VOLUME II:
ANNEXES OF THE EVALUATION REPORT

Thirty Years of Rwandan-German Development Cooperation in the Health Sector

2014

DEval
GERMAN INSTITUTE FOR DEVELOPMENT EVALUATION

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Contact

German Institute for
Development Evaluation (DEval)

Tulpenfeld 7, 53113 Bonn
Germany

www.DEval.org

Dr. Stefanie Krapp
Tel: +49 (0)228 24 99 29-930
Email: stefanie.krapp@DEval.org

The report consists of two volumes:

Volume I: Evaluation Report
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Authors

Dr. Thomas Schwedersky
Dr. Martin Noltze
Felix Gaisbauer

Responsible

Dr. Stefanie Krapp

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A.

EVALUATION MATRICES

Evaluation matrix for phase I (1980 – 1994)

Relevance

Evaluation questions	Source of data
Which aid modalities and instruments have been applied to reach the objectives set by GDC along with Rwandan partners, and to what extent have they been appropriate?	• Project proposals, evaluations, and reports • Interviews with former GDC staff • BMZ data • BMZ publications • Documentation of Government negotiations • Survey • CIM placement requests and reports
Who participated and benefited? To what extent did the objectives of the Rwandan-German cooperation match the needs of the target groups?	• Project progress reviews and evaluation • Interviews with former GDC staff • Academic literature (Context Analysis)
To what extent has Rwandan-German cooperation responded to the needs of Rwandan men and women, particularly of poor population groups?	
To what extent has Rwandan-German cooperation in the health sector reflected the priorities of the Rwandan and German Government?	• Project reports and evaluation • Government negotiations documentation • Interviews with former GDC staff
How have these priorities evolved over time and to what extent has German development cooperation adapted to changing priorities and socio-economic and political context?	• Academic literature • Project evaluation • Interviews with former GDC staff • Internal GDC correspondence
To what extent has Rwandan-German cooperation been consistent with global development goals and health-related human rights or standards?	• Project evaluation • Academic literature (Context Analysis) • Interviews with former GDC staff

Effectiveness

Evaluation questions	Source of data
To what extent were the objectives achieved?	• Survey • Interviews with former GDC staff • Academic literature
What were the major factors influencing the contribution to the achievement/non-achievement of the objectives?	• Interviews with former GDC staff • Project progress reviews and evaluation • Survey • Academic literature (context analysis)
What are the factors that have enabled, enhanced, or limited the effectiveness of Rwandan-German cooperation in the health sector?	
To what extent has Rwandan-German cooperation enhanced the capacity of relevant Rwandan institutions and of health service providers?	• Project evaluation • Survey
To what extent have unintended (negative and positive) effects resulted from Rwandan-German cooperation?	• The available information is too limited for making a valid assessment of unintended effects of GDC-interventions during that period.

Sustainability

Evaluation questions	Source of data
To what extent did German development cooperation had long-lasting effects in the health sector?	• Survey • Project evaluation
What were the main factors that influenced the sustainability of development effects?	• Project reports, progress reviews, and evaluation • Interviews with former GDC staff
What were the major factors, preconditions and risks for the sustainability of these effects?	

Coherence/complementarity/coordination/harmonization

Evaluation questions	Source of data
Coherence/complementarity with the partner countries policies and with other donor's interventions: Was there an overlap between the program considered and other programs in the partner country and/or other donor's interventions? Or were those rather complementary?	• Project proposals, reports, and evaluation
To what extent are the interventions and instruments within the German development cooperation complementary?	• Project proposals, reports, and evaluation
How well did the German governmental agencies interact with each other, with other German organizations (e.g. NGOs) and with other external development partners with regard to the development of the Rwandan health sector?	• Project proposals, reports, and evaluation • Development worker Reports • Interviews with former GDC staff

Evaluation matrix for phase II (1995 – 2003)

Relevance

Evaluation questions	Source of data
To what extent did the objectives of the Rwandan-German cooperation match the needs of the target groups?	• Project and program documents and other reports • Development policies and sector strategies of Rwandan and German Governments. • Interviews with former project and program staff • Interviews with former counterparts and Rwandan project/program staff • Survey of former DED development workers
To what extent has Rwandan-German cooperation responded to the needs of Rwandan men and women, particularly of poor population groups?	
To what extent has Rwandan-German cooperation in the health sector reflected the priorities of the Rwandan and German governments?	
To what extent has the Rwandan-German cooperation adapted to changing priorities and socio-economic and political context?	
To what extent has Rwandan-German cooperation been consistent with global development goals and health-related human rights or standards?	
To what extent have the aid modalities and instruments been appropriate?	

Effectiveness

Evaluation questions	Source of data
To what extent were the objectives achieved?	• Project and program documents and other reports Interviews with former project and program staff • Interviews with former counterparts and Rwandan project/program staff • Survey of former DED dev elopment workers
What were the major factors influencing the contribution to the achieve-ment/non-achievement of the objectives?	
To what extent has Rwandan-German cooperation enhanced the capacity of relevant Rwandan institutions and of health service providers?	
To what extent have unintended (negative and positive) effects resulted from Rwandan-German cooperation?	
What are the factors that have enabled, enhanced, or limited the effectiveness of Rwandan-German cooperation in the health sector?	

Sustainability

Evaluation questions	Source of data
To what extent have the effects by the Rwandan- German cooperation in the health sector been long-lasting?	• Evaluation reports • Surveys (Demographic and health surveys) and studies • International databases • Academic literature on Rwanda´s political and socio-economic development • Survey of former DED development workers
What were the main factors that influenced the sustainability of development effects?	
What were the major factors, preconditions and risks for the sustainability of these effects?	

Coherence/complementarity/coordination/harmonization

Evaluation questions	Source of data
Coherence/complementarity with other development partners' policies and interventions: Was there an overlap between the program considered and other programs in the partner country and/or other donors' interventions? Or were those rather complementary? To what extent have there been synergies between technical and financial cooperation?	• Project and program documents and other reports Interviews with former project and program staff • Interviews with former counterparts and Rwandan project/program staff • Survey of former DED development workers
Complementarity within GDC: To what extent are the interventions and instruments within the German development cooperation complementary?	
Coordination: How well did the German governmental agencies interact with each other, with other German organizations (e.g. NGOs) and with other external development partners with regard to the development of the Rwandan health sector?	

Evaluation matrix for SWAP/CDPF/SBS (Period 2004 – 2012)

Relevance

Evaluation questions	Source of data
To what extent did support to the SWAp, SBS and CDPF reflect the priorities of the German and Rwandan Government?	• Rwandan aid policy and HSSPs • BMZ country and sector strategies • Interviews with current and former GDC staff and MoH officials
To what extent were the aid modalities supported by GDC in the context of the SWAp appropriate to reach the objectives set along with Rwandan partners?	• Program documents • Interviews conducted with current partners at central and district level
Were the objectives of the SWAp accepted by the partner organizations and target groups?	• Interviews conducted with current and former partners. • Minutes of Health Sector Working Group meetings

Effectiveness

Evaluation questions	Source of data
To what extent has the component objective been achieved? What has the respective contribution of GDC been?	• Program documents • Mid-term review of HSSP II • Reports of JHSR • Interviews with representatives of DP • Data from Health Resources Tracking Tool
To what extent have the SWAp mechanisms functioned and what was the contribution of GDC?	• Program documents • Different SWAp documents • Interviews with MoH and MINECOFIN-officials, GDC-staff and representatives of DP • Interviews with key stakeholders on district level • Comparative case study

Evaluation questions	Source of data
To what extent did SBS improve the quality of policy dialogue in the health sector between the Rwandan and the German Government?	• Reports of JHSR • Interviews with MoH and MINECOFIN-officials, GDC-staff and representatives of DP
To what extent have SBS and pooled funding modalities contributed to improve health service delivery, particularly for the poor?	• Mid-term review of HSSP II, • JHSR reports • Data from Health Resources Tracking Tool • Interviews with MoH and MINECOFIN-officials, GDC-staff and representatives of DP
To what extent did CDPF contribute to strengthen institutional capacities in the health sector?	• Audit report (KPMG) • CDPF documentation • Interviews with MoH-officials, GDC-staff and representatives of DP • List of development interventions financed by CDPF at district level

Impact

Evaluation questions	Source of data
To what extent have the SWAp and SBS contributed to improve the health status of the Rwandan population and achieve the health-related MDGs?	• DHS secondary data analysis • Mid-term review of HSSP II • MoH annual reports and strategic plans • Evaluations and reports • Academic Literature • Interviews with GDC staff and MoH officials • Comparative Case Study
To what extent have the SWAp and SBS contributed to reduce health disparities in the health status of the population (especially with regard to gender equality)?	
To what extent have the SWAp and SBS contributed to the scaling-up of effective interventions and to achieve structural changes?	

Efficiency

Evaluation questions	Source of data
What were the resources invested by GDC in SWAP, CDPF and SBS to support the development of the health sector?	• Program documents • Audit reports
Were objectives achieved on time?	• Program documents • Audit reports
Has alignment and harmonization reduced or increased transaction costs?	• Interviews with GDC staff, MOH officials and representatives of DP
How have these resources been used and what were the costs (inputs) in relation to the outputs?	• The available information is too limited for making a valid assessment to answer this question.

Sustainability

Evaluation questions	Source of data and data availability
What are the main risks and chances for the sustainability of a sector-wide approach to health after German support has come to an end?	• Program documents • Interviews with GDC staff and MoH officials
How did key actors perceive the exit strategy with regard to the SWAp and joint financing modalities?	• Documentation of exit strategy • Interviews with GDC staff and MoH officials

Coherence / complementarity / coordination / harmonization

Evaluation questions	Source of data and data availability
To what extent has the program contributed to achieve coherence, complementarity, coordination and harmonization between DP in the context of a SWAp approach and joint financing mechanisms?	• Interviews held with GDC-staff, MoH-officials and representatives of DP • Program documents • Minutes of Development Partners Groups meetings
To what extent was coordination achieved between the Rwandan-German health program and other German organizations and agencies engaged in Rwanda?	• Exploring this question would have gone beyond the scope of this evaluation.

Evaluation matrix for the HF component (Period 2004 – 2012)

Relevance

Evaluation questions	Source of data
To what extent did the support to the HF reflect the priorities of the German and Rwandan Government?	• Rwandan Sector Policies (CBHI, PBF, national health insurance, health financing) • BMZ Sector Strategies (health, health and human rights, social protection) • EDPRS, VISION 2020 • Rwandan HSSP I-II • Academic Literature • GDC program documents • Interviews with current and former GDC staff and MOH officials
To what extent were the aid modalities supported by GDC in the context of the HF appropriate to reach the objectives set along with Rwandan partners?	• GDC program documents • Rwandan aid policy • Evaluations and reports • Interviews with partners, stakeholders and GDC staff • Comparative Case Study
Were the objectives for HF accepted by the partner organizations and target groups?	• Rwandan Sector Policies (CBHI, PBF, national health insurance, health financing, aid policy) • BMZ Sector Strategies (health, health and human rights, social protection) • EPDRS, VISION 2020 • Rwandan HSSP I-II • Interviews with current and former GDC staff and MoH officials • Comparative Case Study

Effectiveness

Evaluation questions	Source of data
To what extent has the HF component objective been achieved? What has the respective contribution of GDC been?	• GDC program documents • Academic Literature (also based on DHS data) • MoH implementation guides • HSSP III (draft) • MoH annual reports • Interviews with current and former GDC staff and MoH officials • Comparative Case Study
To what extent have the HF mechanisms functioned and what was the contribution of GDC?	• GDC program documents • MoH annual reports and strategic plans • Interviews with current and former GDC staff and MoH officials
To what extent did CBHI improve the access to health services of the Rwandan Population?	• Interviews with current and former GDC staff and MoH officials • Academic Literature (also based on DHS data) • HSSP III (draft) • Comparative Case Study
To what extent have social funds contributed to improve the access to health services for the poor?	• GDC program documents • Interviews with former GDC staff • Comparative Case Study
To what extent did PBF contribute to improve the quality and utilization of health services?	• GDC program documents • Academic Literature • Interviews with current and former GDC staff and MoH officials • Health Financing Systems Review • Comparative Case Study

Efficiency

Evaluation questions	Source of data
What were the resources invested by GDC in HF to support the development of the health sector?	• GDC program documents
Were objectives achieved on time?	• GDC program documents • Comparative Case Study
Has alignment and harmonisation reduced or increased transaction costs?	• Interviews with GDC staff and MoH officials • Comparative Case Study • HSSP I mid-term review • Health Financing Systems Review • Academic Literature
How have these resources been used and what were the costs (inputs) in relation to the outputs?	• The available information is too limited for making a valid assessment to answer this question.

Sustainability

Evaluation questions	Source of data
What are the main risks and chances for the sustainability of a sector-wide approach to health after German support has come to an end?	• GDC program documents • Academic Literature • Rwandan Sector Policies (CBHI, PBF, national health insurance, health financing) HSSP III situation analysis • MoH annual reports • Interviews with current and former GDC staff and MoH officials • Comparative Case Study
How did key actors perceive the exit strategy with regard to the health financing support?	• GDC program documents • Rwandan Division of Labour Policy • HSSP III (draft) • Interviews with current and former GDC staff and MoH officials • Comparative Case Study

Coherence / complementarity / coordination / harmonisation

Evaluation questions	Source of data
To what extent has the program contributed to achieve coherence, complementarity, coordination and harmonisation between DP in the context of HF mechanisms?	• GDC program documents • HSSP • Interviews with current and former GDC staff and MoH officials
To what extent was coordination achieved between the Rwandan-German health program and other German organizations and agencies engaged in Rwanda?	

Evaluation matrix for the SRH component (Period 2004 – 2012)

Relevance

Evaluation questions	Source of data
To what extent did support to SRH reflect the priorities of the German and Rwandan Government?	• Rwandan Sector Policies MCH, FP, ASRH, GBV • BMZ Sector Strategies (SRH, HIV) • EPDRS, VISION 2020 • Rwandan HSSP I-III • Academic Literature • GDC program documents • Interviews with current and former GDC staff and MOH officials
To what extent were the aid modalities supported by GDC in the context of the SRH area appropriate to reach the objectives set along with Rwandan partners?	• GDC program documents • Mid-term review of HSSP II • Evaluations and reports • Interviews with partners, stakeholders and GDC colleagues

Evaluation questions	Source of data
Were the objectives of the SRH area accepted by the partner organizations and target groups?	• Rwandan HSSP I-III • Mid-term review of HSSP II • MoH annual reports and strategic plans • Interviews with partner organizations

Effectiveness

Evaluation questions	Source of data
To what extent have objectives/targets of SRH been achieved and what has the respective contribution of GDC been?	• GDC program documents • DHS 2005, 2007 and 2010 • Mid-term review of HSSP II • MoH annual reports and strategic plans • EDPRS • Interviews with current and former GDC staff and MOH officials • Survey with development workers and in-depth interviews • Comparative Case Study
To what extent have TWG mechanisms functioned and been strengthened and what was the contribution of GDC?	• GDC program documents • MoH annual reports and strategic plans • Interviews with current and former GDC staff and MoH officials
To what extent did GDC support and innovative approaches at district level influence national policies and strategies?	• GDC program documents • Interview with GDC staff and partners at district and national level
To what extent had financial and technical contribution of GDC to National Social Marketing Program contributed to make condoms and modern contraceptives available, increase overall motivation by target groups to engage in FP and safer sex behaviors and change cultural values for reproduction and gender?	• DHS secondary data analysis • Mid-term review of HSSP II • MoH annual reports and strategic plans • Evaluations and reports • Academic Literature • Interviews with current and former GDC staff and MoH officials • Comparative Case Study

Impact

Evaluation questions	Source of data
To what extent have the programs of the SRH area contributed to improve the health status of the Rwandan population and achieve the health-related MDGs?	• DHS secondary data analysis • Mid-term review of HSSP II • MoH annual reports and strategic plans • Evaluations and reports • Academic Literature • Interviews with current and former GDC staff and MOH officials • Comparative Case Study

Evaluation questions	Source of data
To what extent have the programs of SRH contributed to reduce health disparities in the health status of the population?	• DHS secondary data analysis • Mid-term review of HSSP II • MoH annual reports and strategic plans • Evaluations and reports • Academic Literature • Interviews with current and former GDC staff and MOH officials • Comparative Case Study
To what extent have the programs of SRH contributed to the scaling-up of effective interventions and to achieve structural changes?	• Mid-term review of HSSP II • Academic Literature • Interviews with current and former GDC staff and MoH officials • Comparative Case Study
To what extent have the programs of SRH contributed to enhance gender equality?	• DHS secondary data analysis • Mid-term review of HSSP II

Efficiency

Evaluation questions	Source of data
What were the resources invested by GDC in SRH programs to support the development of the health sector?	• GDC program documents • Interviews with current and former GDC staff and MoH officials • Comparative Case Study
Were objectives achieved on time?	• GDC program documents • Interviews with current and former GDC staff and MoH officials
Where the instruments and approaches used and provided by the GDC in the area of SRH appropriate and efficient?	• Comparative Case Study • DHS secondary data analysis • Mid-term review of HSSP II

Sustainability

Evaluation questions	Source of data
What are the main risks and chances for the sustainability of the SRH programs to health after German support has come to an end?	• Rwandan Sector Policies MCH, FP, ASRH, GBV • Mid-term review of HSSP II • HSSP III • EDPRS, VISION 2020 • GDC program documents • Interviews with current and former GDC staff and MoH officials
How did key actors perceive the exit strategy in the area of SRH?	• Documentation of exit strategy • Interviews with current and former GDC staff and MoH officials

Coherence/complementarity/coordination/harmonization

Evaluation questions	Source of data
To what extent has the program contributed to achieve coherence, complementarity, coordination and harmonization between DP in the context of the SRH programs?	• Interviews held with GDC-staff, MoH-officials and representatives of DP • Program documents • Minutes of Development Partners Groups meetings
To what extent was coordination achieved between the Rwandan-German health program and other German organizations and agencies engaged in Rwanda?	• Exploring this question would have gone beyond the scope of this evaluation.

Evaluation matrix for the HRD component (Period 2004 – 2012)

Relevance

Evaluation questions	Source of data
What were the objectives of the capacity development measures (Internship program and ILT Hospital management)?	• Project and program documents • Reports of development workers • Reports of DED health coordinators • Reports of DED country directors • HSSPs • HRD Strategic Plans • BMZ sector strategies • Studies and Reports on human resources in the health sector between 2000 and 2012 • Studies and reports on availability and quality of health care in Ruanda and perception of services by patients **In-depth interviews with:** • DED health coordinators • DED country directors • Hospital directors (CHUB and Ruhengeri hospital); Program managers at the medical faculty of the National University of Rwanda • Program managers of InWEnt/GIZ in Germany • Development workers involved in training of interns and junior doctors • Interns and junior doctor trained by development workers • Participants of ILT hospital management
How have these objectives evolved between 2000 and 2012?	
To what extent have these objectives reflected the priorities of the German and the Rwandan Government?	
To what extent have these capacity development measures responded to the needs of the direct target groups (health professionals and hospital managers)?	
To what extent have these capacity development measures responded to the needs of the ultimate beneficiaries (patients)?	

Effectiveness

Evaluation questions	Source of data
To what extent have the objectives of the capacity development measures been achieved?	• Program and project documents • MoH reports, HRD strategic plans **In-depth interviews with:** • DED health coordinators • DED country directors • Hospital directors (CHUB and Ruhengeri hospital); Program managers at the medical faculty of the National University of Rwanda • Program managers of InWEnt/GIZ in Germany • Development workers involved in training of interns and junior doctors • Interns and junior doctor trained by development workers • Participants of ILT hospital management
What were the major factors influencing the achievement/non-achievement of the objectives?	
To what extent have the capacity development measures contributed to increase the availability of well-trained health professionals (doctors and hospital managers) in the Rwandan health sector?	
To what extent have the capacity development measures contributed to improve the coverage and quality of health care in the Rwandan health sector?	
To what extent have the capacity development measures contributed to enhance the individual skills of health professionals?	
To what extent have the capacity development measures contributed to enhance the performance of organisations/institutions in the Rwandan health sector (e.g. hospitals, medical faculty, MoH)?	
To what extent have the capacity development measures contributed to changes in the health system and policy framework?	
To what extent have unintended (negative and positive) effects resulted from the capacity development measures?	

Impact

Evaluation questions	Source of data
To what extent have the capacity development measures contributed to improve the health status of the Rwandan population and achieve the health-related MDGs?	• See context analysis and the study by the school of public health, but results of will not be available in June/early July (see note above). **In-depth interviews with:** • DED health coordinators • DED country directors • Hospital directors (CHUB and Ruhengeri hospital); Program managers at the medical faculty of the National University of Rwanda • Program managers of InWEnt/GIZ in Germany • EHs involved in training of interns and junior doctors • Interns and junior doctor trained by development workers • Participants of ILT hospital management
To what extent have they contributed to reduce disparities in the health status of the population?	
To what extent have they contributed to enhance gender equality?	

Efficiency

Evaluation questions	Source of data
Were the objectives of the capacity development measures achieved on time?	• Program and project documents • Cost analysis: Comparison of costs of InWEnt ILT hospital management with master course currently conducted in the school of public health • In-depth interviews (see above under effectiveness)
What were the resources invested in the capacity development measures?	
How have these resources been used and what were the costs (inputs) in relation to the outputs?	
To which degree were the invested resources appropriate compared to the outputs and results achieved?	

Sustainability

Evaluation questions	Source of data
What are the long-lasting effects of the capacity development measures?	• Program and project documents • Other reports, studies and surveys on development of Rwandan health sector and human resources **In-depth interviews:** • See above under effectiveness + a few interviews with DP involved in HRD • Observation and interviews in Ruhengeri and/or CHUB hospital to check if improvement measures introduced by development workers are still in place
What are the major factors, preconditions and risks for the sustainability of these effects?	
To what extent have the institutional, financial and societal conditions influencing human resources development in the health sector evolved over time (2000 – 2012) to ensure the sustainability of these effects?	
To what extent do other DP continue to support capacity development in medical education and hospital management after the exit of GDC?	

Coherence / complementarity / coordination

Evaluation questions	Source of data
What were the other aid modalities and instruments used to support medical education and hospital management (e.g. short term and long term experts, CIM integrated experts, CDPF)?	• Project and program documents **In-depth interviews with:** • EHs involved in training of interns and junior doctors • CIM integrated experts? • DED health coordinators and GIZ program managers of HRD component • Program managers of InWEnt/GIZ in Germany • Hospital directors (CHUB and Ruhengeri hospital); Program managers at the medical faculty of the National University of Rwanda • MoH officials • DP involved in HRD
To what extent have synergies been achieved between the capacity development measures of DED/GIZ and InWEnt/GIZ and other instruments?	
How have these synergies evolved over time, i.e. before and after the integration of GDC measures in a joint program and the development of a SWAp?	
What were the effects of these synergies?	
To what extent have these synergies contributed to the scaling-up of effective interventions and to achieve structural changes?	
To what extent were there overlaps or/and complementarity between the capacity development measures and interventions of other DP?	

Impact

Evaluation questions	Source of data
To what extent has the GDC support to CBHI contributed to improve the health status of the Rwandan population and achieve the health-related MDGs?	• Academic Literature (based on DHS data)
To what extent has the GDC support to HF contributed to reduce health disparities in the health status of the population?	• Academic Literature • Comparative Case Study • Interviews with current and former GDC staff and MOH officials
To what extent has the GDC support to HF contributed to the scaling-up of effective interventions and to achieve structural changes?	• The available information is too limited for making a valid assessment to answer this question.
To what extent has the GDC support to HF contributed to enhance gender equality?	• Exploring this question would have gone beyond the scope of this evaluation.

