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PROJECT PERFORMANCE ASSESSMENT REPORT

WHAT WORKS

MADAGASCAR

Emergency Support to Critical Education, Health, and Nutrition Services Project and Additional Financing

Report No. 146625
JUNE 26, 2020

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EMERGENCY SUPPORT TO CRITICAL EDUCATION, HEALTH, AND NUTRITION SERVICES PROJECT (P131945) AND ADDITIONAL FINANCING (P148749)

June 26, 2020

Human Development and Economic Management

Independent Evaluation Group

Abbreviations

DPT3	diphtheria, pertussis, and tetanus (third dose)
IEG	Independent Evaluation Group
NGO	nongovernmental organization
ONN	National Nutrition Office (Office National de Nutrition, Madagascar)
SDR	special drawing rights

All dollar amounts are US dollars unless otherwise indicated.

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This report was prepared by Denise Anne Vaillancourt, who assessed the project in October 2019, under the supervision of Ann Elizabeth Flanagan. Huguette Rabenitany provided technical support and local knowledge in Madagascar. The report was peer reviewed by Salim J. Habayeb and panel reviewed by Judyth L. Twigg. Gaby Loibl provided administrative support.

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This is a Project Performance Assessment Report by the Independent Evaluation Group of the World Bank Group on the Madagascar Emergency Support to Critical Education, Health, and Nutrition Services Project (P131945) and additional financing (P148749). This instrument and the methodology for this evaluation are discussed in appendix C. Following standard Independent Evaluation Group procedure, copies of the draft report were shared with relevant government officials for their review and comment Government comments are included in appendix L.

Basic Data

Country	Madagascar	World Bank financing commitment	SDR42.2 million ($65 million); SDR6.5 million ($10 million)
Global Practice	Human Development	Actual project cost	$68,112,652
Project name	Emergency Support to Critical Education, Health, and Nutrition Services Project and Additional Financing	Expected project total cost	$75,000,000
Project ID	P131945, P148749	Actual amount disbursed	$68,112,652
Financing instrument	Emergency recovery loan	Environmental assessment category	B (partial assessment)
Financing source	IDA credit		

Note: IDA = International Development Association; SDR = special drawing rights.

Dates

Event	Original Date	Actual Date
Approval		November 29, 2012
Effectiveness		April 25, 2013
Additional financing		February 27, 2014
Restructuring		July 21, 2015 June 14, 2016 July 21, 2016
Midterm review		October 27, 2014
Closing	July 31, 2016	July 30, 2017

Key Staff Responsible

Management	Appraisal	Completion
Project Team Leaders	Andreas Blom and Jumana N. Qamruddin	Jumana N. Qamruddin and Rary Adria Rakotoarivony
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Summary

This summary presents findings and lessons derived from an evaluation of the Madagascar Emergency Support to Critical Education, Health, and Nutrition Services Project, meant to inform continued improvement in the development effectiveness of World Bank projects. Appendix A presents project ratings, and appendix C describes the evaluation methodology and evidence sources.

Project Background and Description

The World Bank suspended operations in Madagascar in 2009 after a coup d'état and establishment of a de facto government. The unconstitutional regime change caused a prolonged period of political crisis, and together with the 2008 financial crisis, threatened to reverse a decade of sustained gains in social and economic indicators. The dearth of public financing for basic social services and the withdrawal of most donors during the protracted political crisis were especially concerning.

The Emergency Support to Critical Education, Health, and Nutrition Services Project was prepared in 2012 after the World Bank's reengagement in Madagascar and before reentry of other partners. The project's objective was "to preserve critical education, health, and nutrition service delivery in targeted vulnerable areas." The project initially focused on five of Madagascar's poorest and most vulnerable regions, where other donors were not active, and eventually extended nutrition services only to four additional regions (of 22 regions in the country).

The theory of change included the support necessary for achieving the objective of preserving critical social services. Foremost, the project provided the needed financing to continue the delivery of critical services. The project assumed that maintaining education required a reduction in parents' out-of-pocket expenditures; therefore, the project supported subsidized community teacher salaries and provided grants to schools to cover essential costs. Leveraging a school-based platform to achieve synergies and efficiency, the project supported training and provided materials to establish a new school-based health and nutrition package. To maintain health service delivery, support targeted rehabilitating basic health facilities; providing financing for drugs, training, supervision, and materials; instituting a fee exemption policy; and conducting outreach activities. Based on international evidence and significant country-specific knowledge, the project supported the development, delivery, and expansion of a cost-effective package of community-based nutrition services and provision of related materials and equipment. The causal pathways linking these investments to an uptake in access, use, and coverage of critical education, health, and nutrition services were adequate and plausible.

Results

The project succeeded in preserving critical education, health, and nutrition services, and it contributed to improvements in affordability, some aspects of quality, and use. This is more impressive given that the project targeted some of Madagascar's poorest and most vulnerable regions.

All primary schools in the five project regions (6,682 schools) continued to operate and became more affordable to parents, and enrollment increased. The project provided school grants for essential materials and operating costs, along with subsidies for community teachers' salaries. This support relieved the financial burden on parents, who had been paying out of pocket to cover these costs. At the end of the project, 1,131,353 students were enrolled in primary schools, exceeding the target to maintain baseline enrollment of 974,300 students. The ongoing Basic Education Support Project continues and expands the financing of grants and salaries, as these have not been picked up by the public budget or other financing sources. However, not all schools visited by the Independent Evaluation Group were receiving this support. The project financed school manuals, training for community teachers, and district supervisions but did not track their effect on quality.

With project support, newly established school-based health and nutrition services in these same primary schools extended coverage to a new target group and enhanced cross-sectoral collaboration and synergies. Teachers and local providers of health and nutrition services jointly managed and delivered school health and nutrition services, which included deworming treatments, iron-folate supplements, and messages promoting better health and nutrition. About 1,804,964 children received deworming treatment, far exceeding the target of 667,994. These activities supported implementation of Madagascar's school health and nutrition program (2013–15).

The delivery of basic health services for mothers and children was preserved, and their quality and affordability improved, prompting an uptake in use. The project supported 60 percent of facilities in the five regions (347 basic health facilities). Quality improvements included the design and delivery of an evidence-based health care package for mothers and children, rehabilitated and better-equipped facilities, improved drug availability, more regular supervision, and trained obstetrics and neonatal care providers. Fee exemptions and a drug voucher system (providing drugs free of charge to mothers and children) improved service affordability, and, together with quality improvements, boosted service uptake. Rates of coverage of children under 12 months with their third immunization against diphtheria, pertussis, and tetanus are high, with seven of the nine project regions equaling or exceeding the national average of 88 percent, and eight of the nine regions achieving increases over their baselines greater

than the overall national increase. The share of births delivered in a health facility improved during the project, with eight of the nine regions exceeding or at least approaching precrisis levels. Survey and facility-based data indicate positive trends in the use of maternal health services in the five regions, including prenatal care and deliveries at a health facility, reversing a preproject decline. Ministry of Health data show large increases in the third immunization against diphtheria, pertussis, and tetanus, with four of the five regions exceeding 90 percent.

Nevertheless, service use is still low in the project regions. Only half of pregnant women make at least four prenatal visits, and only one-third deliver at a health facility or with a qualified provider; only one-quarter to one-third of children ages 12–23 months have total vaccination coverage. Field visits revealed threats to the sustainability of the fee exemption and drug voucher systems, which ceased to ensure free services and drugs after project closing. Renewed support under the World Bank's ongoing health and nutrition project (effective in April 2018) was expected but had not yet arrived.

The project improved the content, quality, and evidence base of existing community-based nutrition services, extended their coverage (within the original five regions and to an additional four), and supported food security and other interventions to complement the basic nutrition package. The project supported cost-effective interventions to address high levels of chronic malnutrition (low height for age), especially among children under two. It supported research and learning by testing incremental interventions (such as food supplements, home visits, and early childhood stimulation) to assess their effects on health and nutrition. It provided inputs and training to 23,114 highly vulnerable households for short-cycle garden and livestock projects. The number of children under two years enrolled in the growth monitoring program (462,315) and benefiting from improved infant and young child feeding practices (425,360) exceeded targets.

Available evidence reveals improved knowledge and behaviors favoring better health and nutrition. Although the project did not track behaviors, regional disaggregation of national survey data shows improvements in the project regions. The share of women practicing exclusive breastfeeding for six months increased in most of the nine project regions. All nine show improvements, though modest, in other child feeding practices, including dietary diversity and intake of foods rich in iron and vitamin A. However, overall levels are still low. Even in the four regions with nutrition-only support, survey data show increases in the uptake of prenatal services and births delivered at a health facility or by a qualified provider. This corroborates synergies between health and nutrition providers observed during field visits and exchanges with beneficiaries.

Project support of complementary nutrition-specific and nutrition-sensitive interventions likely contributed to improvements in nutrition outcomes. Nationally, stunting among children under five declined between 2012/13 and 2018 from 47 to 42 percent. Stunting rates in five of the project's nine regions show larger reductions than the national average, and one region's decline was equal to the national decline. Stunting increased very slightly in the two southern regions affected by locusts and droughts during project implementation. Project support likely dampened the negative impact of these external shocks. It is plausible to assume that the project's effect at the regional level was significant, given that nutrition interventions were delivered in 100 percent of all districts in those regions, and coverage of communes was high. Regional and local-level data corroborate positive trends. During the project period, anemia prevalence among women ages 15–49 years and among children ages 6–59 months declined in all nine project regions. Beneficiaries corroborated these positive trends, noting that their younger children are much healthier and better nourished than their older children are.

Design and Preparation

Project design was evidence based and included a creative mix of emergency and development interventions; the preparation was both quick and technically sound because of World Bank support and facilitation. First, the project was designed as an emergency operation, but it also invested in development and innovative activities. Beyond the modest statement of objective (to preserve services), which conforms to the guidelines for emergency operations, the design supported improvements in service quality, coverage, affordability, and oversight. The design was flexible, reserving substantial resources to respond to potential environmental emergencies that would threaten nutritional status, especially in the south. Second, the World Bank was proactive in ensuring quick, relevant, and technically sound project preparation. It prepared an Interim Strategy Note in 2011 prioritizing child development, carried out a portfolio restructuring aligning with the note, undertook analytic work, and launched preparation with qualified contractual staff working with government technical agencies until its formal reengagement. Third, the project supported and nurtured a multisectoral approach and cross-sectoral synergies in communities—and families—benefiting from investments in all three sectors (education, health, and nutrition) and eventually additional sectors (food security and women's empowerment, among others). Fourth, institutional arrangements were pragmatic, relying on three qualified and experienced project implementation units, each one embedded in the appropriate government agency.

Weaker elements of project design included the absence of a results chain for behavior change and a missed opportunity for capacity building of the National Nutrition Office

(Office National de Nutrition; ONN) and the regions in multisectoral coordination and strategic planning for nutrition. First, although crucial to improved nutrition outcomes, behavior change at the household level was not clearly articulated in the project's design as an outcome or intermediate outcome and was not sufficiently captured in monitoring and evaluation indicators. The project design included information, education, and communication activities to promote an uptake in basic health services, healthy diets, and breastfeeding. However, it did not articulate an explicit results chain to document and address the underlying reasons for unhealthy behaviors, and complement information and education with other activities to lift barriers to and incentivize desired behaviors. Additionally, capacity building support did not fully exploit the mandates and comparative advantages of ONN and the regions. The institutional arrangements were kept simple and project specific, relying largely on the three existing project implementation units and a newly created project coordination unit in the Ministry of Finance to facilitate cross-sectoral coordination. ONN's mandate for multisectoral coordination of nutrition activities was not sufficiently factored into this arrangement or strengthened. This may have been appropriate for the original emergency design, but there was opportunity and scope for building ONN capacity under the additional financing, which significantly expanded nutrition program coverage and multisectoral content. There was also scope for the design to draw on and strengthen the regions' comparative advantages and potential for planning and overseeing a more holistic multisectoral approach to nutrition.

Implementation and Supervision

Strong features of implementation and supervision included the further expansion of multisectoral activities, the hard work and commitment of the regional and operational levels, and the World Bank's close and professional support. Multisectoral activities for better nutrition were further expanded under additional financing and restructuring, making the project even more responsive to global evidence. The original design nurtured synergies across the education, health, and nutrition sectors and promoted family gardens and foods rich in micronutrients. The introduction of household food security projects enhanced the availability of nutritious food, generated income and assets for the family, and enabled the application of advice received from nutrition agents. Second, the leadership, commitment, teamwork, and relentless efforts to manage and deliver services at the regional and operational levels were critical to the project's success. Regional and district leadership and technical experts, the regional nutrition coordinator, contracted nongovernmental organizations, and local leaders were knowledgeable and involved. Front-line workers were tireless in their efforts to deliver services. Third, the World Bank support also contributed to project success, notably the continuity in the team, the appropriate mix and level of expertise, its availability to

government, and its systematic supervisions facilitating dialogue, learning, and problem solving.

Nutrition governance and financing were challenges during implementation and pose a threat to program effectiveness and sustainability. Despite its strong support and oversight of community-based activities, ONN has not fully assumed its mandate of multisectoral coordination and strategic management of all nutrition activities. A 2016 institutional audit corroborates the Independent Evaluation Group's findings that ONN's multisectoral coordination function is constrained by staffing and its organizational structure, even though it is housed appropriately in the prime minister's office. There is scope for the National Council for Nutrition and its Permanent Office (for which ONN serves as secretariat), backed by the prime minister, to reassert ONN's multisectoral mandate and support and empower it to this end. Second, nutrition receives high priority in national development policies, but the government's financial commitment is waning. The public budget for nutrition has declined substantially over the past decade, jeopardizing program objectives to improve the quality and effectiveness of existing services and to expand geographic coverage substantially. Turnover in government, especially at the highest levels, may factor into waning commitment. Education and advocacy about the high levels of chronic malnutrition, their causes, and consequences for Madagascar's development prospects have not been sufficiently undertaken to sensitize new leadership. Third, ONN has made a laudable effort to document the support of numerous development partners by region and type of intervention, revealing extensive but fragmented support for nutrition. The partners initiated much of this support through a project approach that was not always vetted with ONN or the regions. This undermines the priorities and phasing of national and regional plans and risks duplication of efforts and inefficient resource use. Fourth, a government structure that keeps planning, programming, resource allocation, and decision-making highly centralized constrains the regions' potential to design and support social sector activities and undertake multisectoral coordination. Moreover, the World Bank might have better addressed weaknesses in the project's theory of change and monitoring and evaluation—especially regarding behavior change, institutional capacity, and sustainability issues—during implementation, especially in light of additional financings and restructurings.

Lessons

This assessment offers the following lessons, which focus on the challenges of further strengthening and sustaining a multisectoral approach to nutrition raised in this report:

- A multisectoral approach, which delivers a range of services that benefit communities, can have a synergistic and impactful effect on the health and

nutrition of mothers and children. Feedback from the field was loud and clear: beyond multisectoral interventions supported by the project, better health and nutrition cannot be fully realized without improved water and sanitation and other critical services, including agriculture, security, and roads.

- The effectiveness and efficiency of Madagascar's nutrition efforts are contingent on the ONN fully assuming its primary mandate of multisectoral coordination, with the full support and recognition of the public sector, at all levels of government, and in partnership with leaders and stakeholders in the political, administrative, religious, and traditional arenas and in the private sector.

- The roles and comparative advantages of the regions and districts in the strategic management and implementation of service delivery, including the support and encouragement of cross-sectoral synergies, will continue to be underexploited as long as the government's structure is highly centralized.

- Successful mobilization of domestic and international resources, planning, programming, and priority setting—including managing the tensions between the goals of expanding nutrition coverage and strengthening existing services—will be difficult to achieve without investments in ONN capacity. Over and above the capacity strengthening needed, improved aid effectiveness and the sustainability of Madagascar's nutrition efforts also depend on development partners working closely with ONN and the regions and supporting their development plans and priorities, and on an evolution from projects to program support.

- The World Bank can play a pivotal role in supporting ONN to assume its multisectoral coordination role by advocating to the highest levels of government the importance of prioritizing nutrition as a means of achieving its development objectives and of allocating more budgetary resources to this end, and in supporting the decentralization process to empower regions.

- Emergency operations can provide an opportunity for embarking on broader development efforts, as shown by this project, whose interventions transcended recovery efforts. However, the inclusion of such development support without attention to sustainability can undermine gains postproject.

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1. Background, Context, and Design

Background and Context

1.1 The political crisis in Madagascar (2009–12) severely affected the country's governance, economic performance, and population well-being (World Bank 2017a). After an unconstitutional regime change in 2009, the World Bank and most other development partners suspended aid to Madagascar.[1] Because of withdrawn aid (which accounted for at least half of the government's budget), economic investments and expenditures on basic social service delivery were cut substantially. Economic growth was flat from 2009 to 2012. Poverty increased from 69 to 74 percent between 2001 and 2005, reaching a high of 82 percent in 2010, and then declined slightly to 79 percent in 2012 (World Bank 2016b).[2]

1.2 The delivery of basic education, health, and nutrition services through the public system was severely undermined. Lack of financing and fragmented humanitarian support, which bypassed public institutions and systems, forced poor families to assume some of the costs of social sector services, reversing the previous decade's improvements in these sectors. The crisis caused a shortage of essential supplies and operating budgets, declines in the quantity and quality of service delivery and their use, and even the closure of some facilities.

1.3 Malnutrition worsened, especially in the most vulnerable and poorest regions. Vulnerabilities were further exacerbated by the financial crisis (2008) and recurring environmental crises, including severe cyclones, droughts, and locust infestations, the latter two especially in the south.

1.4 Postcrisis (from 2014 to the present), Madagascar's economic performance improved, but poverty reduction and human development are lagging.[3] Real annual gross domestic product growth increased from low points of −3.7 percent and 0.5 percent in 2009 and 2010 (World Bank 2011), to 3.3 percent in 2014. It reached 5.1 percent in 2018—its fastest pace since the return to constitutional order in 2014—with good prospects for continued good performance (World Bank 2019). However, the share of the population living below the international poverty line of $1.90 per day, currently estimated at 74 percent (World Bank 2019), remains high, and human development indicators are alarming. Recent World Bank analysis of the state of human capital in Madagascar documents that a child born today in Madagascar is expected to reach only 37 percent of his or her potential, given the current rates of chronic malnutrition in children, poor health, and poor quality of education (box 1.1; World Bank 2018a). Not only is this human development indicator low, but it declined from a level of 39 percent in 2006.

1.5 Recent measures of the health and nutrition of mothers and children corroborate the poor state of human capital (INSTAT and UNICEF 2019). Under-five mortality has declined from 72 per 1,000 live births in 2006 to 56 in 2016, but low use of child health services, low levels of full vaccination, and inadequate infant and young child feeding practices contribute to the continued vulnerability and poor health and nutrition of children. Only one-third of children ages 12–23 months are fully vaccinated. Less than one-half of children with diarrhea are given proper treatment. One-half of mothers practice exclusive breastfeeding of children up to age 6 months. Only one in four children ages 6–23 months receives the minimum acceptable diversity of food, and one in five receives the minimum acceptable diet.[4] Forty-two percent of children under five are stunted, 6 percent suffer from acute malnutrition, and 26 percent are underweight. Low use of reproductive health services, especially prenatal care and delivery at a health facility, further undermines the health and nutrition of children and their mothers. Maternal mortality, at 335 deaths per 100,000 live births in 2017 (WHO 2018), has declined from 526 in 2005 but is still very high. Eighty-five percent of pregnant women attend prenatal services at least once, but only half undertake the four recommended visits. A qualified provider assists only half of all deliveries, and 39 percent of deliveries occur in a health facility.

Box 1.1. Types of Malnutrition

Chronic malnutrition, or stunting, indicates a low height for age. It is the result of chronic or recurrent undernutrition, usually associated with poor socioeconomic conditions, poor maternal health, poor nutrition, frequent illness, or inappropriate feeding and care in early childhood. Growth is considered stunted if a child is more than two standard deviations below the mean based on age and sex.

Acute malnutrition, also termed wasting, is indicative of a low weight for height. It usually indicates recent and severe weight loss, often from a lack of food or because of infectious diseases.

Underweight (low weight for age) is a composite indicator of stunting, wasting, or both.

Micronutrient malnutrition is caused by inadequate intake of vitamins and minerals (such as iodine, vitamin A, and iron) that enable the body to produce enzymes, hormones, and other substances. Micronutrient deficiency represents a major threat to the health and development of children and pregnant women in low-income countries.

Source: https://www.who.int/news-room/fact-sheets/detail/malnutrition (dated April 1, 2020).

1.6 The Human Capital Index also documents a significant learning gap, a critical indicator of education quality, and the primary school completion rate is low. On average, Malagasy children complete 7.5 years of schooling by age 18. When adjusted for the quality of education or actual learning, this amounts to 4.2 years, revealing a learning gap of 3.3 years. Fifteen percent of children between ages 3 and 5 attend

preschool, and 76 percent of school-age children attend primary school. The primary school dropout rate is 22 percent, and the completion rate is 56 percent.

1.7 Indicators of health, nutrition, and education vary by income, location, and education. Decomposing the indicators reveals significant differentials between rural and urban residents, the poorest and richest quintiles, and women with lowest to highest years of education, and across regions. In Madagascar, women and children with the least access to social services and human development outcomes are the poorest and least educated, living in rural or disadvantaged regions. These same women and children also have the least access to clean water, sanitation, and basic hygiene, which is critical for securing good health and nutrition.[5] These inequities perpetuate a vicious cycle of poverty from which it is difficult to escape. Given the high levels of poverty (75 percent), rural residence (63 percent), and rapid population growth,[6] Madagascar's vulnerable population is large and growing, presenting a formidable challenge to the government.

1.8 Before the political crisis, the government had committed to improving health, nutrition, and education outcomes. The Madagascar Action Plan for 2007–12 (Government of Madagascar 2007) laid out eight development commitments.[7] Social sector goals included universal primary education of seven years; improved health services for better access, affordability, and reliability; more effective malaria control; HIV prevalence kept below 1 percent; reduced infant and child mortality; and reduced malnutrition among children under five. The action plan included other relevant goals necessary to achieve social sector outcomes, such as more efficient and effective government budgetary processes, strengthened provision of public services, increased authority and resources of communes and regions to address local and regional needs, increased civil society participation, improved provision of basic services to the vulnerable, promoting gender equality and empowerment of women, and lessened impact of catastrophes.

1.9 The Madagascar Action Plan provided the basic policy framework when the World Bank reengaged in Madagascar.[8] Sector-specific interim strategies were subsequently issued for education (2013–16), health (2012–15), and nutrition (2012–15) near or after the time of project approval and then updated or replaced in 2014, after the restoration of constitutional rule. The thrust of the interim sector strategies was to support critical service delivery to protect access to and use of services (appendix F). The paucity of social sector financing and human resources was among the most formidable challenges to preserving critical social services.

1.10 The World Bank has a long history of support to the education, health, and nutrition sectors in Madagascar, spanning 25 years. (Appendix G and appendix H

present the full lending and nonlending portfolios, respectively, covering 1976 to the present.) In March 2009, the World Bank suspended disbursements for ongoing projects and new lending.[9] A few disbursements resumed in November 2009 on humanitarian grounds. In 2011, the World Bank fully resumed its operations and issued an Interim Strategy Note, which continued its support to the social sector components of the government's action plan (2007–12). However, given the political instability and its significant negative impact on financing and provision of social services, the World Bank's strategy scaled back and prioritized its approach. Support focused primarily on reversing the negative trends in education, health, and nutrition caused by the crises and selectively included some development elements that aligned with the World Bank's commitment to invest in the early years of vulnerable children. In 2011, the World Bank undertook a major portfolio restructuring, and in 2012 it prepared two emergency operations: the Emergency Infrastructure Preservation and Vulnerability Reduction Project and the Emergency Support to Critical Education, Health, and Nutrition Services Project.

1.11 Other development partners had withdrawn from the country during the project's design and initial implementation. They returned in 2013–14 and resumed their support of social sectors. Donors eventually supported some of the project regions with somewhat reasonable complementarity. Appendix J presents the main development partners supporting human development.

Objective, Design, and Financing

1.12 The project development objective, as stated in the financing agreement, was "to preserve critical education, health, and nutrition service delivery in targeted vulnerable areas in the recipient's territory" (World Bank 2012b). The objective did not change throughout the life of the project, which included additional financing and three restructurings. Seven outcome indicators (tracking the number of beneficiaries of various services) were identified to measure progress toward achievement of the project development objective. Although these indicators remained largely unchanged, some target values were increased with the additional financing (which extended coverage of the nutrition component), then were subsequently reduced to align with revised population projections. Appendix E, table E.1 presents a complete list of indicators, baselines, targets, and results.

1.13 The project's original design supported three components in five regions, chosen based on poverty and human development indicators and the absence of donor support. (See table 2.1 for a list of project regions and their phasing. Appendix D, table D.2, provides more detail of coverage within each region.) The first component aimed to preserve critical education services through subsidized community teacher salaries and

grants to schools to offset parents' contributions to cover essential costs. It also established and supported a new school health and nutrition package to be delivered to schoolchildren with the support and collaboration of the health and nutrition sectors. The second component sought to preserve critical health services by supporting the delivery of a new, improved, integrated, and free package of health services for mothers and children under age five;[10] rehabilitating basic health facilities; financing drugs and other essential inputs (training, supervision, and materials); eliminating fees for mothers and children; and outreach activities. The third component aimed to preserve and strengthen existing community nutrition sites and establish new ones to improve and expand the delivery of basic nutrition services.[11] The project supported the development and delivery of a cost-effective package of nutrition services targeted to mothers and children under five, with special emphasis on children under two years, recruitment of nongovernmental organizations (NGOs) to supervise and support community nutrition agents, the provision of materials and equipment, and an impact study to test and evaluate different approaches to addressing chronic malnutrition. All three components supported capacity building, especially project management, oversight, monitoring, and evaluation. The geographic scope of the nutrition component expanded with the additional financing approved in February 2014, and again in a restructuring in July 2015 (table 2.1). Other changes to the nutrition component during implementation included the intensification of behavior change interventions, introduction of food security interventions in some regions, and use of unallocated funds for emergency nutrition interventions in the south after environmental disasters. Appendix D, tables D.1 and D.2, itemize evolutions in the project's interventions and coverage over time.

1.14 Total project cost at closing was $68.1 million equivalent, or 91 percent of the total planned cost, inclusive of the original credit and additional financing (table 1.1). An International Development Association credit was to finance the original cost, estimated at $65 million equivalent. No government contribution was planned. Additional financing of $10 million equivalent, approved in 2014, supported refinement and expansion of activities under component 3 (appendix D, tables D.1 and D.2). Actual costs of each component were very close to the original estimates. A total of special drawing rights (SDR)47.2 million were disbursed: SDR40.7 million (96 percent of the original credit); and SDR6.5 million (100 percent of the additional financing) (appendix I, tables I.1 and I.2). Most of the unallocated funds were used for nutrition activities, including emergency responses in the south. The devaluation of the Malagasy ariary caused an increase in local currency resources. An amount of SDR1.5 million was canceled under the original credit.

