increase in referrals from district to provincial hospitals by 20%; increased patient satisfaction; decline in average stay, increased bed occupation. There is no baseline for the patient satisfaction indicator. Instead, the following two indicators for the use of hospitals were added in the ex-post evaluation: increase in annual outpatients; increase in operations conducted per year.

Indicator	Result of ex-post evaluation
1. Increase in referrals from district to provincial hospitals by 20%	
2. Decline in average stay	
3. Increase in bed occupation (related to respective current number of beds)	
4. Increase in out-patients	

	Number of beds in 2011 **(Change since 2003)**	Occupied beds in 2011 **(Change since 2003)**
Bin Phuoc	600 **(+100%)**	94% **(+12%)**
Hai Phong	400 **(+33%)**	147.4% **(+13%)**
Lao Cai	350 **(+40%)**	130.7% **(-11%)**
Son La	350 **(+16%)**	89% **(-16%)**

5. Increase in operations conducted per year



The number of referrals from district to provincial hospitals has increased by more than 20% in three programme provinces. This indicator, however, appears to be of only limited use as a measure of the improvement of the health system, as the ratio of patients referred still plays a minor role altogether (e.g. Son La: 16% of all inpatients). The average length of hospital stay has risen in three hospitals and only decreased in one province. This indicator would, however, seem to be unsuitable for this kind of programme as thanks to improved technical equipment and training more complex operations can be carried out, which entail longer stays in hospital. The occupation of beds has risen in two of four programme hospitals, despite a significant increase in the number of beds. In the two other hospitals, the occupied beds did not, however, decrease more than the equivalent increase in the number of beds altogether. In all four programme hospitals, occupation is therefore high, even with some over-occupation. Although the indicator has not been met in all four programme hospitals, current utilisation indicates an improvement in services. As a qualitative supplement to occupied beds and as an indication of patient satisfaction, the annual number of outpatients treated and the number of operations conducted were considered. Both have increased in all hospitals since programme start.

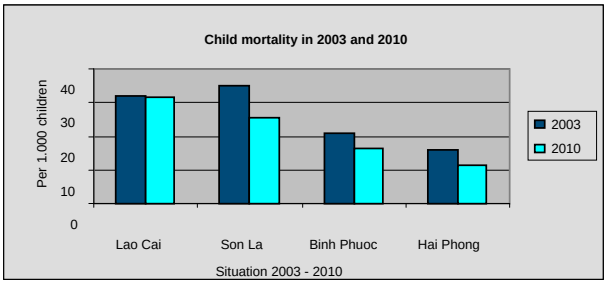
The programme therefore contributed to improved health care, even though the poor population has presumably benefited less than average. This is the case, although the Vietnamese Government's much extended health insurance (reimbursement of up to 95% of medical costs for the poor) has enormously improved access for the poor. For lack of a ceiling for annual contributions, for example, poor sections of the population must in part pay relatively large amounts from their low annual income for more expensive treatments and are also (reportedly) put at a disadvantage by hospital staff compared with self-paying patients.

The complementary measure resulted in the following: At ex-post evaluation, more than 90% of personnel who participated in further training in the complementary measure were still engaged in the four hospitals. The regular application of selected training contents in everyday hospital activities, such as the use of management information systems for statistical purposes, is another indication of the effectiveness of the complementary measure. Of note here is that all state hospitals must collect data regularly for the annual national planning process. Other training contents, in contrast, such as waste management, are hardly applied at all any more. Altogether, the effectiveness of the programme is assessed as good (Sub-rating: 2).

Efficiency: The programme setup with decentralised partners required more intensive coordination but would appear expedient to ensure that equipment actually meets local needs. The four provinces where the programme was carried out are in part very far apart, which incurred higher costs for coordination. Implementation started with a delay of approx. 12 months and the programme term was prolonged by 50% (15 months). Own funds were considerably increased compared with programme planning (to more than 2.5-fold). The counterpart contribution of structural rehabilitation and/or new buildings was largely available on time. Statements by various actors in the Vietnamese health sector indicate that the competition due to the award procedure of international calls to tender in several lots was beneficial to the price-performance ratio of supplies. Restricting bidders to those represented in Vietnam was particularly useful to ensure proper maintenance.