Coherence / complementarity / coordination / harmonisation

Evaluation questions	Source of data
To what extent has the program contributed to achieve coherence, complementarity, coordination and harmonisation between DP in the context of HF mechanisms?	• GDC program documents • HSSP • Interviews with current and former GDC staff and MoH officials
To what extent was coordination achieved between the Rwandan-German health program and other German organizations and agencies engaged in Rwanda?	

B.

METHODOLOGY OF THE EVALUATION

Evaluating 30 years of development cooperation in the Rwandan health sector imposes the methodological challenge of how to manage complexity. As means to this end, DEval has screened the German activities in the Rwandan health sector for paradigmatic shifts that allow for temporally disaggregating this period. Mapping the interventions between 1980 and 2012 according to (1) the implementing agency, (2) their duration, (3) the mode of delivery and strategic alignment, and (4) the thematic focus of the interventions, suggested the years 1994/1995 and 2003/2004 as turning points (cf. Annex C). The so defined phases are characterized by different thematic foci of the interventions. First, the 1994 genocide in Rwanda marks a contextual caesura so grave as to necessitate reflection. Second, the year 2003 constitutes the onset of a transformation within the Rwandan-German development cooperation from project-mode to more integrated forms of cooperation. Next to imposing temporal boundaries to the evaluand, DEval developed a framework to laying out the analytically most relevant concepts that make up the evaluand. While a shorter overview of the methodology underlying this evaluation can be found in chapter A.2 in Volume I, this annex provides a more detailed outline.

1. Analytical framework

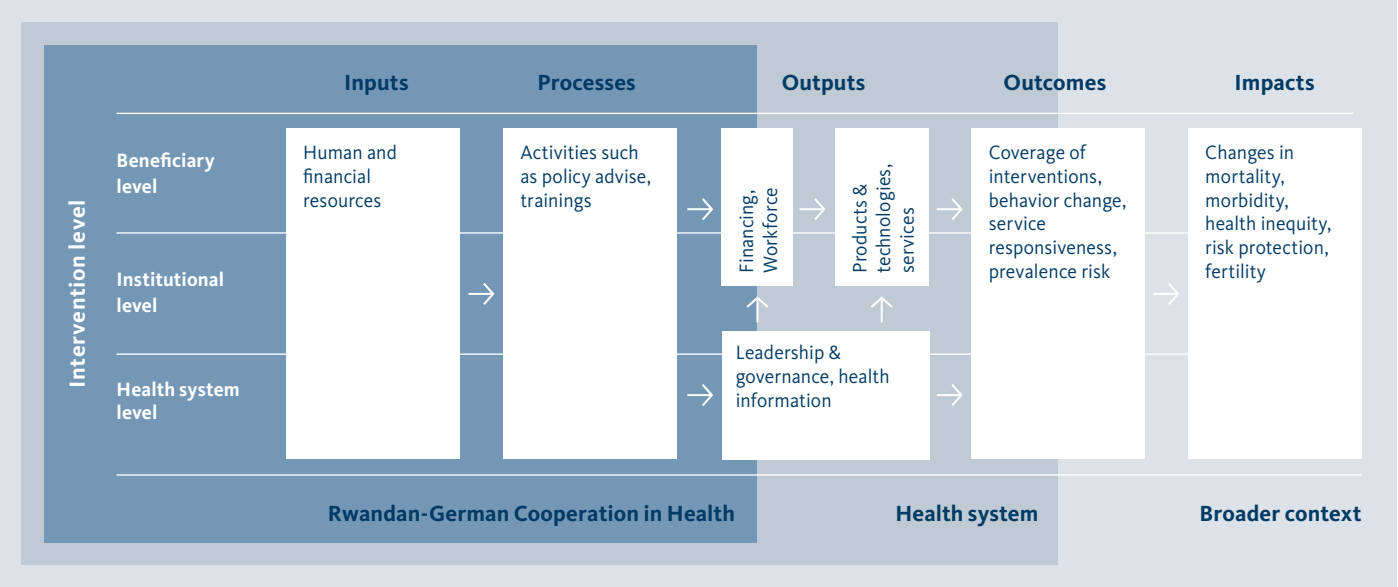
This framework serves as a tool to disaggregate the evaluand into analytically operable units by providing a logic model for how intervention inputs are converted through processes into outputs and outcomes towards the impact on changes in health status and health inequities in Rwanda. Thereby, the framework should provide a sufficient degree of conceptual abstraction to be applicable to the interventions throughout the cooperation from 1981 – 2012. Mapping such logical results chains is one starting point in theory-based evaluation and a prerequisite for developing evaluation designs.

In addition, the framework should be grounded in existing conceptual work informed by evaluation, research, and policy to ensure relevance and comparability for all stakeholders involved. The evaluation team safeguarded this by reflecting conceptual work on evaluating health interventions by the International Health Partnership (WHO, 2009b), the World Health Organization (WHO, 2007, 2010) and Bryce, Victora, Boerma, Peters, and Black (2011). Evaluation-specific terms used (e.g. inputs, outputs, impacts) follow the definitions by the OECD-DAC (2002).

Finally, the framework should be context-sensitive in the sense that it includes interfaces of the interventions with the Rwandan health system and the broader context to be able to assess how the Rwandan-German cooperation has "steered" under different circumstances and which impulses it has in turn elicited. Because health is not solely influenced by the health system, but also by exogenous determinants residing in the broader social, economic, and political context (CSDH, 2008; Wilkinson & Marmot, 2003), the analytical framework incorporates three layers: (1) the Rwandan-German Cooperation, (2) the Rwandan health system, and (3) the broader socioeconomic and political context. These layers should be understood as nested or mutually embedded, meaning that both the Rwandan-German Cooperation and the Rwandan health system are part of the broader context layer.

The analytical framework for this evaluation is presented in figure 1 and discussed in the following sections.

Figure 1: Analytical Framework



Source: Amended from Bryce et al. (2011) and WHO (2007, 2009b, 2010).

1.1 From inputs to outputs: The Rwandan-German cooperation in the health sector

The first layer conceptualizes the conversion of inputs via the interventions of the Rwandan-German cooperation into outputs. Inputs are defined as all human and financial resources that have been used for the interventions – both by the German cooperation and partner institutions and on all levels (beneficiary, institutional, systemic).

Activities in the framework of Rwandan-German interventions process these inputs to outputs. Consistent with Bryce et al. (2011), outputs should contribute to improved health system functioning and improved health services in Rwanda. Conceptually, the output-level in our framework hence marks the permeable boundary between the Rwandan German cooperation and the larger Rwandan health system.

1.2 From outputs to outcomes: The Rwandan health system

The second layer refers to the Rwandan health system. According to the World Health Organization, a health system "consists of all organizations, people and actions whose *primary intent* is to promote, restore or maintain health" (WHO, 2007, p. 2; emphasis in original). This definition encompasses all national and international actors and commitments in Rwanda, including the activities and interventions of the Rwandan-German cooperation. Outputs and outcomes should contribute to improved health system functioning and better health services in terms of access,

quality, efficiency and utilization (Bryce et al., 2011; WHO, 2009b). Outputs can be classified according to three major components covering all health system's core functions (WHO, 2010): (1) human and financial resources, (2) products and technologies as well as (3) leadership, governance and health information systems. These three components, in turn, comprise all health system building blocks as defined in the WHO's framework for action (2007). Outcomes are the short- and medium-term effects of outputs and understood here as the coverage of interventions, behaviour change, service responsiveness and prevalence risk (Bryce et al., 2011; WHO, 2009b).

1.3 From outcomes to impacts: The broader Rwandan context

The third and last layer covers the political and socioeconomic trends and determinants which influence the health system's performance and thus the programmatic efforts of the Rwandan-German cooperation as a part of it. Hence they need to be addressed as possible confounders. In a broader sense impact is understood as defined by the OECD-DAC (2002) as all medium and long term positive and negative, primary and secondary effects, produced by a development intervention, directly or indirectly, intended or unintended. In addition to these wider effects, the framework focuses on the primary, direct, and intended impact of GDC on the Rwandan health status since 1980, which can be summarized as changes in mortality and morbidity, health inequity, risk protection, and fertility of the Rwandan population. This is in line with the definition of impacts in the health system as suggested by Bryce et al. (2011) and the WHO (2009b).

1.4 Summary: Analytical framework

Summing up, the analytical framework serves as tool to reduce the complexity of the evaluand by disaggregating it into analytically operable units. The analytical framework clarifies the definitions of key concepts for this evaluation. In accordance with other health evaluation frameworks, it maps the relations between these concepts and locates them in three mutually embedded and permeable layers: (1) the Rwandan-German cooperation, (2) the Rwandan health system, and (3) the broader Rwandan country context. While not turning a blind eye to context, this generic framework hence formed the basis for constructing more detailed theories of change.

2. Evaluation designs

The evaluation designs build on the phase distinction (phase I: 1980 – 1994; phase II: 1995 – 2003; phase III: 2004 – 2012) and the analytical framework. Due to the summative character of this evaluation, the availability of resource persons, relevant documentation, and secondary data was limited – the earlier the period under evaluation, the more severe the limitations.

2.1 Phases I and II

The turbulent political situation, open violence, and volatile post-conflict situation since the 1980ies until the new regime's consolidation (marked by the 2000 and 2003 elections) necessitated a rather flexible approach to the phases I and II to ensure feasibility: To not miss important information due to the rather incomprehensive official documentation, DEval embarked on a very open, rather inductive data collection approach guided by the evaluation questions.

As former DED development worker have been seconded on a long-term basis to partner organizations in close proximity to the target groups, they were considered special resource persons. Statements and assessments from both a survey and in-depth follow-up interviews thus provided a fabric reflecting the then-realities and framework conditions on the ground. These time-witnesses' accounts are complemented by reports taken from the implementing agencies', BMZs' and individuals' archives. In addition, DEval identified and interviewed Rwandan key informants for the health system. Project documentation and more process-oriented documents of the Rwandan-German

cooperation (e.g. workshop minutes) served to reconstruct the changes in planning and hence evolution of the development cooperation in the health sector. Interviews with former German staff (in the case of development workers, survey results as well) and their Rwandan counterparts were the method of choice to assess implementation and achievements. Aid disbursements and critical junctions for development cooperation were identified through a portfolio and context analysis to assess how GDC steered in the larger country context.

All data produced via these data collection instruments and analytical approaches were imported to analysis software for qualitative data (MAXQDA), coded and analyzed using the overarching evaluation questions and the analytical framework as guiding concepts.

2.2 Phase III

The main methodological challenge for phase III was to adequately evaluate a program with multiple components and multiple interventions levels in the multi-donor environment of a Sector Wide Approach under strong national ownership.

Preconditions for evaluating phase III

During the inception phase of this evaluation, the DEval evaluation team explored the feasibility of evaluation approaches for attributing health effects in the Rwandan population to German support. Applying a (quasi-)experimental approach proved impossible because neither the Rwandan-German program since 2003 nor parts of it have been implemented following randomization. In addition, the scarcity of available data (e.g. lack of baseline information, absence of program-specific monitoring) would not allow eliminating threats to internal validity satisfyingly. Lastly, by definition (quasi-) experimentation demands close control by the evaluator to establish cause-effect relationships and hence often focuses on a narrowly defined set of variables. The authors of a recent DFID-working paper highlight the downside to this when concluding that in evaluation "there is a tradeoff between scope of a program and strength of causal evidence" (Stern et al., 2012, p. ii). Further aggravating this "scoping problem" is the degree of alignment of the program to national health priorities in the framework of a SWAp. Desirable in itself according to the Paris and Accra paradigm, it even further complicates attribution analysis and led the evaluation team to embark on another approach for evaluating phase III.

Contribution analysis as evaluation design for phase III

Given these preconditions for evaluating a complex program operating in a complex environment, the DEval team chose to adopt a contribution analysis as evaluation design for phase III. Contribution analysis is a theory-based evaluation approach (cf. Mayne, 2011) that has been developed for scenarios when attribution analysis is inapplicable or unfeasible. Contribution analysis asks "in light of the multiple factors influencing a result, has the intervention made a noticeable contribution to an observed result and in what way?" (Mayne, 2012, p. 273). As a comparative advantage, the logic behind contribution analysis puts stronger focus on causal mechanisms and the interplay of influencing factors than the (quasi-)experimental rationale. This emphasis makes contribution analysis a suitable tool for taking stock of the variety of experiences gained in the course of the Rwandan-German cooperation in a SWAp-framework.

The conceptual backbone to contribution analysis is examining and testing the theory of change of an intervention against logic and evidence (both available and gathered). Causality is inferred if the intervention is based on a theory of change, has been implemented as planed according to the theory of change and the theory of change is corroborated by evidence (cf. Mayne, 2012, p. 272). Thereby, contribution analysis follows six key steps: (1) Set out the cause-effect issue to be addressed; (2) Develop the postulated theory of change and risks to it, including rival explanations; (3) Gather the existing evidence on the theory of change; (4) Assemble and assess the contribution claim, and challenges to it; (5) Seek out additional evidence; and (6) Revise and strengthen the contribution story.

The basic unit of analysis in contribution analysis is the causal link, i.e. the postulated causal mechanism linking two elements

of a theory of change (or, generally speaking, a logic model or results chain). A contribution claim regarding a causal link asks whether an intended change did (or did not) occur, due (or not due) to the intervention's contribution, while considering other influencing factors (cf. Delahais & Toulemonde, 2012, p. 291). The robustness of a causal claim hence depends on the items of evidence gathered from existing studies, secondary data analysis or analysis of newly collected primary data, their strength of evidence and their triangulation. In short, "contribution claim = a verified theory of change + other key influencing factors accounted for" (Mayne, 2012, p. 273). The contribution story presents one or more contribution claims as a coherent narrative of (a branch of) the theory of change and its evidence base.

Implementing the Contribution Analysis

Building on work by Delahais and Toulemonde (2012) and Mayne (2012), this section outlines how the DEval team adapted and conducted the six key steps of a contribution analysis for the Rwandan-German cooperation in the period 2007 – 2012.

Step 1: Set out the cause-effect issue to be addressed.
On basis of the interim-/inception report, the reference groups in Rwanda and Germany were invited to discuss the preliminary findings and suggest thematic foci to be studied in depth during the upcoming consolidation phase of the evaluation. The DEval team gathered these suggestions and decided on the final thematic foci. Guiding principles for selecting and shaping these foci were (1) the proximity of the activities in the suggested focus to the core problem the program sought to address, (2) policy relevance of the topic for the Rwandan government, (3) the resource input channeled via implementing agency in relation to the German portfolio in the health sector, and (4) evaluability/feasibility considerations. These guiding principles operationalize – to different degrees – the evaluation purposes for this phase, i.e. documentation, learning, accountability, policy development, and strategic management.

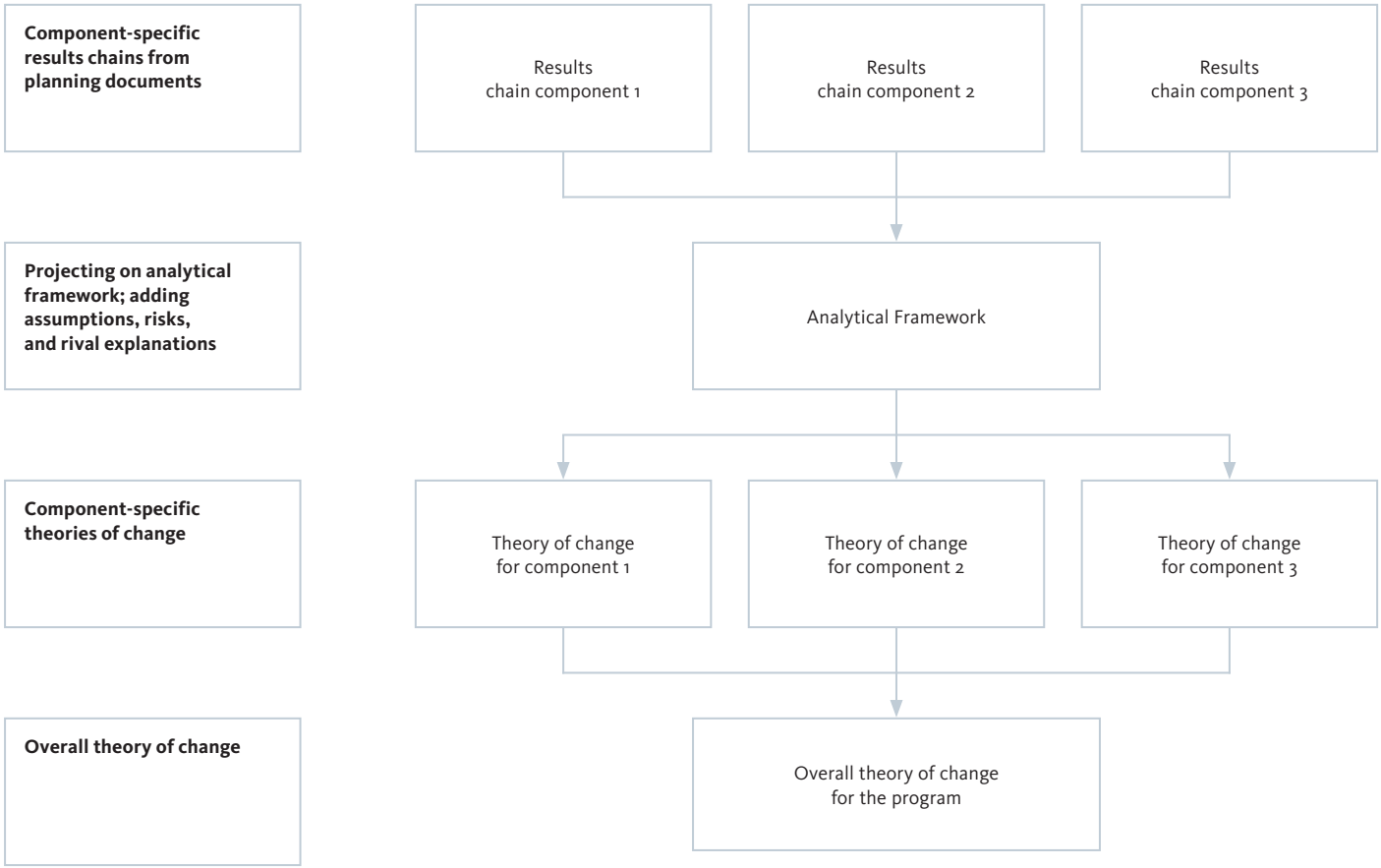
Step 2: Develop the postulated theory of change and risks to it, including rival explanations.
As starting point for mapping the logic model underlying the program, the evaluation team identified and screened relevant planning documents for the Rwandan-German program.[1] The team then extracted the information provided there by using the analytical framework as filter.

The planning documents already made explicit a large share of the logic underlying each of the program components (health system development & health financing; sexual & reproductive health; human resource development). While each of these components was coherent for itself, the components' goals referred to different output, outcome, and impact levels and could thus hardly be integrated into one program theory. The evaluation team hence projected the results chain of each component on the analytical framework and connected these "stretched" component-specific theories of change to an over-arching theory of change (cf. figure 2). Simultaneously, the evaluation team collected assumptions, risks, and rival explanations from the planning documents, critical reasoning, experience, and both the academic and grey literature. During an internal workshop, the evaluation team then assigned these features to one or more causal links. Both the component-specific and the overarching theory of change were discussed with former program staff for validation and slightly adjusted accordingly. These theories of change are documented in Annex D.

Step 3: Gather the existing evidence on the theory of change.
The evaluation team crafted *evidence analysis tables* (cf. Delahais & Toulemonde, 2012) containing stand-alone branches of the theory of change[2] as well as the corresponding assumptions, risks, and alternative explanations. Existing items of evidence (i.e. information confirming or refuting a causal link as outlined in the theory of change) gathered during the exploratory phase of the evaluation (which included three weeks of field work by consultants) were then added to the tables.

[1] *To ensure readability, the documents are listed here and not cited in-text. The team screened the country strategy paper (GoR & BMZ, 2003), program proposals (Doc. 44; Doc. 43; Doc. 56), the results chains of the components in English and German, and a joint progress review report (Doc. 45).*
[2] *Example: The theory of change for the component "health financing" can be meaningfully sub-divided into two branches for "performance-based financing" and "community-based health insurance", respectively.*

Figure 2. Flow-chart of the process of (re-)constructing the theories of change



Steps 4 and 5: Assemble and assess the contribution claim, and challenges to it. Seek out additional evidence.
Structuring the up to then available items of evidence along the theories of change allowed formally assessing the extent to which the theories of change had already been covered by evidence. Due to the exploratory/inception character of the evaluation up to this moment, it was clear that the items of evidence did not yet suffice to robustly assess the program's contributions. Thus, the evaluation team did not, as suggested by Mayne (2012), assemble and assess the contribution claim at that stage.

Rather, the evaluation team revisited the thematic foci (cf. step 1) and identified those causal links of the theories of change still lacking sufficient evidence. This needs assessment led to designing the following methods and data collection tools for gathering further items of evidence: a survey among former development workers, interviews with different groups of key informants, a Comparative Case Study of four district health systems, and a statistical data analysis of the latest round of the demography and health survey (DHS) in Rwanda. Taken together, these "methodological packages" all feed into the contribution

analysis as an overarching evaluation approach and generated the items of evidence necessary to arrive at robust assessments of the program's contributions.

Step 6: Revise and strengthen the contribution story.
According to Mayne (2012, p. 272), this step encompasses building a more credible contribution story, reassessing its strengths and weaknesses, and revisiting step 4. Due to the schedule of the evaluation and resulting time constraints, the evaluation team did not adhere to such an iterative process repeating steps 4 through 6. Rather, the team crafted the contribution claims and composed them to contribution stories for each strand of the program's theory of change. These contribution claims and the corresponding evidence correspond to the assessments of the OECD-DAC criteria of effectiveness and impact and are presented in chapter B.3.3.1 – 3.3.4 under the section for effectiveness and in chapter B.3.4. on impact, respectively.

2.3 Critical appraisal of the evaluation designs

Regarding the approach to phases I and II, the main limitation was data availability. As a consequence to the tragic losses related to civil war and genocide, it was hard to identify resource persons and counterparts for the earlier phases. To address this challenge, the evaluation team applied the sampling principle of snowballing and asked interview partners about further colleagues and informants. A second problem relates to project documentation: In some cases, the compulsory period of record-keeping has been completed and in virtually all organizations the archives were re-organized (keeping in mind that in the period under evaluation physical files were replaced by digital ones). While the evaluation team invested considerable time and efforts and is convinced to have gathered a critical mass of documentation allowing to sketch the Rwandan-German cooperation in the earlier phases, it must refrain from detailed assessments of the projects.

The complexity of the program and the SWAp environment in which it operated led the evaluation team to choosing contribution analysis as evaluation approach for phase III. Despite developing an analytical framework to manage this complexity, the theories of change underlying the program are still fairly complex (cf. Annex D), containing a multitude of causal links to be tested. With regard to evaluating this and similar programmatic approaches, two fundamental problems arise.

First, every additional link under examination increases the resource demands for the overall evaluation. This necessarily leads to the above mentioned trade-off between scope and causal strength of evidence (cf. Stern et al., 2012).[3] Only deliberate decisions regarding the scope of an evaluation by the evaluation stakeholders and team, taking into account the principle of evaluation efficiency, can thus ensure a utilization-focus of future and similarly complex evaluations of highly integrated program-based approaches. For the evaluation at hand, the evaluation team is convinced that the contribution analysis delivered robust results mainly relating to the OECD-DAC criteria of effectiveness and impact, but acknowledges that this may have been at the expense of certain questions especially tied to the efficiency criterion.