Table 1.1. Planned versus Actual Costs by Component

	Planned			Actual	
Component	Original credit (1)	Additional financing (2)	Total planned (1)+(2)	Costs	Percent of planned
1. Preserving critical education services	23.5	0	23.5	22.0	94
2. Preserving critical health services	25.0	0	25.0	24.8	99
3. Preserving critical nutrition services	10.5	10.0	20.5	21.3	104
Unallocated category (For cost overruns, contingency or other unforeseen activities to achieve objective)	6.0	0	6.0	0	0
Total	65.0	10.0	75.0	68.1	91

Source: World Bank 2018d.

1.15 The project's theory of change (figure 1.1) is presented in the form of a results chain, reconstructed by the Independent Evaluation Group (IEG) based on the descriptions of the original design and subsequent revisions and additions. It includes some intermediate outcomes and outcomes that, although not included in the theory of change presented in the Implementation Completion and Results Report, are included in the design documents, such as improved service quality and behavior change. It also replaces the Implementation Completion and Results Report's higher-level outcome column, stating very long-term benefits, with an "impacts" column including anticipated impacts mentioned in the design and directly linked to services supported by the project.

1.16 The theory of change includes the support necessary for achieving the objective to preserve services in each of the three sectors. The project provided much-needed financing to continue the delivery of critical services. It also included inputs and activities for achieving improvements in service quality, affordability, and coverage, all supporting an increase in the uptake of these services by target populations and their improved effectiveness. Although each individual sector had its own distinct results chain to preserve services delivery and encourage their uptake, the theory of change also reflects cross-sectoral coordination and outcomes, especially, but not limited to, the delivery of a new school health and nutrition service package under the education component. Behavior change is critical to improved nutrition outcomes, but the results chain for achieving this was not sufficiently explicit. (See chapter 2 for a fuller discussion of design strengths and weaknesses.) To keep the project simple during a difficult period in a challenging environment, capacity strengthening was largely limited to the goal of satisfactory project management, monitoring, and evaluation.

1.17 This evaluation's assessment of nutrition support draws heavily on the United Nations Children's Fund conceptual framework for fighting malnutrition. Appendix C,

figure C.1 presents the program-based theory because it is such an important evaluation tool and a global reference for good nutrition design. Based on research and best practices, this framework is built around three essential components: nutrition-specific interventions delivered in communities, nutrition-sensitive interventions, and strengthened capacity for management, oversight, and multisectoral coordination (box 1.2).

Box 1.2. Definitions of Nutrition-Specific and Nutrition-Sensitive Interventions

Nutrition-specific interventions and programs address the immediate determinants of fetal and child nutrition and development: adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases. Programs and interventions include adolescent health and preconception nutrition, maternal dietary supplementation, micronutrient supplementation or fortification, breastfeeding and complementary feeding, dietary supplementation, dietary diversification, feeding behaviors and stimulation, treatment of severe acute malnutrition, disease prevention and management, and nutrition interventions in emergencies.

Nutrition-sensitive interventions and programs address the underlying determinants of fetal and child nutrition and development—food security; adequate caregiving resources at the maternal, household, and community levels; and access to health services and a safe and hygienic environment—and incorporate specific nutrition goals and actions. Nutrition-sensitive programs can serve as delivery platforms for nutrition-specific interventions, potentially increasing their scale, coverage, and effectiveness. Such programs and interventions include agriculture and food security, social safety nets, early childhood development, maternal mental health, women's empowerment, child protection, classroom education, water and sanitation, and health and family planning services.

Source: https://www.thelancet.com/pb/assets/raw/Lancet/stories/series/nutrition-eng.pdf

Figure 1.1. Simplified Theory of Change: Project Results Chain

Sector	Activities →	Outputs →	Objectives/Key Indicators/ Outcomes	Impacts
Education	Financing of critical inputs: school grants and salary subsidies	Essential means to continue service delivery Reduction in parents' out-of-pocket financing of school expenses	Critical education services preserved[a] Student enrollment maintained[b] Improved affordability[c]	Increased attendance Reduced dropouts Improved learning outcomes
	Investments in governance: training of communities in governance of grants and salaries; recruitment of NGOs for third-party verification	Community and NGO oversight of schools' resource use	Improved accountability of schools to the communities[c]	
	Support for district supervision and oversight; provision of school manuals and training to community teachers	More regular supervision and availability of inputs for quality	Modest improvements in quality[c]	
School health and nutrition	Development (with health and nutrition) of a new primary school health and nutrition service, including provision of inputs: drugs, vitamins, support for cross-sectoral coordination and collaboration, and teacher training)	Basic package ready for delivery: deworming with one-day nutrition activity; iron-folate supplementation; drugs to prevent neglected tropical diseases Strengthened coordination and collaboration across sectors	Uptake of services School-age children receiving antihelminth treatment[b] Cross-sectoral synergies[c]	Increased attendance Improved learning Improved health and nutrition of primary schoolchildren
Health	Provision of critical inputs for delivering an integrated maternal and child health package: • Rehabilitation, equipment for basic health facilities • Essential obstetric and neonatal care equipment, training; safe delivery kits; other materials • Recapitalization of pharmacies • Technical support to Ministry of Health district-level services	New, improved services for women and children under five ready for delivery More regular supervision by districts and availability of inputs for quality	Critical health services preserved[a] Uptake of services[c] Assisted deliveries[b] Children immunized[b] Prenatal care[b] Quality improvements[c]	Improved health of mothers and children (maternal, infant, and child mortality); anemia prevalence
	Establishment of fee exemption and voucher system	Services and medicines are free of charge, improving affordability	Uptake of services[c]	
	Extension of results-based financing pilot to selected facilities	Expanded experience, strengthened evidence	Increased learning[c]	Application of lessons for improved effectiveness
Nutrition	Provision of critical inputs for delivering a new, improved package of community-based nutrition services in existing and new sites, including recruitment and training of community nutrition agents, NGOs, materials and supplies, micronutrients, and deworming medication Introduction of food security activities in five regions, including the provision of support kits (inputs and equipment) for short-cycle agriculture and livestock activities Emergency response to locusts and droughts in the south	New, improved services ready for delivery targeted to mothers and children under two and two to five years, including • Nutrition-specific: growth monitoring, information, education and communication/promotion of better diets, behavior change (human-centered development), and micronutrient supplementation deworming, and identification and treatment of acute malnutrition • Nutrition-sensitive: food security, income-generation activities, and women's empowerment	Critical nutrition services preserved,[a] improved, and extended[c] Uptake of services[c] Children under two enrolled in growth monitoring[b] Improved diets[c] Children under two benefiting from improved feeding[b] Improved food security[c] Behavior change[c]	Declined stunting, acute malnutrition, underweight, and anemia Improved family well-being
Capacity building	Support to three sector project implementation units (salaries, operating costs, and technical backstopping) and project coordination cell for project management and oversight and M&E Logistical and technical support to central level, regions, districts, and subdistricts for supervision and oversight of implementation M&E activities	Capacity sufficient to fulfill requirements for proper management, implementation, reporting, and M&E Means and capacity for cross-sectoral coordination and collaboration	Satisfactory project management, implementation, reporting, monitoring, and evaluation[c] Cross-sectoral coordination and synergies[c]	

Source: Independent Evaluation Group.
Note: M&E = monitoring and evaluation; NGO = nongovernmental organization.
a. Project objective.
b. Key indicator.
c. Other outcomes, embedded in the project design.

2. What Worked, What Didn't Work, and Why?

Results

2.1 This section highlights project results and sustainability. It draws on assessments of project efficacy (linking inputs, activities, intermediate outcomes, and outcomes) and risks to development outcomes (appendix A). This Project Performance Assessment Report provides baselines, targets, and actual outcomes for project indicators (appendix E, table E.1), but it also recognizes that project indicators do not fully capture outcomes. (See the assessment of monitoring and evaluation quality in appendix A.) Thus, it has compiled a significantly expanded evidence base to document achievements. Data sources presented in appendix D include regional trends from national surveys, official data from technical ministries and the National Nutrition Office (Office National de Nutrition, Madagascar; ONN), and regional and service-level data collected during field visits. Triangulation of these data, along with exchanges with beneficiaries and other actors during fieldwork, corroborate a story of important gains in the provision and uptake of services. Table 2.1 presents project coverage and phasing. Regions were chosen based on their high poverty rates, low human development indicators, and absence of donor support.

Table 2.1. Geographic Coverage of the Project by District, Commune, and Phase

Region	Districts Covered (percent)	Communes Covered (no.)	Total Communes (no.)	Communes Covered (percent)
Original Project (November 2012)				
Education, Health, and Nutrition Sectors				
Amoron'i Mania	100	54	55	98
Haute Matsiatra	100	72	82	87
Vatovavy Fitovinany	100	134	143	94
Atsimo Atsinanana	100	87	91	96
Androy	100	49	51	97
Additional Financing (February 2014)				
Nutrition Sector Only				
Vakinankaratra	100	86	86	100
Itasy	100	28	51	55
Atsimo Andrefana	100	61	106	58
Project Restructuring (July 2015)				
Nutrition Sector Only				
Analamanga	100	121	144	84

Source: National Nutrition Office (ONN).

2.2 The project succeeded in preserving critical education, health, and nutrition services, and it contributed to improvements in affordability, coverage, some aspects of quality, and use. This is impressive given that the project targeted some of Madagascar's poorest and most vulnerable regions.

Education

2.3 All primary schools in the five project regions (6,682 schools) continued to deliver services during a time when government and other partners' financial support fell far short of minimum needs; schools became more affordable to parents. These outcomes are attributable to the project's infusion of financing for school grants that covered essential materials and operating costs, and for subsidies covering four months per year of qualified community teachers' salaries, adding to government financing of the remaining eight months. Though not systematically tracked, exchanges with actors and stakeholders during field visits, including teachers and parents, revealed that this support relieved the financial burden of parents, who had been paying out of pocket to cover these costs.

2.4 Accountability for the use of school financing was improved. The project financed the training of communities in the governance of the school grants and community teacher salary subsidies. This gave them an opportunity (and shared responsibility with the school management) to oversee the proper use of these funds. The recruitment of NGOs for third-party verification of schools reporting further enhanced their accountability.

2.5 Modest improvements in quality are likely to have been achieved with project support; project enrollment targets were exceeded. The project financed school manuals, training for community teachers, and district supervisions, but their effect on quality was not tracked. Teachers and parents interviewed noted their appreciation of more frequent district supervisions and of the training and materials received. At the end of the project, 1,131,353 students were enrolled in primary schools, exceeding the target to maintain the baseline enrollment of 974,300 students.

2.6 However, support was not immediately sustained after project closing. IEG's field visits revealed that neither the public budget nor other financing sources had picked up the grants or the salary subsidies and that schools lacked resources, community teachers no longer receive their full salaries, and parents had begun to subsidize essential costs again. The public budget for education falls far short of needs. World Bank staff have noted that grants and salary subsidies were continued and strengthened under the ongoing basic education project to ensure continuity. Another threat to the sustainability of primary education is the scarcity of human resources, in terms of quantity and quality.[12] Some teachers noted that, although increased enrollment

is a noteworthy goal, large and growing class size is becoming unmanageable and undermines the quality of services.

School Health and Nutrition

2.7 The project established a new package of health and nutrition services, which were delivered to students in all primary schools in the five regions, exceeding coverage targets. These new services included deworming treatments combined with a one-day nutrition activity to ensure food intake with the medicine, the distribution of iron-folate supplements to reduce the prevalence of anemia, the distribution of drugs to prevent neglected tropical diseases, and the delivery of messages promoting better health and nutrition. Project data report that 1,804,964 children received deworming treatment, exceeding the target of 667,994 children.

2.8 The project's approach to school health and nutrition enhanced cross-sectoral collaboration and synergies and supported the implementation of the government's school feeding, health, and nutrition program in 2013–15.[13] Teachers and local providers of health and nutrition services jointly managed and delivered school health and nutrition services, and 19,852 teachers were trained in school health and nutrition (exceeding the target of 3,750; appendix E). Community nutrition agents regularly attended school-based deworming treatments, bringing their cooking demonstrations to school sites on those days to ensure that students would eat before taking the medicine. Health providers supported the management and dispensing of micronutrients, medicines, and health messages. This school-based service extended the coverage of deworming, micronutrient supplementation, and drugs against neglected tropical diseases provided by health facilities to a new age cohort: primary school–age children. However, feedback from field visits indicates that activities have not been fully sustained after the project's closing.

Health

2.9 The delivery of basic health services for mothers and children was preserved and their quality improved. The project supported the establishment and delivery of a new, improved package of maternal and child health and nutrition services. The package—which supports an evidence-based, life cycle approach—includes prevention, promotion, treatment, and care services tailored to the needs of children under five (and subgroups) and to women of reproductive age, including pregnant and lactating women. The project targeted the 60 percent of basic health facilities in the five regions (347 facilities) considered most in need and not supported by other partners. Quality improvements under the project included rehabilitated and better-equipped facilities; improved drug availability; more regular supervision by the districts, regions, and

central level; and provision of service providers with proper training in obstetrics and neonatal care.

2.10 Affordability of basic health services significantly improved. The project established a fee exemption system that made all basic services free of charge to mothers and children. Sixty NGOs recruited and trained under the project managed the fee exemptions. A new drug voucher system provided drugs free of charge to mothers and children.

2.11 Free drugs and services, together with quality improvements, prompted an uptake in use. Project data indicate that 131,431 births were attended in health facilities, and 286,194 children received their third immunization against diphtheria, pertussis, and tetanus (DPT3). Survey and facility-based data document mostly positive trends in the use of maternal health services in both the five original regions receiving support for all three sectors and the four regions receiving nutrition-only support, whose messages promoted the use of maternal and child health services.

2.12 The share of live births that benefited from prenatal care by a qualified provider increased between 2012/13 and 2018 nationally and in all nine of the project's regions. Moreover, 2018 levels either matched or exceeded the precrisis levels in 2008/09 (appendix D, figure D.4). The share of women who attended at least four prenatal visits increased in three of the original five regions between 2012/13 and 2018 and declined only slightly in two others. The four nutrition-only regions showed mixed performances—two with increases and two with declines. However, the practice of making four prenatal visits is still low for almost all project regions, and it is near or under 50 percent nationally (appendix D, figure D.5). Ministry of Health data covering a slightly different time frame (2013–16) show increases in the share of women who made four prenatal visits across all nine regions, starting from lower baseline rates, and none achieving outcomes greater than 40 percent (appendix D, figure D.7).

2.13 Similarly, the share of births delivered in a health facility is very low in the five target regions, but this indicator showed improvements between 2012/13–18 in eight of nine project regions, with most exceeding or at least approaching precrisis levels (appendix D, figure D.9). Data from a basic health facility in Amoron'i Mania region corroborate improvements in prenatal visits and facility-based deliveries (appendix D, figures D.8 and D.10). National survey data also reveal substantial increases in the use of postnatal care in the five regions, with increases in each region greater than the overall national increase. By contrast, only one of the four nutrition-only regions showed an increase (appendix D, figure D.12). Impromptu interviews with women who were seeking services at the facilities during IEG's field visit corroborated the finding that improvements in service quality and affordability precipitated their uptake. A woman

who was eight months pregnant shared with IEG that she walked for four hours one way to access services at the basic health facility because she recognized their quality and knew they were free of charge.

2.14 Populations living in isolated, hard-to-reach areas continue to have very low access to services, despite investments in outreach activities. Project investment in outreach was not enough to reach isolated populations with critical services effectively. Because of staff shortages, time taken for outreach activities undermines service availability in the health facility. Evacuation in remote areas requires carrying the patient for hours over difficult, mountainous terrain, where there are no roads. This partly explains the low rates of deliveries in a health facility.

2.15 The project supported a boost in the coverage of children who receive their third immunization against diphtheria, pertussis, and tetanus, but total vaccination coverage remains low. Project data report that 286,194 children received the DPT3 immunization (appendix E, table E.1). Ministry of Health data show very high rates of coverage of children under 12 months who received DPT3, with seven of the nine regions equaling or exceeding the national average of 88 percent. Increases in coverage over 2013 levels exceeded the overall national increase in eight regions. Androy (a very poor and vulnerable southern region) registered a decline from 89 to 75 percent (appendix D, figure D.15). Although the project indicator tracked DPT3 coverage, it is significant that national survey data show a substantial decline in the share of children ages 12–23 months who receive full vaccination coverage in the project regions (appendix D, figure D.14). The most alarming declines were in Aromon'i Mania and Haute Matsiatra regions, where vaccination rates in 2008/09 were 72 and 75 percent, respectively, but fell to 59 and 45 percent at the start of the project and continued to decline throughout project implementation, reaching 31 and 26 percent in 2018. It is also significant that the Ministry of Health is currently contesting the national survey data on full vaccination coverage, especially for 2018, raising concerns about the survey sampling.

2.16 There were mixed trends in the share of children under five who sought care at a health facility or with a service provider for various ailments (upper respiratory infections, diarrhea, and fever; appendix D, figures D.16, D.17, D.18, D.19). Exchanges with community nutrition agents and beneficiaries revealed that community nutrition agents promote the use of a health facility when a child is sick. They also revealed that community nutrition agents have educated women on basic care of the sick child and advise mothers when their children are sick. This may have culminated in more at-home and in-community care of children with simple afflictions.

2.17 Field visits revealed threats to the sustainability of the fee exemption and drug voucher systems, which ceased to ensure free services and drugs after project closing.

After the project, the commune was supposed to pay the drug dispenser, but mayors and drug dispensers in the communes visited noted that the communes do not have enough resources to pay the salary; and they pointed to the need for decentralization to bring resources and decision-making closer to the people. At the time of IEG's field visit (October 2019), health staff noted that renewed support for the fee exemption and drug voucher systems was expected under the World Bank's follow-on project.

Nutrition

2.18 The project improved the content, quality, and evidence base of existing community-based nutrition services and extended their coverage. The project supported the design and delivery of an evidence-based, cost-effective package of community-based nutrition interventions to address high levels of stunting, focused on mothers and children under five, with particular emphasis on children under two. (See appendix D, table D.2, for details on phasing and coverage, summarized in table 2.1.) The main services delivered by community nutrition agents and supervised by NGOs recruited under the project were growth monitoring of children under five; referrals of sick and malnourished children to health facilities; nutrition education sessions promoting the use of maternal and child health services, diet, and breastfeeding; vitamin A supplementation; at-home monitoring of high-risk pregnancies; record keeping; and cooking demonstrations. Project data reveal that 462,315 children under age two years were registered in the growth monitoring program, exceeding the target of 321,999, and 515,764 children between age two and five years were registered in programs to monitor upper-arm circumference (exceeding the target of 433,204) (appendix E, table E.1).

2.19 Besides the basic package of nutrition-specific services, the project introduced complementary nutrition-sensitive (multisectoral) initiatives, which gave mothers the means to apply nutrition advice received at the community level. Under additional financing, food security interventions provided 23,144 of the most vulnerable women-headed households with inputs and training to undertake short-cycle agriculture and livestock projects for boosting women's income and food supply. Human-centered development interventions sought to engage with women to identify constraints to their children's and their own well-being and developed training and activities to boost women's self-esteem, knowledge, empowerment, and entrepreneurial potential. Despite these gains, exchanges with a range of actors and stakeholders in the field emphasized the pressing, unfinished business of water and sanitation for nutrition. (See appendix D, figure D.32 showing extremely low levels of access to potable water.)

2.20 Available evidence reveals improved knowledge and behaviors favoring better health and nutrition, attributable to a combination of nutrition-specific and nutrition-sensitive interventions. Although the project did not track behaviors, regional

disaggregation of national survey data shows improvements in the project regions. The share of women practicing exclusive breastfeeding for six months increased in six of the nine project regions; two of the three regions showing declines are in the south (appendix D, figure D.24). All nine regions show improvements in other child feeding practices, including dietary diversity (eating from four food groups) and intake of foods rich in iron and vitamin A (appendix D, figures D.29, D.30, D.31). Project data report that 425,360 children benefited from improved feeding practices, exceeding targets (appendix E, table E.1), but current levels of healthy food intake are still low. Most women encountered during field visits who benefited from nutrition-sensitive interventions (food security, human-centered development, or both) in addition to community-based, nutrition-specific services reported that they were able to feed their children more nutritious food, increase their incomes and assets, make fuller use of education and health services for themselves and their children, improve their confidence and personal development, and help other local women.

2.21 Sustainability of nutrition was compromised at the project's end. When contracts with NGOs closed, their support and backstopping of nutrition sites and project beneficiaries subsided. The constrained and declining public budget for nutrition (appendix F, table F.1) has not taken over the financing of these NGOs or small expenses, such as replenishment of materials, equipment, food, micronutrients, other supplies, and indemnities for community nutrition agents. However, community agents continue to deliver services, and women and children still attend growth monitoring and education sessions and bring their own small food contributions to cooking demonstrations, showing the value they place on the services.

Impacts

2.22 Project support for complementary nutrition-specific and nutrition-sensitive interventions likely contributed to improvements in nutrition outcomes. Nationally, stunting among children under five declined between 2012/13–18 from 47 to 42 percent. Stunting rates in five of the project's nine regions show larger reductions than the national average. Four of these five regions were among the five regions targeted under the original design, which means that all three sectors were supported in these regions; they had the longest exposure to project interventions; and geographic coverage of within those regions was very high (appendix D, table D.2). Most but not all of these five showed improvements in breastfeeding and child feeding practices. The fifth region with significant decline in stunting, Itasy, was an outlier because it received nutrition-only support under additional financing (and thus a shorter exposure to this support), had lower geographic coverage, and showed a decline in exclusive breastfeeding. One region's decline was equal to the national decline, while stunting increased very slightly in the two other regions in the vulnerable south (appendix D, figure D.21).[14] At project

closing, all project regions showed stunting levels lower than 2008/09 levels, indicating an overall positive trend over the past decade, with little or no progress during the first half and notable progress during the second half, overlapping with the project period. It is plausible to assume that the project's effect at the regional level was significant, given the project's high coverage within project regions (appendix D, table D.2). Regional and local-level data corroborate positive trends (appendix D, tables D.3, D.4, D.5). During the project period, anemia prevalence among women ages 15–49 years and among children ages 6–59 months declined in all nine project regions, with the most significant declines in the three regions with the highest baseline prevalence in 2012/13 (appendix D, figures D.27 and D.28). Beneficiaries corroborated these positive trends, noting that their younger children are much healthier and better nourished than their older children were at younger ages.

Design and Preparation

What Worked?

2.23 Project design was evidence-based and included a creative mix of emergency and development interventions. The project was prepared as an emergency operation, compliant with the World Bank's Operations Policies and Bank Procedures 8.0, which provides for rapid preparation and setting modest objectives. The project development objective was appropriately modest, given the extremely fragile situation in the country. In addition to emergency interventions to preserve services, the design also embraced interventions to further develop and refine these services in their quality, effectiveness, affordability, and accountability. This was particularly true for the health and nutrition sectors.[15] The project drew on global evidence and international best practice generated in *The Lancet*'s landmark 2008 series on maternal and child undernutrition and growing evidence on multisectoral interventions. The series distilled the most cost-effective interventions for combatting stunting and other forms of malnutrition, pointing to a child's first 1,000 days of life as the "window of opportunity" to address and mitigate stunting and other forms of malnutrition most effectively. The project's life cycle approach appropriately prioritized and aligned proven, cost-effective maternal and child health and nutrition services focused on the child's first 1,000 days, targeting women of reproductive age, pregnant and lactating mothers, neonates, and children under two and between ages three and five years. The project also included health and nutrition services tailored for primary school–age children. The design was flexible, reserving substantial resources for any environmental emergencies that may have threatened nutritional status, especially in the vulnerable south.

2.24 The World Bank was proactive and creative in ensuring a quick, relevant, and technically sound project preparation, drawing on its long and rich history of projects

and research and analytic work on Madagascar's social sectors. The preparation was compressed,[16] and it was initially undertaken with technically qualified and experienced contractual staff working in project implementation units mapped to government agencies during a time when the World Bank was restricted from engaging formally with government. It prepared an Interim Strategy Note in 2011 prioritizing child development, carried out a portfolio restructuring aligning with the note, drew on its previous analytic work and undertook new analytic work, and drew on studies and research undertaken by others. This supported the adaptation of global knowledge and best practice to the country context and targeted to those most in need. Knowledge on Madagascar's health and nutrition status, their underlying causes and consequences, links to poverty and vulnerability, and the strengths and weaknesses of policies and programs to address human development thus remained current. Nevertheless, fieldwork revealed that there was scope for the preparation process to have exploited regional knowledge, data, and development plans more fully.

2.25 The project incorporated rich lessons from previous social sector operations implemented in Madagascar and elsewhere. Lessons addressed the importance of data accuracy for monitoring and evaluation, capacity building of front-line providers, the role of NGOs for scale-up and outreach to at-risk groups, the flexibility required to accommodate responses to evolving urgencies, technical support to address weaknesses at decentralized levels, complementarity with other partners, continued emphasis on community-based approaches, timely and regular exchanges with stakeholders, strengthened teacher accountability, and timely disbursement of school grants.

2.26 The synergistic support of three social sectors (and eventually other sectors) laid the foundation for a more cohesive and comprehensive approach to child development than either a strictly emergency operation or three sector-specific operations would have allowed. The project supported and nurtured a multisectoral approach and cross-sectoral synergies in communities—and families—benefiting from investments in all three sectors (education, health, and nutrition) and eventually additional sectors (food security and women's empowerment, among others). Synergies across the health and nutrition sectors used coordinated messages to address the supply of health and nutrition services and the demand for and uptake of these services. Additionally, the establishment and delivery of school health and nutrition services in primary schools targeted under the education component reached school-age children, extending coverage of this group with critical services. Delivery of school health and nutrition services was the product of a new cross-sectoral coordination arrangement, through which front-line providers from all three sectors, backed by districts and regions, collaborated in line with their comparative advantages. During field visits in three regions, IEG noted that the synergies and close coordination of nutrition activities across

the three sectors appeared to be stronger and more cohesive in the two regions where the project supported all three sectors than they were in the third region, which received only nutrition support. This is not to say that there was no collaboration across sectors in the nutrition-only region. That region reported and demonstrated that it does collaborate across sectors but more on an ad hoc, as-needed, basis—a looser partnership than was observed in the other two regions. However, school-based delivery of health and nutrition services by community nutrition workers and health providers was not fully sustained beyond the project period.

2.27 Institutional arrangements were pragmatic, relying on three qualified and experienced project implementation units, each one embedded in the appropriate government agency and staffed with capable, experienced contractual staff who were eventually absorbed into government structures. Institutional arrangements also included performance-based contracting with NGOs to support service delivery and innovations. Some provided a supportive interface between beneficiaries and community-level services, and some helped administer and oversee the fee exemption system. Others provided external checks and verification of service delivery.

What Didn't Work?

2.28 There is evidence of adoptions of healthier behavior under the project, but the absence of an explicit results chain for behavior change may have undermined a more precise identification of targeted behaviors, a clearer strategy for addressing their underlying causes, the inclusion of targets and indicators to track behaviors, and a more rigorous evaluation of what works. Though critical to improving the health and nutrition of mothers and children (and child development more broadly), behavior change was not sufficiently prominent in the project design or indicators. Behavior change at the household level was not articulated as an outcome or intermediate outcome. The original design included information, education, and communication activities to promote an uptake in health services, healthy diets, and breastfeeding. However, it does not specify any baseline measures of behaviors, constraints (financial and other) to adopting desired behaviors, behavior-related targets and indicators, or strategies (in addition to information, education, and communication) for achieving behavior change. Under the first restructuring in July 2015, behavior change communications were intensified using the human-centered development approach, but this new thrust did not precipitate changes to the results framework or indicators.[17]

2.29 Capacity building interventions did not fully exploit the mandates and comparative advantages of ONN and the regions for multisectoral coordination and strategic planning for nutrition. The institutional arrangements were deliberately kept simple and project specific. They relied largely on the three existing project

implementation units, linked to the appropriate technical agencies at the central level, and a newly created project coordination unit in Ministry of Finance to facilitate cross-sectoral coordination. ONN's mandate for multisectoral coordination of nutrition activities was not sufficiently factored into this arrangement or strengthened. There was also scope for the design to have drawn on and strengthened the regions' comparative advantages and potential for planning and overseeing a more holistic multisectoral approach to nutrition (see paragraphs 2.31 and 2.34 and appendix K, question 3).