The operational equipment is in intensive daily use according to user statistics, in part even overutilised. It is difficult to ascertain whether the equipment is properly used (that is, in line with the guidelines on the adequate treatment of specific diseases). Studies confirm the heavy use of medical equipment also with the aim of raising hospital revenue (e.g. Health Strategy and Policy Institute 2009). Furthermore, the fact that almost 80% of patients have visited provincial hospitals directly without referral is an indication of the better quality of the services at these hospitals in comparison to those at district level, but this also indicates an inefficient health care system in which treatments are often not conducted at the planned level. The efficiency of the programme is assessed as satisfactory altogether (Sub-rating: 3).

Overarching developmental impact: The overall objective of the programme was a contribution to improving the health status of the population in the four programme provinces. Mothers and children were to benefit in particular according to the programme appraisal report. No indicators had been defined for measuring overall objective achievement. To assess the developmental impact, the ex-post evaluation analysed the following two indicators in keeping with today's state-of-the-art and accounting for the database: decline in maternal mortality; decline in mortality of children under five.

Indicator	Result of ex-post evaluation
1. Decline in maternal mortality (by 100,000 live-births)	The available data for the two programme provinces, Son La and Hai Phong, confirm the decline in maternal mortality (Son La: 18 in 2011 - change since 2003 of -58%; Hai Phong: 5 - change of -86%).
2. Decline in child mortality (<5) (per 1,000 children)	

Based on the available information, both maternal mortality and mortality of children under five have decreased in the programme provinces since the beginning of the programme. However, child mortality in the two poorer provinces still exceeds the national average of 23.8 of 1,000 children and in the two wealthier ones it is well below. The programme would plausibly seem to have made a contribution to improving health. The improvement is also attributable, however, to a very dynamic development in several major factors in the health sector, e.g. to significant national and donor-financed investments at all levels of the referral system. Overall objective achievement is therefore satisfactory (Sub-rating: 3).

Sustainability: At present, approx. 80% the equipment delivered is operational (in a rough estimate based on local inspections). After expiry of the 2-year maintenance contracts (end of 2011), which were part of the programme, there does not appear to be any plans for additional preventive maintenance of the delivered equipment in the programme hospitals. Instead, the management of the hospitals is increasingly relying on new nationally or internationally financed investments. The share of income at the hospitals available for maintenance has increased considerably since 2003 (e.g. Son La: The budget share for maintenance in the overall budget tripled. Binh Phuoc: It increased fivefold.). The maintenance budget, however, still accounts for only 1-2% of the overall hospital budgets. According to an initial rough estimate, this covers much less than 50% of the necessary minimum of 5% of investment costs for equipment delivered as part of the programme. This estimate does not yet take account of the costs of maintenance of additional equipment at the hospitals, e.g. from national investments.

Till now, hardly any replacement investments (e.g. for spare parts) have reportedly been made. The technical departments for repair and maintenance established at the hospitals in the complementary measure seem to carry out smaller repairs and upkeep measures (e.g. regularly needed replacement of light bulbs in the CT scanner). They have very restricted scope, however, as part of the high-tech equipment delivered requires maintenance by external technical experts. The German standards for the operational life of the equipment delivered range between 5 years (e.g. endoscopy, ultrasound equipment) and 8 years (e.g. X-ray equipment, computer tomographs). At present (after 3.5 years), approx. 43-70% of the operational life of the equipment supplied in the programme has therefore already been spent. It would thus appear plausible to assume that despite clear risks particularly for preventive maintenance a part of the equipment delivered will be operational for almost the whole of its useful life. In comparison with programmes of other donors (e.g. equipment of the district hospital in Son La, where a substantial percentage of newly delivered equipment was not or only briefly in operation due to technical problems) and in comparison with previous FC approaches, the design the of maintenance schemes using maintenance contracts has brought about a distinct improvement in sustainability.

Some individual abilities acquired in training (e.g. the use of the management information system) are put to intensive use and seem to be firmly integrated in hospital management and everyday operations. New personnel is reportedly systematically introduced in on-the-job training so that the abilities acquired are passed on to them form case to case. The integrated inno-

vative approach in the complementary measure to establish environment-friendly hospital operations created a certain awareness of this problem in one of the programme hospitals. Waste was separated at ward level, but it was neither separated nor adequately disposed of. A sustainable improvement in environmental standards was therefore not achieved. Sustainability is assessed as satisfactory altogether (Sub-rating: 3).

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

Projects (and programmes) 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:

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

Ratings 1-3 denote a positive or successful assessment while ratings 4-6 denote a not positive or unsuccessful 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. Ratings 1-3 of the overall rating denote a "successful" project while ratings 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" (rating 3).