Secondly, and related to the first problem, programs operating in a SWAp environment reshape the attribution problem. Rather than an attribution gap, the attribution problem is arguably better framed as gradient or continuum: In the case that support is strongly aligned to national priorities and well harmonized among DP, even tracing more proximal effects back to DP deliverables becomes increasingly difficult (i.e., among other, resource-intense), let alone attributing the more highly aggregated outcome and impact levels to them.[4] A resulting lesson learnt was that sufficient resources should be devoted to explicitly formulating and collecting other influencing factors and rival explanations questioning the program's contribution. The evaluation team allocated considerable time and resources to this step when reconstructing the theory of change and is confident

[3] *Please note that this does not even touch upon another resource trade-off and point of contention among different evaluation paradigms: What should be valued higher, causal description or causal explanation? Thereby, causal explanation refers to "clarifying the mechanisms through which and the conditions under which [a] causal relationship holds" (Shadish, Cook, & Campbell, 2002, p. 9). In contrast, causal description aims at "proving" that variable A is a cause for an effect in variable B.*

[4] *Outcome and impact here refer to the OECD-DAC definitions (OECD-DAC, 2002) and not to definitions of impact that already embrace attribution as constitutive element like, e.g. 3ie's (White, 2009).*

to have gathered sufficient evidence on the mechanisms of the program to solidly back the conclusions drawn in this report. For future complex evaluations, however, the team still sees untapped potential for a stricter testing of theories of change by putting more focus on rival explanations and invalidating their postulated influence and laying more focus on validating the theory of change with key stakeholders.

3. Methods and data collection tools

This section outlines the methods and data collection tools applied in this evaluation. As a preliminary remark, it is important to keep in mind the two-fold purpose of this evaluation over the course of time: while the emphasis of this evaluation for the phases I and II (ranging from 1980 to 1994 and from 1995 to 2003, respectively) rests on documenting the evolution of the Rwandan-German cooperation and its adaptations to the country's contexts, the focus of phase III (2004 – 2012) is on delivering items of evidence feeding into the theory-based contribution analysis.

3.1 Survey of former DED development workers

DED development workers represent a constant of Rwandan-German development cooperation in the health sector: DED development workers have been the first German professionals to enter the health sector and have (with short exceptions during the civil war and genocide) been in Rwanda until the termination of the program in 2012. Because the DED's working philosophy has been to second development workers to the grassroots level to work there participatory for several years, the evaluation team considered former DED development worker as valuable key informants for both program- and context-related information.

Purpose

The purpose of surveying former DED development workers for this evaluation is twofold: (1) In general, documenting and assessing the evolution and results of this instrument of staff seconding in the context of the Rwandan-German cooperation in the health sector, and (2) for the last phase dating from 2004 to 2012, assessing the contributions to human resource development in the context of the health SWAp.

Scope

The population to be covered by this survey is defined as all DED development workers who have worked in the Rwandan health sector between 1980 and 2012. A person qualifies as development worker if he/she fulfills the requirements as outlined in §1 of the German law on development workers from 1969 (Federal Republic of Germany, 2011). Development workers seconded by other agencies as well as DED junior technical assistants (DED trainees from the *Nachwuchsförderprogramm*) do not fall under the population definition for the purpose of this evaluation.

Approach

Two-Staged Process

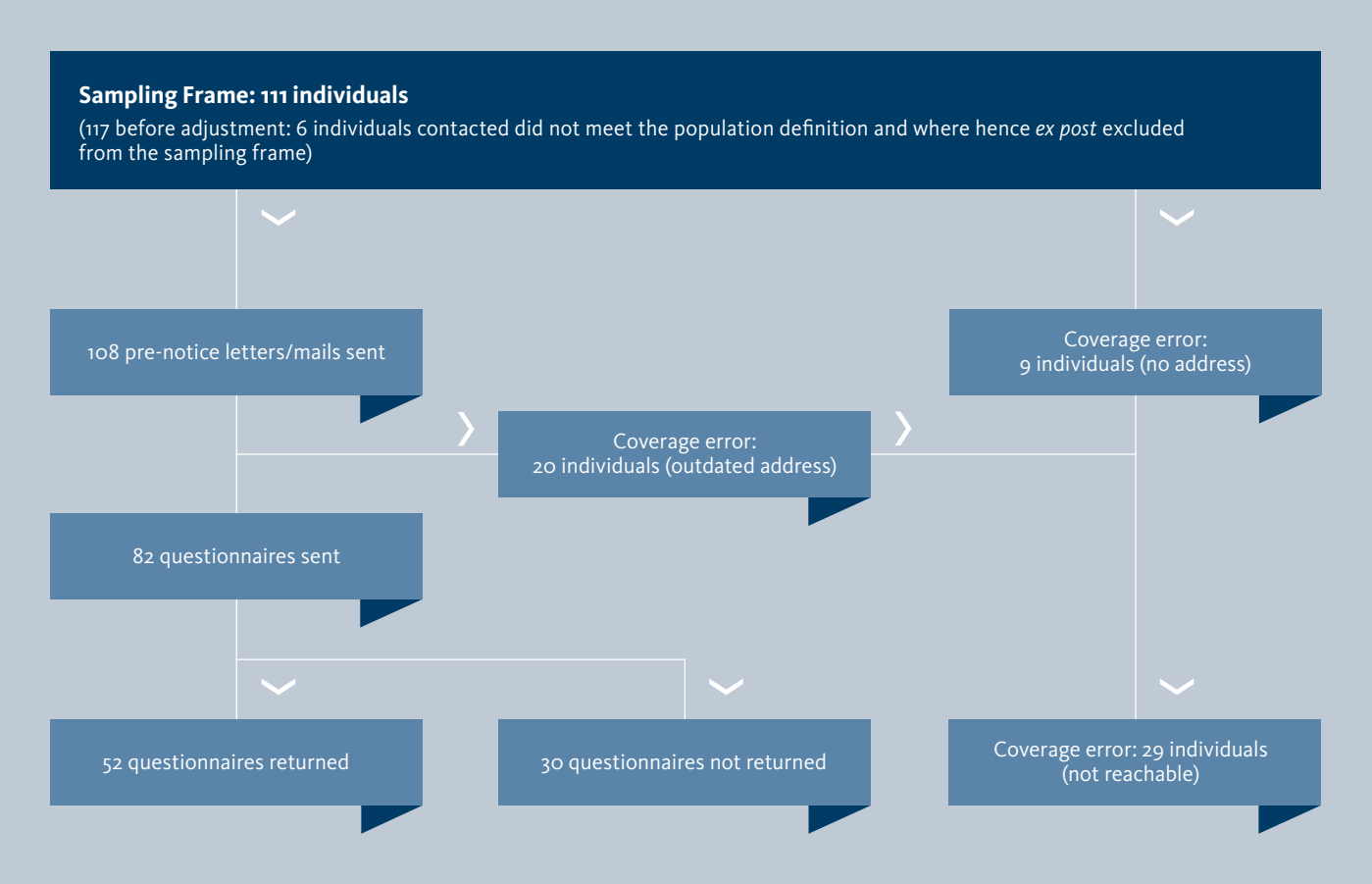
DEval decided to embark on a two-stage process for surveying this population: (1) A standardized mixed-mode survey (online mode vs. paper & pencil mode) to gather a set of core data which allow to describe major trends of the instrument of development workers, the framework conditions of their work, and self-assessments of their results. For developing the questionnaire and sampling design, pretesting and contacting of respondents, the DEval team drew on the tailored design method (Dillman, Smyth, & Christian, 2009). While this approach allows making "broad" statements over time, it can only insufficiently highlight the peculiarities which lead the survey respondents to their answer on an item. To cope with this de-contextualization of information relevant for the evaluation, the (2) second stage consisted of in-depth semi-structured interviews with a sub-group of respondents of the first stage. The documentation of the second stage of this process is contained in the section on interviews.

Sampling Design for the mixed-mode survey

The starting point for compiling the sampling frame for the survey has been a list provided by the GIZ country office containing 133 entries. Several refinement rounds (plausibility checks,

removal of duplicates, etc.) yielded a population list containing 111 individuals eligible for the survey. Because the margin of error induced when surveying only a subset of the population (i.e. sampling error) *ceteris paribus* depends on the size of the sample and not the proportion of the population sampled (Dillman et al., 2009, p. 55), the evaluation team decided to contact all eligible former DED development workers.

Figure 3: Flow-chart outlining the process of sampling implementation for the standardized survey of former DED development workers.



Implementation of the mixed-mode survey

The DEval team sent pre-notice letters and e-mails to all individuals on the sampling frame for which contact details were available. The original sampling frame (117 entries) had to be adjusted *ex post* because six individuals responded to our request to participate in the survey that they have never actually been development workers in the Rwandan health sector. Of this targeted population of 111 individuals, the evaluation team was unable to contact 29 persons (26 %) via a pre-notice message due to unavailable or outdated contact details (i.e. *coverage error*). Of these 82 questionnaires sent, 52 persons returned a completed questionnaire (cf. figure 3), resulting in a response rate of 63 %

of those contacted and a response rate of 47 % of the overall population. Of the 52 completed surveys, 19 respondents (37 %) answered the paper & pencil mode of the survey, 33 the online mode.

For all individuals in the sampling frame, DEval had information on sex and the placement period. Comparing the univariate distributions of sex, phase (phase I: 1981 – 1994; phase II: 1995 – 2003; phase III: 2004 – 2012), and the bivariate distributions of sex and placement period in the sampling frame (population) with those in the completed sample, χ^2-tests revealed no systematic deviations. Hence, one could say that the sample surveyed is representative of the population with regard to gender composition and placement periods.

Limitations

The evaluation team experienced difficulties when tracing eligible respondents, especially those from the earlier phases. Considerable efforts were made, but in 29 cases up to date contact details could not be obtained (i.e. coverage error). While in relative terms the response rate of 46 % (52 returned questionnaires from a total population of 111) is more than satisfactory, the sample surveyed – and even the population itself – is rather small in absolute figures. Hence, the percentages presented – especially when temporally disaggregated – should not be interpreted as generalizable point estimates. Possible problems relating to self-assessments are discussed in the section on interviews.

While it is impossible to exclude negative influences of these limitations, DEval is confident to have generated high-quality data through the two-staged survey: the fact that the sample can be considered as representative for the population with regard to the phase-specific age distribution lends plausibility to the notion that the individuals surveyed constitute more than just a convenience sample. Furthermore, the qualitative follow-up interviews with a sub-sample of the survey served for triangulating responses with contextualizing narratives.

Summary: Survey of Former Development Workers

Former DED development workers are considered as key informants by the evaluation team due to their long placements in the health sector and direct exposition to target groups. To tap into this expertise in order to document and assess the evolution and results of this instrument of staff as well as its contributions to human resource development in the context of the health SWAp, DEval designed a two-stage process: for surveying these development workers balancing both analytical "breadth" and "depth", DEval conducted (1) a standardized mixed-mode survey (online mode vs. paper & pencil mode of the same questionnaire) followed by (2) in-depth semi-structured interviews with a purposive sub-sample of the survey respondents in the first stage.

The efforts made for sampling and triangulating survey responses with narratives from follow-up interviews should outweigh problems connected to the small sample size. Nevertheless, one should understand the survey results stated in percentages as indications of trends rather than precise statistical estimates.

3.2 Interviews

The DEval and extended evaluation team conducted 136 interviews with 316 interviewees during the exploratory phase of the evaluation and another 128 interviews during the consolidation phase.[5]

Purpose

The purpose of the interviews conducted during the exploratory phase laid on scoping the evaluation, assessing the feasibility of different evaluation approaches, "getting to know" the program and its context, and gaining preliminary insights for phase III regarding the OECD-DAC criteria. The interviews conducted during the consolidation phase aimed at corroborating the preliminary results of the exploratory phase by producing items of evidence along the theory of change that fed into the contribution analysis for phase III. The in-depth interviews with former DED

[5] *Of the 128 interviews conducted during the evaluation's consolidation phase, some key resource persons were interviewed several times on different topics. In addition to the 128 interviews listed here, further 24 interviews and 28 focus group discussions were conducted for the Comparative Case Study.*

development workers mark an exception in that regard by also serving to test the hypotheses derived in the context analysis.

Scope

Due to the multi-level design of the Rwandan-German program in phase III, the interviews during the exploratory phase targeted key informants on both central level and decentralized level, i.e. in the districts. The interviews on central level included – next to the program's staff – MoH staff and other DP as well as resource persons from academia and the NGO scene. Interviewees on the district level comprised government staff responsible for district policies as well as representatives from health facilities and the public health system (e.g. CBHI managers). The external evaluation team selected the interviewees for the SWAP and all components (sexual & reproductive health, human resource development, and health financing).

The target groups for the interviews of the consolidation phase were sampled to generate items of evidence along each strand of the theory of change. Guiding principles were the possibility to juxtapose the point of view of former staff members and Rwandan partners/counterparts on the working level and those on the steering/management level. Special emphasis for the phases I and II was put on former development workers who were considered resource persons for the country's health context and realities on the ground due to their long-term placement and strong embeddedness in partner structures.

Approach

Sampling

Main target groups for the interviews during the consolidation phase comprised former beneficiaries of human capacity development interventions (35 interviews), former project and program staff (including development workers and CIM integrated experts: 47 interviews), former counterparts and Rwandan project/program staff (17 interviews), key informants on the health SWAp (25 interviews), and other development partners in the Rwandan health sector (4 interviews). Table 1 provides an overview of the criteria defining the respective target populations, the populations' size (if known), the chosen sampling procedure, and the sample implemented for the consolidation phase. For an overview of the interviews conducted per component, level, and stakeholder category during the exploratory mission; please refer to table 2.

Interview Guidelines and Analysis

While DEval expected the standardized mixed-mode survey to generate core information that is comparable across respondents, the evaluation team ascribed high importance to collecting more contextualized individual assessments in addition. The in-depth interviews with former development workers following-up on the survey results were semi-structured. Departing from the individual responses given in the survey, these interviews covered the development workers' (1) goals and tasks; (2) cooperation with Rwandan partners and other German or international organizations; (3) framework conditions for their work; (4) more specific questions on the context hypotheses; and (5) personal assessments along OECD-DAC criteria. The interviews with development workers who have worked in the junior doctors/intern program covered the same topics, but were not geared towards answering the context hypotheses.

Because data collection tools with a higher degree of standardization, by their nature, do not allow for contextualized in-depth assessments or iteratively probing into topics, all other interviews were conducted in a more open manner. The topics covered by the guidelines were (1) personal information and information regarding the interviewee's function/work background; (2) goals, major changes, and results; (3) assessment of the contributions of the Rwandan-German cooperation; (4) the cooperation with/among German implementing agencies; and (5) framework conditions influencing the health sector.

To safeguard respondents' privacy, items of evidence generated in interviews are referred to by pseudonymized identifiers consisting of an acronym for the target population and a consecutive number for the individual interviewee (cf. tables 1 and 2). In some cases, target populations share the same acronym to avoid the retraceability of their identity. End users of health services were targeted by the Comparative Case Study approach.

All interviews were based on guidelines and conducted accordingly. These guidelines are available from DEval upon request. For analysing the interviews, the evaluation team prepared transcripts for every interview and imported those to the analysis software MAXQDA. Every member of the evaluation team received all interview transcripts for coding and analyzing them. By pooling all transcripts, the team ensured that relevant information collected by other team members was considered.

Limitations

A word of caution relates to the self-assessments by respondents collected in the survey and interviews: The respondents' statements might be – even unconsciously – biased (cf. White & Phillips, 2012, pp. 19 – 24, for a brief overview on potential sources of bias). Further aggravating this problem could be questions that ask about work experiences that lay, at least for some respondents, far in the past. The most important memory effects to keep in mind are that (1) individuals' memories blur over time, (2) profane and everyday events are vaguely remembered, and (3) answers about time specifications such as the month or year of certain incidence may be imprecise (cf. Dillman et al., 2009).

Regarding the self-assessments, the interviewers had the impression that the respondents were rather outspoken, especially as the majority of them did not have any continuing bounds to their workplace hence alleviating the influences of conflicting interests attached to the survey. The interviewers furthermore promised to treat interview statements confidentially. The questions of both survey and interviews did not put emphasis on detailed factual information to not trigger memory effects. In addition, different team members conducted the interviews independently from each other. Thus, all inferences drawn on the basis of interviews do not rely on a single interviewer or respondent. Triangulating the information with evidences gained by other methods or literature research with those collected in interviews adds further to the credibility of the results.

Summary

The DEval and extended evaluation teams conducted 136 interviews with 316 interviewees[6] during the exploratory phase of the evaluation and another 128 interviews[7] during the consolidation phase. The interviews during the exploratory phase emphasized on scoping the evaluation, assessing the feasibility of different evaluation approaches, "getting to know" the program and its context, and gaining preliminary insights for phase III regarding the OECD-DAC criteria. The interviews conducted during the consolidation phase aimed at corroborating the preliminary results of the exploratory phase by producing items of evidence along the theory of change that fed into the contribution analysis for phase III. The in-depth interviews with former DED development workers mark an exception in that regard by also serving to test the hypotheses derived in the context analysis.

Main target groups for the interviews comprised former beneficiaries of human capacity development interventions (35 interviews), former project and program staff (including development workers and CIM integrated experts: 47 interviews), former counterparts and Rwandan project/program staff (17 interviews), key informants on the health SWAp (25), and other development partners in the Rwandan health sector (4 interviews). To safeguard respondents' privacy, items of evidence generated in interviews are referred to by pseudonymized identifiers. End users of health services were targeted by the Comparative Case Study approach.

To avoid negative influences of self-assessments on the data quality, the evaluation team put special emphasis on diminishing privacy concerns and memory effects, while capitalizing on triangulation in collecting and analyzing interview data.

[6] *Please note that the overall total number of interviewees during the exploratory phase is due to double-counting of interviewees who have been interviewed for more than one component. In total, 238 people have been met.*

[7] *Some key resource persons were interviewed several times on different topics during the consolidation phase. In addition to the 128 interviews listed here, further 24 interviews and 28 focus group discussions were conducted for the Comparative Case Study.*

Table 1: Summary of target populations and their sampling for interviews conducted during the evaluation's consolidation phase.

Target population	Size of target population	Sampling procedure (targeted sample size)	Sampling criteria	Implemented Sample	Pseudonym
Former DED development workers in the Rwandan health sector between 1980 and 2012	111 individuals	Two-stage process: Stage 1: census among eligible individuals (111 individuals)	Stage 1: not applicable (census)	Stage 1: 52 individuals	S DW
		Stage 2: purposive sampling with sub-set of stage 1 (14 individuals)	Stage 2: maximizing heterogeneity with regard to phase, placement level, and (for phase I only) placement period.	Stage 2: 13 individuals	INT InD DW
Former development workers working for the DED junior doctors/intern program	19 individuals	census (19 individuals)	not applicable (census)	9 individuals	INT HRD DW
Former participants of *international leadership training* (ILT) on hospital management	17 individuals	census (17 individuals)	not applicable (census)	15 individuals	INT HRD HM
Former junior doctors/interns trained by development workers	unknown	snowball sampling (not applicable)	Trained by development worker	20 individuals	INT RP
Former Rwandan project/program staff, counterparts, resource persons	unknown	purposive sampling (snowballing for phases I and II)	maximizing heterogeneity with regard to function, project/program area and thematic phase	17	INT RP
Resource persons from other (non-German) development partner organizations	unknown	purposive sample	Involved in SWAp	4 individuals	INT DP
German project/program and head quarter staff (except development workers and integrated experts)	unknown	purposive sample	maximizing heterogeneity with regard to function, project/program area and thematic phase	22 individuals	INT EXP
CIM integrated experts	8 individuals	purposive sampling (3 individuals)	maximizing heterogeneity with regard to placement period and placement level.	3 individuals (1 individual not reachable, 1 individual of another phase was oversampled)	INT EXP
Resource persons from MoH, MINECOFIN, DP, and district level regarding SWAp	unknown	purposive sampling	maximizing heterogeneity with regard to function, central vs. decentralized, role in SWAp (DP vs. Rwandan side)	25 individuals	INT SWAp

Note: "Pseudonym" refers to the code (plus consecutive number) used as identifier for an individual interview throughout this report.

Table 2: Summary of interviews conducted during the evaluation's exploratory phase.

Level and category	No. of interviews	No. of interviewees
Overview of Interviews performed by the HF team		
Central level		
MoH	6	13
DP (non GDC)	4	15
GDC	5	5
Political level outside MoH	4	5
Academia	1	2
NGO	2	2
Subtotal	**22**	**42**
District level		
District authorities	4	19
District CBHI representatives	5	6
District hospital staff	3	11
Subtotal	**12**	**36**
Total	**34**	**78**
Overview of Interviews performed by the HRD team		
MoH	6	8
GDC	6	6
DP	3	6
Academia (NUR medical faculty and School of Public Health)	3	3
Staff of CHUB and district hospitals (Byumba, Gakoma, Kabutare and Mumini hospitals)	8	16
Medical students trained at medical faculty and CHUB	1	6
Nursing school of Byumba	1	3
Total	**28**	**48**
Overview of Interviews performed by the SWAp team		
MoH	5	6
DP	7	12
GDC	8	10
Other Ministries and political level outside MoH	3	4

Level and category	No. of interviews	No. of interviewees
District authorities	3	10
Total	**26**	**42**
Overview of Interviews performed by the SRH team		
Central level		
MoH	8	18
DP (non GDC)	4	8
GDC	12	24
Political level outside MoH	2	4
NGO	3	8
Subtotal	**29**	**62**
District level		
District authorities	9	21 (incl. 3 SRH representatives)
District hospital and health centre staff	7	60 (incl. approx. 30 CHW and 25 PE)
GDC	2	4
NGO	1	1
Subtotal	**19**	**86**
Total	**48**	**148**
OVERALL TOTAL	**136**	**316**

Note. Interviews conducted in the exploratory phase were coded in the following way: G=Group; INT=Interview; GEN=General (not component specific); SWAp, HF, HRD, SRH=component abbreviations. The last number is randomly assigned for each of the interviews.

3.3 Comparative Case Study of four district health systems

The Rwandan-German Cooperation in the health sector has identified unattainable costs and low service quality as one of the core problems of the Rwandan health sector leading to low health care utilization. DEval commissioned a qualitative comparative case study to a consortium composed of four evaluators of the Kigali-based School of Public Health and assisted their assignment with two national DEval coordinators.

Purpose

Case studies with sub-cases provide a parsimonious way to scrutinize several causal links of a program's theory of change at the same time (cf. Delahais & Toulemonde, 2012). The Comparative Case Study should seek evidence on the changes induced by the Rwandan-German cooperation in the health sector and its phasing out by assessing a cross-section of four district health systems ("cases"), comparing two districts that benefited from German support with two districts supported by other development partners. The study should collect and compare appraisals and perceptions regarding (1) health service quality, (2) access to health services, and (3) utilization of health care services of the following key stakeholders in the decentralized health system: (1) health care providers on different care levels, (2) end users/patients, and (3) those in charge of steering and managing the health system on the district level. Health equity should be treated as cross-cutting issue along the mentioned aspects.

Scope

The geographic scope of the case study comprised four districts (cf. figure 4). Two districts out of five previously supported by the Rwandan-German Cooperation were purposely selected (Gisagara and Musanze). Two other districts not supported by Germany (but by other Development Partners under the Rwandan Policy on the Division of Labor) and presenting similarities with regard to their location and socio-economic characteristics were chosen for comparison: Nyanza and Rubavu.