Implementation and Supervision

What Worked?

2.30 Multisectoral activities for better nutrition were expanded further under additional financing and restructuring, making the project even more responsive to global evidence and recommended best practice. In its second series on nutrition in 2013, *The Lancet* made a strong case for "unlocking the potential of nutrition-sensitive programs" and generating further evidence of their effectiveness (*Lancet* 2013). The original design nurtured synergies across the education, health, and nutrition sectors and promoted family gardens and foods rich in micronutrients. The introduction of household food security projects in selected regions in 2014 provided the most vulnerable women with training and starter material to undertake small agricultural or livestock ventures (appendix D, table D.1). Many of these food security projects culminated in a reliable and nutritious food source for the children and the generation of income, which women then used to buy land, build homes, send their children to school, take care of their health and that of their families, and other basic needs. Human-centered development interventions helped build women's confidence and self-esteem, develop and nurture their entrepreneurial capacities, and form associations, all of which supported their personal development, income-generation activities, and the care and nurturing of their families. Unfortunately, neither the project's original theory of change nor the indicators were amended to incorporate the results chains emanating from these expanded activities. The testing of interventions additional to the standard package of community-based nutrition services was supported under the Mahay research project, designed as a cluster randomized controlled trial. Interventions tested included intensive counseling with an additional nutrition worker, home visits, and enhanced training on problem solving; lipid-based nutrient supplementation for pregnant and lactating women and for children during weaning; and child stimulation, supported by home visits.

2.31 The strong leadership, commitment, and teamwork of entities at the regional and operational levels and their relentless efforts to manage and deliver services were important elements of project success. Visits to three regions allowed for in-depth exchanges with a range of actors and stakeholders at the regional, district, and commune

levels and direct observation of their interactions, capacity, and involvement in the project. Regional leadership exhibited strong, genuine commitment to social services delivery. Regional teams provided IEG with local-level data, information, and their own insights about their regions' strengths, weaknesses, opportunities, and threats. The regional nutrition coordinators were instrumental in fostering coordination across sectors (especially education, health, and nutrition staff and services) and partnerships with a range of local actors and stakeholders. NGOs provided support and technical backstopping to front-line providers, interacted with and supported beneficiaries, and collected and reported project data. Front-line workers were tireless in their efforts to deliver services. This was particularly impressive to witness more than two years after project closing, when financing of salaries, replenishment of materials and supplies, regular supervision, and other operating costs were waning in all three sectors because of severe budget constraints.

2.32 The World Bank's close and professional support also contributed to the project's success. Strong features of this support included continuity in the team, the appropriate mix and level of expertise, its availability to government counterparts, its systematic supervisions facilitating dialogue, learning and problem solving, and its strong program of research and analytic work. (See appendix A for a more detailed assessment of the World Bank's performance.)

What Didn't Work?

2.33 Nutrition governance emerged as a challenge during implementation, and it poses a threat to program effectiveness and sustainability. Despite very strong support and oversight of community-based activities, ONN has not fully assumed its mandate of multisectoral coordination and strategic management of all nutrition activities. This undermines Madagascar's potential to plan, prioritize, and coordinate across all sectors to ensure appropriate coverage of the population with a range of the most cost-effective interventions. A major recommendation of *The Lancet*'s 2013 series on nutrition was to create an enabling environment to build commitment and strengthen sector stewardship that would ensure that commitment is translated into outcomes. A 2016 institutional audit of ONN points to several reasons why it has not fully taken up this crucial role, including staffing and capacity issues; an organizational structure that does not fully accommodate these functions, even though it is appropriately housed in the prime minister's office; and the lack of a clear and precise legal status (box 2.1). Exchanges during IEG's mission corroborated this audit's findings and indicated that many of its recommendations have yet to be taken up and implemented.[18] There is scope for the prime minister's office, through the National Council for Nutrition and its Permanent Office (for which ONN serves as secretariat) to reassert ONN's multisectoral mandate and support and empower it to this end, including holding all sectors accountable for contributing to multisectoral

planning and programming for nutrition and for implementation of their respective contributions.

Box 2.1. Findings and Recommendations of an Institutional Audit of the National Nutrition Office, 2016

Multisectoral coordination of nutrition activities in Madagascar is the primary function of the National Nutrition Office (Office National de Nutrition, Madagascar; ONN). The following issues need to be addressed for ONN to assume its role fully.

- ONN does not have a sufficiently clear and precise legal status, which undermines the confidence of partners and potential donors and the overall development of the nutrition sector.
- ONN's current organization and staffing is not sufficient for an entity that is responsible for coordination.
- ONN's planning and strategic orientation work does not sufficiently implicate the National Council for Nutrition and the National Council's Permanent Office.
- ONN's multisectoral coordination role is not well understood, nor is it recognized by all actors and stakeholders operating in the nutrition sector.

Recommendations (partial list):

- ONN needs its own legal status, one that would best allow it to assume its role.
- ONN needs to be restructured to accommodate its primary role of multisectoral coordination.
- The role of the National Council's Permanent Office needs to be clarified and made more specific, especially regarding its support and oversight of ONN's strategic orientation, and the frequency of meetings and interactions between this office and ONN needs to be reassessed.
- The recognition of ONN as a coordinating entity needs to be strengthened.

Source: Randriamamonjy et al. 2016.

2.34 Highly centralized systems and processes undermine the role of the regional and operational levels in the strategic management and multisectoral coordination of nutrition activities. Regions have the potential to participate more fully in the coordination and management of nutrition activities, but several factors hold them back. A highly centralized system puts regions, districts, and communes in a situation of having inadequate resources and limited say in priority setting, the adaptation of interventions to the local context, the effective coverage of populations, and resource allocation. Regions have data and trends on human and economic development and prepare multiyear development plans, but these efforts are not optimal because of a lack of capacity and resources. Moreover, national plans and programs (and donor projects), when developed and implemented, do not exploit these data and plans fully. A

disconnect exists between regional, district, and commune plans and the availability of resources at these levels to implement them.

2.35 Nutrition receives high priority in national development policies, but government commitment has been waning, as evidenced by the decline in the public budget over the past decade. This poses a threat to program sustainability (appendix F, table F.1). This is especially concerning in the face of program objectives to improve the quality and effectiveness of existing services and to expand geographic coverage. Waning commitment may also be a factor of turnover in government (especially at the highest levels); a failure to undertake needed education and advocacy about the high levels of stunting, their causes, and consequences for Madagascar's development prospects; and the responsibilities and accountabilities of multiple key sectors for implementing national nutrition policy and strategic plans.

2.36 There is considerable scope for enhancing aid effectiveness for nutrition. ONN has made a laudable effort to document the support of numerous development partners by region and type of intervention. This work has revealed extensive but very fragmented support for nutrition (appendix K). The partners initiated much of this support through projects, not all of them systematically vetted with ONN or the regions. This undermines the priorities and phasing of national and regional plans and risks duplication of efforts and inefficient resource use.

3. Lessons

3.1 A multisectoral approach that delivers health, nutrition, and education services, food security, income-generation activities for women, strong behavior change interventions, and women's empowerment to the same families or communities can have a synergistic and impactful effect on the health and nutrition of children and their mothers. Poverty and low access to critical services are both causes and consequences of malnutrition. Global evidence has proven this, and heartfelt exchanges with the beneficiaries of this project have corroborated this. Beyond multisectoral interventions supported by the project, better health and nutrition cannot be achieved without improved water and sanitation and other critical services, including agriculture, security, and roads.

3.2 The effectiveness and efficiency of national nutrition efforts are contingent on the responsible central-level agency fully assuming its primary function of multisectoral coordination. For this to happen in Madagascar, ONN's authority and convening power for multisectoral coordination of nutrition activities needs to be reasserted by the prime minister's office (within which it is appropriately housed). Additionally, the National Council for Nutrition and its Permanent Office need more of an interface between the

prime minister's office and ONN to ensure more frequent meetings, briefings, communications, and decision-making. ONN's structure also needs to reflect this priority function.

3.3 The roles and comparative advantages of the regions and districts in the strategic management and implementation of service delivery, including the support and encouragement of cross-sectoral synergies, will continue to be underexploited as long as the government's structure is highly centralized. Government's current structures and processes result in a high concentration of planning, programming, resource allocation, and decision-making responsibilities at the central level, which constrains the flow of resources and decision-making power to these levels.

3.4 Successful mobilization of resources, planning, programming, and priority setting (including managing the tensions between the national goals of expanding nutrition coverage and strengthening existing services) will be difficult to achieve without investments in building ONN's capacity and strengthening its convening authority. These disciplines are critical for catalyzing all sectors and actors to contribute to the nutrition agenda in line with their comparative advantages, ensuring that national priorities are served within the financing envelope, providing the basis for program-based monitoring and evaluation, and holding all sectors and actors accountable for delivering on their expected contributions.

3.5 Improved aid effectiveness and sustainability depend on development partners working closely with the national nutrition agency and the regions, supporting their development plans and priorities, and on an evolution from projects to program support. Given that the public budget for nutrition has been declining for many years and the need for sustaining and further expanding services is great, prioritizing nutrition funding and improving aid effectiveness is critical for the optimal allocation and use of resources. The onus is on ONN to build on its initial efforts to inventory and analyze the large range of partners contributing to various nutrition efforts across regions. The regional and operational levels have a crucial role to play in the allocation and use of resources for optimal coverage and optimal results.

3.6 The World Bank can play a pivotal role in supporting ONN in assuming its multisectoral coordination role, in advocating to the highest levels of government the importance of prioritizing nutrition as a means of achieving its development objectives and allocating more budgetary resources to this end, and in supporting government's decentralization process to empower regions to realize their potential in the fight against malnutrition. The World Bank's comparative advantage lies in its own multisectoral mandate and experience, its access to the highest levels of government, its Country

Partnership Framework (which supports decentralization), and its long and rich experience in nutrition both in Madagascar and elsewhere.

3.7 Emergency operations can provide a unique opportunity for embarking on broader development efforts. However, the inclusion of such development support without attention to sustainability can undermine gains postproject. The project's successful support to development, in addition to emergency efforts, is attributable to the availability and use of a strong evidence base for the three individual sectors (both global and country-specific), creative ideas supporting and nurturing cross-sectoral synergies for a more holistic approach to child development, and a long tradition of operations research and learning in the human development sectors. The opportunities of additional financing for nutrition, an education project developed soon after the emergency operation was launched, and an eventual follow-on health and nutrition project might have been more fully exploited for addressing sustainability in all of its dimensions, especially financial and institutional.

Prospective

3.8 This project has laid the foundation for a more holistic and synergistic approach to human capital development, which is a key pillar of the World Bank's program in Madagascar. This approach is currently supported by a series of ongoing investment operations, including a multiphase programmatic approach to improve nutrition outcomes through investments to strengthen community health and nutrition services; the Social Safety Net Project supporting conditional cash transfers and cash-for-work schemes with information and incentives for adopting behaviors favoring the well-being of vulnerable women, children, and families; and the Basic Education Support Project to improve learning in primary schools through investments to strengthen teacher quality, school readiness, school health and nutrition, and sector performance and management. These investment operations are complemented with a recently approved (March 2020) human capital development policy operation. One of the first of its kind in the World Bank's Africa Region, this policy operation aims to improve the qualifications, distribution, and performance of human resources in the health and education sectors; enhance the availability and predictability of financial resources for the social sectors; and strengthen legal protections for women and children.

3.9 Additionally, the World Bank recently completed a review of its portfolio in an effort to further strengthen and broaden its support to human capital development. In complement to the above-cited social sector projects, the portfolio review assessed opportunities to invest in additional sectors and further exploit cross-sectoral synergies to build human capital. This has culminated in plans to identify projects and components supporting nutrition-sensitive sectors critical to Madagascar's nutrition

agenda: agriculture/food security; and water and sanitation. Beyond these, the World Bank in Madagascar is exploring still other investments in human capital development, including roads and electricity.

3.10 The World Bank's expanding multisectoral approach to human capital development (including reductions in chronic malnutrition) highlights the importance and urgency of the lessons emanating from this evaluation. Both the World Bank and the government of Madagascar have an opportunity to exploit synergies and enhance the impact of these ongoing and planned operations (along with other ongoing and new investments) by ensuring that they are coordinated to support the same vulnerable communities and families and that they are directly supportive of national programs and priorities. This calls for increased attention to the critical, unfinished agenda of strengthening the institutional framework and capacities for Madagascar's nutrition program at all levels of government and encompassing all partners to achieve needed improvements in cross-sectoral coordination, strategic program management, resource mobilization, and aid effectiveness.

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[1] Almost all other donors withdrew their assistance after the March 2009 political crisis. Agence Française de Développement is the only one that remained. Others began returning around 2013.

[2] Poverty rate, as defined here, is the share of the population living below the poverty line of $1.90 per day purchasing power parity.

[3] Hery Rajaonarimampianina was sworn in as president in January 2014, and Andry Rajoelina was sworn in as president in January 2019.

[4] Minimum diversity of food is the percentage of children ages 6–23 months receiving five of eight recommended food groups. Minimum acceptable diet is the percentage of children ages 6–23 months receiving a minimum diversity of food and minimum number of foods.

[5] Forty-one percent of people have access to potable water (32 percent of rural residents versus 69 percent of urban residents), 6 percent of people have access to basic sanitation services (4 percent of rural residents versus 15 percent of urban residents), and 23 percent of people have access to basic hygiene, which is the availability of soap and water for handwashing (18 percent of rural residents versus 38 percent of urban residents).

[6] The World Bank estimates Madagascar's total population at 26.3 million in 2018, of which 16.5 million are rural residents. The annual growth rate is estimated to be 2.67 percent.

[7] The eight Madagascar Action Plan commitments were (i) responsible governance; (ii) connected infrastructure; (iii) educational transformation; (iv) rural development and a green revolution; (v) health, family planning, and the fight against HIV/AIDS; (vi) high-growth economy; (vii) cherish the environment; and (viii) national solidarity.

[8] The World Bank's Interim Strategy Note, issued in December 2011 (almost two years after the political crisis and about the time of project preparation) notes that no other formal government strategy had been issued.

[9] This action was taken in line with the application of the World Bank's Operations Policies and Bank Procedures 7.30 (dealing with de facto governments).

[10] High-impact, low-cost interventions include information, education and communication (health behaviors, nutrition, and breastfeeding), vitamin A supplements, vaccinations, malaria prevention and treatment (including long-lasting insecticide-treated nets), treatment of diarrhea with oral rehydration salts and zinc, and integrated management of childhood illnesses. The project also supported health sector support to school health and nutrition activities, including distribution of antihelminth treatment and participation in other school health and nutrition events.

[11] The nutrition package of services included growth monitoring for children under five (with a focus on children under age two), nutrition awareness and education through culinary demonstrations, support to school-based nutrition activities, and referral to health facilities for severely malnourished children. Seven nutrition interventions will be prioritized: (i) growth and development monitoring and promotion, (ii) promotion of nutrition for pregnant women (using the life cycle approach), (iii) promotion of vegetable gardens and products rich in micronutrients, (iv) support for providing food to vulnerable groups, (v) food fortification, (vi) micronutrient supplementation (iron, folic acid, and multimicronutrients), and (vii) deworming treatments for children ages 0–5 years and pregnant women.

[12] Discussions with central-level Ministry of Education officials revealed a shortage of qualified teaching staff as a key impediment to education coverage and quality. This is partly because of an inadequate public budget to cover teachers' salaries. Many rural schools have community teachers who are volunteers from the community and do not have the requisite training. Exchanges with teachers and parents during field visits corroborated these findings and raised the issue of very large and growing class sizes, which also undermine teaching and learning quality.

[13] The government's 2013 school food, nutrition, and health program seeks to support and integrate multisectoral efforts in all 22 regions to improve food intake, nutrition, water, sanitation and hygiene, and health in the school environment, all supporting the overall objective of improving academic performance.

[14] The two regions that experienced increases are both in the south and are also the most vulnerable to increasingly frequent environmental disasters (cyclones, droughts, and locust infestations), which adversely affected nutrition status. It is possible that community-based nutrition interventions and emergency interventions to address acute malnutrition after disasters may have mitigated negative trends.

[15] A stand-alone education project was designed, approved, and launched shortly after approval of this project, and it assumed the education sector development content.

[16] The Activity Initiation Summary was signed on May 31, 2012, and the project was approved on November 29, 2012 for a six-month preparation.

[17] The human-centered development approach explores with project beneficiaries constraints to improved care and feeding of their children and how to address them.

[18] Postmission exchanges with the World Bank and Office National de Nutrition indicate that there was ongoing activity to review and revise Office National de Nutrition's legal status, but as of mid-December 2019, no updates were available.

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Appendix A. Project Ratings

Table A.1. Emergency Support to Critical Education, Health, and Nutrition Services (P131945)

Indicator	ICR	ICR Review	PPAR
Outcome	Satisfactory	Highly satisfactory	Highly satisfactory
Bank performance	Satisfactory	Satisfactory	Moderately satisfactory
Quality of monitoring and evaluation	Substantial	Substantial	Modest

Note: The Implementation Completion and Results Report (ICR) is a self-evaluation by the responsible Global Practice. The ICR Review is an intermediate Independent Evaluation Group product that seeks to independently validate the findings of the ICR. PPAR = Project Performance Assessment Report.

1. Relevance of the Objectives

Objectives

The project development objective (PDO), as stated in the financing agreement is "to preserve critical health, education, and nutrition service delivery in targeted vulnerable areas in the recipient's territory" (World Bank 2012, 5).

Relevance of the Objectives

The PDO was highly relevant to country conditions both at the time of appraisal and that persist today. The global financial crisis of 2008 and political crisis of 2009 had a devastating impact on the delivery of social services. Inadequate financial resources were further constrained by very limited budgets for these sectors and the withdrawal of most donor support. This caused services to become even less accessible financially and physically because the population was obliged to pay out of pocket for some of the costs of services, and many services closed. The resulting deterioration of sector outcomes reversed a trend of improvements in human development indicators before the crisis, creating an emergency situation. The need to improve service quality and coverage remains compelling today. Madagascar is categorized as "alarming" on the 2019 Global Hunger Index (von Grebmer et al., 2019). The World Bank's 2018 Human Capital Index for Madagascar reveals that a child born today in Madagascar is expected to achieve only 37 percent of his or her potential because of the current state of social sector service delivery and other constraints to child development. This has a devastating impact on the child's future health, well-being, cognitive abilities, and wealth and (considering all at-risk children) on the development potential of the country.

The objective was also highly relevant to Madagascar's strategic priorities. At project approval, the government's five-year development plan, Madagascar Action Plan 2007–12 (Madagascar 2007) included two (of eight) commitments specific to the sectors supported under the project: education transformation (including a goal of universal primary education of seven years); and health, family planning, and the fight against HIV/AIDS. The latter includes goals of health services access, affordability, and reliability; more effective malaria control; maintaining a low prevalence of HIV (less than 1 percent); reduced infant and child mortality; and reduced malnutrition among children under age five. Two other commitments—responsible governance and national solidarity—were also relevant, and these include strengthened public services; increased authority and resources of communes and regions to address local and regional needs; increased civil society participation; improved basic services for the vulnerable; gender equality and women's empowerment; and reduced impact of catastrophes. The National Development Plan (2015–19) (Madagascar 2015) confirms the project's continued high relevance to Madagascar's strategic priorities. Human capital development is one of five strategic orientations under this plan and includes health and nutrition (improvements to quality and access and addressing acute and chronic malnutrition) and education (universal education, achieving excellence in education adhering to national norms, and a quality education for all).[1] Other clusters under the human capital strategic orientation advocate for a multisectoral approach, including improved access to water, hygiene, and sanitation; social protection; the fight against social exclusion and vulnerability; and food security.

The objective was also highly relevant to the World Bank's Country Partnership Framework for fiscal years 2017–21 and the twin goals. Under its focus area I (increase resilience and reduce fragility), the World Bank's first objective is to strengthen children's human development. In keeping with the rationale of investing in early years, the aim is to invest in education, health, and nutrition to provide Madagascar's poor with the services necessary for them to reach their full potential. Delivery of an integrated program of health, nutrition, and social protection interventions in the eight regions with the highest stunting rates is expected to contribute to a reduction in those rates. The strategy also supports a new education program focused on improving primary school quality and completion rates, reducing repetition rates, and scaling up early childhood education. Intermediate outcomes include uptake of health and nutrition services, changes in behavior, completion of community teacher training, and cash transfers for children attending primary school. It is noteworthy that the multisectoral approach to stunting does not include specific objectives to improve food security or access to water, sanitation, and hygiene services, even though these are critical to nutrition and health outcomes. The objective is highly relevant to the World Bank's twin goals of ending extreme poverty and promoting shared prosperity.

The PDO statement was modest in its ambition. The PDO followed the guidance of World Bank Operations Policies and Bank Procedures 8.0 (Rapid Response to Crises and Emergencies) in setting its objectives.[2] This was certainly an emergency operation, but the project, to its credit, also supported many elements of development. Besides "preserving services," the original design supported activities to improve service quality, access, and affordability; nurture and encourage the adoption of behaviors favoring better health and nutrition; encourage innovation and learning for improved effectiveness; and enhance the management and oversight of services and their accountability to communities. There may have been scope and justification for revising the PDO under additional financing and restructurings. Less than one year after project effectiveness, additional financing introduced food security activities at the household and community levels that were expected to enhance food availability and use, but the objective was not modified. Subsequent restructurings enhanced and intensified behavior change interventions, but no behavior change objectives were introduced. The original project might also have committed to other selected, measurable outcomes that could have been achieved plausibly during its implementation period. These include lower incidence of anemia in pregnant women and children, safer births for mothers and babies, fewer incidences of low birth weight, healthier trends in monthly weight gain of children under age two, and increased identification and treatment of acutely malnourished children, among others. However, even after legitimate elections restored some notion of political stability, Madagascar was unquestionably still fragile, with a newly formed government establishing itself, persistent human and financial resource constraints in the social sectors, and continued vulnerability to environmental catastrophes.

The relevance of the project's objective is rated **high.**

2. Efficacy

This assessment of efficacy will assess performance against the official PDO. The statement of objectives remained unchanged throughout the life of the project: "to preserve critical education, health, and nutrition service delivery in targeted vulnerable areas in the recipient's territory."[3] The assessment will also explore performance against anticipated outcomes embedded—and stated—in the project's original and revised designs. Because this Project Performance Assessment Report is undertaken more than two years after project closing, it will assess some impacts of project support and outcomes.

Objective 1: Preserve Critical Education Service Delivery in Targeted Vulnerable Areas

Activities and outputs. The project provided financing of critical components of primary school operating costs in the five project regions. It provided grants to 6,682 primary schools in the five project regions to cover essential materials and running costs, exceeding the original target of 6,050 schools. It also subsidized the salaries of community teachers, adding to government financing of eight months of their salaries with financing for the remaining four months through two annual payments during the life of the project. In total, 16,999 community teachers received these subsidies, exceeding the target of 10,000. Half of these teachers were female, meeting the project's 50 percent target. The project also provided 6,688 parents' associations and school management committees with training on basic governance of school grants and teachers' salary subsidies in the schools receiving this financing, exceeding the target of 6,050. Regional and district education services were provided with 573 motorcycles and 145 computers to enable more regular oversight and supervision of schools, and nongovernmental organizations (NGOs) were recruited to provide third-party verification of a sample of schools' reporting on the use of the funds. Under the first project restructuring, additional support provided beneficiary schools with 626,583 school manuals and training to community teachers.

The project supported the development of a basic school health and nutrition package (jointly with the health and nutrition sectors) to be delivered to students in these same primary schools in the five regions. To this end, the project provided drugs, vitamin supplements, and other essential materials; support for coordination and collaboration across sectors; and annual teacher training in school health and nutrition (19,852 teachers trained, exceeding the target of 3,750). Community nutrition workers supported almost all project schools (6,587) during deworming, exceeding the target of 2,500.

Intermediate and final outcomes. The infusion of financing for schools' running costs and community teachers' salaries allowed schools to continue to operate when government (and other partners') financial support fell far short of minimum needs. By December 2016, 1,131,353 students were enrolled in project-supported schools, exceeding the original target of maintaining the 2012 baseline enrollment of 974,300. Half of these students were girls, meeting the 50 percent target. This infusion of financing also made primary schools more affordable to parents in these very poor regions, relieving them of their preproject practices of subsidizing school costs out of pocket just to keep them running. Teacher training, school manuals, and district supervision of the schools provided a slight boost to teaching quality.[4] Exchanges with parents during field visits revealed that the training and involvement of parents'

associations in the governance of the grants and teacher salary subsidies supported an improved accountability of schools to the parents and communities

The newly established school health and nutrition package of services delivered these services with the collaboration and support of the health and nutrition sectors. Deworming treatments were distributed to all primary school students annually, along with the distribution of food made available through cooking demonstrations conducted by community-based nutrition workers. The services delivered also included the distribution of iron-folate supplementation to schoolchildren. By the end of the project, 1,804,964 school-age children received antihelminth treatment, exceeding the target of 667,944.

The efficacy of the objective to preserve critical education service delivery in targeted vulnerable areas is rated **high.**

Objective 2: Preserve Critical Health Service Delivery in Targeted Vulnerable Areas

Activities and outputs. The project provided critical inputs for delivering a new integrated package of maternal and child health services designed around a life cycle approach. This included support to 347 basic health care facilities (meeting the target exactly), including rehabilitation works and basic equipment (including the provision of 296 solar-powered refrigerators for remote locations and essential obstetric and neonatal care equipment), laboratory supplies, safe delivery kits, 21 essential drugs for the recapitalization of pharmacies, and 347 motorcycles and other equipment for community outreach activities. The project also established a fee exemption and drug voucher system to make services free of charge to mothers and children and supported the rehabilitation, basic equipment, and provision of essential supplies for basic health care facilities. The project also financed training sessions for medical staff (specifically the 347 heads of basic health facilities) on obstetrical and neonatal care, the fee exemption system, medical waste management, and administrative data collection. Sixty NGOs were recruited to manage fee exemptions, and 487 NGOs were trained on the fee exemption system. Under the first project restructuring (July 2015), 29 basic health facilities were contracted under the results-based financing pilot. The project supported supervision and oversight of basic services delivery with the provision of 21 computers for central and district services of the Ministry of Health, a supervision vehicle for each of the five project regions, and 19 technical assistants to support the supervision of district health services. These technical assistants visited 100 percent of project facilities, exceeding the 95 percent target.