The temporal scope of the study covered the program's last five years (between 2007 and 2012), i.e. the period when the Rwandan-German program operated under a SWAp architecture. The Comparative Case Study should thus directly feed into the contribution analysis. Regarding the major topics and stakeholder groups already stated, the study should also explore specific issues such as health financing aspects including community-based health insurance (CBHI), performance-based financing (PBF), social funds, sexual and reproductive health (SRH) comprising mother and child health (MCH), family planning (FP), adolescent sexual and reproductive health (ASRH), and HIV/AIDS.

Approach

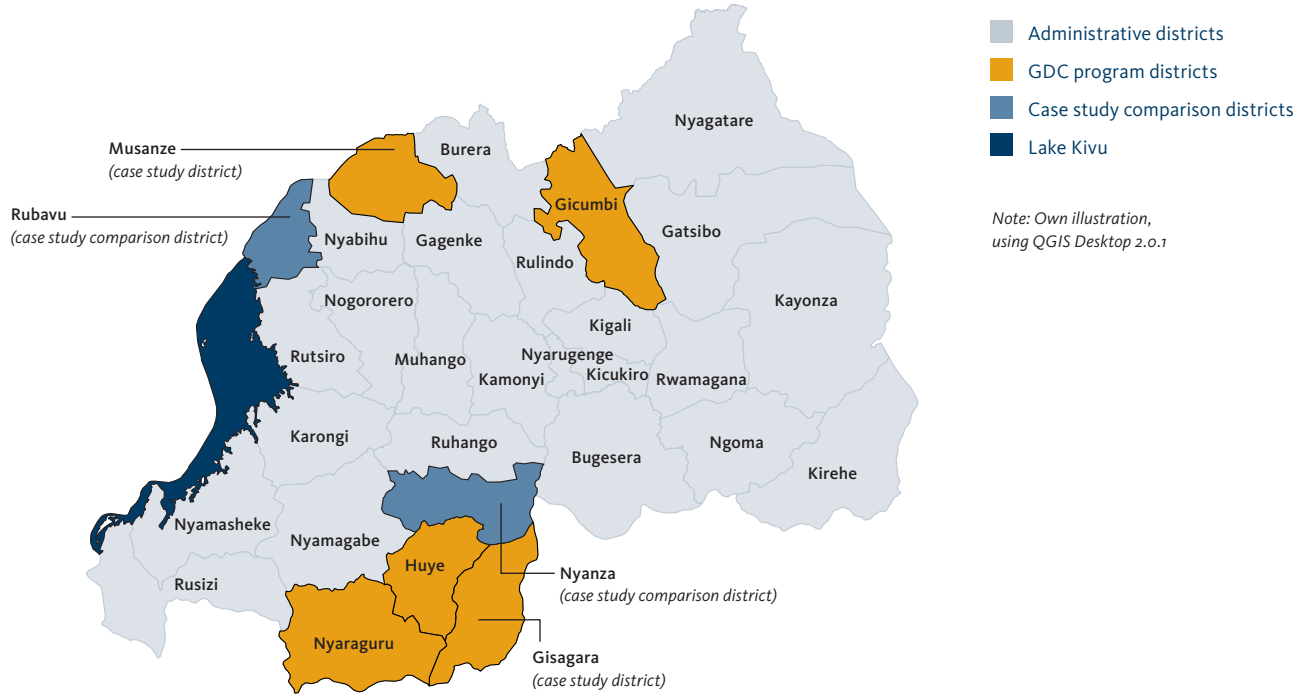
To represent a cross-section of the district health system, the evaluation team had to define cases and sub-cases on several levels (cf. figure 5). These levels encompassed (1) the districts under investigation, (2) one district hospital per district, representing the highest decentralized care level, and (3) within the catchment area of the district hospital, one health center as the first point of service provision. The last level of "sub-cases" are (4) target groups working with or claiming services from the health center, thus representing the end users of the health system.

Case and sub-case selection

For selecting the districts, the criteria taken into consideration were (1) geography (Northern vs. Southern area), (2) previous support in the districts through the program and (3) the service portfolio offered by the district hospitals. In light of the Rwandan-German interventions, Gisagara (part of former Butare) has been relevant for social marketing/family planning activities carried out by the NGO Population Services International supported by the German Financial Cooperation (KfW) and was therefore an interesting study area. For the Rwandan-German Cooperation, Kibilizi was important for services such as maternity, medical equipment, and training of medical doctors in cooperation with the *Centre Hospitalier Universitaire de Butare* in Huye. It was also one of the pilot hospitals for performance-based financing. Nyanza hospital in Nyanza district provides the comparative case for Kibilizi hospital in Gisagara. In the North, the hospital of

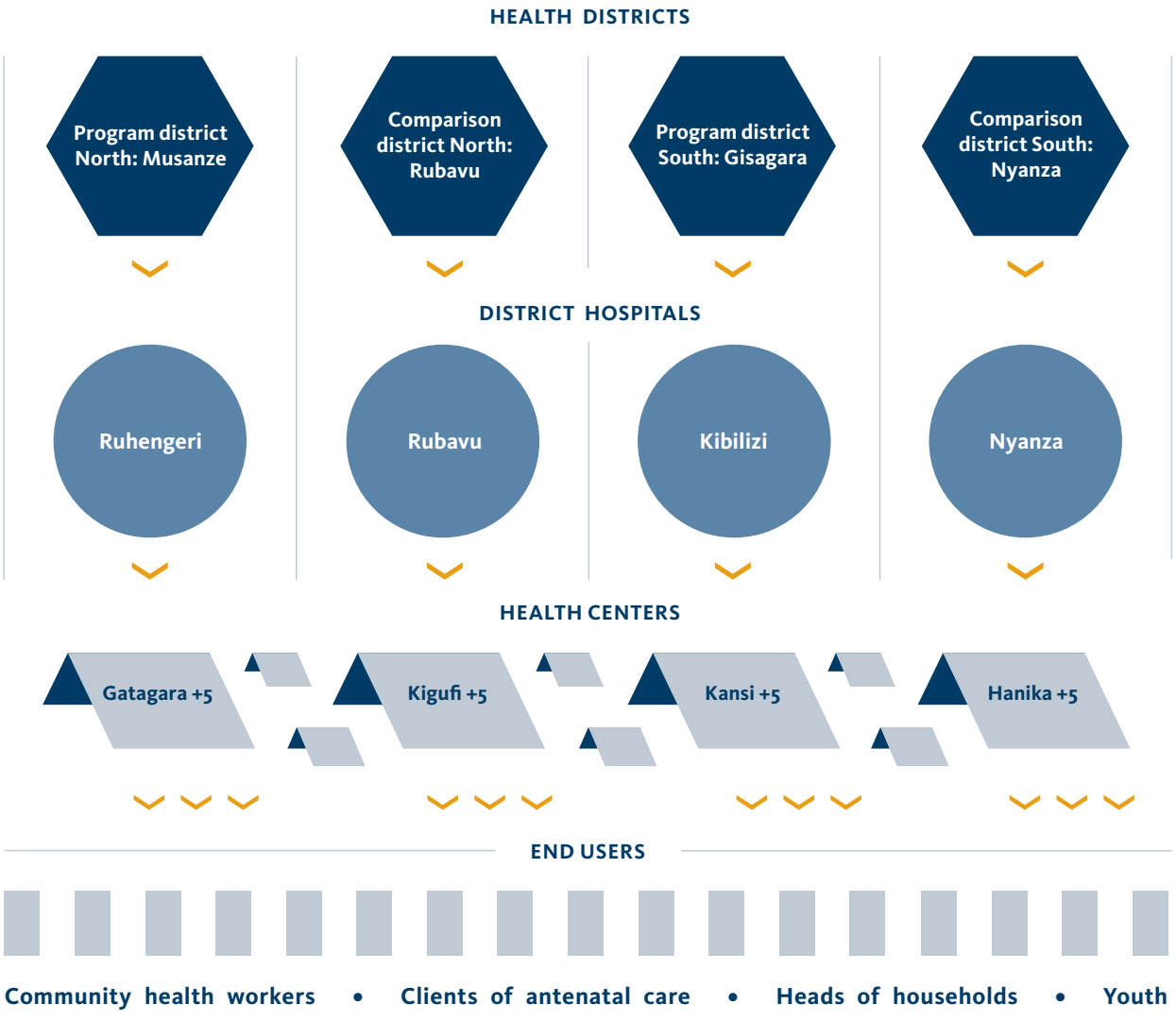
Ruhengeri in Musanze District has similar characteristics acting like referral hospital although not officially holding that level, and has been important for the program by the introduction of PBF and technical assistance in the field of MCH. The hospital of Rubavu serves as comparison due to its functions similar to Ruhengeri in terms of services and referral characteristics. It is worth to mention that the *Centre Hospitalier Universitaire de Butare* in Huye was not considered due to its very different status and the types of services offered.

Figure 4: GDC program districts and comparison districts



In each district, one health center was randomly selected from a sampling frame of all facilities that belong to the district. The following health centers were selected: Kansi in Gisagara district, Hanika in Nyanza district, Gataraga in Musanze district, and Kigufi in Rubavu district. These facilities as well as the five nearest health centers served as the basis for recruiting participants for the focus group discussions.

Figure 5. Schematic representation of the comparative case study approach



Target groups and their selection

In each district, the study population was drawn from members of the existing district-level health managers and leadership and included the Vice-Mayor in charge of social affairs (Chair of the District Health Management Team), the District Director of Health (in charge of coordinating the health sector at district level), the director of the district hospital, the director of the community-based health insurance and heads of health centers. At community level, participants were recruited among the population residing in the catchment area of the randomly selected health center and the five nearest facilities. The case study selected four different groups of end users: (1) clients of antenatal care, (2) heads of households and (3) youth between 15 – 24 years of age. In addition, (4) community health workers

were also included in the category of end users due to their respective tasks and placement in the communities.

At district level, interviews targeted the Vice-Mayor for social affairs, the Directors of health district, the person in charge of social welfare and protection, and the director of CBHI. It was required that the interviewees hold their position for at least the last two years in order to apprehend the changes occurred in the district.

At the hospital level, interviews targeted Director of the hospital and the medical doctor chief of staff. Further to the managerial responsibility, the director of a hospital was also expected to contribute the perspective of medical doctors, while the chief of staff would bring a broader view of the group. Each of the interviewed staff was required to hold the position since at least two years. One focus group discussion was also conducted with nurses and managerial staff. Discussions involved nurses from the various operational areas of the hospital: community activities, maternity, pediatrics, surgery, internal medicine, pharmacy and emergency. The focus group discussions further included management staff from any of the following operational areas: human resources, social cases, customer care, maintenance, monitoring and evaluation and data management. For all participants, the required minimum time of being in charge/holding this position should be 6 month, in order to discuss issues over time. The average number of participants ranged from 8 to 10 individuals.

At the health center level, one focus group discussion was conducted with heads of health facilities. For each health district, one health center was randomly selected as reference health center from all health centers that belong to the district. Based on the assumption that patients seek health services in the most nearby health center irrespectively of the formally designated catchment areas, the 5 nearest health centers were sampled in addition. In total, the six heads of health facility of the so-selected 6 health centers participated in the discussion. Interviews were also conducted with the persons in charge of CBHI in each of the six health facilities selected.

At the end user level, four focus group discussions were conducted in each district. The first round of focus group discussions was conducted with (1) clients of antenatal care who were at the reference health center for care. Focus group discussions were conducted late in the morning, after clients have received care. The group included mostly multiparous women who have been repeatedly claimed services but also some who were using the service for their first child. The group size was on average 10 – 12 women. The second round of focus group discussions involved (2) heads of household. The village which was in the previous steps randomly selected as the reference village was the sampling frame for the heads of households. However, lists of households were not obtained making the random sampling impossible. The head of the facility invited 10 – 12 heads of household who were available. Participants were gender balanced and included all *Ubudehe* categories. A third round of focus group discussions was held with (3) youth (15 – 24 years). The village which was randomly selected in the previous steps as the reference village provided the sampling frame for the youth. Here again, lists of all households did not exist. Therefore, the head of the facility invited 10 – 12 youth, the group being gender balanced. This selection process might have induced bias in the information collected and is discussed in the section on limitations. All participants in focus group discussions at the health center level were offered a compensation for transportation of RWF 5,000. Finally, another round of focus group discussions at the community level was held with (4) community health workers (CHW). One village was randomly selected within the catchment area of the reference health center as explained above. The three closest villages were further identified and finally, two CHW (male/female) from each of the four villages were invited, making a total of 6 to 8 CHW for the focus group discussion.

Development of data collection tools

The data collection tools were developed in two different phases. First, the consultant team and the evaluators from DEval brainstormed on how to translate the objectives of the evaluation into a case study approach. Considering the high workload and time constraints for individuals in leadership and managerial positions at the district and hospital level, it was decided to use

interviews for data collection to avoid time-intense coordination. Focus group discussions should be used at the health center and end user level to collect perceptions regarding health services delivery from a wider perspective. During the second phase of the tools' development, the consultants decided on the main themes to be captured in each instrument according to the target groups.

The questioning route of both focus-group and interview guides was designed to conform to the following general line of inquiry (cf. also Krueger & Casey, 2009):

1. The participants should elaborate the major changes in the district's health system in the last five years from their perspective.
2. Narrowing down the focus, the participants should elaborate the most important fostering or hampering factors for these changes.
3. If this has not happened naturally during the interviews/focus-groups, the interviewers should probe into the specific topics the target groups are specialists for. Specific topics included the community-based health insurance, performance-based financing, sexual and reproductive health, family planning, and maternal and child health.
4. If this has not happened naturally during the interviews/focus-groups, the interviewers should probe into whether the influencing factors include the contributions by development partners in general and, if applicable, by the Rwandan-German cooperation in special (and its phasing out).

The tools were translated from English to Kinyarwanda under the supervision of the research team. To ensure standard procedures between researchers and the districts, each of the four researchers was in charge of one target group and the respective data collection instruments.

Data collection

In total, 28 focus-group discussions and 24 interviews were conducted. In each of the four districts, one focus-group discussion each was conducted with the following four health staff groups: (1) nursing, administrative and management staff at hospital level; (2) heads of health center; (3) CBHI responsible at health center level. This totals to 12 focus-group discussion. An additional 16 focus group discussions were conducted in each district with 4 different end user groups: (1) young mothers seeking antenatal care, (2) heads of household, (3) youth and (4) community health workers.

Interviews in every of the four districts were conducted with (1) the district hospital director, (2) the chief of staff of the medical doctors at the hospital, (3) vice-mayor in charge of social affairs, (4) the director of the health district, (5) the director of CBHI at the district level, (6) the director of social affairs.

A member of the DEval evaluation team joined the field work in the first district of Gisagara with an external translator to assist the implementation of data collection by providing feedback. Resulting lessons learnt, however, only had the character of suggestions to safeguard the team's autonomy for making adequate decisions reflecting the members' expert knowledge and fieldwork experience.

Data analysis

Every interview and focus group discussion was audio-taped. In addition, a note-taker participated in every data collection session as well. Qualitative data analysis should be conducted along the general line of inquiry, juxtaposing the appraisals and perceptions from each target group first within each district. In a second step, the external research team should identify re-current themes across the districts as well as peculiarities of each case related to understanding changes occurred from the perspective of health staff, district authorities, and clients on the improvement of health services delivery in health facilities. Special attention should also be paid to capturing beneficiaries' appreciation on financial access and utilization of health services with a particular focus on health equity. Lastly, understanding the contribution by development partners and particularly the Rwandan-German Cooperation as well as the effect of its phasing out should be of special interest in the comparative approach.

Limitations

The major limitation of the case study approach is that the comparative element received too little attention in analysis. While information related to all levels of the district health system have been gathered, there is no systematic comparison between the perceptions of the target groups on the respective district health system levels between the different districts. Taken further, this makes it hard to carve out the unique features of single districts and in most cases – the social funds being the exception – makes it impossible to conclude whether the Rwandan-German cooperation provided a value added compared to the other districts. To attenuate the consequences for the evaluation, the DEval team synthesized common and re-current themes for each district from the report submitted by the researchers in a systematic manner. While this sufficed to arrive at conclusions about trends and achievements that are uniform across districts, it would overstretch the data generated to derive comparative peculiarities for single districts – including lining up and assessing achievements in "German" districts versus the changes in other districts.

The four case studies of the single districts may lack a shared degree of internal consistency that hinders a synthesis as outlined, but by and large served their purpose. Minor flaws constitute the deviations from the sampling design with regard to end users: while it was envisaged in the beginning to randomly select ante-natal care patients and youth from a sampling frame of all households in the catchment area of the health center, this turned out to be timely unfeasible. The team therefore relied on selections by the heads of the health centers for the focus-group discussions. While it is possible that this induced administration bias (a special form of selection bias), it is unclear into which direction the results would be biased: the head of health centers might either present those end users illustrating effective service provisions or the "hard cases" to prove that further external support is needed to improve on service delivery. Both the reported results as well the course of the focus group discussions visited by a DEval team member lend support to the conclusion that this mode of sampling has neither overruled the degree of controversy and critique during the discussions nor bended the report's results into a falsely favorable direction.

Furthermore, the time schedule was challenging in particular when one considers the high level of responsibility and the usual busy schedule of the target groups (in this regard it should be remembered that low staffing levels in the Rwandan health sector were considered as core problem by the program under evaluation). Further competing for target groups' available time were training and sensitization campaigns by the MoH and MINALOC's performance appraisals with managerial staff. Despite these time constraints, all planned interviews and focus group discussions were conducted. Overall, the external team therefore coped very well with constraints arising during the fieldwork.

Summary: Comparative Case Study

The comparative case study was designed to scrutinize whether the Rwandan-German Cooperation in the health sector contributed to address the core problems of (1) unattainable health service costs, (2) low service quality, and consequently (3) low health care utilization. A research team commissioned by DEval collected and compared appraisals and perceptions regarding these aspects by the following key stakeholders in the decentralized health system of four districts: (1) health care providers on different care levels, (2) end users/patients, and (3) those in charge of steering and managing the health system on the district level. Health equity is treated as cross-cutting issue along the mentioned aspects. Two of the four district health systems under study have been previously supported by the Rwandan-German Cooperation and were purposely selected while the other two allow a comparative perspective on the program's contribution both within and between the districts.

Deviations from the study design in implementation resulted in the limitation that the comparative aspect of the case study approach has received too little attention in analysis. While DEval reallocated internal resources to overcome this constraint, this rendered the whole endeavor rather as four rather loosely than comparatively connected case studies, making it hard to carve out the unique features of the districts and to conclude whether the Rwandan-German cooperation provided a value added compared to the other districts.

Disregarding this limitation and minor deviations from the sampling design with regard to end users, the four case studies, however, fulfilled by and large their designated purpose and provide useful insights from key groups regarding the decentralized Rwandan health system.

3.4 Secondary Data Analysis of Demography and Health Surveys

The secondary data analysis employs the Rwandan Demography and Health Survey (DHS) data of the 2010 round, which counts 13,671 observations for women between 15 and 49 years in 492 villages. The analysis conducted is of quantitative nature and focuses on the effect of social interactions on the adoption of modern contraceptives and desired fertility (Linek, 2013).

Purpose

The analysis of social interactions with respect to fertility is of particular interest for assessing social marketing projects, which build on these interactions. Finding evidence of social interactions in adopting modern contraceptives and desired fertility establishes a link between the outcomes and the impact of these projects. Exemplary with reference to the use of modern contraceptives, the outcome is the adoption of modern contraceptives based on direct exposure to the social marketing projects. The impact is the reduction in childbearing due to the adoption of modern contraceptives of individuals with both direct and indirect exposure. Hence, the impact can be viewed as the outcome enhanced through the multiplier of social learning about modern contraceptives. The quantification of this link is the purpose of the analysis.

Scope

The analysis focuses on women between 15 and 49 years of age in Rwanda in 2010. The unit of analysis is the individual. The empirical results are valid only for the Republic of Rwanda. Specific statements on subpopulations or individual geographic regions below national level cannot be made. The results from the analysis of social interactions reflect only their impact at the time of data collection. Similar to the adoption of other technologies or ideas, the adoption of modern contraceptives and desired fertility through social interactions follows an S-shaped curve over time. In this respect the strength of the social interactions multiplier is only valid for the year 2010. The presented results can be interpreted causally and reflect the increase (decrease) in probability to adopt modern contraceptives (report lower desired fertility) if the average use (desired fertility) in the peer group rises (falls).

Approach

Women are assumed to be influenced by friends and neighbors in their contraceptive choice and desired fertility. This assumption is based on the 2000 and 2005 DHS data which show that 14.8 % and 17.3 % of women between 15 and 49 years of age discussed family planning methods with their friends and neighbors. These numbers are only exceeded by the discussion of family planning with the own partner if in liaison. Following the publications of De Giorgi, Pellizzari, and Redaelli (2010), Bramoullé, Djebbari, and Fortin (2009), and Calvó-Armengol, Patacchini, and Zenou (2009), the analysis is based on a spacial autoregressive model, meaning here that influence of neighbors on own behavior and attitude diminishes with increasing geographic distance. With reference to the adoption of modern contraceptives, an individual is thus the more likely to adopt modern contraceptives, the higher their average use by neighbors and the closer these neighbors are. Instead of a measure for actual childbearing like the Total Fertility Rate, the dependent variables modern contraceptive use and desired fertility are used as these are measures at the individual level and do not suffer from population-lag effects. For estimating these peer effects with two-stage least squares and generalized method of moments, an instrumental variable design has been employed to prevent biases.