Intermediate and final outcomes. The project enabled the basic health facilities to deliver an improved package of maternal and child health services targeted to women of

reproductive age and children under five. Because of the fee exemption and drug voucher systems, services were delivered free of charge to these priority and highly vulnerable groups. The rehabilitation, equipment, technical training, and restocking of essential drugs supplies and other critical supplies supported improvements to the quality and availability of services. Material and logistical support for the central, regional, and district levels and technical assistance provided to the districts enabled more frequent supervision and oversight supporting service quality improvements. Project data show substantial uptake of basic services. By the end of December 2016, 113,131 pregnant women received antenatal care during a visit to a health provider, skilled health personnel attended 131,431 deliveries, and 286,194 children under age 12 months were immunized against DPT3.[5] Only one service target was not met: half (48 percent) of women attending antenatal clinics were tested for syphilis, falling short of the 90 percent target but showing a slight increase over the 36 percent baseline.

National survey data and Ministry of Health data provide more insight on use trends (appendix D).[6] National survey data show a positive trend of improvements in the share of live births, which benefited from a prenatal visit with a skilled health provider. All five regions show increases over levels in the project's baseline year (2012–13), with substantial increases in two regions and modest increases in the other three. Most regions attained or exceeded precrisis levels (2008–09). Data provided to the Independent Evaluation Group (IEG) by the Amoron'i Mania region showed an increase in the use of first prenatal visits from 52 percent in 2012 to a high of 63 percent in 2017, with a subsequent decline to 59 percent in 2018. National survey data also show that the share of women 15–49 years old who made at least four prenatal visits during their last pregnancy increased in three of the project's regions and decreased in the other two. Overall levels in the regions are still unacceptably low (near or below 50 percent). Ministry of Health data show much bigger increases in project regions between 2013 and 2016 in the share of women attending a fourth prenatal visit and much lower levels overall (all regions falling below 40 percent). The share of deliveries that took place in health facilities increased in four of the five project regions and declined slightly in the fifth. Rates are unacceptably low, all falling below 40 percent, and four of them fall far below the national level. Data provided by the region of Amoron'i Mania show a positive trend in facility-based deliveries, rising from a baseline of 8 percent of all deliveries in 2012 to 22 percent in 2018. Although a significant improvement over the baseline level, the end-of-project level is still low. The share of mothers accessing postnatal care increased substantially in all five regions.

National survey data show an alarming decrease in the share of children ages 12–23 months who have received all required vaccinations, with current rates between 20 and 30 percent. Data show this trend for the entire country and for each of the five regions

(appendix D, figure D.14). However, Ministry of Health data show positive trends between 2013 and 2016 in the immunization of children under 12 months with diphtheria, pertussis, and tetanus (third dose). Increases in four of the five regions were more substantial than the overall national increase, and levels exceeded 80 percent in those four regions. The fifth region (a southern region) registered a decline in this vaccination coverage, but still had a rate of 75 percent (appendix D, figure D.15).

The efficacy of the objective to preserve critical health service delivery in targeted vulnerable areas is rated **substantial.**

Objective 3: Preserve Critical Nutrition Service Delivery in Targeted Vulnerable Areas

Activities and outputs. The project, as originally designed, provided support to existing community-based nutrition sites and supported the creation of new nutrition sites in the original five regions, all to deliver an improved, evidence-based package of nutrition services for women and children under five with a particular focus on the first 1,000 days of life (from conception to the second birthday). Support to new and existing sites included the provision of basic equipment and materials (cooking demonstration kits, scales and bands for tracking the weight of children under two and arm circumference of children ages 3–5 years, manuals, posters, gardening kits, and calendars), recruitment of 41 NGOs to supervise and support community nutrition sites, and recruitment and training of 3,582 community nutrition workers. The project also provided office equipment for central and regional services of the National Nutrition Office (ONN) to strengthen its oversight and supervision, including 4 cars, 127 motorcycles, and 18 computers. Nutrition services were expanded under additional financing and subsequent project restructuring (both geographically to an additional four regions and in the package of services), with the addition of food security activities (selectively) in the most highly vulnerable households in the five regions, the intensification of behavior change communications through a human-centered development approach, and testing of other interventions additional to the minimum package of services through a randomized controlled trial (the Mahay Pilot). This included intensive counseling through additional home visits, lipid-based nutrient supplementation of pregnant and lactating women and children during weaning, and early stimulation of the child to improve development. Because of the project design's flexibility, unallocated resources were used to provide emergency support to southern regions after environmental devastation caused by cyclones, droughts, and locust infestations.

The strengthening and expansion of community-based nutrition services achieved very high coverage. Within each of the nine regions targeted, 100 percent of districts received some kind of coverage. The coverage of communes in each of the original five regions

ranged from 87 to 98 percent. Commune coverage in the three regions supported under additional financing ranged from 58 to 100 percent, and it reached 84 percent of communes in the ninth region, added in 2015 under the project restructuring.

Intermediate and final outcomes. Project support culminated in the delivery of an evidence-based, cost-effective package of nutrition services through existing and newly established community-based nutrition sites in nine regions. The package of services included (i) monitoring the nutritional status of pregnant women, children ages 0–2 years, and children between ages two and five years through monthly weigh sessions;[7] (ii) providing nutrition education sessions on prenatal and antenatal consultations, vaccinations, deworming, malaria, prevention and treatment of sexually transmitted infections, diet, breastfeeding, and other relevant topics; vitamin A supplementation; and more frequent monitoring of high-risk pregnancies through home visits; (iii) keeping records of various activities; and (iv) supporting household food security through gardening and promoting local product processing and conservation during cooking demonstrations. By the project's end (July 2017), 462,315 children under age two had enrolled in the growth monitoring program, exceeding both the original target of 234,600 and the revised target of 321,999 set after additional financing and project restructurings extended community-based nutrition activities to four other regions. Similarly, 515,764 children between ages two and five years had enrolled in the upper-arm circumference monitoring program, exceeding both the original target of 341,000 and the revised target of 433,204 children.

Under the additional financing, 23,114 households received food security support kits (inputs and equipment) and accompanying training to support short-cycle agriculture and livestock activities. Beneficiaries of this intervention encountered in each of the three regions that IEG visited shared their experiences with this support. They reported that these projects provided the short-term benefits of an immediate food source for their children (eggs, meat, vegetables, and rice) and a source of income for most women, who expanded their activities, bought and sold their products, earned extra income, and acquired more income and assets. An estimated 425,360 children under age two years benefited from improved infant and young child feeding practices, exceeding the original target of 164,220 and the revised target of 289,340. National survey data show an increase in the share of women who practice exclusive breastfeeding until age 6 months in six of the project regions and a decline in the remaining three (appendix D, figure D.24). These data also register increases across all nine project regions in the share of children ages 6–23 months who receive a minimum diversity of food (four food groups), the share of children in this same age group who consume foods rich in vitamin A, and the share of children in this age group who consume iron-rich foods (appendix D, figures D.29, D.30, D.31).

The efficacy of the objective to preserve critical nutrition service delivery in targeted vulnerable areas is rated **high.**

Other Outcomes: Strengthen Capacity for Program Coordination and Management

Activities and outputs. The project provided computing equipment, logistical support, and technical assistance to support the supervision and oversight of project activities at the central level (to the ministries of education and health and the ONN, including their respective project implementation units) and to the regional and operational levels. The project also financed an organizational audit of the ONN. Additionally, the project recruited NGOs to support and backstop community-based nutrition activities, support the health services outreach and the administration of fee exemption and drug voucher systems, and undertake independent verifications of a sample of schools' reported use of project grants and salary subsidies.

The project provided emergency assistance to areas in the south, addressing issues of acute malnutrition in the aftermath of severe environmental devastation caused by cyclones, drought, and locust infestations.

Intermediate and final outcomes. There were no specific objectives or indicators for capacity building under the project. Interviews with World Bank staff involved in project design and implementation, along with IEG's exchanges and direct observations in the field, revealed that capacity was strengthened in Madagascar at the central, regional, and operational levels through the process of project implementation and supervision. The organizational audit of ONN is an important contribution to the future strengthening of this entity. Completed in 2016, this audit points to critical issues constraining ONN's authority and ability to carry out its most important function: the multisectoral coordination of all nutrition activities in Madagascar. The implementation of these recommendations is crucial to the effectiveness of Madagascar's efforts to reduce malnutrition further across the country.

No specific objectives or indicators for the emergency assistance in the south were articulated or tracked. However, this assistance likely mitigated more devastation to the population's nutrition and health status.

Impacts. The project's emergency design and 4.5-year implementation period did not commit to impacts. Given that the PDO—to preserve services—was indeed achieved, and that these preserved services were expected to contribute to improved nutrition outcomes, it is worth assessing impacts at this stage (more than 2.5 years after project closing).

National survey data reveal a decline in chronic malnutrition from 47.3 percent in 2012–13 to 41.6 percent in 2018 (appendix D, figure D.20). Seven of the nine project regions also registered declines in stunting, most of them greater than the average decline in Madagascar. The two remaining regions—both in the south (which had been devastated by environmental disasters)—registered slight increases (appendix D, figure D.21). The prevalence of underweight also declined during this same period, from 32.4 to 26.4 percent nationally, with six project regions also showing declines and three southern regions showing slight increases (appendix D, figure D.23). Amoron'i Mania regional data show declines in the prevalence of underweight in children under five visiting a basic health facility and in low birth weight (appendix D, figures D.25 and D.26). Data from community nutrition sites in each of the three regions that IEG visited show significant, positive trends over time of children who gain weight and transition to healthier weights over the series of visits (appendix D, tables D.3, D.4, D.5).[8] However, exclusive breastfeeding up to age 6 months increased from 42 to 51 percent (appendix D, figure D.24). Acute malnutrition declined nationally and in six project regions but hardly changed in two project regions. However, there was a substantial spike in the region of Vatovavy Fitovinany (appendix D, figure D.22).

Primary school dropout rates have declined nationally and in eight of the nine project regions, the outlier being the southern region of Androy (appendix D, figure D.1). Primary school retention rates remained constant nationally and registered very little change across the nine regions (appendix D, figure D.2). Though not indicative of the five project regions, it is notable that data collected in the Ambalatany commune in the Amoron'i Mania region show improvements in passing rates of the Certificat d'Études Primaires Elémentaires performance test for primary school increasing steadily from 52 percent in 2012 to 83 percent in 2018.

Attribution and counterfactual. The preservation of education, health, and nutrition services and the extension of nutrition services to new regions can be attributed plausibly and primarily to the project's support. The choice of regions considered where other development partners were already working—when the project was designed and launched, development partners had suspended their operations and withdrawn from the country during the political crisis. When they returned, the World Bank made concerted efforts to coordinate and collaborate with them, striving for complementarity across their various supports and in their areas of intervention. These outcomes—the preservation of these critical services—would not have been achieved without this project. The full range of actors and stakeholders from the central, regional, and operational levels (including beneficiaries) affirmed that without project support (and during the immediate postcrisis period), these critical services would have continued their decline. Additionally, new services (school health and nutrition services and the

extension of community-based nutrition services and innovations) would not have been established and delivered, and the use of these services would have continued to decline. There are examples of good coordination and partnerships between this project and the development partners when they returned to Madagascar in 2013–14.[9] However, as noted in chapter 2, challenges remain to achieve improved aid effectiveness.

Overall Efficacy

Services were preserved, coverage of the population in the target regions was high, service quality and affordability improved, and uptake of these services exceeded project targets and is also evident in national survey data. Utilization of critical services is still low, calling for continued promotion of these services.

The overall efficacy of the project is rated **high.**

3. Efficiency

At project design, public expenditures on education and health were low and declining, precipitating an increase in out-of-pocket expenditures that rendered these services unaffordable for many (World Bank 2012). In 2010, parents financed about 19 percent of education expenditures (about 3.1 percent of their total expenditures) compared with 2.1 percent in 2005. Out-of-pocket expenditures on health accounted for 21 percent of health expenditures, increasing to 27 percent by 2010. The project's aim to reduce the financial burden on the population was expected to incite a stronger demand for these services and culminate in increased school retention and attendance, and gains in public health and nutrition. The education component was considered cost efficient because of the low unit costs of community teachers and local (versus centralized) acquisition of school supplies. Relevant literature was cited to show that school-based deworming is far less expensive than other methods of boosting school participation. An investment of $4 in deworming led to a gain of one additional year of primary schooling, much less costly than other interventions such as school feeding or the provision of uniforms for the same effect (Miguel and Kremer 2004). Component 1 was also found to have considerable benefit for the cost in terms of future earnings and social outcomes. International evidence shows that the benefit-to-cost ratio (the ratio of the contribution to the total social outcome of each year of schooling to per student cost per year of schooling) is 69 for basic education (Majgaard and Mingat 2012).

The health and nutrition investments were considered cost efficient because they support integrated packages of globally endorsed interventions known to be cost effective. The per capita costs of delivering these packages were estimated at $14 for maternal and reproductive health, $3.30 for child health, and $6.00 for nutrition services

for children under two years. Moreover, the literature is strong in documenting the favorable cost-benefit ratio of basic health and nutrition investments in health, education, and productivity outcomes, both short and long term. Healthy mothers support and nurture both the good health of their families and the household's economic health. Considerable research shows unequivocally that vaccinations and cost-effective nutrition interventions for the first 1,000 days (pregnancy to under two years) will have lifelong and life-changing impacts on educational attainment, labor capacity, reproductive health, and adult earnings. The Copenhagen Consensus 2008 ranked nutrition interventions as providing some of the most effective returns of all development interventions.

A cost-benefit analysis was conducted at project completion to assess returns on investment. The project invested $68.2 million during its 2013–17 implementation period. The project's health sector interventions saved an estimated 10,270 maternal lives and 52,203 children's lives (under age five). The project's nutrition interventions saved 1,735 additional lives of children under five. Additionally, the number of children in primary school was estimated to have increased by 33,070 because of the project's support to primary education. The cost-benefit analysis also captured the deworming program's benefits, showing an increase in school attendance of 0.294 school years for all children receiving three years of deworming treatment (Baird et al. 2015). The project yielded an internal rate of return of 17 percent and generated economic benefits with a net present value of $108 million. Given that the internal rate of return is higher than the 9.5 percent discount rate,[10] the project produced an economic return higher than the return on investment from alternative investments in the financial market. The investment had a benefit-cost ratio of 3.1, suggesting that each $1 invested produced an economic return of $3.10. Sensitivity analyses reveal that the cost-benefit analysis results were sensitive to changes in key modeling assumptions, but the investment was justified on economic grounds under all assumptions. Even the conservative assumption of no economic growth and a higher discounting factor revealed benefits still outweighing the costs.

Standard methods were used to estimate the economic benefits, using regional-level data where possible, and then aggregated into standard measures of economic return. The cost-benefit analysis for each sector followed a three-step process: estimating the change in service use attributable to the project, translating the increase in service use into health and educational benefits, and assigning a monetary value to these benefits. The benefits (estimated in maternal lives saved, lives saved among children under five, and child school years preserved) were likely underestimated. This was because they did not capture changes in morbidity emanating from health and nutrition interventions, the impact of nutrition interventions on maternal mortality and labor

productivity, or the positive externalities of deworming on nontreated pupils in target and neighboring schools (documented in studies).

Assumptions and estimates were reasonable and grounded in relevant studies and locally available information. The analysis drew on the findings of a rigorous impact evaluation that estimated the annual increase in maternity health service use (14 percent) and outpatient services for children under five (29 percent) resulting from the project, which was then translated into maternal and child lives saved based on existing evidence (Graham, Bell, and Bullough 2001; Shekar et al. 2016). The project's impact on primary school enrollment was calculated as the difference in the number of children enrolled in 2017 and those who would have been enrolled at the preproject (2009–12) enrollment rate. Benefits from the deworming program were quantified in increased school attendance, and the increased number of school years was translated into future wages benefits (Baird et al. 2015; Montenegro and Patrinos 2014). The analysis included all project costs and the additional financing. The impact on health and nutrition status and educational attainment of beneficiaries was translated into economic benefits. The assumption was that benefits accrue over the working lifetime of pregnant women (ages 22–65) and children (ages 18–65) and that the economy would grow at 2.24 percent per year over the time horizon of the analysis.

Design efficiency. As detailed in chapter 2, the design was efficient in that it supported the most cost-effective interventions based on global and local evidence, and its implementation arrangements drew on existing capacity of experienced and capable project implementation units (PIUs) operating for each sector. However, monitoring and evaluation (M&E) design and indicators were weak (see the M&E section in this appendix).

Implementation efficiency. Implementation was efficient on several fronts (also further detailed in chapter 2). The three PIUs and the line ministries (education and health) and ONN performed well overall during implementation. Both separately oversaw the implementation of services falling within their respective mandates, and together they coordinated and oversaw the establishment and implementation of the school health and nutrition services. Nutrition coordinators at the regional level played a catalytic role in the promotion, coordination, and oversight of nutrition activities in their respective regions. NGOs provided appropriate support and backstopping across all three sectors. Implementation inefficiencies centered on little to no training or capacity building at the regional level, inadequate decentralization (regions, districts, and communes have enormous responsibility but were not fully implicated), a disconnect between regional development plans and priorities and sector plans and priorities, and inadequate financing (from central budgets, at the commune level, and from other partners).

Moreover, the ONN's institutional audit pointed to constraints to ONN fulfilling its role (see chapters 2 and 3).

Efficient use of project resources. The project fully achieved its objectives, exceeding some targets while using slightly fewer resources than the original credit and additional financing provided. Of the original credit of SDR42.2 million, 96 percent (or SDR40.7 million) was used. The additional financing of SDR6.5 million was fully disbursed. Poor financial management in the education sector discovered late in the project revealed a considerable amount of unused funds, which had to be returned.

The project's efficiency is rated **substantial.**

4. Outcome

Relevance of the objectives to country conditions, national priorities and policies, and the World Bank's strategy in Madagascar is **high**. Efficacy is **high**. All project targets were exceeded, showing substantial uptake of services. National survey data also show a trend of services uptake, but they also show that use rates for critical services are still low, though improved. The project also achieved improvements in some elements of service quality, affordability, and coverage. Efficiency is substantial because of the high cost-effectiveness of interventions and overall efficiency in project implementation and use of funds.

Overall outcome is rated **highly satisfactory**.

5. Risk to Development Outcome

The two greatest threats to the sustainability of the project's development outcomes are the inadequacy of financial resources to ensure continued and full delivery of services and the availability of qualified human resources to deliver these services. The service packages for each of the three sectors are technically sound and evidence based, but the technical quality of these services remains at risk because of the inadequate quantity and quality of human resources. Design and implementation documents were candid in assessing the shortages in qualified human resources available to deliver services on the front line and to provide adequate supervision and technical oversight of these services. The unavailability of sufficient financial resources to ensure their continued delivery further threatens the quality and sustainability of these basic services. Government budgets for education, health, and nutrition fall far below internationally recommended minimum levels (shares). The government's budget allocation for nutrition has declined over the past decade in the context of a more comprehensive package of services and an ongoing extension of coverage to achieve a target of 90 percent. Field visits noted the effect of these inadequate budgets in the postproject era. The state has not assumed

financing the essential operating costs of these services: replenishment of essential materials, stocks, and kits; regular supervision and technical oversight by districts and regions; and critical training and other ongoing activities. Local government does not have the resources to support local-level workers providing services (for example, drug dispensary staff). NGO contracts with projects to oversee, guide, and serve as interface between front-line services and beneficiaries are not continued under any permanent financing source. Thus, parents find themselves in the preproject position of assuming or subsidizing the costs of some of these services that had been free of charge during project implementation, and service providers must manage without essential inputs and support.

The inadequate budgets raise concern about the level of government ownership and commitment to ensuring the provision of quality services to all of Madagascar's population, especially the most vulnerable, as laid out in their sector strategies and development plans. Political risks to sustainable service delivery and development outcomes are linked to the changes in government and the need for advocacy and information campaigns to brief new leaders and new governmental actors about the critical importance of human development to the country's overall development prospects. Economic performance has been improving, and prospects for further improvement are good (World Bank 2019). However, this good performance does not automatically translate into improvements in human development without strong commitment and the allocation of adequate budgets to support critical services.

Stakeholders' ownership and commitment are strong at the regional and local levels, encompassing local authorities, technical leaders and staff, community and traditional leaders, service delivery staff, and the beneficiaries. IEG found very consistent, deep-rooted, and broad commitment to continued delivery of quality services and continued improvement in coverage and outcomes. However, stakeholders are vocal in highlighting an important governance risk: the failure to decentralize has undermined the regions and districts' capacity to set priorities, oversee services and outcomes, prepare local-level plans, and allocate resources to maximize their impact.

Environmental risks continue to pose substantial threats to sustainable service delivery and development outcomes with continued cycles of drought, locust infestations, and cyclones, which can destroy infrastructure, further impoverish populations, cause their displacement, and undermine their education, health, and nutrition outcomes.

6. Bank Performance

Quality at Entry

The project was highly responsive to the country's needs, the emergency situation prevailing at the time of preparation, national sector strategies and plans, and the World Bank's interim strategy for Madagascar. The design of the service packages was evidence based and appropriately focused on the regions with the greatest need. The preparation process sufficiently analyzed and factored poverty, gender, and social development aspects.[11] The design seized the opportunity to support synergies across the three target sectors. It did so through the establishment of school-based health and nutrition services in the target regions and between the health and nutrition sectors for a holistic, life cycle, and community-based approach to improving the health and nutrition of target populations in the same communities (in many cases the same families), employing both supply-side and demand-stimulation interventions. Implementation arrangements relied on the capacities of already capable and well-functioning PIUs for each sector, whose coordination and oversight were assured by a project coordination unit housed in the Ministry of Finance and a technical steering committee with biannual oversight responsibilities. World Bank inputs and processes were adequate, spanning the full range of sector specialties and fiduciary and environmental disciplines, drawn from headquarters and the country office. However, there were some shortcomings, most notably a few gaps in the theory of change and results chain and weaknesses in the choice of indicators that, together, did not sufficiently articulate or track changes in behavior, capacity built, or outcomes that could be expected within the project's life (lower prevalence of anemia, reduced incidence of low birth weight, and an increase among children monitored at nutrition sites in those showing a healthy weight gain and fewer cases of malnutrition detected). M&E arrangements recognized weak capacity and poor data quality and sought to mitigate and work around this reality. A focus on the quality control, analysis, and use of data at the points of collection and a more defined role at the district and regional levels for cross-sectoral discussion and analysis might have informed and empowered local actors to fine-tune their interventions and impact. Interviews with World Bank staff indicated that sustainability was not a factor of project design because of the project's emergency nature. However, it might have been addressed under additional financing (for nutrition). The Basic Education Support Project, whose implementation overlapped with this project, did support some aspects of sustainability, as it was implemented by the same PIU and sought to strengthen data collection and M&E.

Quality at entry is rated **moderately satisfactory.**

Quality of Supervision

The government and other actors and stakeholders spontaneously expressed appreciation for the World Bank's implementation support. They particularly appreciated the quality and experience of the staff, their long-term involvement in Madagascar (with very little turnover), their availability and proximity (with some team members and co-task team leaders based in the country), and the frequency, regularity, and quality of supervision missions. Although documentation reviews, interviews, and firsthand observations confirm the World Bank's focus on development impact, the failure of the theory of change and M&E indicators to capture, target, and measure key outcomes somewhat undermined this focus. Supervision missions comprised highly qualified and experienced staff. In retrospect, the inclusion of an M&E expert may have helped improve M&E design and indicators, especially after the new activities were introduced through additional financing and project restructurings. Fiduciary and safeguard aspects were regularly supervised, and issues encountered were corrected with guidance and pedagogical support. Supervision reports were detailed and oriented to issues and solutions, and regular follow-up ensured progress. Management reviews indicated good follow-up and good advice to the team, despite weaknesses in project M&E.

Transition arrangements include a number of ongoing sector-specific operations supporting a range of nutrition-specific and nutrition-sensitive interventions critical for the further reduction of chronic malnutrition. A health and nutrition project aims to strengthen and expand basic health and community-based nutrition service delivery, although its launch (well after the project's closing date) caused gaps in financing. Its multiphase design provides a 10-year horizon for addressing financing and sustainability issues. The Basic Education Support Project aims to sustain and expand investments in primary education quality and coverage. Education sector dialogue was marked by a close collaboration with the newly elected government and the preparation of the Education Sector Plan, which became the basis for continuing the Global Partnership for Education and International Development Association involvement. The Social Safety Net Project links cash transfers and cash-for-work schemes and information to incite behaviors favoring the well-being of women, children and families. A human capital development policy operation, approved in 2020, aims to strengthen social sector financing and human resources. At the time of the IEG's mission (October 2019) the World Bank had not planned projects in other sectors critical to the nutrition agenda, especially food security and water and sanitation. After an end-2019 portfolio review, the World Bank noted its intention to develop projects in these two sectors. A formidable remaining challenge will be to ensure that the coverage, coherence, and complementarity of these sector-specific interventions will enable a holistic, synergistic approach to nutrition. The strengthening and empowerment of Madagascar's

institutional framework and capacity for cross-sectoral coordination and collaboration is not addressed in any of these new projects and will be critical for maximizing their collective effectiveness and efficiency.

Quality of supervision is rated **moderately satisfactory.**

Considering these dimensions and the extremely challenging country context, overall Bank performance is rated **moderately satisfactory.**

7. M&E Quality

Design. Neither the original project design nor the revised designs (as articulated in the original project paper and subsequent project papers on additional financing and restructurings) had sufficiently clear theories of change or results chains.[12] Moreover, the project designs (original and revised) supported development activities that were expected to culminate in outcomes beyond the official project development outcome (see the Relevance of the Objectives section). Outcome indicators were limited to the tracking of beneficiaries of the services preserved under the project, but there were weaknesses. These include their quantification in numbers rather than shares of the target group (to get a notion of coverage);[13] the unclear definition of some indicators; the mixing (in a few cases) of intermediate outcome and outcome indicators, assigning a baseline of 0 to some service indicators that were actually achieving some coverage at the project's outset (though low);[14] and setting extremely low targets, which were never adjusted upward even after they were significantly exceeded during implementation. There were no indicators to track expected measurable outcomes, including service quality, access, and affordability; behavior change; learning for improved effectiveness; and enhanced capacity for the management and oversight of services and their accountability to communities. Additional financing and subsequent restructurings intensified support to change behaviors (through food security assistance to selected households and a new strategy for empowering women and enabling healthier behaviors), but no indicators for tracking key behaviors in the home were introduced (for example, breastfeeding up until age six months). Each of the three sector-specific PIUs was responsible for the collection, analysis, presentation, and dissemination of progress on their respective indicators. Weak capacity for M&E and the resultant low levels of data availability and quality at the local level were recognized, and so the design envisioned complementing project data collection with reliance on rigorous surveys (multiple indicator cluster surveys), and studies and analytic work by the World Bank and other partners. M&E capacity building was envisioned in the design and included innovations, such as third-party verification of services and the use of mobile phones, but it did not envision support to or the involvement of regions for the cross-sectoral analysis and use of project data.

Implementation. Some challenges were encountered during M&E implementation, but the PIUs and the World Bank focused due attention to reporting data on indicators and reflecting them in the Implementation Status and Results Reports. The M&E specialist position for the nutrition component had significant turnover. Five staff held that position in the PIU from project preparation until the last year of implementation, when the fifth specialist left, and the PIU staff assumed that function until project closing. The World Bank and the PIU worked together to tighten and clarify definitions, formulas, and targets for nutrition indicators. Implementation support visits undertook joint and systematic updating of all indicators in the results framework, ensuring regular monitoring by key stakeholders. There was a significant delay in updating end targets set under the additional financing (approved in February 2014 and updated in March 2016). Independent verifications, conducted for two indicators (number of schools receiving school grants under the project and number of community teachers certified to be in service and paid) confirmed the reliability of these data. There are no indicators to measure strengthened capacity.