Limitations

Limitations of the study and threats to its validity are due to strong assumptions on who the neighbors and friends are and whether the used instrumental variables are valid. Neighbors and friends, which are recorded as one group in the 2000 and 2005 DHS, are not necessarily the same. Contact to friends may

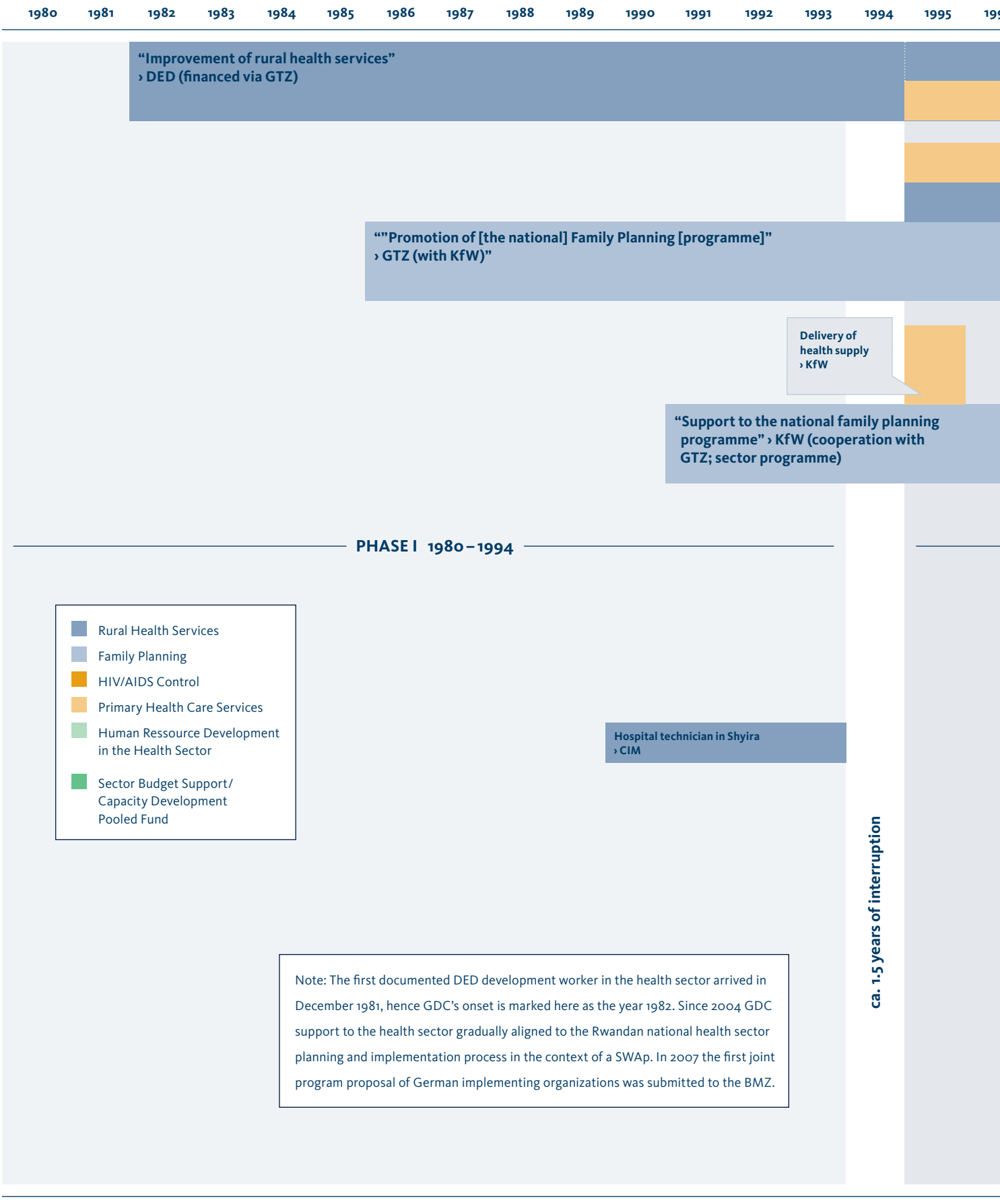
be held via phone or frequent visits, which exceed the maximum distance assumed for neighbors. Furthermore, GPS coordinates, used for distance calculation, are displaced for anonymity reasons and hence the exact real distance between two villages cannot be calculated. In this respect, some neighboring villages may enter a peer group falsely, while other real neighboring villages are left out. Robustness checks are conducted using different distance specifications and subsamples. For a more accurate estimation of social interactions in the adoption of modern contraceptives and desired fertility, panel data which comprise and specify the peer groups of the respondents would be necessary. Such data are not available for most countries including Rwanda. Tests for the validity of instruments do not exist and rely on reasoning.

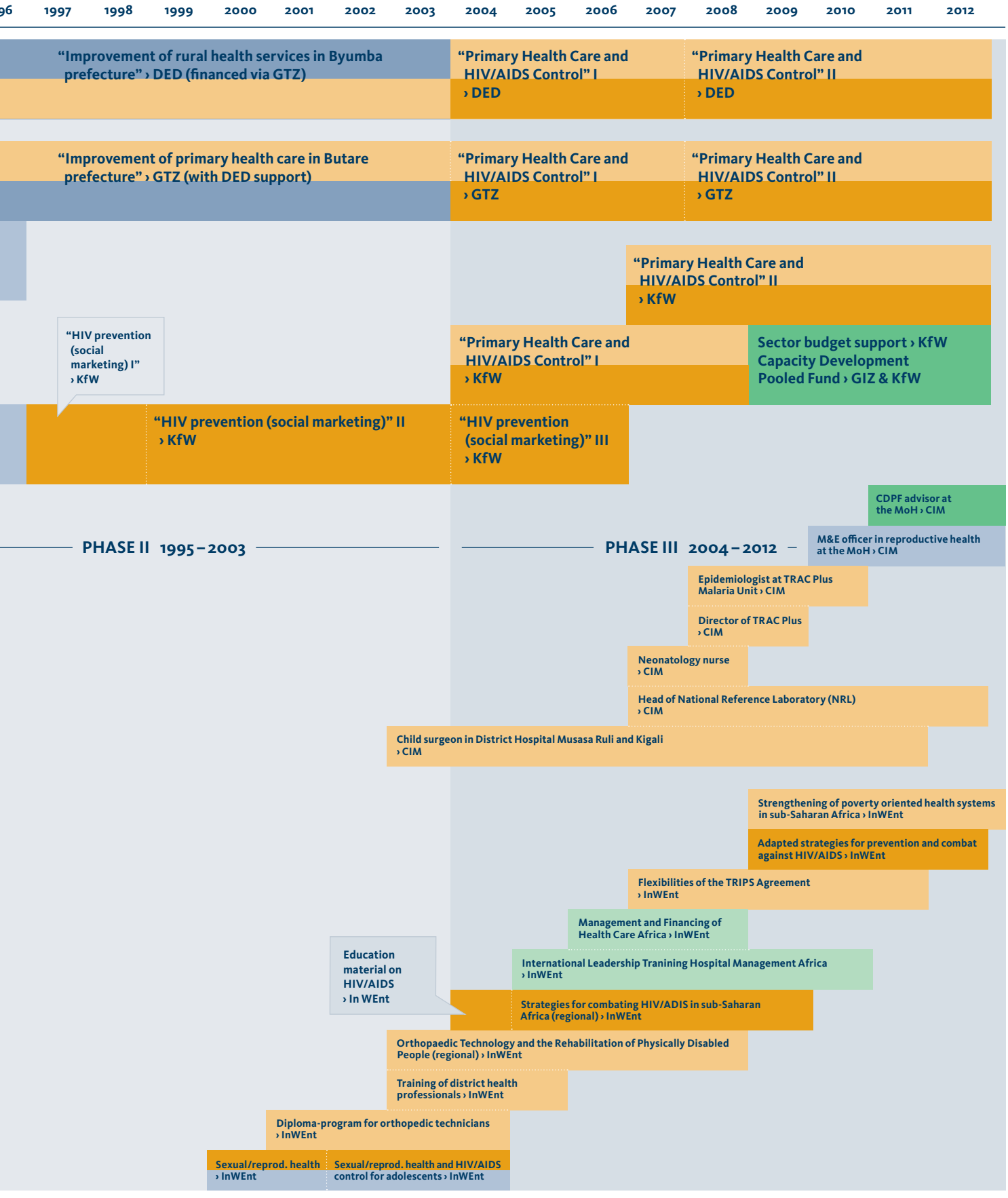
Summary: Secondary Data Analysis of Demography and Health Surveys

The secondary data analysis of the Demography and Health Survey Data focuses on quantifying the impact of social interactions in the adoption of modern contraceptives and desired fertility. In this respect, the analysis provides a link between direct effects (outcome) and indirect effects (impact) of the social marketing projects. The methodology applied is a spacial autoregressive model with overlapping peer groups and instrumental variables for identification. Limitations of the study derive from the strong assumptions of both, peer groups and instrumental variables. The study's results are representative for women between 15 and 49 years of age at national level in Rwanda.

C.

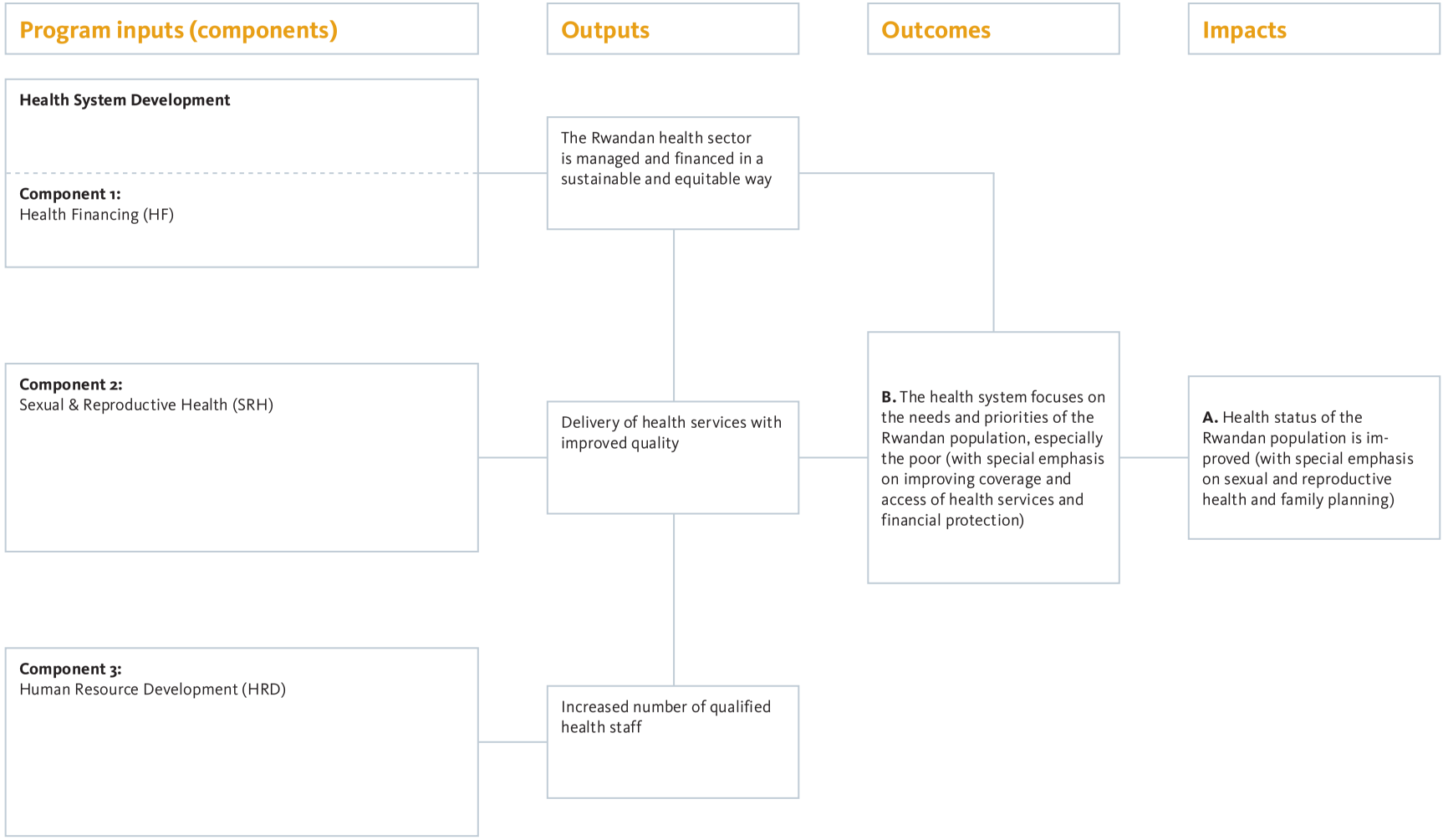
TIMELINE OF RWANDAN-GERMAN COOPERATION IN HEALTH


1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995
"Improvement of rural health services" › DED (financed via GTZ)
""Promotion of [the national] Family Planning [programme]" › GTZ (with KfW)"
Delivery of health supply › KfW
"Support to the national family planning programme" › KfW (cooperation with GTZ; sector programme)
PHASE I 1980 – 1994
Rural Health Services
Family Planning
HIV/AIDS Control
Primary Health Care Services
Human Ressource Development in the Health Sector
Sector Budget Support/ Capacity Development Pooled Fund
Hospital technician in Shyira › CIM
ca. 1.5 years of interruption
Note: The first documented DED development worker in the health sector arrived in December 1981, hence GDC's onset is marked here as the year 1982. Since 2004 GDC support to the health sector gradually aligned to the Rwandan national health sector planning and implementation process in the context of a SWAp. In 2007 the first joint program proposal of German implementing organizations was submitted to the BMZ.
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995

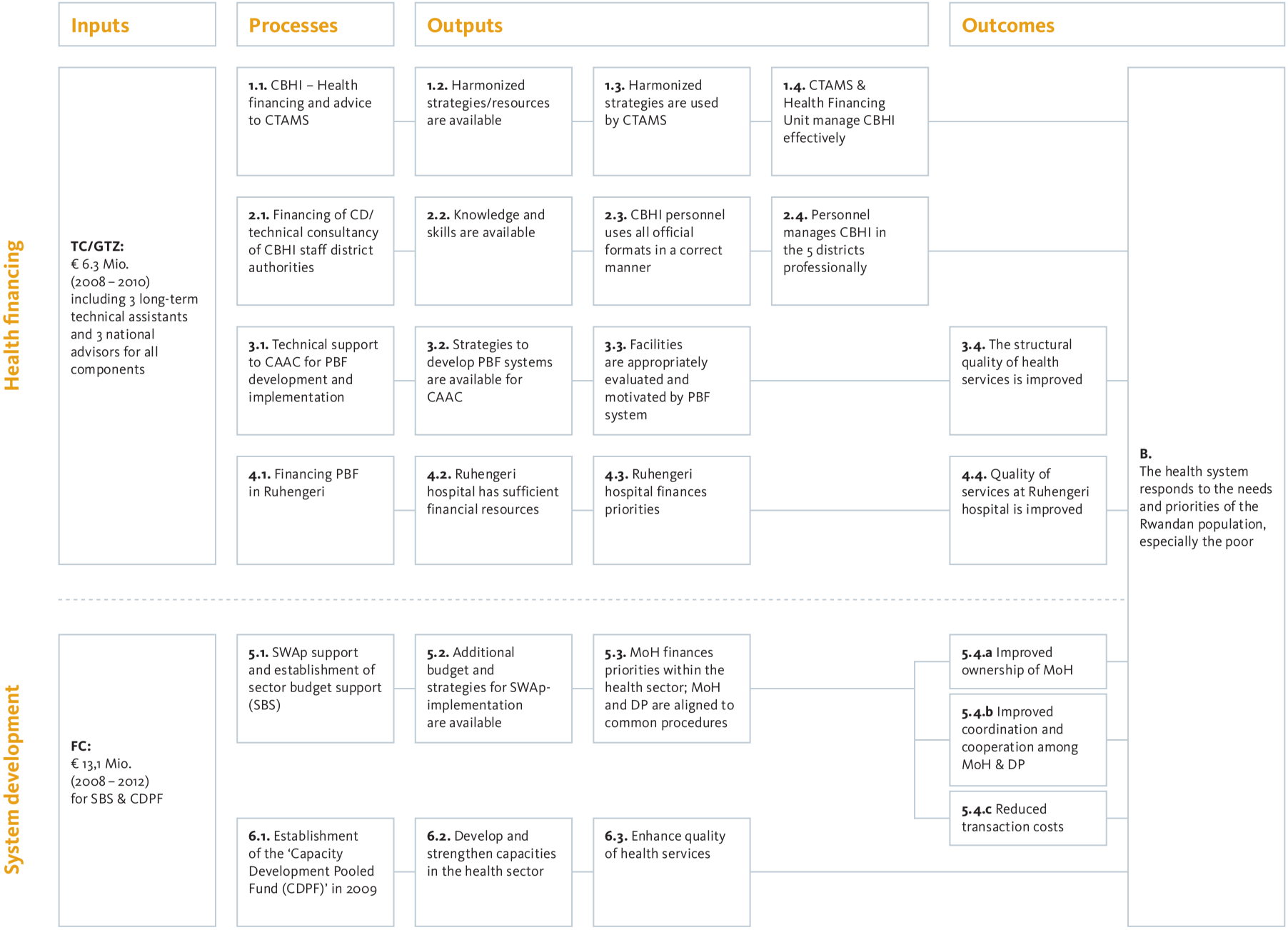

96 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
"Improvement of rural health services in Byumba prefecture" › DED (financed via GTZ)
"Primary Health Care and HIV/AIDS Control" I › DED
"Primary Health Care and HIV/AIDS Control" II › DED
"Improvement of primary health care in Butare prefecture" › GTZ (with DED support)
"Primary Health Care and HIV/AIDS Control" I › GTZ
"Primary Health Care and HIV/AIDS Control" II › GTZ
"Primary Health Care and HIV/AIDS Control" II › KfW
"HIV prevention (social marketing) I" › KfW
"Primary Health Care and HIV/AIDS Control" I › KfW
Sector budget support › KfW Capacity Development Pooled Fund › GIZ & KfW
"HIV prevention (social marketing)" II › KfW
"HIV prevention (social marketing)" III › KfW
CDPF advisor at the MoH › CIM
PHASE II 1995 – 2003
PHASE III 2004 – 2012
M&E officer in reproductive health at the MoH › CIM
Epidemiologist at TRAC Plus Malaria Unit › CIM
Director of TRAC Plus › CIM
Neonatology nurse › CIM
Head of National Reference Laboratory (NRL) › CIM
Child surgeon in District Hospital Musasa Ruli and Kigali › CIM
Strengthening of poverty oriented health systems in sub-Saharan Africa › InWEnt
Adapted strategies for prevention and combat against HIV/AIDS › InWEnt
Flexibilities of the TRIPS Agreement › InWEnt
Management and Financing of Health Care Africa › InWEnt
Education material on HIV/AIDS › In WEnt
International Leadership Tranining Hospital Management Africa › InWEnt
Strategies for combating HIV/ADIS in sub-Saharan Africa (regional) › InWEnt
Orthopaedic Technology and the Rehabilitation of Physically Disabled People (regional) › InWEnt
Training of district health professionals › InWEnt
Diploma-program for orthopedic technicians › InWEnt
Sexual/reprod. health › InWEnt
Sexual/reprod. health and HIV/AIDS control for adolescents › InWEnt
96 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

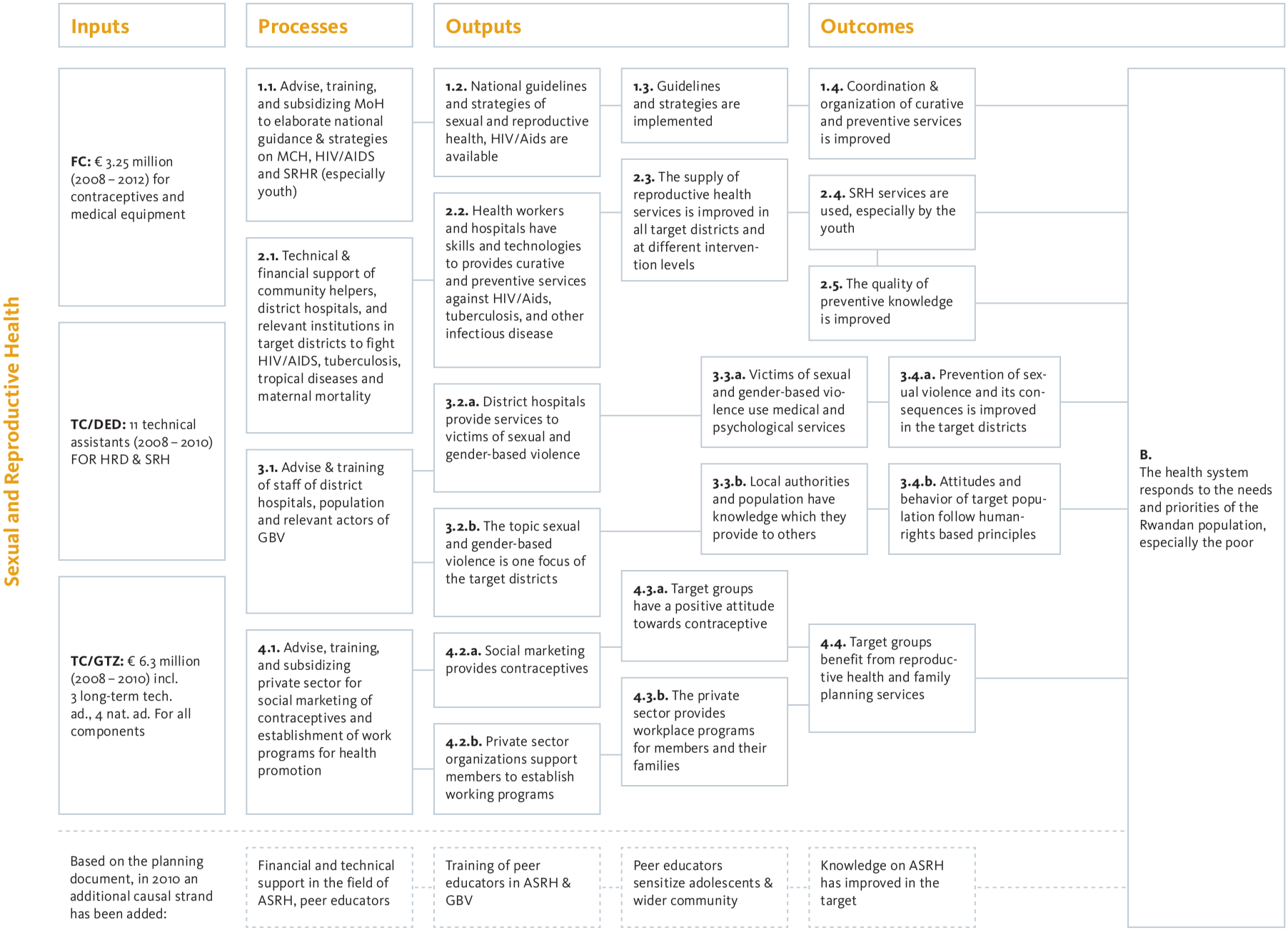
D.