Utilization. Preliminary data informed the additional financing's design and the agenda and decisions of the midterm review, both of which happened in 2014. During IEG's field visits, regional actors indicated that they did not routinely receive data or have the occasion to discuss and assess it as a team cross-sectorally. They also noted that these data could have helped them update and track their regional development plans. IEG field visits also revealed that community-level agents and NGOs send their raw data to sector authorities by mobile phone, replacing their previous practice of preparing and sending paper reports. Although mobile phones facilitate faster transmission of data, informants encountered in the field noted that those providing the raw data through their mobile phones do not receive the electronic reports that their data generate. This undermines the opportunity of frontline actors to use these reports for tracking and fine-tuning activities. World Bank studies informed the design of a follow-on operation. To summarize, M&E arrangements (as designed and implemented) and the data they produced were insufficient to assess overall progress and achievement under the project. This Project Performance Assessment Report's collection and assessment of additional data, trends, and qualitative information is what provided a sufficient evidence base to assess this project.

The quality of M&E is rated **modest.**

[1] More priorities and details can be found in the National Health Policy and the Universal Health Coverage Strategy (both approved in 2016) and the Third National Nutrition Strategy and the Education Sector Plan (both approved in 2017). Appendix F provides summaries.

[2] According to Operations Policies and Bank Procedures 8.0, the World Bank may provide rapid response in support of one or more of the following objectives: (i) rebuilding and restoring physical assets; (ii) restoring the means of production and economic activities; (iii) preserving or restoring essential services; (iv) establishing and/or preserving human, institutional, and/or social capital, including economic reintegration of vulnerable groups; (v) facilitating peace building; (vi) assisting with the crucial initial stages of building capacity for longer-term reconstruction, disaster management, and risk reduction; and (vii) supporting measures to mitigate or avert the potential effects of imminent emergencies or future emergencies or crises in countries at high risk.

[3] A split rating methodology will not be used because there was no change in the project development outcome. An outcome target (number of beneficiaries having access to health and nutrition services) was increased in 2014 to reflect extended coverage of nutrition services under the additional financing and subsequently decreased to adjust the target to new population projections. However, this alone does not warrant a split rating because other indicators are more relevant to measuring project development outcome achievement.

[4] There were other elements of quality of teaching and learning that were beyond this emergency operation to manage. An Education for All project, launched soon after the start of this emergency project, took on other sectorwide quality issues.

[5] This report notes the project targets of 18,283 (pregnant women receiving antenatal care during a visit to a health provider), 12,600 (deliveries attended by skilled health personnel), and 18,300 (children under 12 months immunized against diphtheria, pertussis, and tetanus [third dose]), but they are not compared with the actuals because they were extremely low.

[6] National survey data include the Demographic and Health Survey 2008–09, the National Survey on the Monitoring of the Millennium Development Goals 2012–13, and the Multiple Indicator Cluster Survey.

[7] Services for children 0–2 years included home visits; monthly weighing of the child, followed by counseling for the mother and fortified food supplementation for children 6–23 months; vitamin A supplementation for lactating women and children 6–23 months; and bimonthly measurement of the child's height. Services for children 2–5 years included quarterly monitoring of mid-upper-arm circumference. Services for both age groups (that is, children 0–5 years) included monitoring the integral (psychomotor) development; biannual deworming for children; referral of sick or severely malnourished children to health centers for treatment; and sensitization activities and cooking demonstrations (menu tasting sessions for mothers by the support group during the provision of services to all children by the community nutrition agent).

[8] Community nutrition sites visited by the Independent Evaluation Group included Ambalatany (Amoroni Mania region), Ambohipeno (Vakinankaratra region), and Kelilalina (Vatovavyfitovinany region).

[9] Two examples of partnerships with other development partners include the partnership with the World Food Programme in providing the emergency support to the south after cyclones, drought, and locust infestation; and the complementarities of support across the three sectors observed during field visits.

[10] All benefits and costs were discounted with a 9.5 percent rate, the current interest rate from the Madagascar Central Bank (current opportunity costs of capital).

[11] The World Bank's interim strategy supported the intensification of analytic work during the crisis period when it had suspended disbursements of existing projects and the development of new projects. This analytic work was highly supportive of a rapid and evidence-based preparation process.

[12] The articulation of theories of change and results chains were not required in project papers at the time they were prepared for this project. This assessment is based on the designs described in these papers and the results chain presented in the Implementation Completion and Results Report, which attempted to capture the project's design.

[13] Population estimates (denominators) were difficult to estimate, but local and community levels were in a position to make reasonable estimates.

[14] The Implementation Completion and Results Report explained that key service indicators (such as deliveries assisted by a skilled provider and child immunization coverage) had "0" as baseline values because they were core sector indicators, in line with World Bank guidance. However, real baseline values for these indicators were available through national survey data and provide the basis for assessing real trends.

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Appendix B. Fiduciary, Environmental, and Social Aspects

Financial Management

The project complied with World Bank policies on financial management (Operations Policies and Bank Procedures 10.02). Financial management reports were prepared on a regular basis and transmitted to World Bank in a timely manner. Audit reports on the project financial statements were unqualified. An issue, which arose during the project's second year of implementation (2014) was the poor performance of one of the microfinance institutions contracted under the project to deliver salary subsidies to community teachers. This microfinance institution was in arrears, and creditors collected their debts from the loan proceeds disbursed to this institution to finance salary subsidies. The use of project funds by this institution to pay its creditors was clearly an ineligible expenditure and could have led to the suspension of the credit. Suspension was ultimately avoided in 2015 when the government substituted its own resources to cover those ineligible expenditures and contracted with alternative institutions to replace the nonperforming one. This precipitated a temporary downgrade of the financial management rating in the World Bank's systems to moderately satisfactory, but it did not affect the pace of project implementation.

The World Bank's financial management supervision field visits identified a few issues toward the end of project implementation: (i) shortcomings in budget monitoring by the education project implementation unit that resulted in unexpected undisbursed resources at the end of the project, (ii) weaknesses in contract management related to food security activities under component 3, and (iii) delays in the collection of required documentation on expenditures. These shortcomings led to an increase in the project's financial management risk in April 2016 (from moderate to substantial) and, consequently, to a downgrade of the financial management rating in April 2017 (from satisfactory to moderately satisfactory).

Procurement

The project complied with World Bank policies on procurement (Operations Policies and Bank Procedures 11.00). Procurement of vehicles and information technology was performed through the United Nations Office for Project Service, following the financing agreement, which allowed for timely completion of procurement processes and reduced costs. Drugs procurement, delegated to the national drug purchasing agency, was also satisfactory both in terms of timely processes and low costs. This agency eventually assumed responsibility for iron and folic acid after a competitive bidding process

launched by the government was unsuccessful. A bidder's complaint, handled properly in accordance with World Bank guidelines, caused a delay in the procurement of school manuals. The procurement of solar-powered refrigerators for remote health facilities triggered some complaints about the very specific technical requirements. The World Bank and the government eventually agreed that these requirements were necessary because of the technical demands of the very remote locations where these refrigerators would be placed. Under the nutrition component: (i) there was a one-year delay in the recruitment of nongovernmental organizations, attributable both to the late recruitment of a procurement specialist within the project implementation unit and to limited guidance from World Bank on the contract model; and (ii) initial procurement of livestock by regional government services led to complaints by beneficiaries about poor quality; the handing over of this procurement to nongovernmental organizations succeeded in the purchase of livestock at the local level, resulting in shorter distances for their transport and better quality of livestock on arrival.

Environmental and Social Safeguards

The project was classified as category B, partial assessment at appraisal. This triggered World Bank Operations Policies and Bank Procedures 4.01 (Environmental Assessment), which required a revision of the existing medical waste management plan. The government updated the plan through a consultative process involving health sector stakeholders at the national and regional levels. No consultants were used to support this effort, but the World Bank provided advisory support. Government ownership of the plan was full, and the World Bank assessed its implementation to be satisfactory, despite the delays. The updated plan was published in Madagascar and disclosed through the World Bank's Infoshop in December 2014, about 22 months after the February 2013 deadline. Although the World Bank complied with safeguards requirements, delays caused slow implementation of mitigation measures.

Appendix C. Methods and Evidence

This report is a Project Performance Assessment Report. This instrument and its methodology are described on the Independent Evaluation Group's (IEG) website at https://ieg.worldbankgroup.org/methodology/PPAR.

Selection of this project for a Project Performance Assessment Report (PPAR). This project was selected for a PPAR because of its potential for learning and contributing to an ongoing IEG evaluation of the World Bank's support to chronic malnutrition, IEG's first cross-country evaluation of the World Bank's support to nutrition. Preliminary mapping of countries with high stunting and low Human Capital Index ratings pointed to Madagascar's profile as an interesting candidate for a contributing PPAR, given it is a low-income country that is off track on nutrition Sustainable Development Goals and whose population has inadequate access to determinants of nutrition outcomes (food and care, health services, and water).[33] The long-term support of the World Bank to Madagascar's nutrition sector and the cross-sectoral synergies for nutrition built into this particular project, which supports nutrition activities across the education, health and nutrition sectors, were also factors in this selection.

Methods used. The World Bank's objectives-based evaluation methodology for Implementation Completion and Results Reports and Implementation Completion and Results Report Reviews were followed, including (in appendix A) the assessment of the project's objectives, the extent to which project objectives were achieved, project efficiency, risks to development outcomes, Bank performance, and quality of monitoring and evaluation. In keeping with the new design of the PPAR and its underlying philosophy to be of greater use to those embarking on similar projects or programs, this PPAR focuses on learning and lessons through its exploration of what worked and what did not work during project design and implementation. The methodology for this PPAR extends beyond the World Bank's objectives-based evaluation methodology to encompass aspects of a theory-based evaluation. Specifically, it assesses the design and outcomes of the nutrition interventions against the evidence-based theory of change advocated by The Lancet's two series on nutrition (published in 2008 and 2013), adopted as global best practice by the Scaling Up Nutrition movement, and used as the conceptual framework for IEG's ongoing nutrition study. This theory of change, presented below, encompasses both nutrition-specific and nutrition-sensitive interventions.

Evaluation questions. Over and above the standard evaluation questions underlying the World Bank's methodology,[34] this PPAR sought to address five evaluation questions, posed in IEG's nutrition study: (i) To what extent is the World Bank supporting relevant interventions to improve nutrition outcomes? Particularly, how consistent is the World

Bank's support with the latest **evidence base**? (ii) Did the World Bank support a **multisectoral approach,** and to what extent did it create synergies for addressing the nutrition of poor and vulnerable mothers and children? (iii) Did the World Bank **strengthen national institutional frameworks** and capacities, and to what extent did it enable cross-sectoral efforts within government and with development partners? (iv) How and to what extent did the **monitoring and evaluation design and implementation** improve cross-sectoral management, coordination, and oversight, increase learning and support policy and decision-making? (v) How and to what extent did project interventions **identify, target, and track specific behaviors** to improve nutrition outcomes? Although the main text of this report touches on all of these questions, appendix K provides responses to each.

Sources of evidence. The team collected and reviewed data and information available and produced in Madagascar. This includes project and relevant sector-specific data and documentation from the Ministries of Health and Education and from the National Nutrition Office (Office National de Nutrition, Madagascar; ONN), including those produced by the respective sector-specific project implementation units working within these agencies, and regular project reporting by the coordination unit, housed in the Ministry of Finance, to the World Bank. The series of national surveys (Demographic and Health Survey 2008–09, National Survey on the Millennium Development Goals 2012–13, and Multiple Indicator Cluster Survey 2018) is another important source of data and trends. IEG's team also collected relevant data and trends at the regional level and at the level of services visited: primary schools, basic health centers, and community nutrition sites. Triangulation of these different data sources and trends and their discussion with providers who collected them brought information and insight about the project's implementation, outcomes, and impacts. The team also reviewed project-specific data and documentation available in the World Bank's information system, spanning the project's design, implementation, closing, and final evaluation. An assessment of the broader country context included the review of national development policies and strategies, sector-specific policies and plans, and the series of World Bank strategies for Madagascar. Finally, the team reviewed relevant research and analytic work carried out or commissioned by the government, the World Bank, and other development partners. As detailed below, interviews with a range of actors and stakeholders (including direct beneficiaries) provided another critical source of evidence. (See also appendix C, table C.2, List of Persons Met.)

Mission design and approach, including fieldwork. Given the community-based design of the project, which focused on front-line services and the exploitation of synergies across sectors benefiting the same communities and families, the mission attempted to spend as much time in the field as possible. Three regions were visited:

Amoron'i Mania, Vakinankaratra, and Vatovavy Fitovinany. They were chosen based on a number of criteria meant to provide the most reasonable spread of experiences and types of interventions, all while keeping to reasonable travel distances that would allow for needed time at the national level. The choice of these regions, made by IEG's team with the input and advice of ONN and the World Bank's technical team, accommodated the following criteria: inclusion of a southern region; inclusion of two of the project's original regions receiving support for all three sectors (education, health, and nutrition) from the outset and a nutrition-only region added under additional financing; inclusion of regions receiving and not receiving various add-on interventions, including food security support (small gardens or livestock projects), human-centered development (intensified behavior change interventions), and early stimulation of the child; and results-based financing pilot, among others.

Field visits were undertaken by IEG's team of two, accompanied by the Ministry of Finance human development portfolio officer overseeing this project and the head of ONN's community nutrition division, directly responsible for close coordination and oversight of the nutrition component. This arrangement facilitated exchanges with the range of actors and stakeholders met during field visits and encouraged a spirit of open inquiry and learning by all involved.

Regional visits were launched (by prior request) with a presentation prepared by the regions for the mission, including an overview of the region, its development plan, and prospects, and presentations by each of the relevant technical sector experts, providing data and trends on the education, health, and nutrition sectors, including preproject and postproject periods and linking these to the project's support. This was followed by discussions of the five evaluation questions to obtain more insights and perspectives on the nutrition interventions and outcomes. Regional visits also included exchanges with officials and authorities (Chef de Region and Prefet), who participated in these larger meetings and met with IEG separately to share their views. Regional-level meetings also included nongovernmental organization (NGOs) involved in project implementation to get their perspectives on implementation experience, results, impact, lessons learned, and local-level sustainability.

Regional technical experts and some NGOs joined IEG in site visits where primary school education, basic health services, and nutrition interventions were being delivered at the commune level. The mission also encountered local authorities (mayors of communes) and district-level technical staff during its visits to communes, who provided additional insights. Meetings with service providers allowed IEG to collect and discuss data and trends at the point of service and link these to the project and other supports. In each region, IEG met with teachers, health providers and auxiliary staff, and community nutrition agents. Exchanges were organized around their data and

trends, their links to project support, their accomplishments and challenges, and lessons. A relevant subset of the evaluation questions was discussed with these providers, especially the topics of multisectoral approaches to nutrition and monitoring and evaluation.

Finally, and most important, the mission met with beneficiaries to get their views on the project's support and the extent to which they benefited from interventions. Parents of primary school children were asked about changes in access and enrollment of their children, whether the project's support alleviated their financial burden to keep the schools running, the benefits of the school health and nutrition program, and whether their involvement in managing the project's grants and salary subsidies affected the accountability of the schools to the parents. A few women clients at the health center were interviewed to get their sense of any improvements in the quality, access, and affordability of maternal and child health services and of any consequent changes in their use of these services. Groups of mothers, clients of nutrition sites, met with the mission to share what they learned at these centers, what lessons and information they apply at home, what complementary nutrition-sensitive (multisectoral) interventions they benefited from and their value added to nutrition-specific interventions, and what impact all of these services had on their children's health and well-being, as well as their own.

Synthesis meetings with regional staff and other regional actors and NGOs facilitated discussion and exchange of IEG's preliminary findings and their links to the five evaluation questions.

Central-level meetings allowed IEG to exchange with relevant technical staff within each of the two ministries (education and health) and at ONN, including their respective project implementation units; additional NGOs involved in the project; development partners; and the World Bank's technical staff.

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[33] This profile of Madagascar complements other country candidates for contributing to the Independent Evaluation Group's nutrition study, which have a range of profiles (fragile and conflict-affected situations, low-income, lower-middle-income, and upper-middle-income) and a diversity of performances with regard to nutrition Sustainable Development Goals and access to multisectoral services addressing determinants of nutrition outcomes.

[34] The standard evaluation questions underlying the World Bank's methodology are as follows: What is the relevance of the project's objectives? To what extent were targets and objectives achieved? How efficiently were the objectives achieved? What are the risks to development outcomes? How did the World Bank perform in terms of the project's quality at entry and the quality of Bank supervision? What was the quality of the project's monitoring and evaluation in terms of its design, implementation, and use?

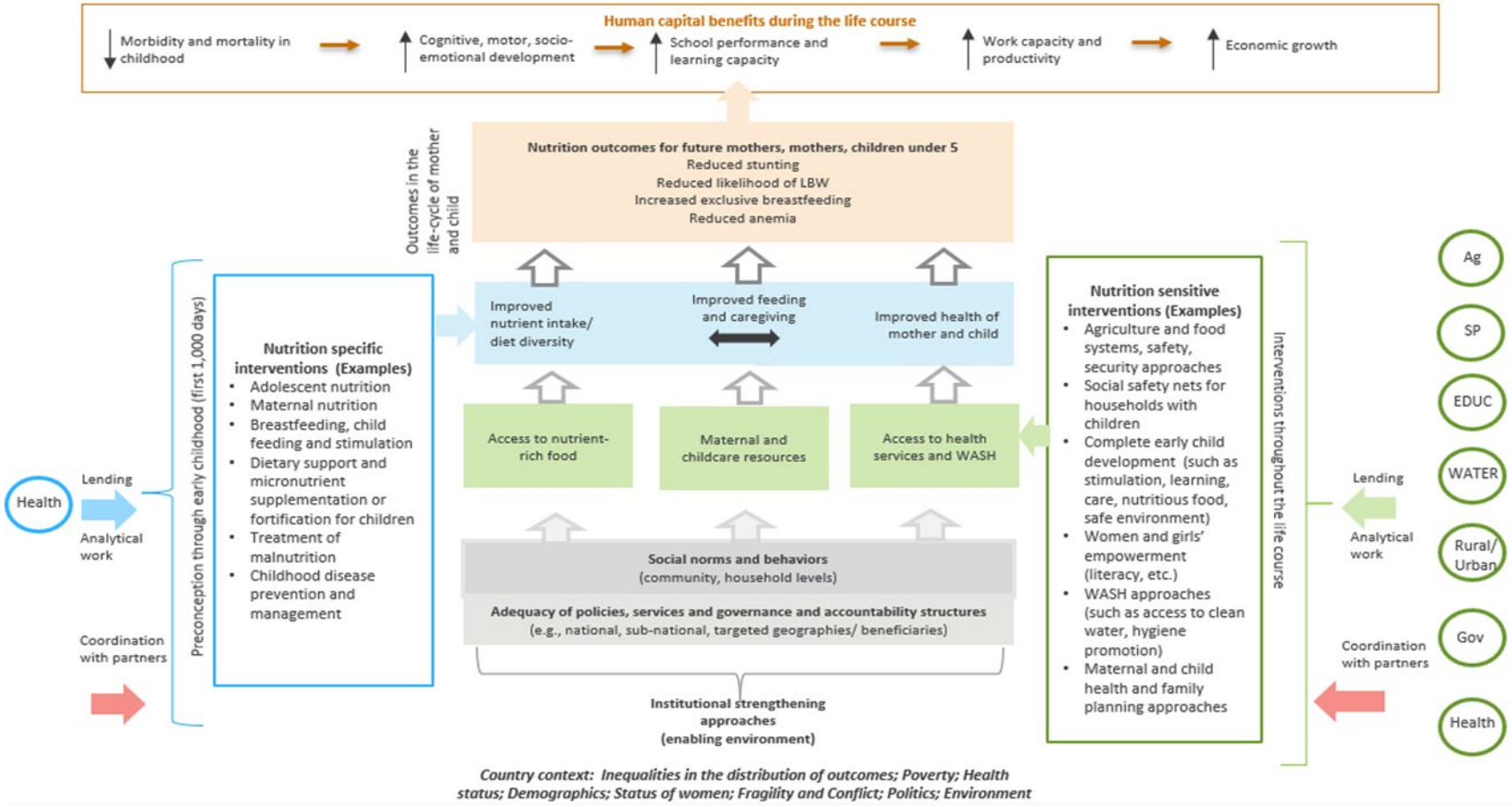
Table C.1. Madagascar: Matrix for Improved Alignment with IEG Nutrition Study

Concept Note Proposed IEG Nutrition Study	Captured in PPAR's Traditional Mandate/Design + What Works/Doesn't Work	Thematic Evaluation Questions, Complementary to Traditional PPAR Questions
Evaluation Question 1. The What?		
To what extent is the World Bank supporting relevant interventions to improve nutrition outcomes, as per country context, needs, and priorities?	Assessment of theory of change (stated and real or enhanced) against latest evidence and literature on best practice	0. To what extent is the World Bank supporting relevant interventions to improve nutrition outcomes? Particularly, how consistent is the World Bank's support with the latest evidence?
How consistent is the World Bank's support with the latest evidence in supporting interventions to improve nutrition outcomes?	Relevance of project development objective and assessment of design (including targeting; against baseline/context)	
To what extent is World Bank support aligned to country needs and priorities in a specific country context?		
Evaluation Question 2. The How?	Description and assessment of institutional arrangements, emanating lessons, and sustainability	
What kind of multisectoral approaches does the World Bank apply to support nutrition outcomes in different country contexts?		
To what extent has the World Bank supported countries' institutional capacities to enable multisectoral approaches?	Attribution and contribution discussion under Efficacy	1. Did the World Bank support a multisectoral approach, and to what extent did it create synergies for addressing the nutrition of poor and vulnerable mothers and children?
To what extent does the World Bank exploit sectoral synergies with other development partners at the country level to ensure effectiveness of multisectoral approaches?	Efficacy assessment (appendix); results (main text)	2. Did the World Bank strengthen national institutional frameworks and capacities, and to what extent did it enable cross-sectoral efforts within government and with development partners?
Evaluation Question 3. The Results	What works/doesn't work: design and implementation	
To what extent have the World Bank's interventions achieved results for nutrition outcomes?		
What were factors of success and failure (contextual, design, and implementation)?		

Concept Note Proposed IEG Nutrition Study	Captured in PPAR's Traditional Mandate/Design + What Works/Doesn't Work	Thematic Evaluation Questions, Complementary to Traditional PPAR Questions
Areas for Learning and Current Challenges for the World Bank Ensuring the support of evidence-based interventions to improve nutrition, with ownership in countries Multisectoral coordination and clarity of operational approaches to address multidimensional determinants for long-term outcomes Strengthening institutions in countries (horizontal and vertical arrangements) to ensure quality services are delivered to beneficiaries in countries in the project time frame and beyond Tracking and measuring results from investments across a range of projects given that nutrition is often a rather small proportion of the project, not necessarily in the objective Addressing and sustaining behavioral changes required for nutrition outcomes.	Assessment of theory of change (stated and real or enhanced) against latest evidence and literature on best practice Rapid portfolio analysis: project and analytical work	1. Did the World Bank support a multisectoral approach, and to what extent did it create synergies for addressing the nutrition of poor and vulnerable mothers and children? 2. Did the World Bank strengthen national institutional frameworks and capacities, and to what extent did it enable cross-sectoral efforts within government and with development partners? 3. How and to what extent did the M&E design and implementation improve cross-sectoral management, coordination, and oversight; increase learning; and support policy and decision-making? 4. How and to what extent did project interventions identify, target, and track specific behaviors to improve nutrition outcomes?

Source: Independent Evaluation Group.
Note: IEG = Independent Evaluation Group; M&E = monitoring and evaluation; PPAR = Project Performance Assessment Report.

Figure C.1. Conceptual Framework



Source: Adapted from Maternal and Child Nutrition Study Group 2013 and UNICEF 1990.
Note: WASH = water supply, sanitation, and hygiene. Ag = agriculture. SP = social protection. EDUC = education. Gov = governance.