THEORY OF CHANGE

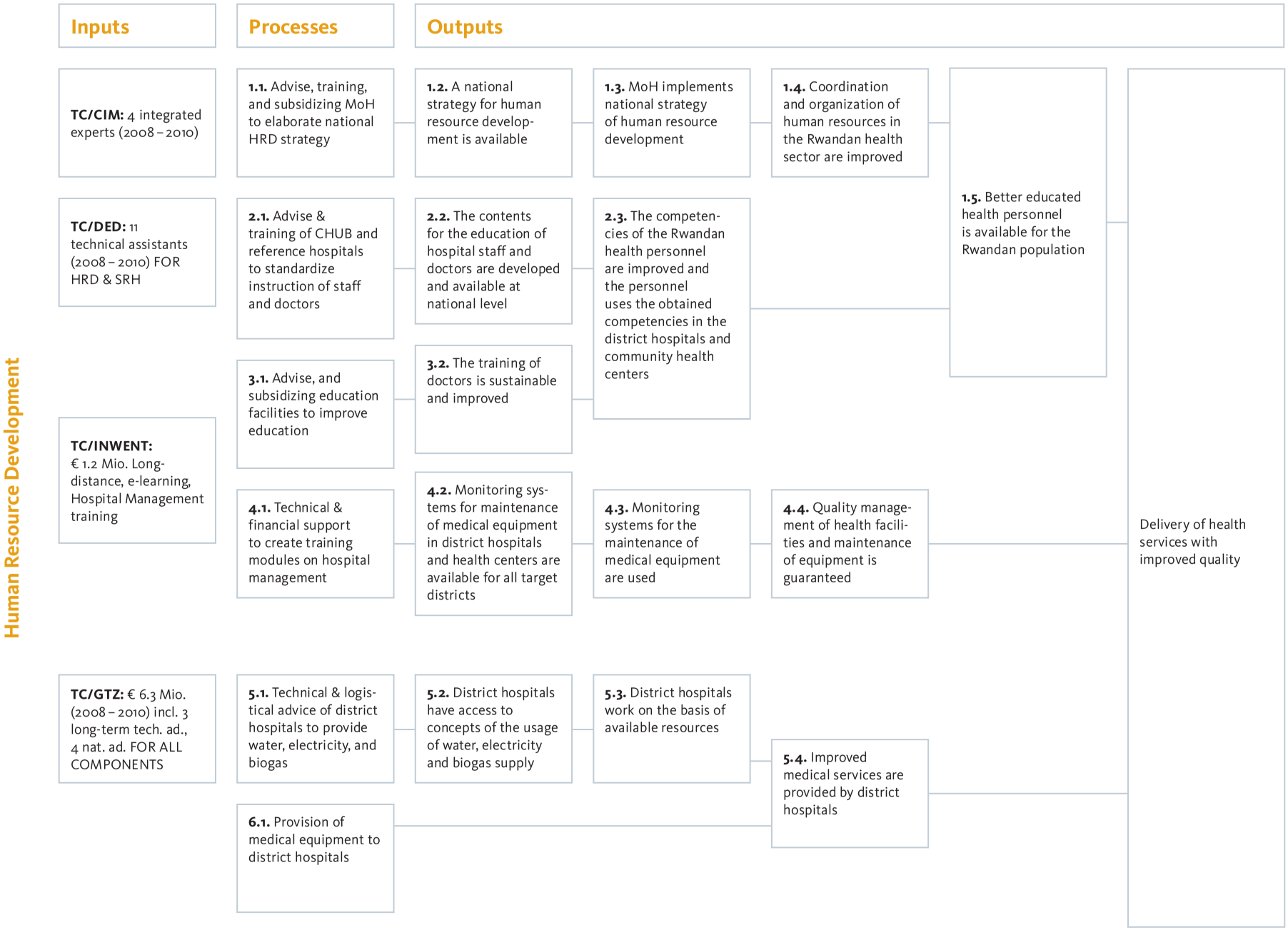

Program inputs (components)
Outputs
Outcomes
Impacts
Health System Development
Component 1:
Health Financing (HF)
Component 2:
Sexual & Reproductive Health (SRH)
Component 3:
Human Resource Development (HRD)
The Rwandan health sector is managed and financed in a sustainable and equitable way
Delivery of health services with improved quality
Increased number of qualified health staff
B. The health system focuses on the needs and priorities of the Rwandan population, especially the poor (with special emphasis on improving coverage and access of health services and financial protection)
A. Health status of the Rwandan population is improved (with special emphasis on sexual and reproductive health and family planning)

Component 1: Health Financing (HF) & System Development




Sexual and Reproductive Health
Inputs
Processes
Outputs
Outcomes
FC: € 3.25 million (2008 – 2012) for contraceptives and medical equipment
TC/DED: 11 technical assistants (2008 – 2010) FOR HRD & SRH
TC/GTZ: € 6.3 million (2008 – 2010) incl. 3 long-term tech. ad., 4 nat. ad. For all components
1.1. Advise, training, and subsidizing MoH to elaborate national guidance & strategies on MCH, HIV/AIDS and SRHR (especially youth)
2.1. Technical & financial support of community helpers, district hospitals, and relevant institutions in target districts to fight HIV/AIDS, tuberculosis, tropical diseases and maternal mortality
3.1. Advise & training of staff of district hospitals, population and relevant actors of GBV
4.1. Advise, training, and subsidizing private sector for social marketing of contraceptives and establishment of work programs for health promotion
1.2. National guidelines and strategies of sexual and reproductive health, HIV/Aids are available
2.2. Health workers and hospitals have skills and technologies to provides curative and preventive services against HIV/Aids, tuberculosis, and other infectious disease
3.2.a. District hospitals provide services to victims of sexual and gender-based violence
3.2.b. The topic sexual and gender-based violence is one focus of the target districts
4.2.a. Social marketing provides contraceptives
4.2.b. Private sector organizations support members to establish working programs
1.3. Guidelines and strategies are implemented
2.3. The supply of reproductive health services is improved in all target districts and at different intervention levels
3.3.a. Victims of sexual and gender-based violence use medical and psychological services
3.3.b. Local authorities and population have knowledge which they provide to others
4.3.a. Target groups have a positive attitude towards contraceptive
4.3.b. The private sector provides workplace programs for members and their families
1.4. Coordination & organization of curative and preventive services is improved
2.4. SRH services are used, especially by the youth
2.5. The quality of preventive knowledge is improved
3.4.a. Prevention of sexual violence and its consequences is improved in the target districts
3.4.b. Attitudes and behavior of target population follow human-rights based principles
4.4. Target groups benefit from reproductive health and family planning services
B. The health system responds to the needs and priorities of the Rwandan population, especially the poor
Based on the planning document, in 2010 an additional causal strand has been added:
Financial and technical support in the field of ASRH, peer educators
Training of peer educators in ASRH & GBV
Peer educators sensitize adolescents & wider community
Knowledge on ASRH has improved in the target

Component 3: Human Resource Development (HRD)



E.

OVERVIEW PROGRAM INDICATORS

Table 22: Major changes in SRH and HIV indicators in Rwanda 1980 – 2010

Indicator		2004	2005	2006	2007	2008	2009	2010	2011	2012
Overall goal health program: Improvement of the health status of the Rwandan population										
Infant mortality rate	Target	125/1,000 live births in Byumba, Butare, Gikongoro				65/1,000 live births until 2014				50/1,000 live births
	Status	–	80/1,000 in Butare and Byumba (PgFB[8] 2005)	–	86/1,000 national (DHS 2005)	65/1,000 (DHS 2008)	–	62/1,000 (PgFB 2010)	–	–
HIV prevalence rate	Target	7.5% in Byumba, Butare, Gikongoro				3.0%			3.0%	
	Status	5.0% (Byumba 3.6%, Butare 6.7%) (PgFB 2004)	6.4% (PgFB 2005)	–	3.79% (TRAC annual report 2007)	–	–	3.1%	–	–
Total fertilityrate	Target					5.0%			4.5%	
	Status					–	–	5.5% (DHS 2008)	–	–
Detection rate of patients with tuberculosis (in parenthesis: % of detected persons who use treatment)	Target	70%		70% (40% Byumba/Gikongoro, 80% Huye)						
	Status	70% of the newly detected TB-patients finish treatment (detection rate Butare 84%, Byumba 25%). (PgFB 2004)	67% of the newly detected TB-patients finish treatment (detection rate Butare 92%, Byumba, Gikongoro 30%) (PgFB 2005)	83% of the newly detected TB-patients finish treatment (PgFB 2006)	No reliable data for 2007, detection rate at national level: 46% (PgFB 2007)					
Objective component 1: The health system focuses on the needs and priorities of the Rwandan population, especially the poor										
Poverty-oriented health sector strategies	Target					EDPRS includes health sector sub-strategies, which aim for better access of the poor to health care services				
	Status					EDPRS includes poverty-oriented health sector strategies				
Memorandum of Understanding of a SWAp agreement	Target				Partners should agree on a memorandum of understanding					
	Status				A memorandum of understanding is approved by 9 DP and MoH					

[8] *PgFB (program progress report „Programmfortschrittsbericht")*

Indicator		2004	2005	2006	2007	2008	2009	2010	2011	2012
Joint financing of the health sector (SBS)	Target							Joint financing of the health sector by at least two bilateral DP with a total volume of EUR 10 million	Joint financing of the health sector by at least two bilateral DP	
	Status							3 DP contribute EUR 17 million annually	3 DP providing SBS	3 DP providing SBS
Proportion of the population covered by health insurance (CBHI)	Target	35 %				85 %			100 %	
	Status	35 % (PgFB 2004)	63 % (information from target districts)/67 % (own household data) (PgFB 2005)	–	70 % (PgFB 2007)	–	–	92 % (PgFB 2010)	–	85 % CBHI + 6 % other insurances; target after final modification in May 2012: 91 %
Proportion of hospitals using PBF	Target							In 50 % of the district hospitals PBF is introduced	PBF evaluation criteria are developed for the new structure of provincial hospitals	
	Status							Performance Based Financing is introduced in 100 % of the district hospitals	–	PBF evaluation criteria have not been developed due to a delay on the introduction of the new structure
Proportion of partners who use HRTT for reporting (target after final modification in May 2012)	Target									90 %
	Status							80 % (Baseline)	–	–
Quality perception of the population	Target			Quality is perceived as improved						
	Status			89 % of respondents were satisfied	–					

Indicator		2004	2005	2006	2007	2008	2009	2010	2011	2012
Objective component 2: To improve all aspects of reproductive health with an emphasis on family planning										
Modern contraceptive prevalence rate	Target	4 % of 280,000 married women use modern contraceptives				20 %			50 %	
	Status	3.3 % (PgFB 2004, information system SIS)	3.9 % (PgFB 2005, information system SIS)	23 % (PgFB 2006, 23 % (own survey 2006)); 7 % (DHS 2005)	9.5 % – average of the „German districts“	27 % (DHS 2007/8)			45 % (DHS 2010)	
Proportion of condom utilization among youth	Target					50 % (women) 60 % (men); target after final modification in May 2012: 47 % (women)				
	Status					27 % (women) 39 % (men)	–	27 % (women) 64 % (men) (BSS 2010)	–	42 % (women) 66 % (men)
Proportion of youth having knowledge on HIV / Aids and SRH	Target							95 % of youth		
	Status							52 % (women) 47 % (men) (DHS 2010)	–	66 % (women) 64 % (men)
Proportion of youth who currently used modern contra-ceptives (target after final modification in May 2012)	Target									60 %
	Status						50 % (Baseline) (BSS data of MoH)	–	–	–
Caesarean section rate	Target	2.5 %				5 %				
	Status	2.8 % (PgFB 2004)	–	3.0 % (PgFB 2006)	29 % of all deliveries in the district hospitals of the „German districts“, (SIS information system)	29 % (PgFB 2008)	–	3 % (DHS 2005)		
Number of persons participating in voluntary testing and counseling	Target	3,000 persons per month								
	Status	3,900 (PgFB 2004)	7,200 (PgFB 2005)	9,000 per month (PgFB 2006)	749,766 (TRAC annual report 2007)					

Indicator		2004	2005	2006	2007	2008	2009	2010	2011	2012
Objective component 3: An increased number of better-qualified health staff is available for the Rwandan population										
Number of young medical doctors in the intern year	Target				80				100	
	Status				55 (Baseline 2010)	133 (DED data in PgFB 2008)	52 (PgFB 2010)	ca. 51 (PgFB 2010)	–	79 (12 % women)
% of young medical doctors in intern year who were employed in the public health system (target after final modification, May 2012)	Target									98 %
	Status									–
Number of medical specialists in district hospitals	Target				20				135; target after final modification in May 2012: at least one medical specialist per provincial hospital	
	Status				5 (Baseline 2010)	119 (PgFB 2008, including university hospitals)	113 (PgFB 2009)	133 (PgFB 2010)	–	122 (12 % women); status of modified target unknown (PgFB 2012)
Proportion of health staff participating in at least one training activity per year	Target	50 %							100 %	
	Status	60 % (PgFB 2004)	60 % (PgFB 2005)	min. 50 % (PgFB 2006)	–	100 % (PgFB 2008)	100 % (PgFB 2009)	100 % (PgFB 2010)	–	100 % (in „German districts“)

F.

OVERVIEW OF HEALTH SYSTEM INDICATORS

1. Methodological approach

1.1 Purpose

The following selection of indicators accompanies the context analysis (cf. Volume I, A.3.1) as well as the chapter on impact (cf. Volume I, B.3.4) to illustrate the long-term performance of the Rwandan health system.

1.2 Scope

The selected indicators are derived in accordance with an approach of the Evaluation Unit of the European Commission that seeks to bridge "as much as possible, the 'missing middle' between implementation indicators (e.g. recruitment of doctors) and global impact indicators (e.g. poverty reduction)" (European Commission External Services Evaluation Unit, 2009, p. 2). They align, in turn, to the Millennium Development Goals and WHO initiatives on measuring health concepts and are clustered along the output, outcome, and impact level as identified in the evaluation's analytical framework (cf. Volume I, A.2.1). Please note that the analytical levels used here have been adjusted to the evaluation's analytical framework and hence deviate from the terminology used in the original paper. The temporal scope of the indicators covers the whole period under evaluation from 1980 to 2012, but is in some cases restricted by the non-availability of data for earlier points in time.

1.3 Approach

The indicator selection in the following results from narrowing down the indicators suggested by the Evaluation Unit of the European Commission to those directly referring to concepts identified as essential for the evaluation in the analytical framework. In a second step, indicators with unsatisfactory data availability for Rwanda have been replaced by conceptually related ones, if possible, or excluded. Due to their relevance for the context analysis, selected indicators on economic growth and population development going beyond the health sector have been added as well. The indicator selection is presented in a table format on the next page, including an overview of the analytical level as defined in the evaluation's framework, the concept to be assessed, the indicators chosen for representing the concept, their definition, and data source. The trends for Rwanda are complemented by a regional comparison with other countries from the East African Community, South Africa and the Sub-Saharan average.

1.4 Limitations

Even though the chosen approach cannot represent all aspects of health sector development or the health status of the Rwandan population, the selected indicators are suitable to illustrate the development of the Rwandan health sector over time. Moreover, as other national data sources have been used for the analysis, it should be mentioned that there are some deviations in terms of absolute figures among the different data sets in the evaluation report. However, the evaluation team considered it worthwhile to introduce additional data that allow for an international comparison over time.

Table. Overview of analytical level, concepts, indicators, and indicator definitions

Analytical level	Concept	Exemplary indicator	Indicator definition
Output	Enhance service availability and quality	Density of physicians	Number of medical doctors (physicians), including generalist and specialist medical practitioners, per 1,000 people.
		Hospital beds	Hospital beds include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases beds for both acute and chronic care are included. Measured per 1,000 people.
	Affordability of care	Out of pocket expenditure	Out of pocket expenditure is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private health expenditure.
Outcome	Increased service utilization and intervention coverage / improved health behavior	Antenatal care coverage	Pregnant women receiving prenatal care are the percentage of women attended at least once during pregnancy by skilled health personnel for reasons related to pregnancy.
		Births attended by skilled personnel	Births attended by skilled health staff are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns.
		Unmet need for family planning	Unmet need for contraception is the percentage of fertile, married women of reproductive age who do not want to become pregnant and are not using contraception.
		Contraceptive prevalence rate	Percentage of women who are practicing, or whose sexual partners are practicing, any form of contraception. It is measured for married women ages 15 – 49 only.
Impact	Fertility	Total fertilty rate	Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.
		Population growth	Annual population growth rate. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship--except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of the country of origin. The values for population (total) are midyear estimates. Annual population growth rate for year t is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage.
	Reduction in mortality	Life expectancy at birth	Number of years a new-born would live if prevailing patterns of mortality at the time of its birth were to stay unchanged throughout its life.
		Maternal mortality ratio	Maternal mortality ratio per 100,000 live births.
		Infant mortality	Death rate of children under 1 year per 1,000 total births.
	Reduction in morbidity	Spread of HIV	Prevalence of HIV (total), as % of people ages 15 – 49 who are infected with HIV.
		Spread of Tuberculosis	The estimated number of new and relapse tuberculosis (TB) cases arising in a given year, expressed as the rate per 100,000 population. All forms of TB are included, including cases in people living with HIV.
„Vision“	Economic growth	GDP growth	Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2005 USD. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.
		GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant 2005 USD.
		Poverty gap at $1.25 a day in % (PPP)	Poverty gap is the mean shortfall from the poverty line (counting the non-poor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

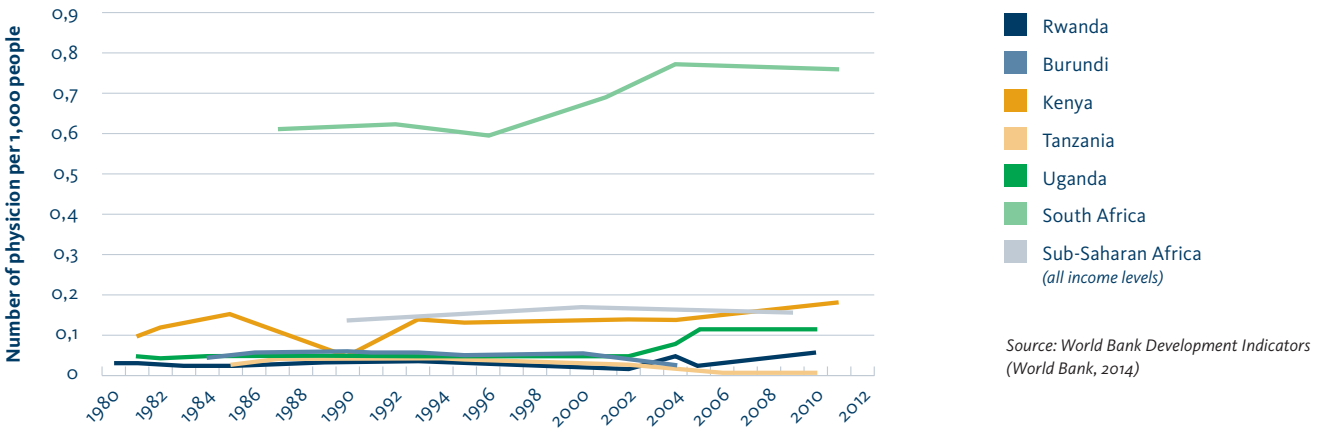
Source of indicator definitions and data: World Bank Development Indicators (World Bank, 2014), except the prevalence rate for Tuberculosis (WHO, 2014).

2. Indicators

2.1
Output level

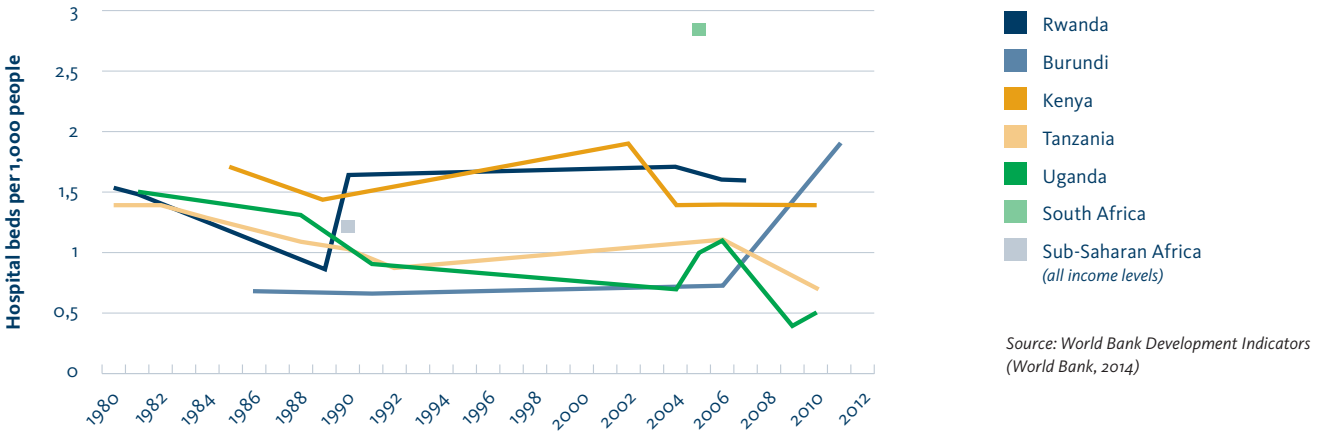
2.1.1 Enhance service availability and quality

Indicator 1: Health workforce: Density of physicians



Source: World Bank Development Indicators (World Bank, 2014)

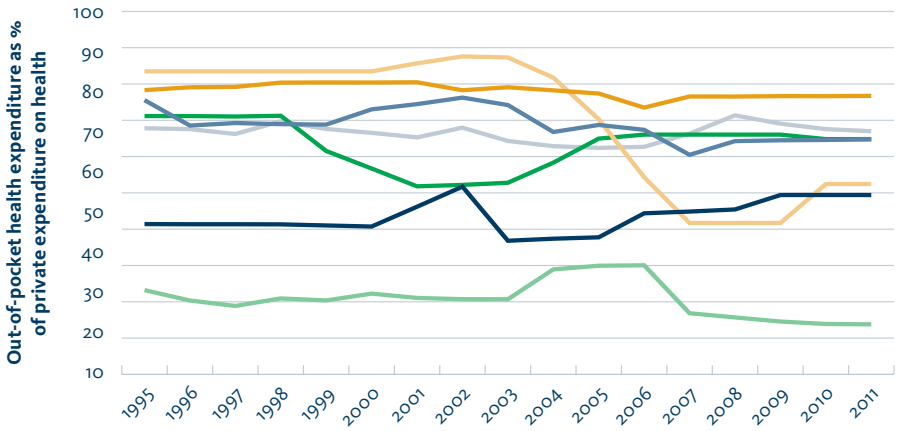
Indicator 2: Number of hospital beds



Source: World Bank Development Indicators (World Bank, 2014)

2.1.2 Affordability of care

Indicator 3: Out of pocket expenditures for health



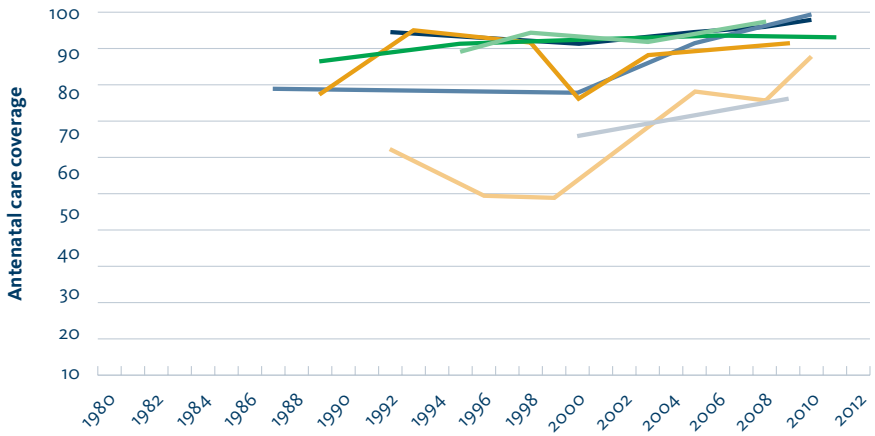
Rwanda
Burundi
Kenya
Tanzania
Uganda
South Africa
Sub-Saharan Africa
(all income levels)

Source: World Bank Development Indicators (World Bank, 2014). Note: No data available before 1995.

2.2
Outcome level

2.2.1 Increased service utilization and intervention coverage

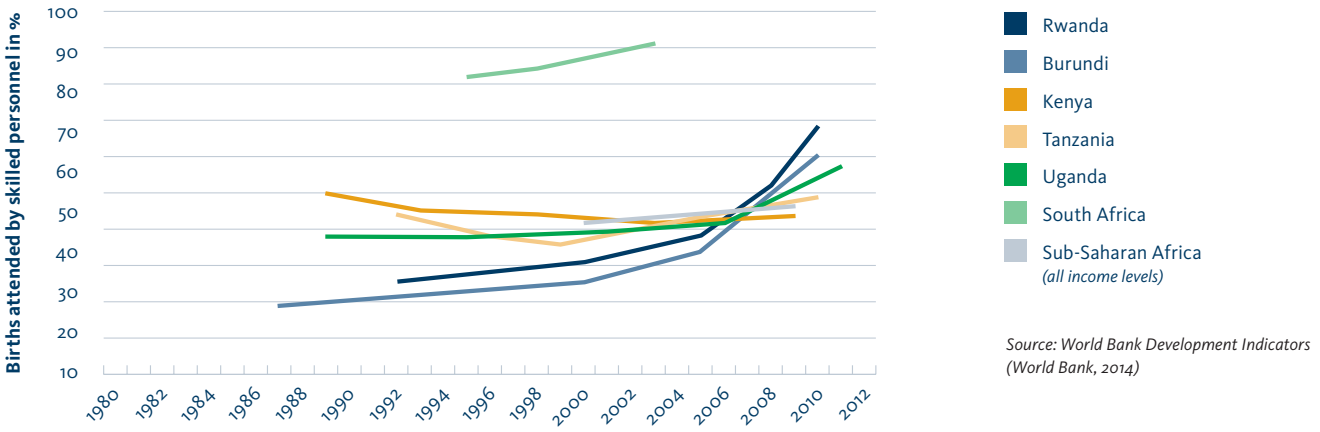
Indicator 4: Antenatal care coverage



Rwanda
Burundi
Kenya
Tanzania
Uganda
South Africa
Sub-Saharan Africa
(all income levels)

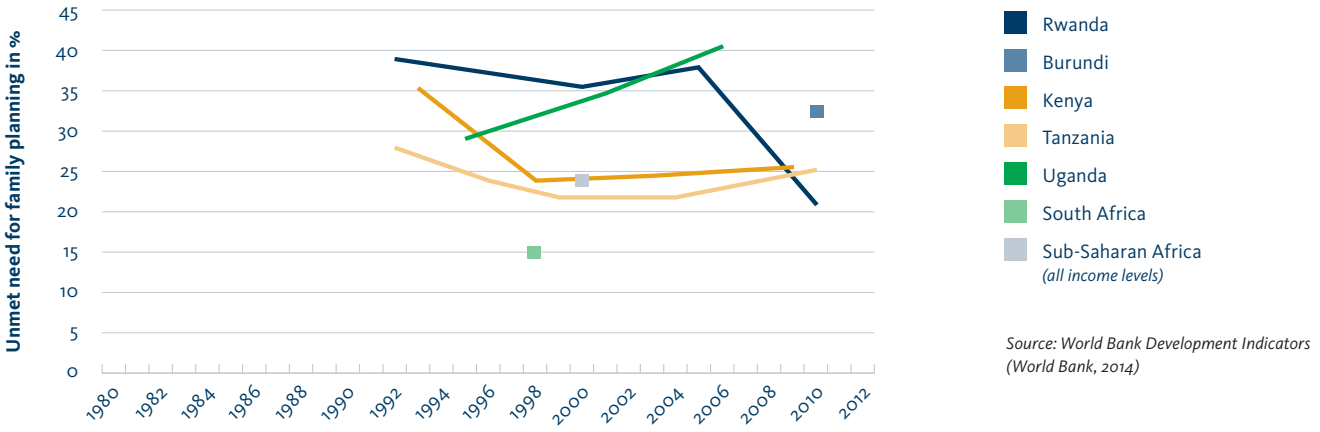
Source: World Bank Development Indicators (World Bank, 2014)

Indicator 5: Births attended by skilled personnel



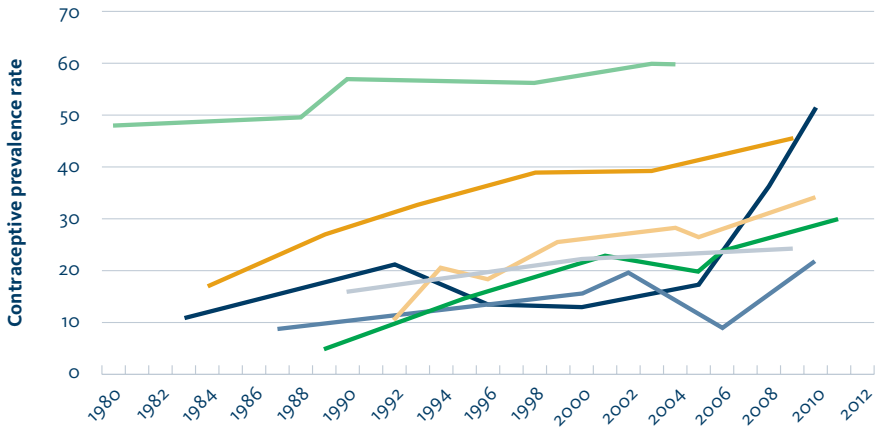
Source: World Bank Development Indicators (World Bank, 2014)

Indicator 6: Unmet need for family planning



Source: World Bank Development Indicators (World Bank, 2014)

Indicator 7: Contraceptive prevalence rate

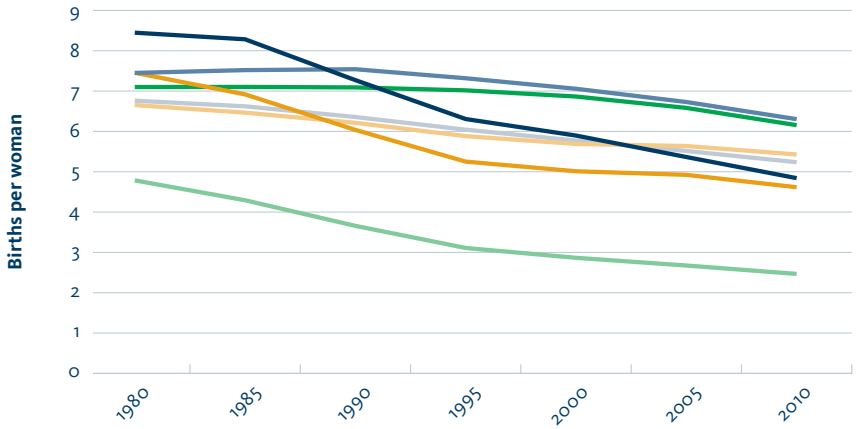


Source: World Bank Development Indicators (World Bank, 2014)

2.3 Impact level

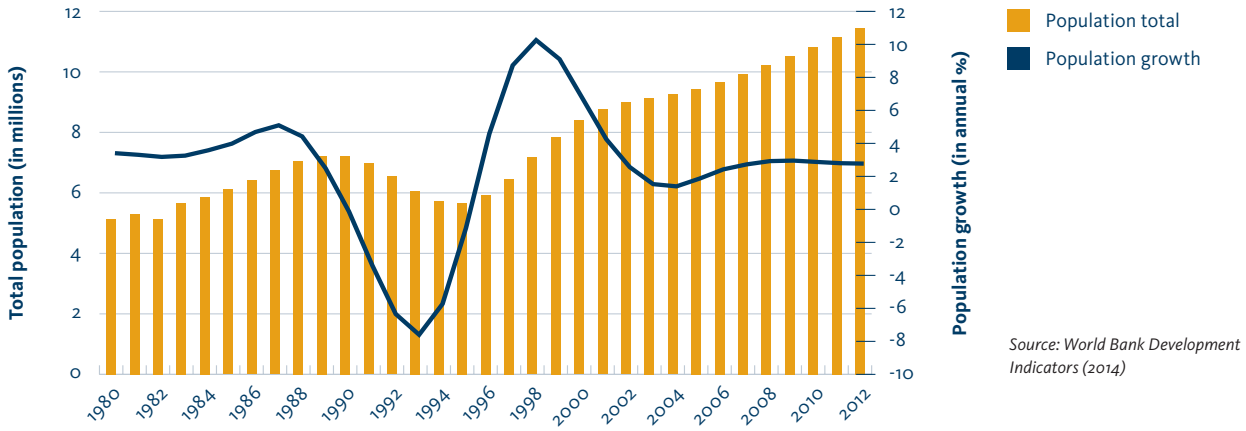
2.3.1 Fertility

Indicator 8: Total fertility rate (births per woman)



Source: World Bank Development Indicators (2014)

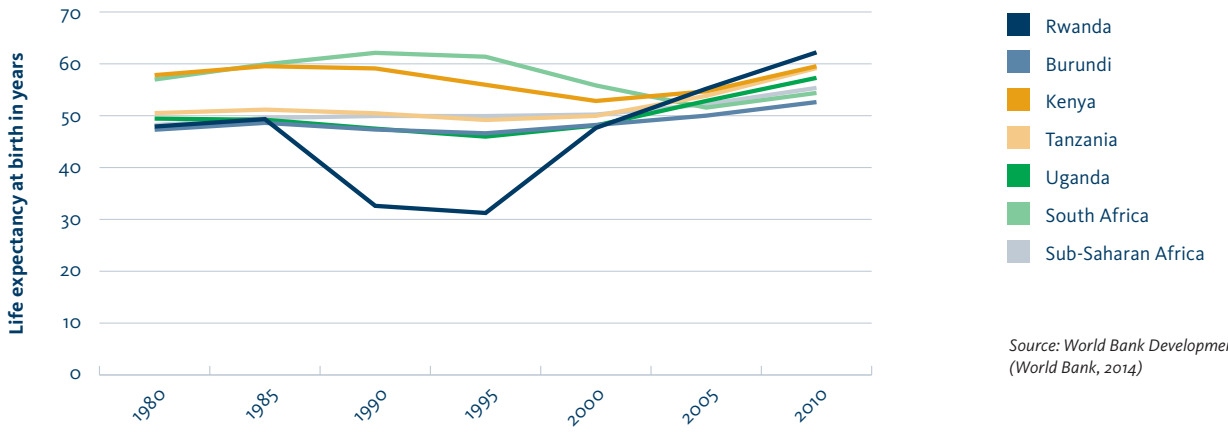
Indicator 9: Total population and population growth in annual % in Rwanda



Source: World Bank Development Indicators (2014)

2.3.2 Reduction in mortality

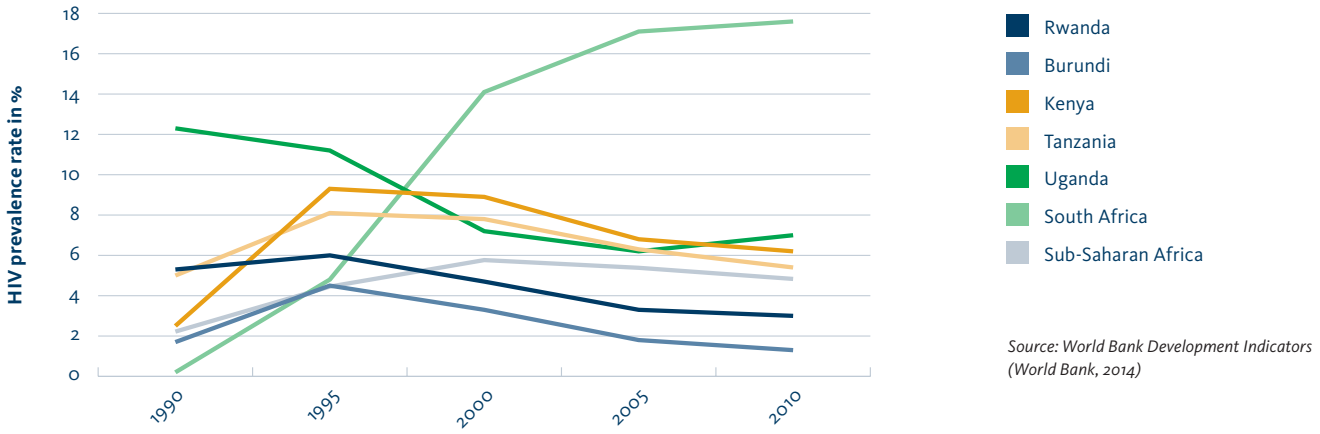
Indicator 10: Life expectancy at birth



Source: World Bank Development Indicators (World Bank, 2014)

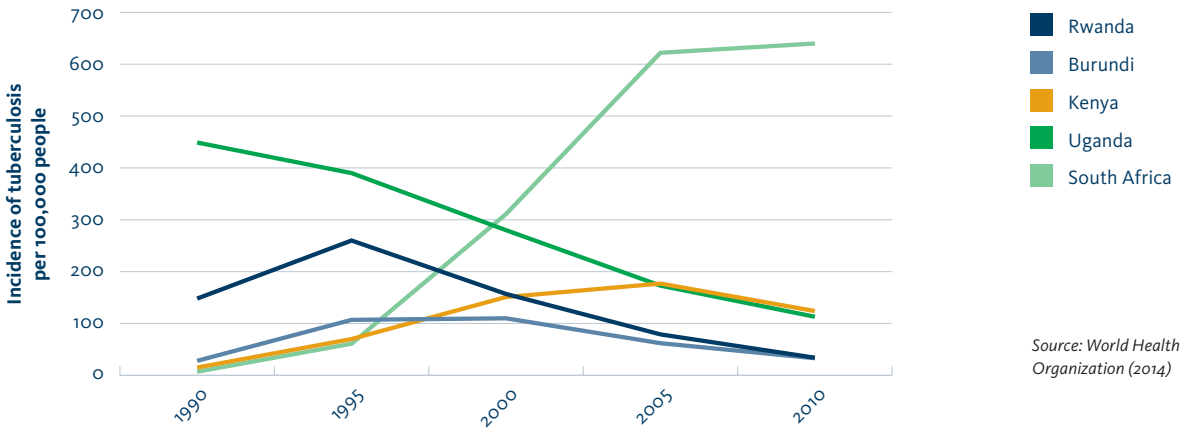
2.3.3 Reduction in morbidity

Indicator 11: Spread of HIV



Source: World Bank Development Indicators (World Bank, 2014)

Indicator 12: Spread of Tuberculosis

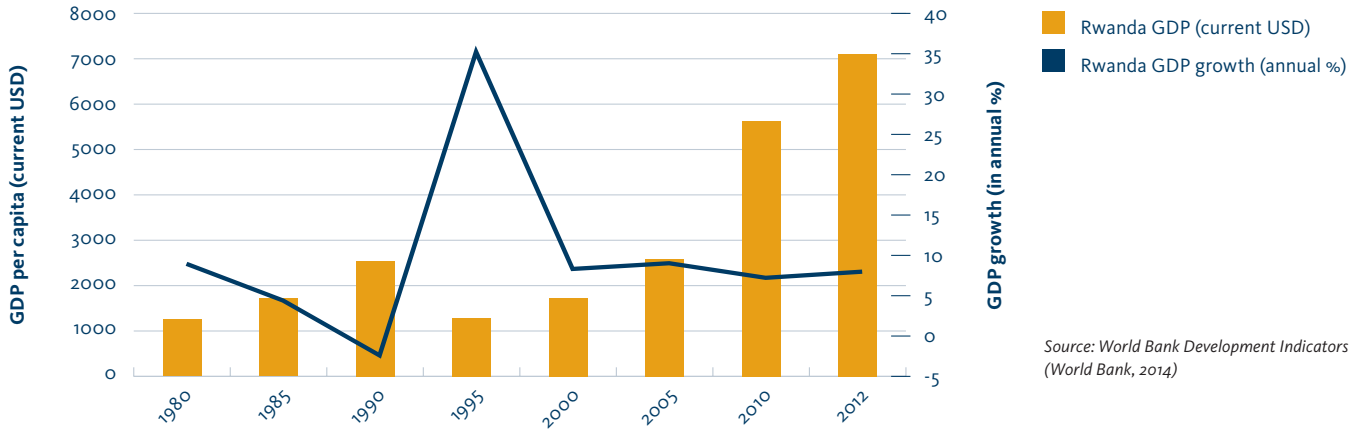


Source: World Health Organization (2014)

2.4
Indicators on "vision" level

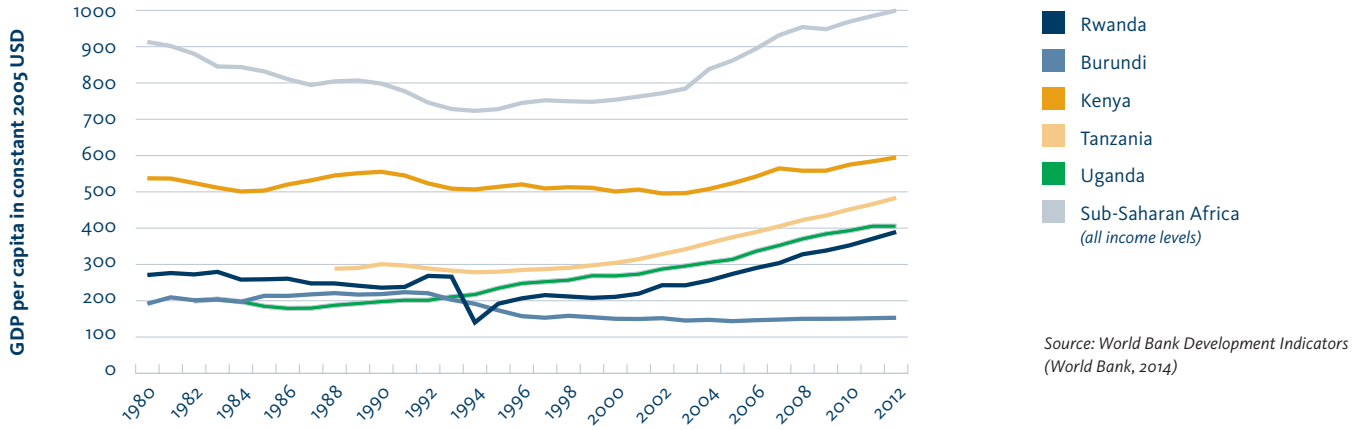
2.4.1 Economic growth

Indicator 13: GDP growth in Rwanda



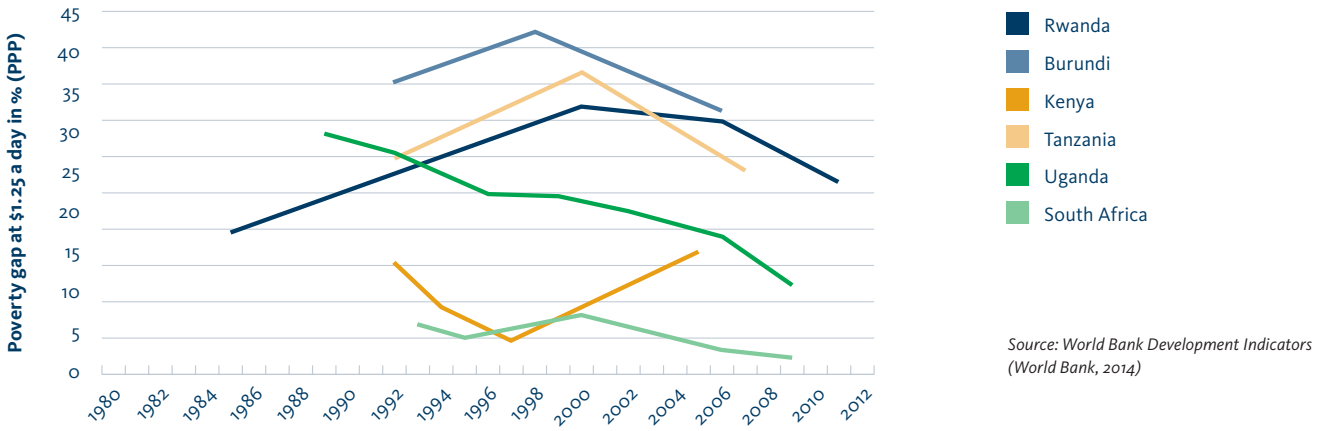
Source: World Bank Development Indicators (World Bank, 2014)

Indicator 14: GDP per capita



Source: World Bank Development Indicators (World Bank, 2014)

Indicator 15: Poverty gap at USD 1.25 a day (PPP)



Source: World Bank Development Indicators (World Bank, 2014)

G.

CONTEXT ANALYSIS – OVERVIEW INTERNATIONAL HEALTH STRATEGIES

Phase I: until 1994

The Alma Ata Declaration (1978) can arguably be considered as the single most relevant international agreement on health for developing countries. National governments throughout the world adopted the primary health care (PHC) concept as a blueprint for universal coverage with essential primary health services.

Primary health care is defined as *"essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination"* (WHO 1978: Article VI).

Moreover, the declaration clearly defined the responsibility of governments and the relevance of public policies: "Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures" (WHO 1978: Article VI).

Up to today, primary health care has become and remains an important health-policy issue in many (developing) countries. The core messages of Alma Ata have been taken up and further developed in other international health strategies such as the WHO goal "Health for All", the Bamako Initiative, the move towards the District Health System model (cf. Goergen, Kirsch-Woik, & Schmidt-Ehry, 2004, p. 28), and more recently the debate on social determinants of health (cf. CSDH, 2008).

The Lusaka Declaration (1985) on Decentralization and Health System and District Health Systems has neither created much repercussion among policy makers nor among scholars. Interestingly this declaration had the largest echo in Rwandan policy papers that were elaborated ten or more years later (GoR, 2005a, 2005b). The Lusaka declaration promotes three strategies to improve the quality and accessibility of health services: (1) The decentralization of the health system using the health district as the basic operational unit of the system; (2) The development of the primary health care systems; and (3) the reinforcement of community participation in the management and financing of services (GoR, 2005b, p. 5).

The Bamako Initiative (1987) was an early and highly health-relevant expression of "structural-adjustment" policies resulting from a meeting of African ministers of health. The Initiative proposed decentralizing health decision making to local levels and establishing realistic national drug policies to enhance the provision of essential drugs for Sub-Saharan Africans. The resolution of the Bamako Conference referred explicitly to Alma Ata and called for promoting primary health care by defining and implementing self-financing mechanisms at district level, encouraging social mobilization, and ensuring a regular drug supply. The most relevant, best known and most controversial innovation of the Bamako initiative was the implementation of user fees in public health facilities in many African countries.

Phase II: 1995 – 2003

The International Conference on Population and Development in Cairo and the Fourth World Conference on Women in Beijing (both in 1994) emphasized the role of women and proposed a new gender concept in international and development policies. The Cairo conference promoted the empowerment of women and the improvement of their political, social, economic and health status, supported reproductive health and rights, and advanced gender equality, while the Beijing conference declaration embodies the commitment of the international community the "mainstreaming" of a gender perspective in all policies and programs (McIntosh & Finkle, 1995, p. 235; 251; UN, 1996).

The Fourth International Conference on Health Promotion held in Jakarta in 1997 reiterated the importance of the agreements made in the Ottawa Charter for Health Promotion. A result of the Jakarta Conference was the formation of the Global Health Promotion Alliance whose priorities include raising awareness of the changing determinants of health (1), supporting the development of collaboration and networks for health development

(2), mobilizing resources for health promotion (3), accumulating knowledge on best practice (4), enabling shared learning (5), promoting solidarity in action (6) and fostering transparency and public accountability in health promotion (7) (WHO, 2009a).

The Report of the Commission on Macroeconomics and Health in 2000 was a milestone in international health policy development because it revealed that investing in health has a positive impact that goes far beyond people's health. The report delivers empirical evidence for the return of investing in health and thereby questions the belief in a trickle-down effect from putting a priority on economic growth. After almost two decades of "structural adjustment" and austerity in public expenditure the report kicks off a trend towards higher investments in health, which is later on taken up in development strategies for health-system strengthening and social health protection.

The Mexico Ministerial Statement for the Promotion of Health (2000) in accordance with the findings of the Commission on Macroeconomics and Health the declaration stresses the fact that the absence of health hinders social and economic development and that, hence, health promotion is an indispensable precondition for attaining the highest possible standard of health.

The millennium development goals (MDG) following the UN millennium summit and Millennium Declaration in 2000 define eight time-bound targets that, when achieved, would end extreme poverty worldwide by 2015 (UN, 2000). Especially MDGs 4 (reducing child mortality), 5 (improving maternal health), and 6 (combating HIV/AIDS, malaria, and other diseases) relate to health. The MDG became the most relevant landmark in international cooperation. Debate has surrounded the MDGs with regard to the rationale behind the eight objectives and the perpetuation of a vertical approach, which allows for two different interpretations: a more technocratic one focusing exclusively on the three health problems targeted in objective 4 – 6, and a more holistic approach taking the three problems mainly as indicators for overall health-system performance.

The Declaration of Commitment on HIV/AIDS – Global Crisis – Global Action (2001) expressed the concern that five years into the MDGs, HIV/AIDS represented the biggest challenge to achieve particularly Goals 6 by 2015. The declaration encourages the world to join forces in a global alliance to support the most severely affected poor and developing countries (UN, 2001).