Table C.2. List of Persons Met

Name	Title and Function
	National level
Ravy Adria Rakotoarivony	Banque Mondiale/Education
Rajoela Voahirana	Banque Mondiale/Santé /Nutrition
Landy Rakotonalina	Banque Mondiale /Assistante de Direction
Solofonirina Lucie	Coordinateur Nutrition ONN Madagascar
Rakotomalala Norotiana	Responsable opération UNPCC ORN Antananarivo
Andriatsarafara Lala	Responsable Suivi Evaluation ONN Madagascar/ CSSE
Rajaobelison Josia	Chef Unité Programme de Sécurisation Nutritionnelle de l'ONN
Rabearivelo Jean Marie	Technicien ONN
Ranaivoson Christian	Ancien Consultant ONN
Randriambahoaka Mampianina	Responsable S/E ONN
Ralisiaarisoa Jacqueline	UFP/MENETP
Rakotomizao Sylvia	UFP/MENETP
Raboanary Nono	UFP/MENETP
Lanto Tiana Rakotondramanana	UFP/MENETP
Rabenindrasana Teophile	Directeur MENETP
Randriamanampisoa Ernest	Chef de service MENETP
Rakotoson Jacky Samuël	Chef de service MENETP
Rakotovao Noël Ange	Chargé d'étude MENETP
Randriambe Loarinosy Solo	Chargé d'étude MENETP
Rakotoharinivo Ando	Chef de service MENETP
Ranjazoarivony Bao	Chargé d'étude MENETP
Raoelijaona Bien-Aimé	Secrétaire Général Min Finances
Randriantsitohaina Frédéric	Chargé d'étude DCSR Min Finances
Randriamelson Wellina	Chef de Division Min Finances
Razafindratsimba Harinirina	Chargée du suivi des projets Min Finances
Ramanantsoa Fanjaharitiana	Equipe Technique Min Santé Publique
Rakotoarinosy Lalanirina Vonimboahirana	Resp de la Planification Min Santé Publique
Rajoelina Raveloarimema Nivonirina	Equipe Technique Min Santé Publique
Ramanoelina Saholiarisoa	Equipe Technique Min Santé Publique
Randriamboavonjy Rado	Chef Save
Dr R. Rémi	Ex Coordonnateur National UGP

Name	Title/Function
Regional and Operational Levels	
AMORON'I MANIA REGION	
Herinjakatahina Laza Fanantenana Charles	Chef de région Région Amoron'i Mania
Rajaonary Andrianasolo	Equipe de la Région
Randriamaromisanarivo Fidelis	Dircab Région Amoron'iMania
Raherintsoa André Berthin	Equipe de la Région
Rakotomalala Richard	Préfet de Région Amoron'i Mania
Andriamahefasoa Jean René	Resp Ressources Humaines Région
Rajaonarivony Julien B.	Coordonnateur Régional ORN Amoron'i Mania
Rakotoharavao Marie Joseph Léon	1er Adjoint au Maire Commune Ilaka Centre
Razafimaharo Benjamin	Président ONG
Randrianirina Jean Apollinaire	Employé de suivi
Rahajasoa Jeannie	Agent Communautaire site Ambalatany
Razafindravelo Simone	Responsable du Projet PAUSENS Amoron'i Mania
Razafimandimbiarisoa Sarah	ORN-AP
Randriamanana Franck	Assistant Technique - Programme de Sécurisation Nutritionnelle
Ranomenjanahary André Roger	CHEF ZAP Ilaka centre
Ramandimbihasina Marie Florine	Equipe SIG et Nutrition DRSP Amoron'i Mania
Ralaivao N. Mahefasoa	Resp SIG et Nutrition DRS Amoron'i Mania
Nastina Rampanjato	CHEF CISCO Ambositra
Andrianaribako Andry Nirintsoa	CPNC ORN Amoron'i Mania
Natioraniavo Tsaratiana Aimé	CSCOM
Andriamahefasoa Jean René	DRENETP Amoron'i Mania
Ralaivao Mahefasoa	DRSP Amoron'i Mania
Rafanomezantsoa Harinirivo Lalao Victorine	DRENETP Amoron'i Mania
Randrianarisoa Hajaniaina	DRENETP Amoron'i Mania
Rasoanaivo Josette Victorine	SDSP Ambositra
Randrianarisoa Hajaniaina	Directeur
Rasolofoniaina Celestin	Représentant FRAM EPP Ambalatany
Abeline Razafimbahininarivo	Directeur EPP Ambalatany
Razafindraibe Jean de Paul	Président FEFFI EPP Ambalatany
Rasolofonirina Barijaona	chef Fokontany Ambalatany
Razafimandimby	Président FRAM EPP Ambalatany
Rahantanirina Eliane	Adjointe EPP Ambalatany
Razafindrina Marie Thérèse	Adjointe EPP Ambalatany
Fenomananarivo Jeannine	Educateur Préscolaire

Rafanomezantsoa Harinirivo Lalao Victorine	Resp Santé Scolaire DRSP Amoron'i Mania
Name	**Title and Function**
Regional and operational levels	
AMORON'I MANIA REGION	
Rasoanaivo Josette Victorine	Adjoint technique p.i
Raherintsoa André Berthieu	Chef de service Admin et Financier
Natioraniavo Tsaratiana Aimé	CSCOM Région
Razafindratsimabozaka Nestor	Medecin chef CSB2 Ilaka centre
Faramalala	Paramédical CSB2 Ilaka Centre
R. Nasthasie	Agent Voucher Ilaka Centre
Régis	Dispensateur CSB2 Ilaka Centres
VAKIN'ANKARATRA REGION	
Rakotomahandry Thimoté	Chef de Région p.i
Ramahandriarivo Fanja	DAGT Région Vakin'Ankaratra
Rastefano Lala	Président
Ranarivelo Lydia	Chef d'Unité Suivi Evaluation Région Vakin'Ankaratra
Barisoa Miiharimananoro	Secrétaire de service Région Vakin'Ankaratra
Rambelo Falihery	CPNC
Andriambololona Josoa	RPSN
Ravelonarivo Harinaivo	CR ORN Vakin'Ankaratra
Rabenirina Mamitiana P.	Directeur
Hantarisoa Myriame	Assistante en communication Région Vakin'Ankaratra
Mahefarilala Heritina Jean Jacque	Journaliste Région Vakin'Ankaratra
Rakotoarimanana Heriniaina Nomenjanahary	Directeur
Randriamalazarison Riri	Président ONG
Rambelo Falihery	CPNC
Lalaharimahefa Rinah Hanitriniala	Responsable Du Projet PAUSENS au niveau ONG
Ralalaharisoa Jeannine	Responsable Du Projet PAUSENS au niveau ONG
Raharison Tiana	Responsable Du Projet PAUSENS au niveau ONG
Rastefano Lala	Président ONG
Rajemiarisoa Faniry Toky Harilala	Sage femme CSB2 Vinanikarena
Rakotoarimanana Heriniaina Nomenjanahary	Directeur Ecole Ambohipeno
Ratsimialisoa Fanampy Mampionona	Chef CISCO Antsirabe II
Rafaliarivo Rado	Chef ZAP Vinanikarena
Andrianaivo Setra	Directeur EPP Vinanikarena
Rafanomezanjanahary Enintsoa Fetraniaina	Enseignant EPP Vinanikarena
Andrianirina Vololoniaina Christina	Enseignant EPP Vinanikarena
Harinirina Lalao Charline Veronique Yollande	ENFS EPP Vinanikarena
Randrianarintsoa Joseph	Enseignant EPP Vinanikarena
Rasitefanoelina Roland	Pdt ONG

Ralambomanana Ando	Responsable Du Projet PAUSENS au niveau ONG
Andoniaina Ruffin	Responsable Du Projet PAUSENS au niveau ONG
VATOVAVYFITOVINANY REGION	
Ralaisabotsy Edmond	CR Vatovavyfitovinany
Njarisoa Ngeho Rasoazanany	Adjoint au Maire commune Kelilalina
Razafindratsimba Harinirina	Chargée du suivi des projets
Rasitefanoelina Roland	Pdt ONG
Lalarimahefa Rinah	RDP
Ralaisabotsy Edmond	CR Vatovavyfitovinany
Njarisoa Ngeho Rasoazanany	1er Adjoint au Maire Commune Kelilalina
Rafaravavy Loncile	2ème Adjoint au Maire Commune Kelilalina
Bodonirina Marie Georgie	Equipe Commune Kelilalina
Tolojanahary Tsilavina Marie Olga	Equipe Commune Kelilalina
Razafinirina Tahinjanahary Marie Lucie	Equipe Commune Kelilalina
Hantanirina Anjarasoaniaina Josiane	Equipe Commune Kelilalina
Nazakandriarison Gislain Bertin	RSE/SI ORN Vatovavyfitovinany
Ralaisabotsy Edmond	CR ORN Vatovavyfitovinany
Folo Robert	Directeur Ecole Kelilalina
Velojaonina	Président FEFFI
Development Agencies Met	
Jeanne Rideout	Senior Health Adviser, US Agency for International Development
Jovith Ndahimuyka	Technical Specialist, UNFPA
Washington, DC	
Andreas Blom	Co-TTL of project during preparation
Cornelia Jesse	Education sector team member during preparation
Jumana Qamruddin	Health sector co-TTL during preparation and implementation

Source: Independent Evaluation Group.

Appendix D. Additional Data

In the tables and figures presented in this appendix, the regions labeled in upper case letters are the five regions in the original project design. These regions received project support for preserving and strengthening services in all three sectors: education, health, and nutrition. The regions labeled in lower case letters are those that received nutrition-only support under additional financing and project restructuring.

Table D.1. Project Coverage by Sector

			Nutrition			
				Standard service package add-ons		
Regions	Education	Health	Nutrition site standard service package	Food security	Human-centered Development or behavior change	Emergency response to acute malnutrition
Original project (November 2012)						
AMORON'I MANIA	X	X	X	X	X	
HAUTE MATSIATRA	X	X	X	X		
VATOVAVY FITOVINANY	X	X	X			
ATSIMO ATSINANANA	X	X	X			
ANDROY	X	X	X	X		X
Additional financing (February 2014)						
Vakinankaratra			X	X	X	
Itasy			X	X		
Atsimo Andrefana			X	X		X
First restructuring (July 2015), after midterm review						
Analamanga			X		X	
Second restructuring (June 2016)						
Southern regions						
ANDROY						X

Source: IEG.

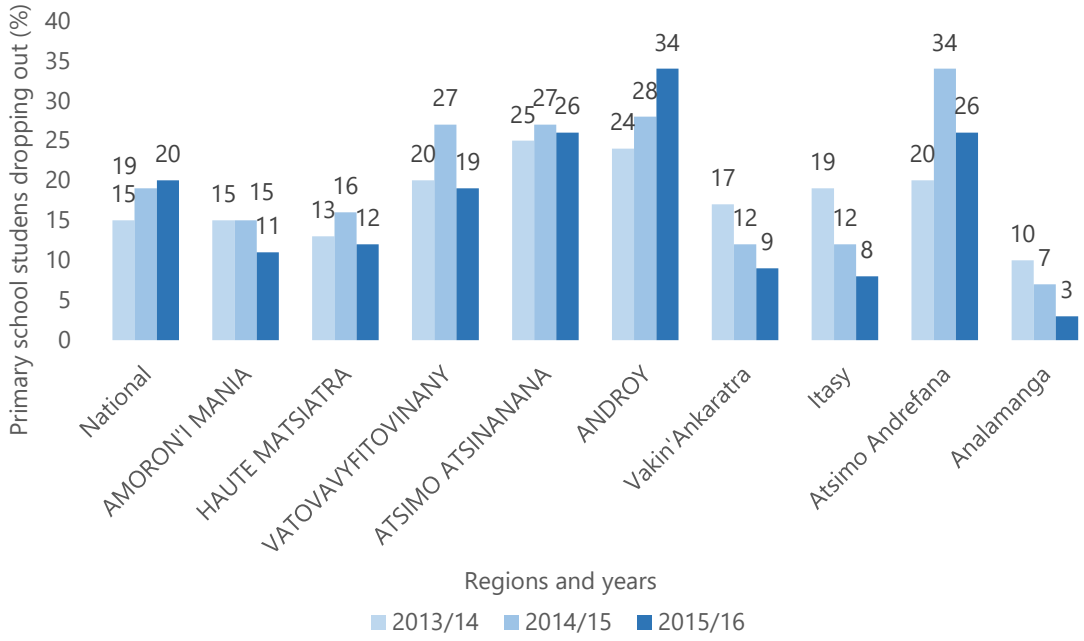
Table D.2. Geographic Coverage of the Project, by District and Commune

Region	Districts Covered	Communes Covered (no.)	Total Communes (no.)	Communes Covered (percent)
Regions covered under original project (three sectors; November 2012)				
AMORON'I MANIA	Ambositra	23	23	100
	Manandrina	10	10	100
	Fandrina	13	13	100
	Ambatofinandrahana	8	9	88
	100 percent of districts covered	54	55	98
HAUTE MATSIATRA	Lalangina	10	13	77
	Isandra	6	11	54
	Vohibato	14	14	100
	Fianarantsoa 1	1	1	100
	Ambalavao	17	17	100
	Ambohimahasoa	18	18	100
	Ikalamavony	6	8	75
	100 percent of districts covered	72	82	87
VATOVAVY FITOVINANY	Ifanadiana	13	13	100
	Vohipeno	20	20	100
	Nosy varika	16	18	89
	Ikongo	15	15	100
	Mananjary	30	30	100
	Manakara	40	47	85
	100 percent of districts covered	134	143	94
ATSIMO ATSINANANA	Farafangana	33	33	100
	Vangaindrano	28	29	90
	Midongy Sud	6	6	100
	Vondrozo	16	16	100
	Befotaka	4	7	57
	100 percent of districts covered	87	91	96
ANDROY	Beloha	5	6	83
	Tsihombe	7	7	100
	Ambovombe	18	19	95
	Bekily	19	19	100
	100 percent of districts covered	49	51	97
Regions Added Under Additional Financing (Nutrition Sector Only) (February 2014)				
Vakinankaratra	Ambatolampy	18	18	100
	Antaninfotsy	12	12	100

Region	Districts Covered	Communes Covered (no.)	Total Communes (no.)	Communes Covered (percent)
	Antsirabe 1	1	1	100
	Antsirabe 2	20	20	100
	Betafo	18	18	100
	Faratsiho	9	9	100
	Mandoto	8	8	100
	100 percent of districts covered	86	86	100
Itasy	Arivonimamo	11	22	50
	Miarinarivo	11	14	79
	Soavinandriana	6	15	40
	100 percent of districts covered	28	51	55
Atsimo Andrefana	Beroroha	5	8	63
	Morombe	9	9	100
	Toliara 1	1	1	100
	Toliara 2	12	23	52
	Betioky Sud	15	27	56
	Ampanihy	11	16	69
	Sakaraha	3	12	25
	Benenitra	3	4	75
	Ankazoabo-Sud	2	6	33
	100 percent of districts covered	61	106	58
Region Added Under July 2015 Restructuring (Nutrition Sector Only)				
Analamanga	Ambohidratrimo	26	26	100
	Andramasina	14	14	100
	Anjozorobe	8	18	
	Ankazobe	13	13	100
	Antananarivo Atsimodrano	26	26	100
	Antananarivo Avaradrano	15	15	100
	Antananarivo Andrenivohitra	4	4	100
	Manjakandriana	15	28	54
	100 percent of districts covered	121	144	84

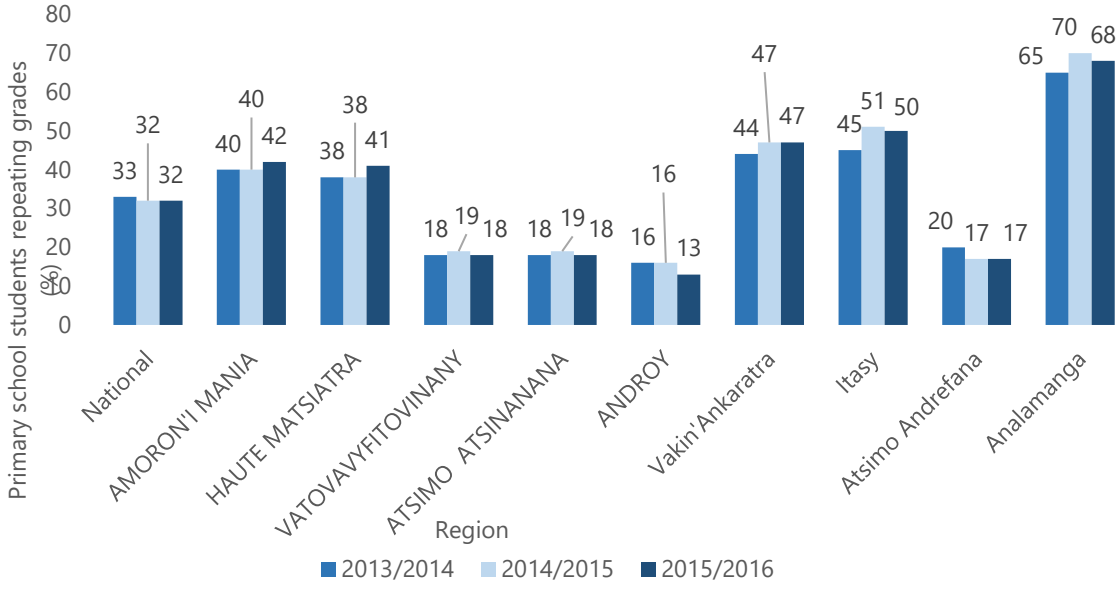
Source: National Nutrition Office (Office National de Nutrition, Madagascar), project data and meetings with a monitoring and evaluation expert.

Figure D.1. Trends in Primary School Dropout Rates in Project Regions, 2013/14–2015/16



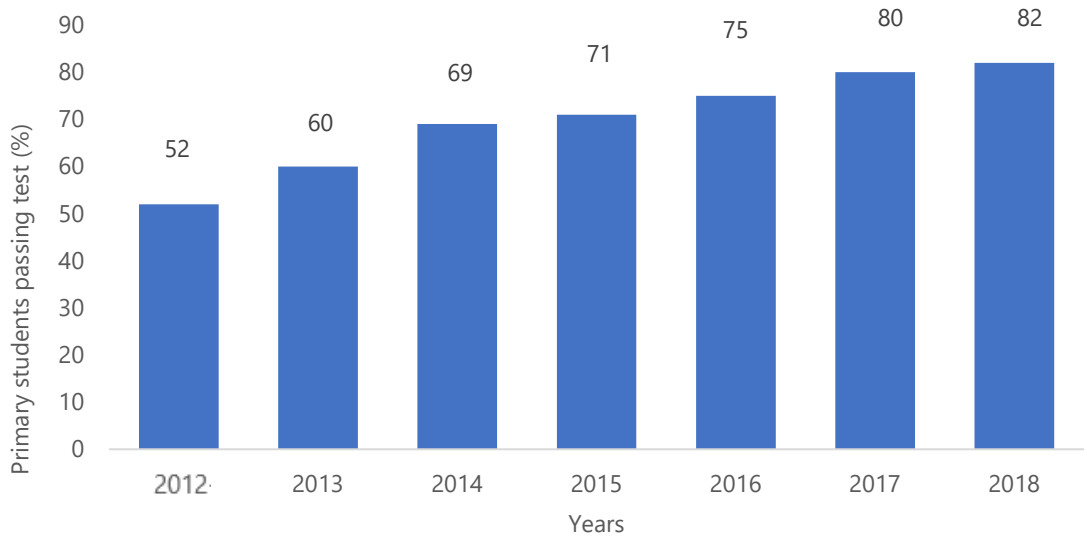
Source: Madagascar Ministere de l'Education Nationale 2014a, 2015 and 2016.

Figure D.2. Trends in Primary School Repetition Rates in Project Regions, 2013/14–2015/16



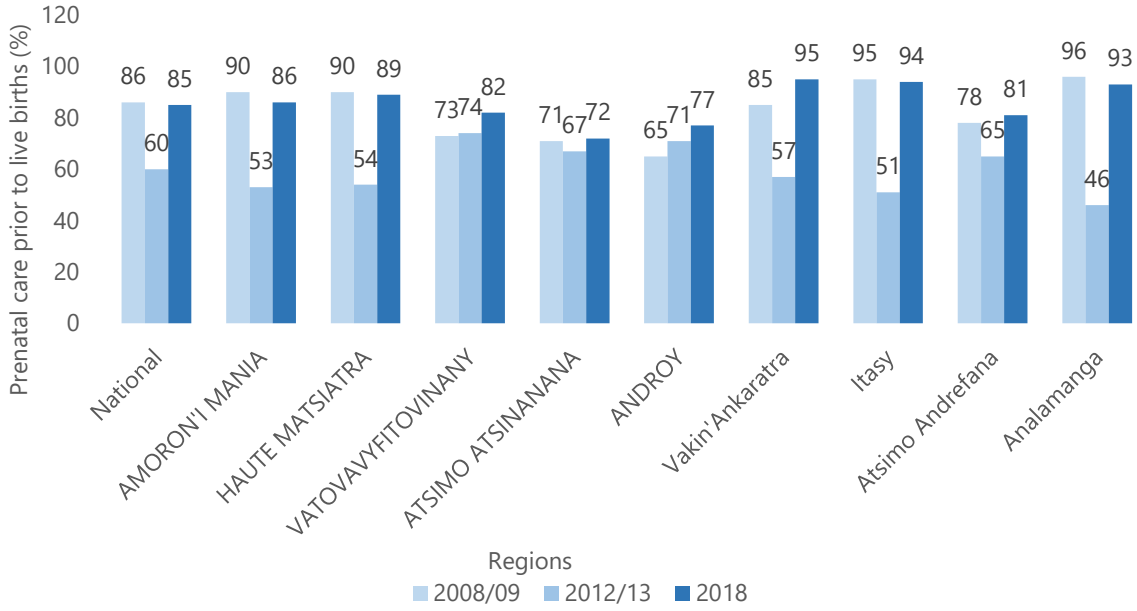
Source: Madagascar Ministere de l'Education Nationale 2014a, 2015 and 2016.

Figure D.3. Evolution in the Passing Rate of the Certificat d'Etudes Primaires Elémentaires Test by Primary School Students in Ambalatany Commune, Amoron'i Mania Region, 2012/13–2017/18



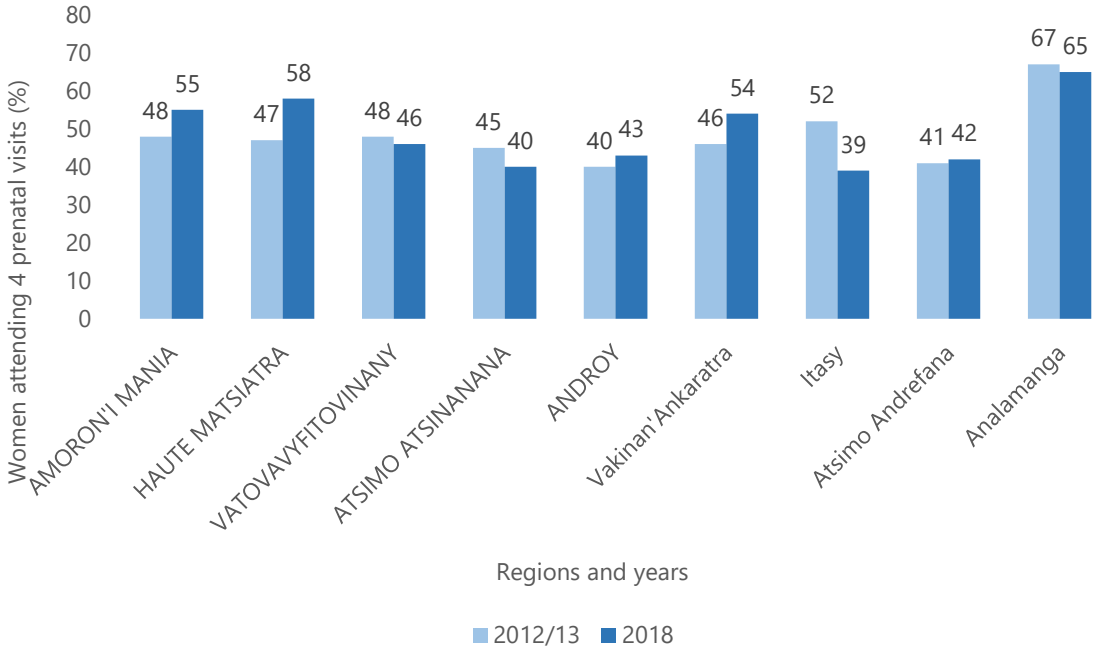
Source: Data collected at Ambalatany Primary School by the Independent Evaluation Group during fieldwork.

Figure D.4. Share of Live Births That Had Benefited from Prenatal Care Provided by Qualified Staff 2008/09–2018



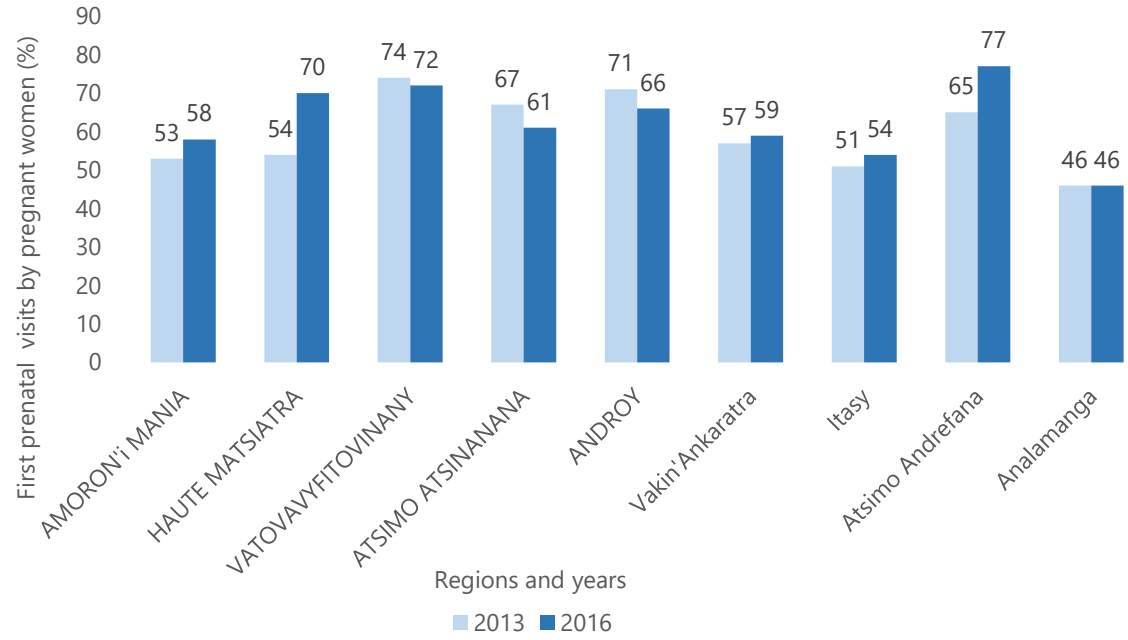
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.5. Share of Women 15–49 Years Old Who Made Four Prenatal Visits during Their Most Recent Pregnancy, in Project Regions, 2012/13–2018



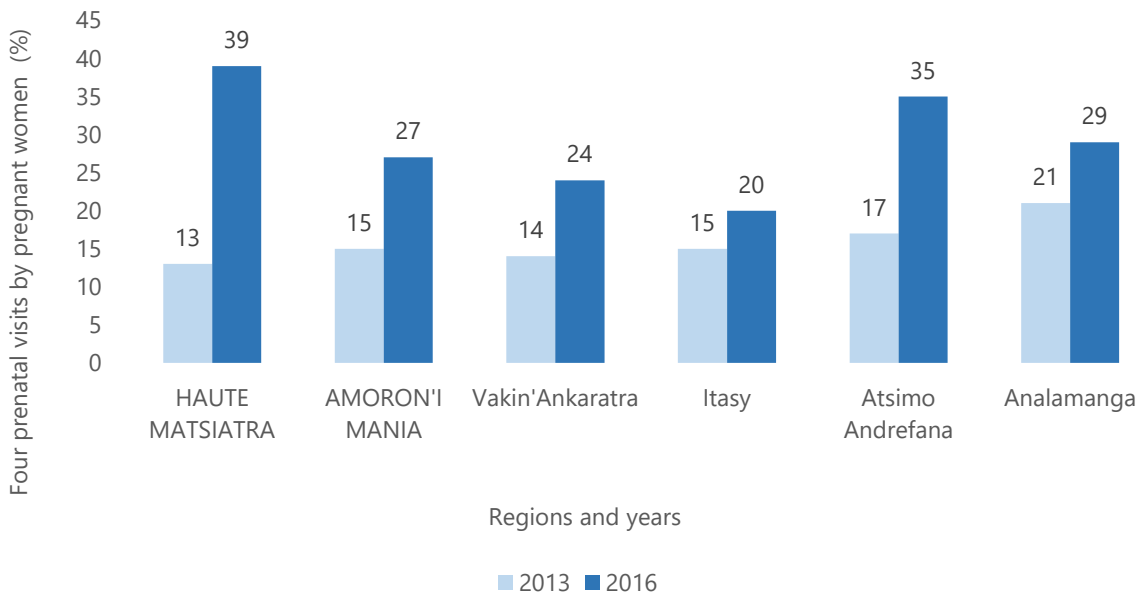
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.6. Evolution in Prenatal Services (First Visit) Utilization in Basic Health Facilities, 2013–2016



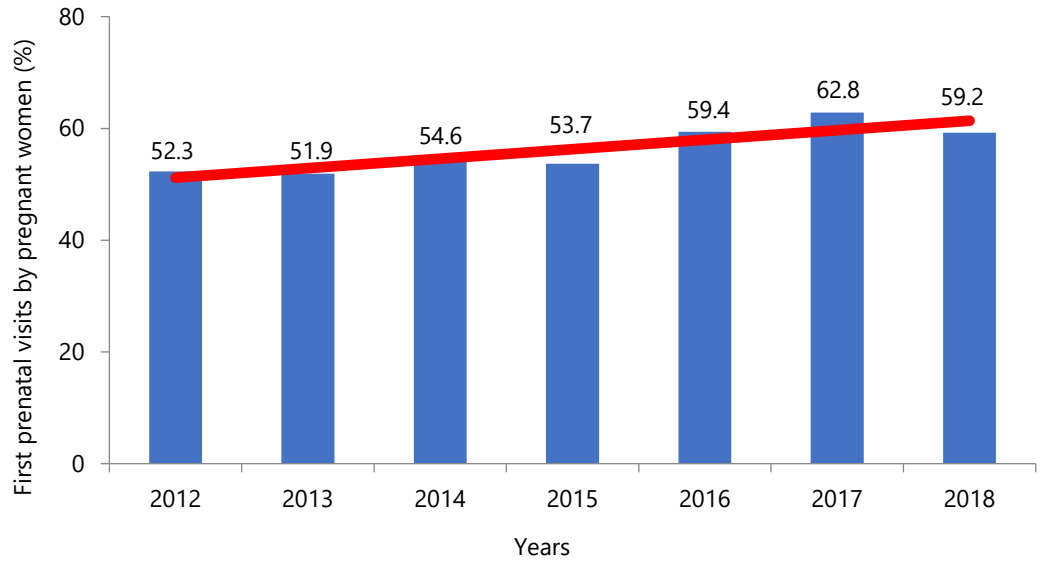
Source: Madagascar Ministere de la Sante Publique 2014b and 2016b.