The agreements of the Special UN-Session on HIV/AIDS in 2002 were a milestone in the global commitment for development and led to the foundation of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), which was created one year later. The GFATM started to operate in January 2002 as an international financing organization that aims at generating and allocating additional resources to prevent and treat HIV/AIDS, tuberculosis and malaria. The main role of the GFATM is a financing mechanism whereas implementation is done by the in-country Country Coordinating Mechanisms that include the various national stakeholders involved.

Phase III: 2004 – 2012

The 6th Global Conference on Health Promotion in Bangkok in 2005 was an opportunity for the World Health Organization to review the relevance of the Ottawa Charter for Health Promotion (1986) and the Jakarta Declaration (1997). Almost 20 years later, the world had changed due to the impact of globalization. Regarding the health sector, innovations were the move towards private sector involvement in public health as well as strong emphasis on an evidence-based approaches and cost-effectiveness. The conference addressed various topics such as current challenges for population health promotion, gender and health promotion, and global health promotion (Tang, Beaglehole, & de Leeuw, 2006). The resulting Bangkok Charter for Health Promotion in a Globalized World (WHO, 2009a) re-emphasized the central role of health promotion as core responsibility of public policy and for the global development agenda. The overall relevance of new issues derived from the Bangkok conference on health promotion seems to be doubtful (O'Neill, 2005).

The Paris Declaration on Aid Effectiveness of 2005 aimed at addressing the disjunction between national and international development efforts and a lack of harmonization of international aid, which were both considered a drawback in the effort to achieve international development targets; in this regard the Paris Declaration is directly linked to the Millennium Development Goals. The five fundamental principles of the declaration (ownership, alignment, harmonization, managing for results, mutual accountability) have gained significant momentum in the health sector where partners work together to support a single, country-led national strategy in a well-coordinated way.

The specific relevance of the Paris Declaration for development strategies in the healthcare sector lies in achieving the right mix of flexibility and predictability; alignment to country priorities and reduced transaction costs associated with donor finance require better planning, budgeting, and implementation capacity in the health sector.

The Third High Level Forum adopted the Accra Agenda for Action (2008) for accelerating progress towards the objectives of the Paris Declaration. Particularly with regard to ownership the Accra Agenda includes a firmer and more detailed discussion of the need to engage with and strengthen political institutions and civil society organizations. In addition, it highlights the importance of building upon country systems and emphasizing capacity strengthening. A statement on the need for policies to be consistent with international commitments on gender equality and human rights is included.

During the G8 Summit of Heiligendamm (2008), the governments of France and Germany together with the International Labor Office and the World Health Organization (WHO) established the Initiative Providing for Health (P4H), which has further developed into the "P4H – Social Health Protection Network" with Switzerland, Spain, the African Development Bank and the World Bank having meanwhile joined P4H. The network offers coherent specialized support for setting up and expanding sustainable health and social protection systems based on the values of universality and equity. The launch of P4H was an important landmark ushering in coordinated international support to accelerate countries' transitions to universal coverage.

The World Health Report 2010 on Health system financing: The way to universal coverage reflected the increasing awareness of the international health community regarding the relevance of social health protection. Universal coverage had been identified as an indispensable precondition for equitable and sustainable development. On the one hand, the WHO Report remained on the track of the economics-driven health-policy approaches, which had widely determined international aid in the health sector during the 1990es and early 2000s. On the other hand, the report on health systems financing builds upon the growing evidence that the "structural-adjustment" policy had failed to contribute to development; economic growth by itself is insufficient for improving the living conditions of people living in developing countries, and the desired trickle-down effect did not occur.

H.

PORTFOLIO ANALYSIS – ADDITIONAL TABLES AND FIGURES

Table 1: Aid disbursements in Rwanda by sector (in millions of current USD)

	DAC 5 Code*	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Agriculture, Forestry, Fishing	311/312/313	8.88	9.76	18.38	19.02	29.83	32.38	50.21	33.97	107.41	108.84
		2.6 %	3.1 %	3.8 %	3.1 %	1.6 %	4.7 %	5.7 %	3.7 %	10.5 %	8.6 %
Education	110	36.12	23.28	65.94	35.42	40.39	64.94	91.12	82.19	78.67	110.91
		10.8 %	7.3 %	13.5 %	5.8 %	2.1 %	9.5 %	10.3 %	8.9 %	7.7 %	8.7 %
Water Supply & Sanitation	140	4.29	4.62	17.46	23.73	28.93	38.87	37.72	19.53	35.54	32.81
		1.3 %	1.5 %	3.6 %	3.9 %	1.5 %	5.7 %	4.3 %	2.1 %	3.5 %	2.6 %
Economic Infrastructure & Services	210/220/ 230/240/250	18.76	23.59	29.54	56.70	32.29	52.34	96.34	103.24	87.41	153.60
		5.6 %	7.4 %	6.0 %	9.3 %	1.7 %	7.7 %	10.9 %	11.2 %	8.5 %	12.1 %
Health, total	120/130	32.99	36.16	85.2	99.51	141.9	166.06	245.56	258.32	305.79	322.26
		9.8 %	11.4 %	17.4 %	16.3 %	7.4 %	24.3 %	27.8 %	28.1 %	29.8 %	25.3 %
- Health	120	23.47	14.73	41.07	42.02	62.55	55.45	102.65	111.06	91.95	101.46
		7.0 %	4.6 %	8.4 %	6.9 %	3.3 %	8.1 %	11.6 %	12.1 %	9.0 %	8.0 %
- Population Pol./ Progr. & Reproductive Health	130	9.52	21.43	44.13	57.49	79.35	110.61	142.91	147.26	213.84	220.8
		2.8 %	6.7 %	9.0 %	9.4 %	4.2 %	16.2 %	16.2 %	16.0 %	20.9 %	17.4 %
General Budget Support	510	65.94	66.24	56.53	111.74	98.76	138.96	108.26	166.70	126.47	172.24
		19.6 %	20.8 %	11.6 %	18.3 %	5.2 %	20.4 %	12.3 %	18.1 %	12.3 %	13.5 %
Action Relating to Debt	600	26.33	26.41	30.01	50.84	1372.79	2.00	2.59	1.94	1.74	1.77
		7.8 %	8.3 %	6.1 %	8.3 %	71.9 %	0.3 %	0.3 %	0.2 %	0.2 %	0.1 %
Other		142.54	128.05	185.70	214.65	164.77	186.97	250.08	252.65	281.54	370.07
		42.4 %	40.3 %	38.0 %	35.1 %	8.6 %	27.4 %	28.4 %	27.5 %	27.5 %	29.1 %
All		335.87	318.12	488.76	611.63	1909.67	682.54	881.90	918.56	1024.6	1272.53
		100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

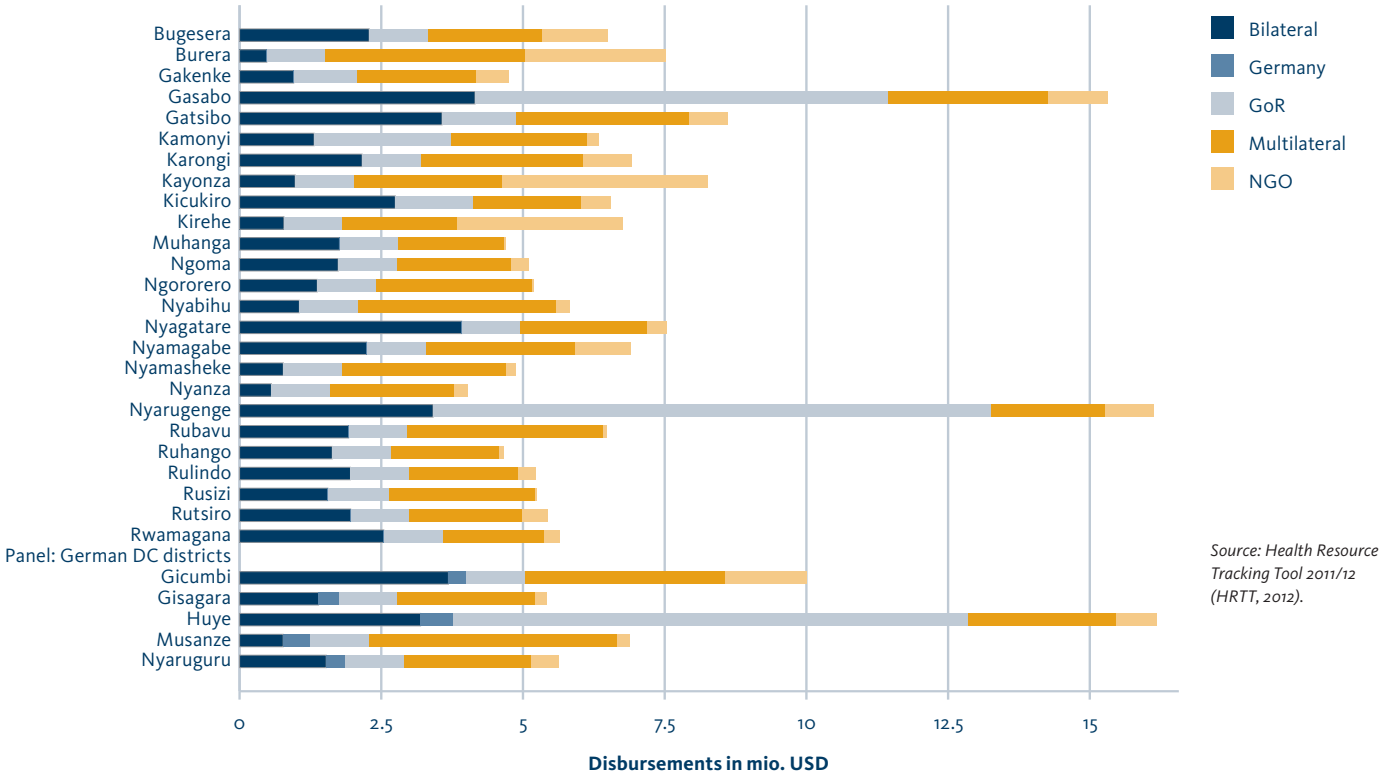
Source: Creditor Reporting System database (OECD, 2013). Note: In the Creditor Reporting System, data on the sector of destination are recorded using 5-digit purpose codes. The first three digits of the code refer to the corresponding DAC5 sector or category.

Table 2: ODA health disbursements (in millions of current USD)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Health (DAC 5 code 120)										
All Donors	23.47	14.73	41.07	42.02	62.55	55.45	102.65	111.06	91.95	101.46
Bilateral (incl. Germany)	19.15	13.26	14.29	16.85	21.16	28.51	52.62	46.46	49.09	53.23
Germany	0.17	0.99	1.88	2.20	2.53	2.18	1.32	1.02	6.23	5.65
USA	7.86	4.15	3.38	3.72	5.88	11.23	19.45	20.37	13.48	17.56
Multilateral	4.32	1.46	26.78	25.17	41.39	26.94	50.03	64.60	42.86	48.23
Population Pol./Progr. & Reproductive Health (DAC 5 code 130)										
All Donors	9.52	21.43	44.13	57.49	79.35	110.61	142.91	147.26	213.84	220.80
Bilateral (incl. Germany)	3.23	14.19	24.95	28.15	50.72	64.42	84.76	110.81	105.53	113.68
Germany	0.40	0.87	0.99	1.52	1.78	1.54	4.18	11.92	3.87	3.74
USA	1.63	11.28	20.47	24.08	43.15	57.43	74.14	93.04	99.57	109.36
Multilateral	6.29	7.25	19.18	29.34	28.63	46.20	58.15	36.45	108.31	107.13
Health, total										
All Donors	32.99	36.16	85.2	99.51	141.9	166.06	245.56	258.32	305.79	322.26
Bilateral (incl. Germany)	22.38	27.45	39.24	45	71.88	92.93	137.38	157.27	154.62	166.91
Germany	0.57	1.86	2.87	3.72	4.31	3.72	5.5	12.94	10.1	9.39
USA	9.51	15.43	23.85	27.81	49.03	68.67	93.59	113.42	113.06	126.93
Multilateral	10.61	8.71	45.96	54.51	70.02	73.14	108.18	101.05	151.17	155.36

Source: Creditor Reporting System database (OECD, 2013).

Figure 1: Expenditures per district, 2011



Source: Health Resource Tracking Tool 2011/12 (HRTT, 2012).

I.

EVALUATION IMPLEMENTATION TIMETABLE

Evaluation implementation timetable

Time period	Tasks
	Preparatory work
05-07/2012	• Draft of preliminary concept note, comments of relevant institutions in Rwanda (Ministry of Health; Ministry of Finance and Economic Planning; German Embassy; GDC Health Coordinator; GIZ; KfW) and Germany (BMZ; KfW; GIZ)
15.-20.07.2012	• Visit to Rwanda: discussions of preliminary concept note and options for evaluation design; Search for Rwandan evaluation team member(s); check availability of data
08-09/2012	• Establish reference groups in Rwanda and Germany • Reference Groups discuss the Concept Note • Revising and finalizing the Concept Note • Developing the evaluation matrix • Concept development for context analysis • Organizing the exploratory mission: logistics, schedule, selecting interview partner • Set up of team site, upload of documents
	Exploratory field mission to Rwanda
16.09.-05.10.2012	• Evaluation team building and preparation workshop: clarifying roles and tasks of the team members, revising/specifying the evaluation matrix, developing interview guides • Briefing of the evaluation team by GDC program staff • Qualitative interviews with stakeholders in Kigali and districts • Searching for secondary data and further documents/studies
	Interim-/Inception Report
10-11/2012	• Analysis of preliminary results of the exploratory mission • Continuous document research and analysis on early phases of cooperation • Mapping of Rwandan-German cooperation in the health sector since 1981 • Developing an analytical framework and proposals for evaluation designs • Draft of interim-/inception report
10.12.2012	• Review and discussion of interim-/inception report by the reference group in Kigali
11.12.2012	• Presentation of preliminary results in the program's official final event in Kigali
12.-14.12.2012	• Validation of results by interviews/focus group discussions in Kigali
10.01.2012	• Review and discussion of interim-/inception report by the reference group in Germany
01/2012	• Revising the interim-/inception report and clarifying the further evaluation process
	Main phase: desk study work and data collection (Germany)
02-04/2013	• Further secondary data research and analysis
02-03/2013	• Adjusting the theory of change of the Rwandan-German health program according to the analytical framework
02-05/2013	• Further elaboration of evaluation designs for different working packages
14.03.2013	• Review and discussion of evaluation process during the main phase by the reference group in Ruanda
13.05.2013	• Review and discussion of evaluation designs for different working packages by the reference group in Germany
02-05/2013	• Context analysis
04-06/2013	• Portfolio analysis

Time period	Tasks
03-07/2013	• Standardized online survey + in-depth interviews: ex-DED and CIM
05-08/2013	• Interviews with former GDC-staff from different organizations
05-08/2013	• Secondary data analysis on sexual reproductive health
	Main phase: further field work in Rwanda
06-07/2013	• Comparative Case Study in 4 districts comprising interviews and focus group discussions on health service delivery, health financing and sexual reproductive health.
01.-14.06.2013	• Evaluation mission on human resource development with a special emphasis on medical education and hospital management
29.06.-11.07. 2013	• Evaluation mission on SWAp, SBS and CDPF including interviews in the five "'German" districts.
05-07/2013	• Interviews with former counterparts of GDC staff and key informants for the Rwandan health system
	Analysis and reporting
08-09/2013	• Data analysis
09-10/2013	• Elaboration of draft final report
31.10.2013	• Draft of final synthesis report sent to both reference groups
	Next steps after October 31, 2013
19.11.2013	• Presentation and discussion of findings with the reference group in Rwanda
29.11.2013	• Presentation and discussion of findings with the reference group in Germany
09.12.2013	• Feedback from reference groups
09.12.2013 – 31.01.2014	• Revision of the draft report, finalizing of the report
02+03/2014	• Editing, translation, printing and publication of final report

J.

EVALUATION PROCESS

Preparatory and exploratory phases

In July 2012, a first **preparatory mission** was conducted to explore the expectations from the Rwandan partners as well as from GDC in Ruanda with regard to this evaluation. In order to enhance learning processes and to ensure stakeholder participation two reference groups have been established, one bringing together key stakeholder representatives from the Rwandan health sector and one bringing together representatives from the German Government and major German development organizations. These reference groups played the role of a sounding board throughout the evaluation process.

From the deliberations in both reference groups and due to the lack of sufficient information regarding the evaluation object and its evaluability at that time, the first field mission (September 16th – October 5th, 2012) was designed as an **exploratory mission** helping to assess the possibilities of applying different methods as well as helping to fine tune the evaluation methodology. At the same time this mission should serve to make a preliminary assessment of what the joint health program implemented within the SWAp has achieved. The team consisted of international and national experts, comprising evaluation expertise as well as the necessary specific knowledge according to the main areas of the evaluation (SWAp Coordination, Capacity Development Pooled Fund and Sector Budget Support, Sexual and Reproductive Health, Health Financing, Human Resource Development/Health Technology Management).

The methodology applied during the exploratory mission was twofold and comprised the collection and partly analysis of available data as well as mainly qualitative interviews with stakeholders and counterparts considered as relevant for assessing Rwandan-German cooperation in Rwanda's health sector. The exploratory mission has to be seen as a crucial step in the evaluation process. It was very valuable in terms of exploring possibilities of applying different methods. At the same time a preliminary assessment of the achievements of the joint health program according to the DAC-criteria could be realized.

Furthermore, subject to the institute's gradual staff recruiting progress since September 2012, DEval formed an internal evaluation team mainly to search and systematize documents and data in order to provide the consultants with additional information, but also to develop a suitable evaluation approach for the evaluation as a whole. The review of documents and literature mainly comprised project and program documents from the different German development organizations which meant weeks of intensive research in the organizations and in the BMZ, also in archives, and intensive communication with the respective contact persons. A special emphasis was put on getting a comprehensive picture of aid flows, instruments, and interventions through the 30 years.

Main phase

Priorities for the main phase were set in consultation with both reference groups. A special emphasis was put on health service delivery and health financing as well as on human resource development. There was also a special interest from the reference groups to analyze more in-depth the Sector Wide Approach in combination with sector budget support and basket funding. Sexual reproductive health figured less prominently as a key thematic area for the main phase. These priorities translated into a set of working packages which were designed and implemented between February and August 2013 (see implementation timeline in Annex H for more details).

Focusing on health service delivery and health financing, but also on adolescent sexual reproductive health, the Comparative Case Study was at center stage for the main phase. It was designed to scrutinize whether the Rwandan-German Cooperation in the health sector contributed to address the core problems of (1) unattainable health service costs, (2) low service quality, and consequently (3) low health care utilization. Case studies, especially with further sub-cases, were seen as suitable for collecting evidence that covers a large range of a theory of change. Hence, DEval commissioned an external Rwandan research team to assess four district health systems as cases; focusing on the following key stakeholders representing further sub-cases: (1)

health care providers on different care levels, (2) end users/patients, and (3) those in charge of steering and managing the health system on the district level.

Regarding human resource development DEval commissioned a team of external evaluators (one international[9] and one national consultant) for conducting field work with a special emphasis on two key areas of GDC support to HRD in the health sector: (1) support provided by DED/GIZ between 2000 and 2012 to the training of interns and junior doctors at the University teaching hospital Butare (CHUB) and the hospital of Ruhengeri in the Musanze District and (2) the International Leadership Training (ILT) in Hospital Management supported by InWEnt/GIZ between 2005 and 2011.

Analyzing GDC's support to SWAp, SBS and basket funding (CDPF) in more depth was the focus of a field mission which DEval commissioned to a team of external evaluators (one international and one national consultant). The mission has put a special emphasis on SWAp dynamics on the national as well as on the decentralized level.

For the main phase the evaluation team within DEval was steering the evaluation process and took over major tasks with regard to the different working packages. This comprised the adjustment of the theory of change of the joint health program and the elaboration of the context and portfolio analysis. As former development workers are considered as key informants by the evaluation team due to their long placements in the health sector and direct exposition to target groups the DEval-team designed a two-stage process: (1) a standardized mixed-mode survey followed by (2) in-depth semi-structured interviews with a purposive sub-sample of the survey respondents in the first stage. The DEval team was also in charge of interviews being conducted with former GDC project/program staff as well as former counterparts and Rwandan project/program staff. Finally, it should be mentioned that the DEval team was in charge of analyzing secondary data on reproductive health.

The extended DEval-team comprised two national coordinators who worked permanently for six months (February till July 2013). They played a crucial role in preparing and supporting the different field missions, i.e. of the DEval team, the research team working on the Comparative Case Study and the teams of external evaluators. They also facilitated the search of data and information at the level of different stakeholders in the health sector in Rwanda.

[9] *The international consultant had already participated in the exploratory phase as team leader of the exploratory mission.*

K.

EVALUATION TEAM COMPOSITION

Main Phase

Involved in main phase only or both phases	Main area/component
Dr. Stefanie Krapp (Head of Department DEval)	DEval core evaluation team
Dr. Thomas Schwedersky (Team Leader/Senior Evaluator DEval)	DEval core evaluation team
Dr. Martin Noltze (Evaluator DEval)	DEval core evaluation team
Felix Gaisbauer (Evaluator DEval)	DEval core evaluation team
Rebecca Maicher (Project Administrator DEval)	DEval core evaluation team

Contributors	Main area/component
Prof. Dr. Helmut Asche (Director DEval)	Quality assurance (main phase) Concept Note (exploratory phase)
Helge Roxin (Senior Evaluator DEval)	Context analysis
Dr. Tobias Polak (Evaluator DEval)	Context analysis
Miriam Amine (Evaluator DEval)	Context analysis
Dr. Robert Poppe (Method Specialist DEval)	Portfolio analysis
Jean-Marie Sinari	National coordinator
Tito Turatsinze	National coordinator
Ilse Worm	Human Resource Development and external peer reviewer (main phase) Team Leader, Quality assurance (exploratory phase)
Martin Rudasingwa	Human Resource Development (main phase) Health Financing (exploratory phase)
Sylviane Ménard	Sector- wide approach and sector budget support
Alexis Dukundane	Decentralization sector-wide approach
Prof. Dr. Joseph Ntaganira	Comparative Case Study (team leader, main phase) Sexual and Reproductive Health (exploratory phase)
Dr. Etienne Rugigana	Comparative Case Study (main phase) SWAp and joint financing modalities; Coordination in GDC (exploratory phase)
Isaac Ntahobakulira	Comparative Case Study
Stella Matutina Umuhoza	Comparative Case Study
Luise Lehmann	Desk study: Sexual and reproductive health
Dr. Dr. Jens Holst	Desk study: PBF and health strategies (main phase) Health Financing (exploratory phase)
Max Linek	Master student (Thesis on sexual and reproductive health)
Insa Weilage	Intern at DEval

Main Phase

Contributors	Main area/component
Sebastian Gruss	Intern at DEval
Marie Haibt	Intern at DEval

Exploratory phase

Involved only in the explorative phase	Main area/component
Dr. Antje Kröger (Evaluator DEval)	Document search
Heike Steckhan (Evaluator DEval)	Document search
Dr. Ulrich Vogel	Sexual and Reproductive Health
Katharina Reinhardt	Sexual and Reproductive Health Concept Note
Dr. Désiré Kamanzi	Human Resource Development
Alessa Wilhelm	Intern at DEval
Anna-Sophie Göggerle	Intern at DEval

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German Institute for
Development Evaluation (DEval)

Tulpenfeld 7, 53113 Bonn
Germany

Tel: +49 228 24 99 29-0
Fax: +49 228 24 99 29-904

Mail: info@DEval.org
www.DEval.org

DEval
GERMAN
INSTITUTE FOR
DEVELOPMENT
EVALUATION

BMZ

Federal Ministry
for Economic Cooperation
and Development