Figure D.7. Evolution of Utilization Rates of Four Prenatal Visits, 2013–2016



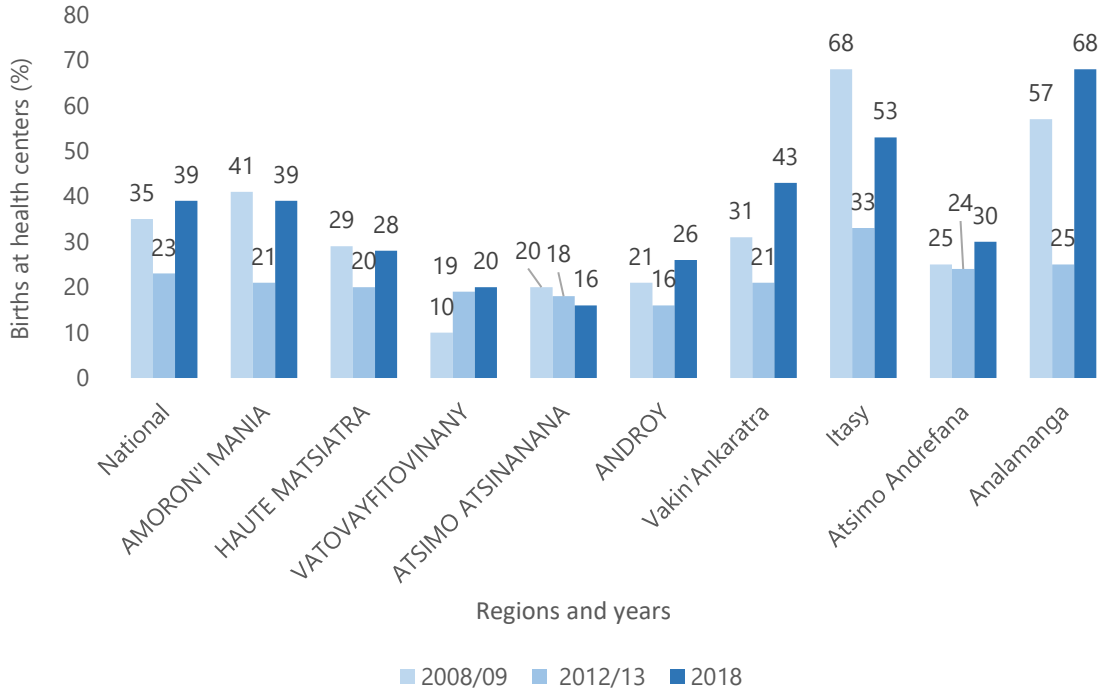
Source: Madagascar Ministere de la Sante Publique 2014b and 2016b.

Figure D.8. Utilization Rate of First Prenatal Visit in Basic Health Facilities, Amoron'i Mania, 2012–2018



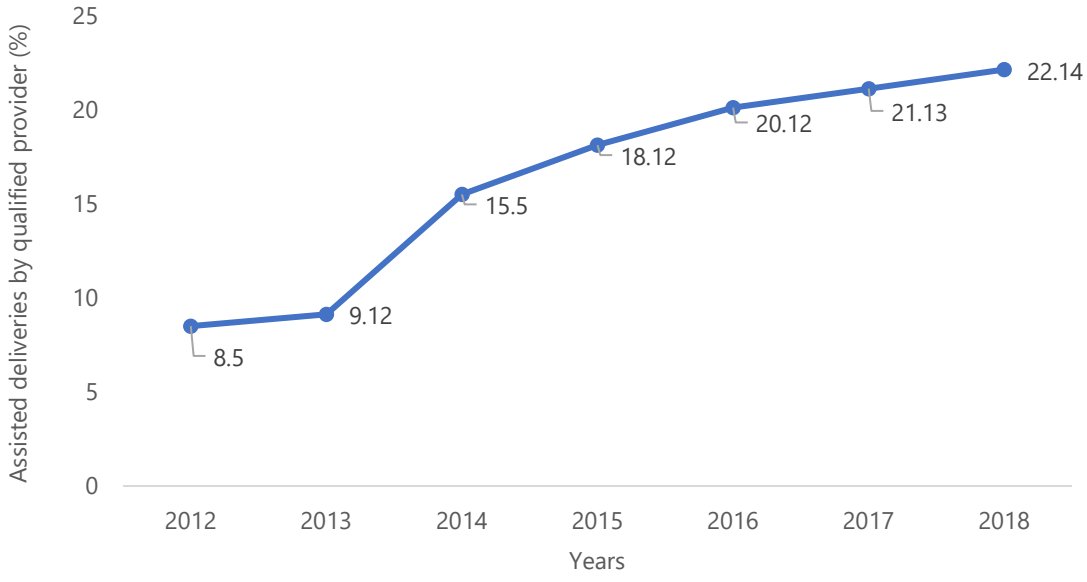
Source: Amoron'i Mania Regional Data, collected during Independent Evaluation Group fieldwork.

Figure D.9. Trends in the Share of Births Delivered in Health Centers in Project Regions, 2008/09–2018



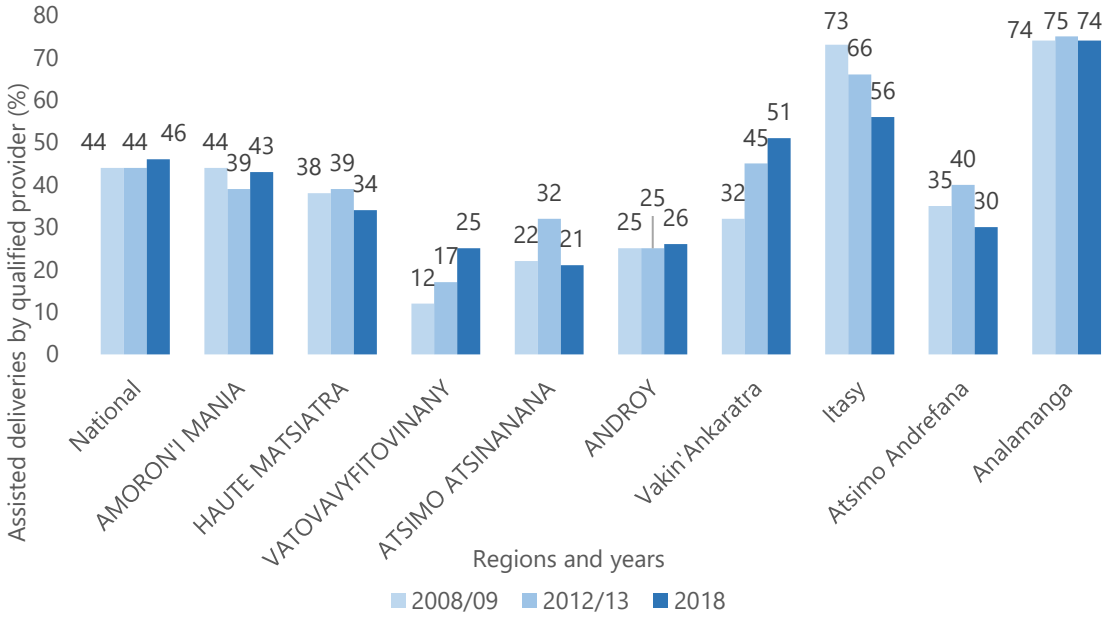
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.10. Share of Deliveries Assisted by a Qualified Health Provider, Amoron'i Mania Region, 2012–2018



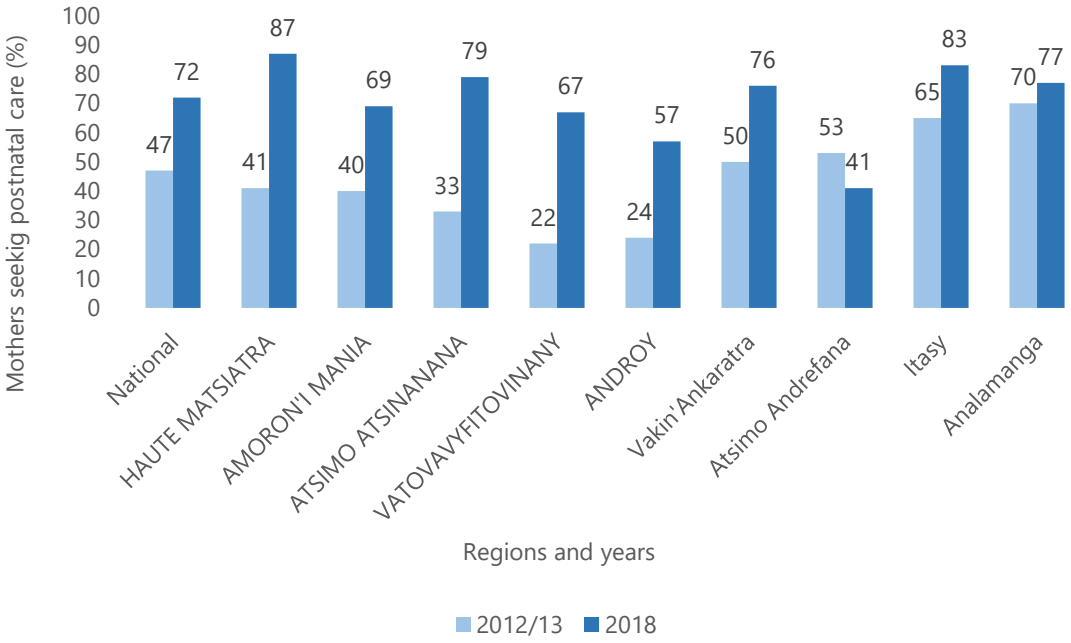
Source: Amoron'i Mania Regional data, collected during Independent Evaluation Group fieldwork.

Figure D.11. Share of Deliveries Assisted by a Qualified Health Provider in Project Regions, 2008/09–2018



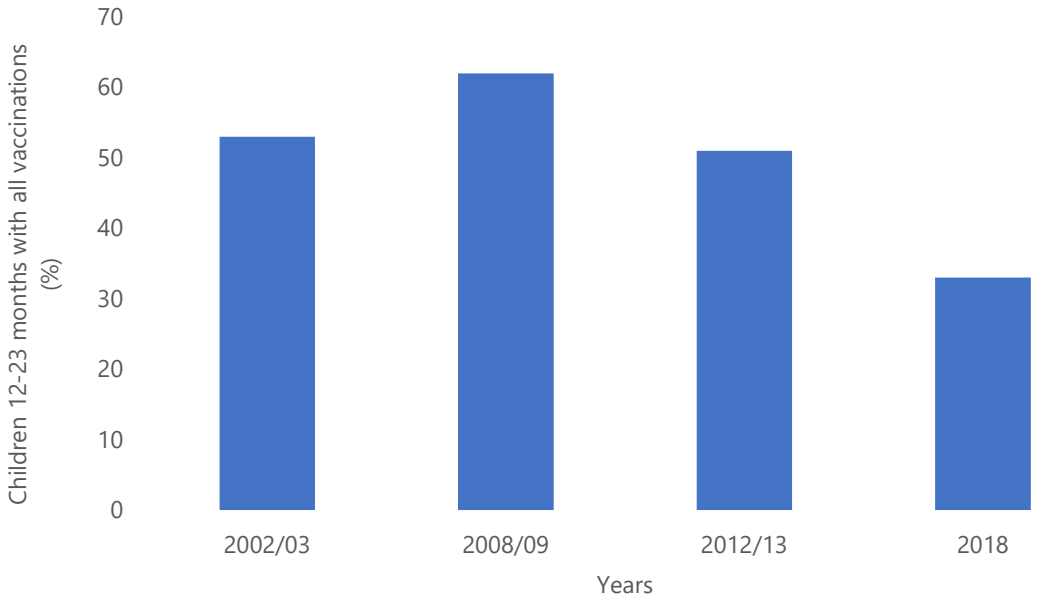
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.12. Share of Mothers Seeking Postnatal Care Services in Project Regions, 2012/13–2018



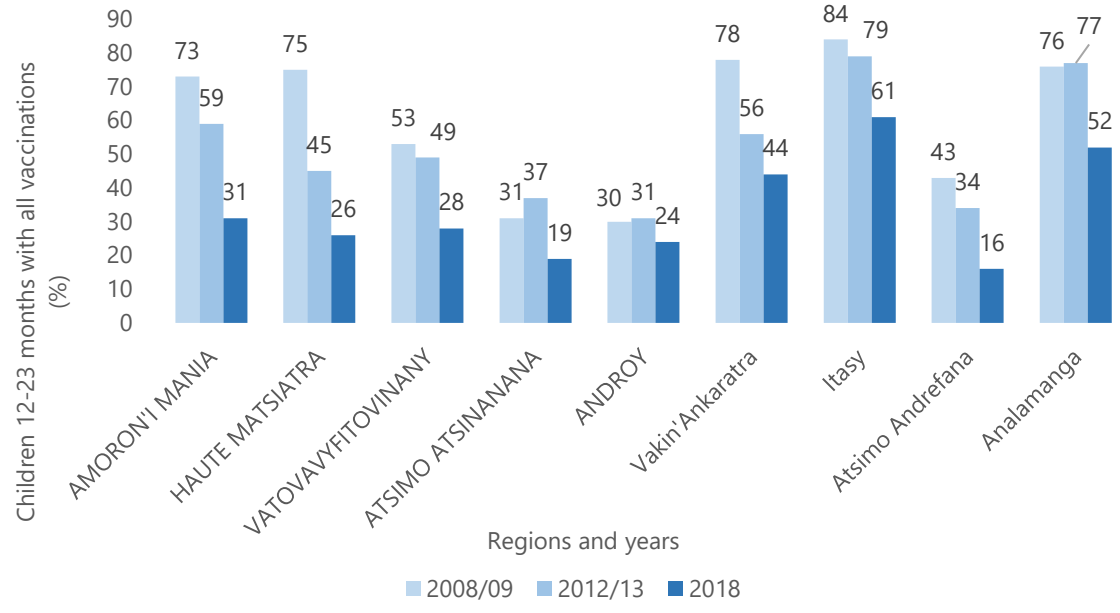
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.13. Total Vaccination Coverage of Children Ages 12–23 Months, National Trends, 2002/03–2018



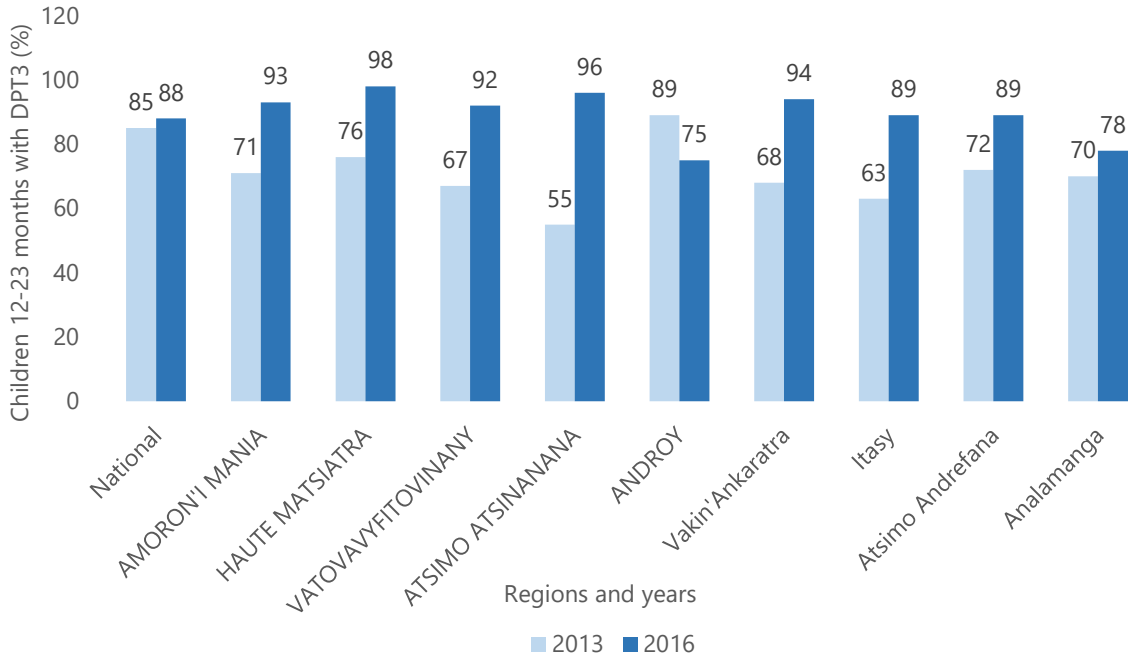
Sources: Mariko and Rabeza 2005, INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.14. Total Vaccination Coverage of Children Ages 12–23 Months, in Project Regions, 2008/09–2018



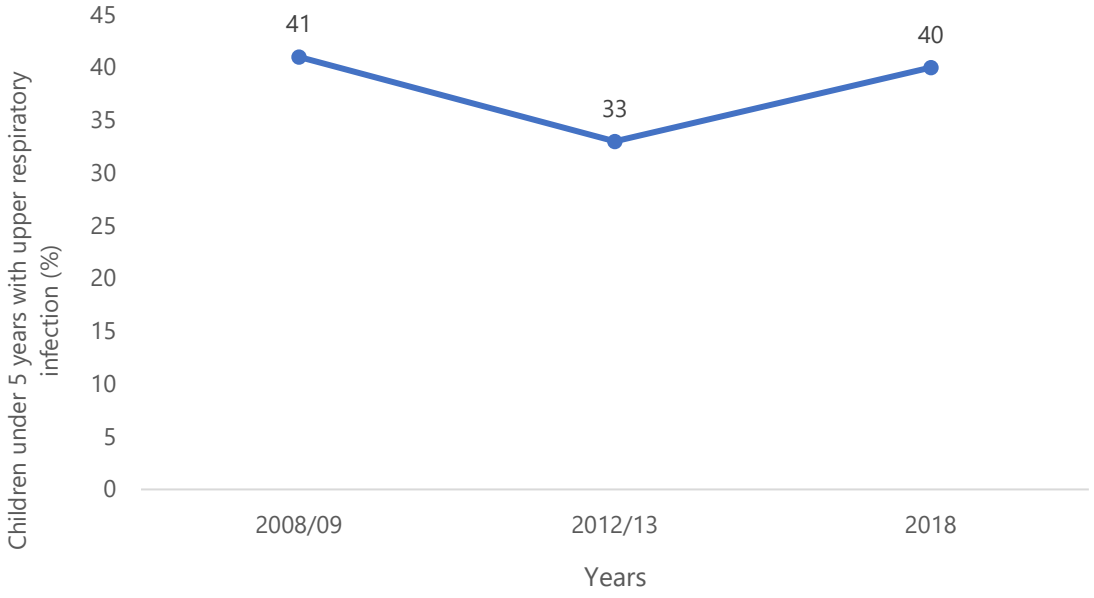
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.15. Coverage of Children 12–23 Months with DPT3 in Project Regions, 2013–16



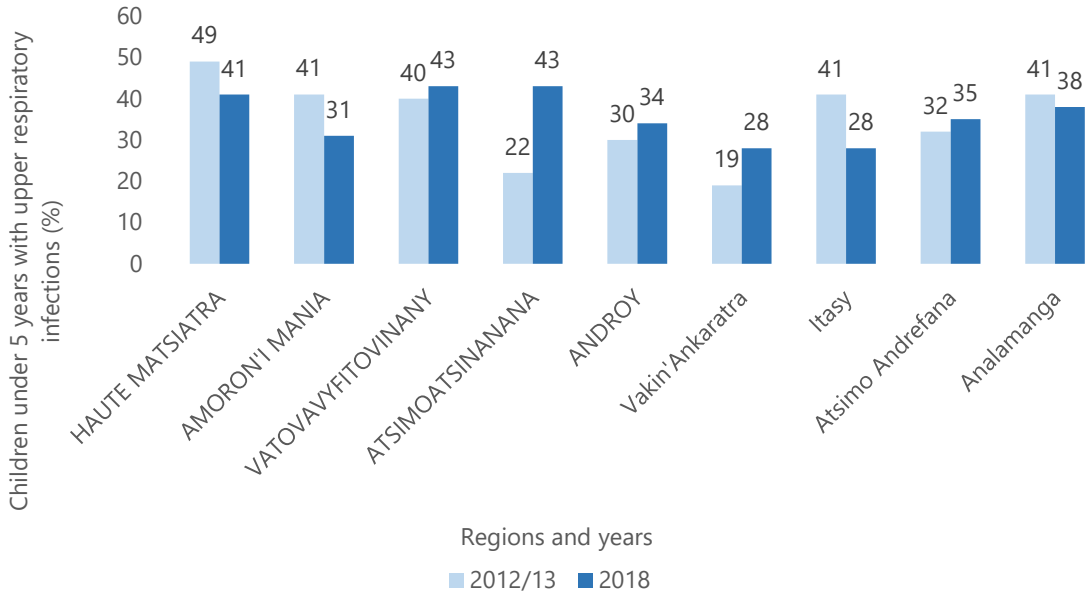
Source: Madagascar Ministere de la Sante Publique 2014b and 2016b.

Figure D.16. Share of Children under Five Years with Upper Respiratory Infections Who Seek Care in a Health Facility or with a Service Provider, 2008/09, 2012/13, and 2018



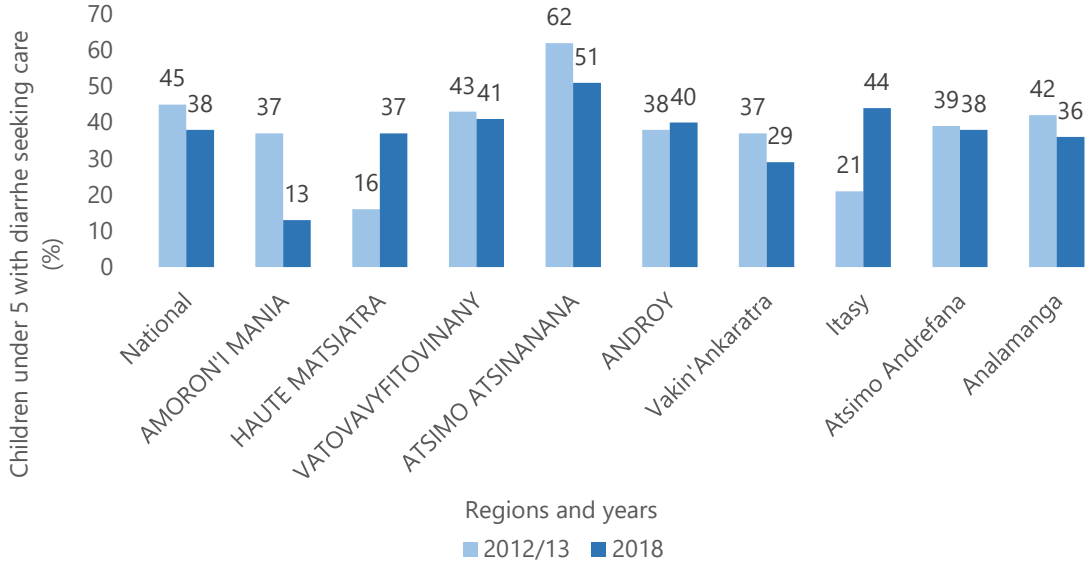
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.17. Share of Children under Age Five Years with Upper Respiratory Infections Who Seek Care in a Health Facility or with a Service Provider in the Project Regions, 2008/09, 2012/13, and 2018



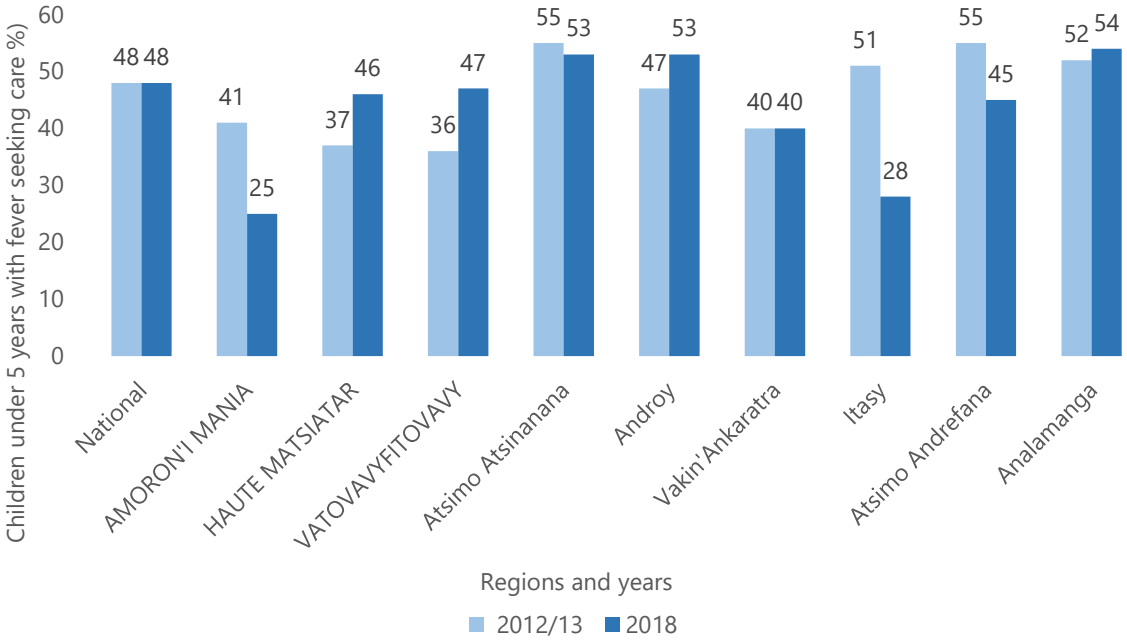
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.
Note: Data on three of the project regions (Amoron'i Mania, Itasy, and Analamanga) are not available in the Multiple Indicator Cluster Survey 2018.

Figure D.18. Share of Children under Five Years with Diarrhea, Who Sought Care at a Health Facility or with a Service Provider, 2012/13 and 2018



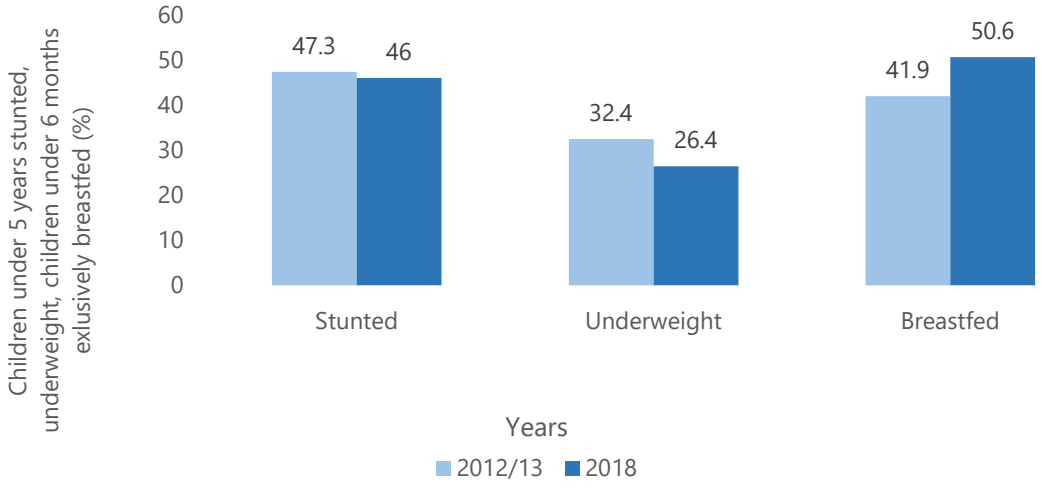
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.19. Share of Children under Five Years with Fever, Who Sought Care at a Health Facility or with a Service Provider, 2012/13 and 2018



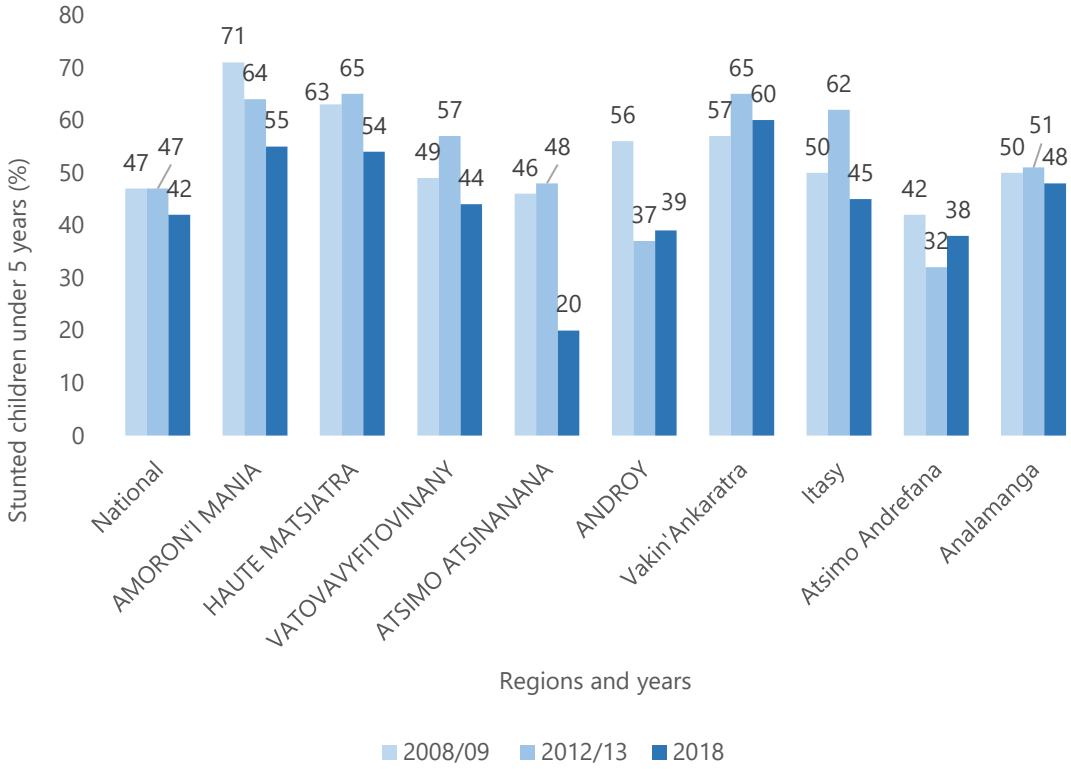
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.20. National Trends in Stunting, Underweight among Children under Five Years, and Exclusive Breastfeeding until Age 6 Months, 2012/13–2018



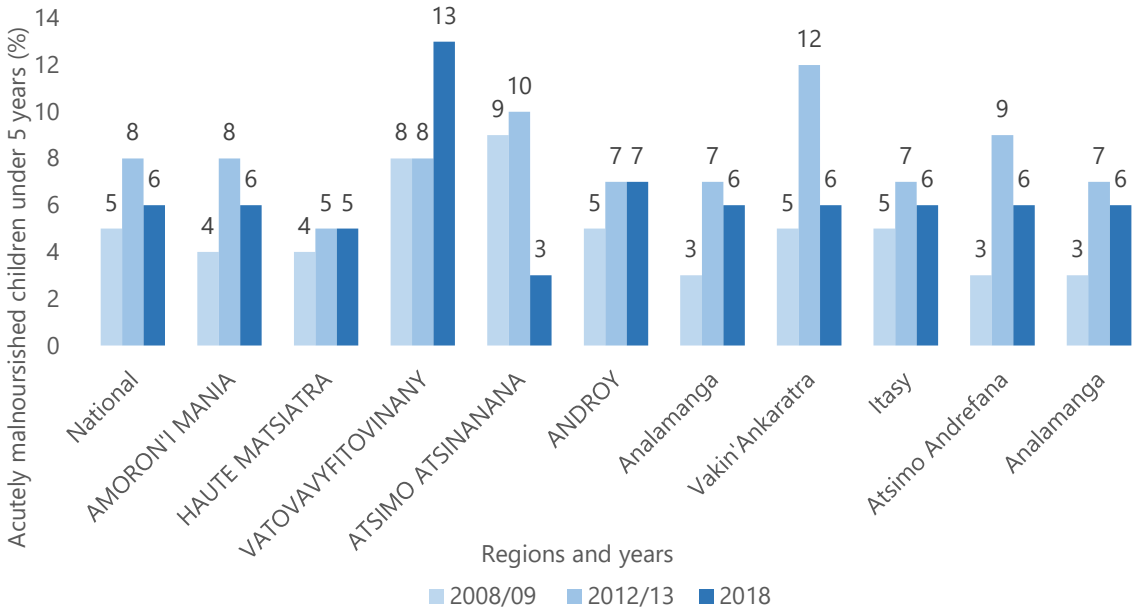
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.21. Trends in Stunting in Children under Five in Project Regions, 2008/09–2018



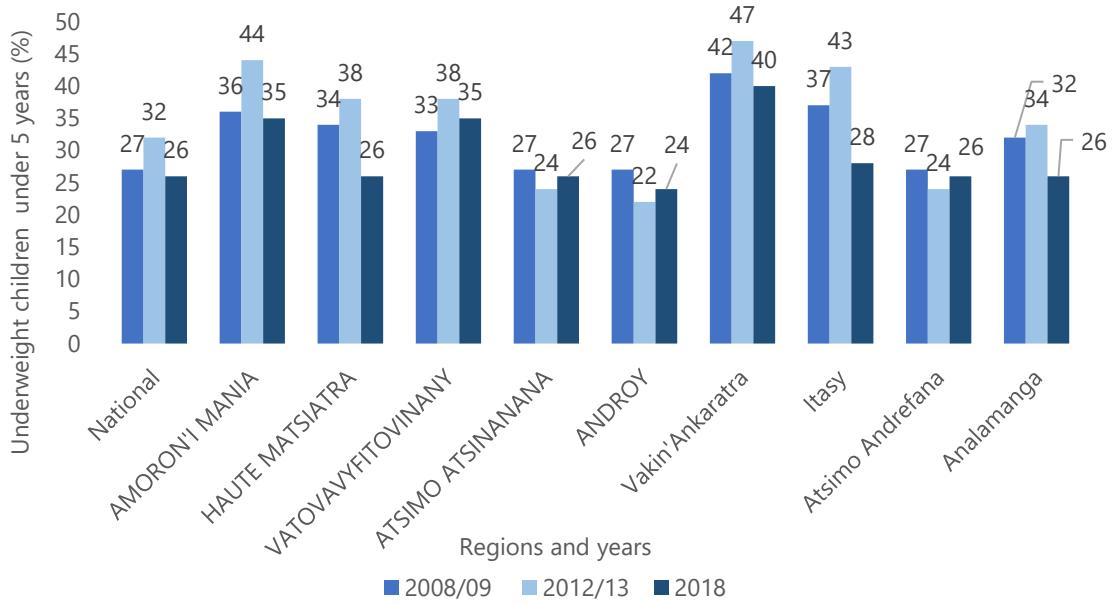
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.22. Trends in Acute Malnutrition in Children under Five Years in the Project Regions, 2008/09–2018



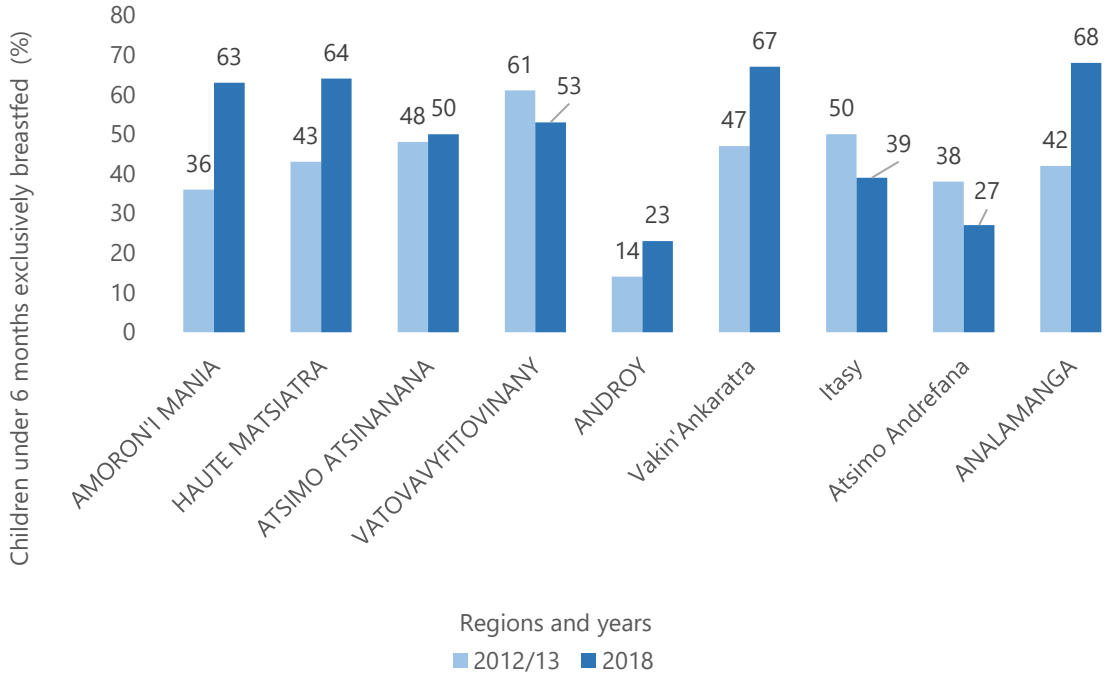
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.23. Trends in Underweight in Children under Five Years in the Project Regions, 2008/09–2018



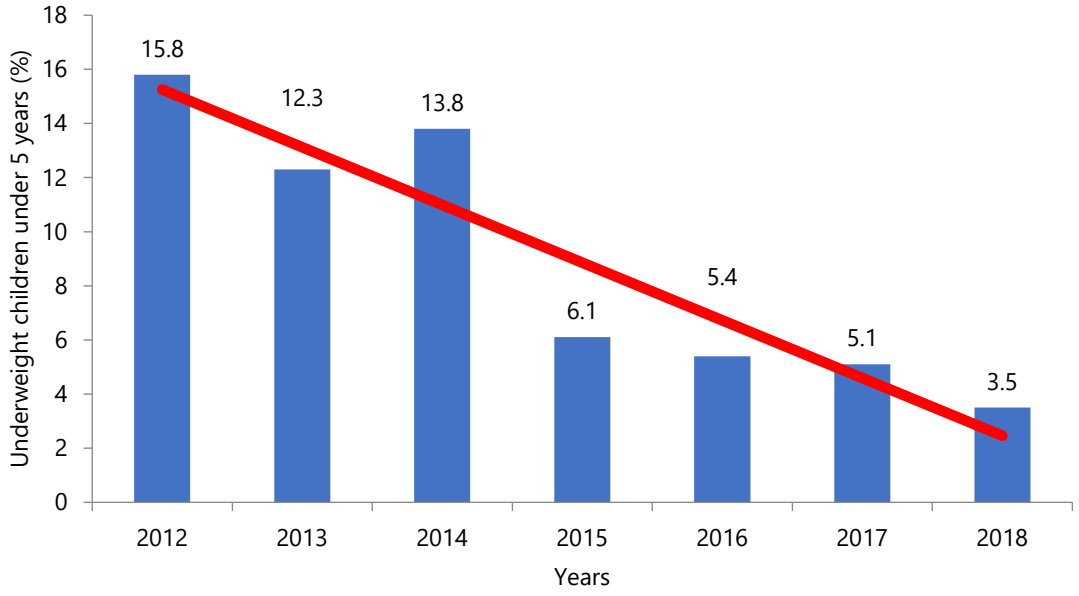
Sources: INSTAT and IFC Macro 2010, INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.24. Trends in Exclusive Breastfeeding of Children under Age 6 Months in the Project Regions, 2012/13–2018



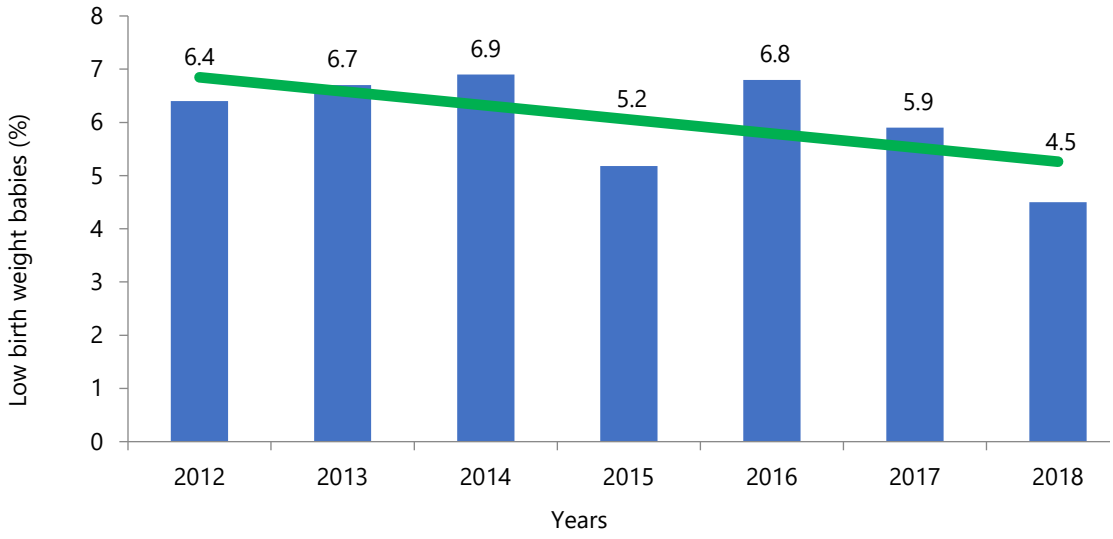
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.25. Share of Children under Five Years Seen at a Basic Health Facility, Who are Underweight in Amoron'i Mania Region, 2012–18



Source: Amoron'i Mania Regional data, collected during Independent Evaluation Group fieldwork.

Figure D.26. Low Birth Weight (< 2.5 kg) at Basic Health Centers, Amoroni Mania Region, 2012–18



Source: Amoron'i Mania regional data, collected during Independent Evaluation Group fieldwork.

Table D.3. Share of Children Weighed at Ambalatany Site, Amoron'i Mania Region with Improved Z Scores, 2015–18

Indicators	2015	2016	2017	2018
Share of children with Z-1 scores progressing to Z 0 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	17	17	13	12
All children weighed and initially assigned Z-1 scores *(no.)*	19	18	14	13
Children with Z-1 scores progressing to Z 0 scores *(percent)*	90	94	93	92
Share of children with Z-2 scores progressing to Z-1 scores				
Children progressing from Z-2 scores to Z-1 scores *(no.)*	15	14	13	14
All children weighed and initially assigned Z-2 scores *(no)*	18	17	14	15
Children with Z-2 scores progressing to Z-1 scores *(percent)*	83	82	93	93
Share of children with Z-3 scores progressing to Z-2 scores				
Children progressing from Z-3 scores to Z-2 scores *(no.)*	17	14	12	12
All children weighed and initially assigned Z-3 scores *(no.)*	17	15	17	13
Children with Z-3 scores progressing to Z-2 scores *(percent)*	100	93	71	92

Source: Data collected at Ambalatany Site during Independent Evaluation Group field visit in October 2019.
Note: Z score indicates the number of standard deviations below or above the reference mean or median value. (The observed value–median value of reference population/standard deviation value of reference population).

Table D.4. Share of Children Weighed at Ambohipeno Site, Vakin'Ankaratra Region with Improved Z Scores, 2015–18

Indicators	2015	2016	2017	2018
Share of children with Z-1 scores progressing to Z 0 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	14	12	9	15
All children weighed and initially assigned Z-1 scores *(no.)*	16	12	11	17
Children with Z-1 scores progressing to Z 0 scores *(percent)*	88	100	82	88
Share of children with Z-2 scores progressing to Z-1 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	10	10	13	8
All children weighed and initially assigned Z-1 scores *(no.)*	12	13	15	10
Children with Z-1 scores progressing to Z 0 scores *(percent)*	83	77	87	80
Share of children with Z-3 scores progressing to Z-2 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	15	10	11	13
All children weighed and initially assigned Z-1 scores *(no.)*	18	10	12	15
Children with Z-1 scores progressing to Z 0 scores *(percent)*	83	100	92	87

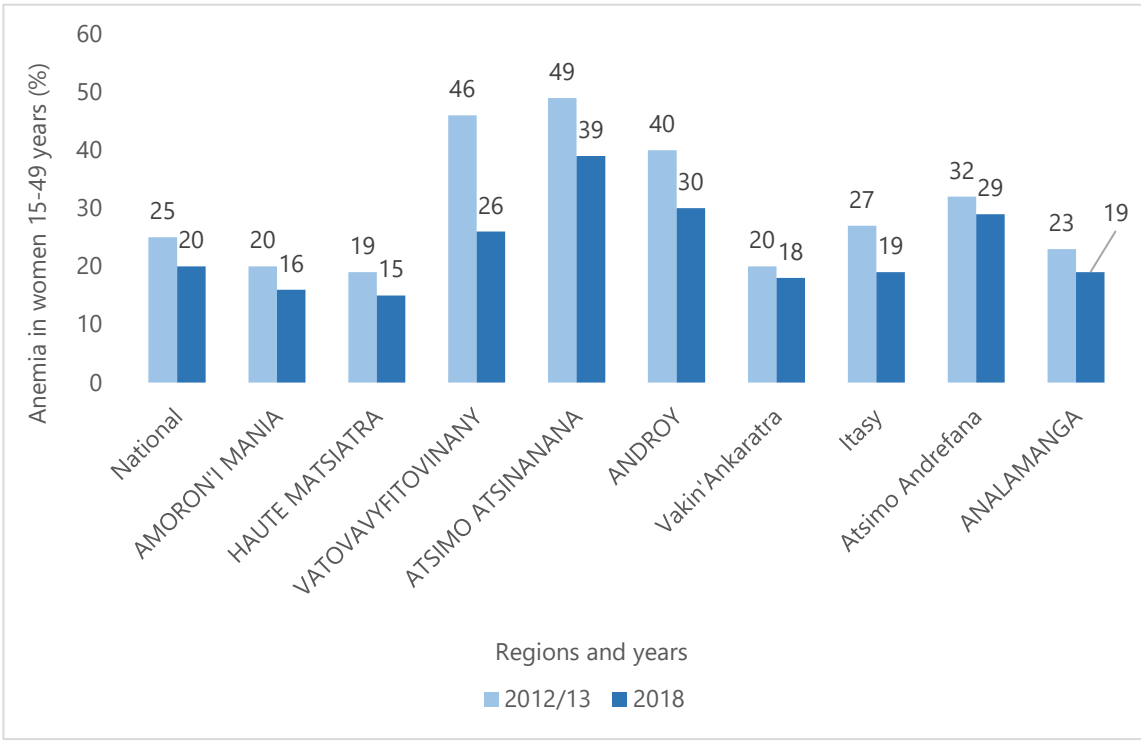
Source: Data collected at Ambohipeno Site during Independent Evaluation Group field visit in October 2019.
Note: Z score indicates the number of standard deviations below or above the reference mean or median value. (The observed value–median value of reference population/standard deviation value of reference population).

Table D.5. Share of Children Weighed at Kelilalina Site, Vatovavyfitovinany Region with Improved Z Scores, 2015–18

Indicators	2015	2016	2017	2018
Share of children with Z-1 scores progressing to Z 0 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	19	31	32	22
All children weighed and initially assigned Z-1 scores *(no.)*	21	33	35	25
Children with Z-1 scores progressing to Z 0 scores *(percent)*	90	94	91	88
Share of children with Z-2 scores progressing to Z-1 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	10	14	9	16
All children weighed and initially assigned Z-1 scores *(no.)*	14	16	12	18
Children with Z-1 scores progressing to Z 0 scores *(percent)*	71	88	75	89
Share of children with Z-3 scores progressing to Z-2 scores				
Children progressing from Z-1 scores to Z 0 scores *(no.)*	4	5	3	2
All children weighed and initially assigned Z-1 scores *(no.)*	5	6	4	2
Children with Z-1 scores progressing to Z 0 scores *(percent)*	80	83	75	100

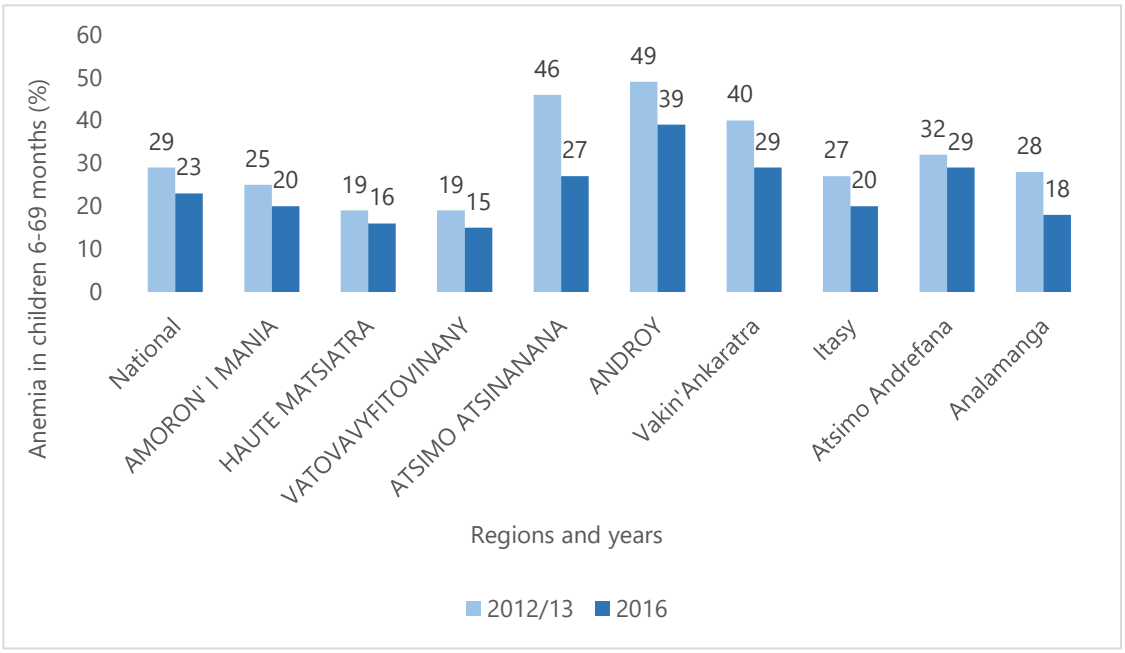
Source: Data collected at Kelilalina Site during Independent Evaluation Group field visit in November 2019.
Note: Z score indicates the number of standard deviations below or above the reference mean or median value. (The observed value–median value of reference population/standard deviation value of reference population).

Figure D.27. Prevalence of Anemia among Women 15–49 Years, Project Regions, 2012/13–2018



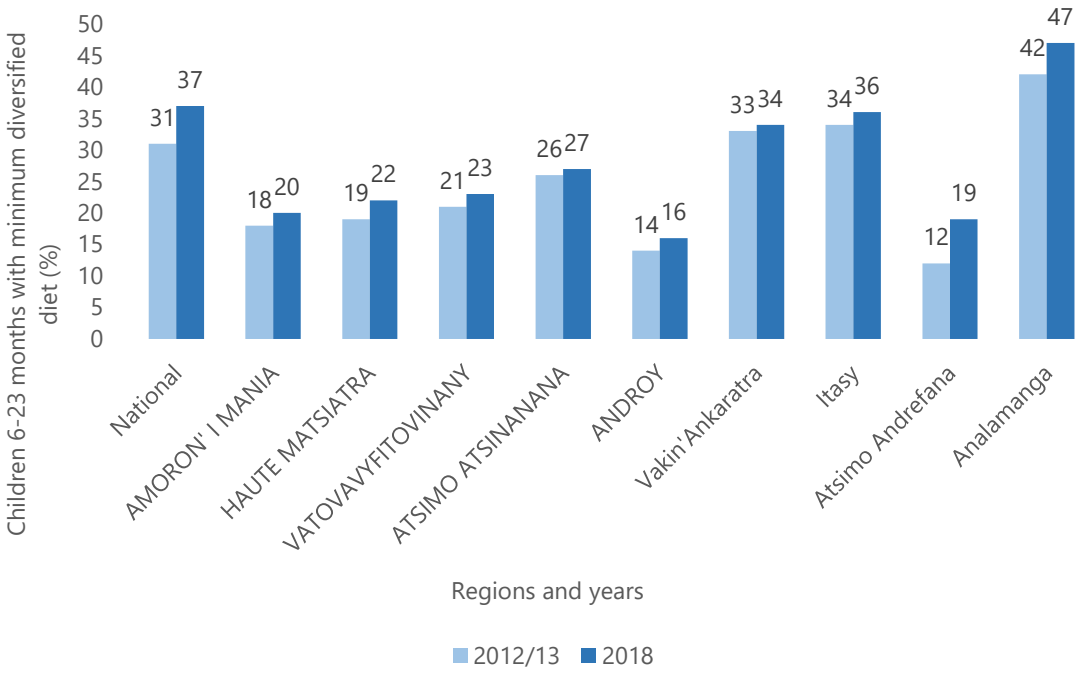
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.28. Prevalence of Anemia among Children Ages 6–59 Months, 2012/13–2016



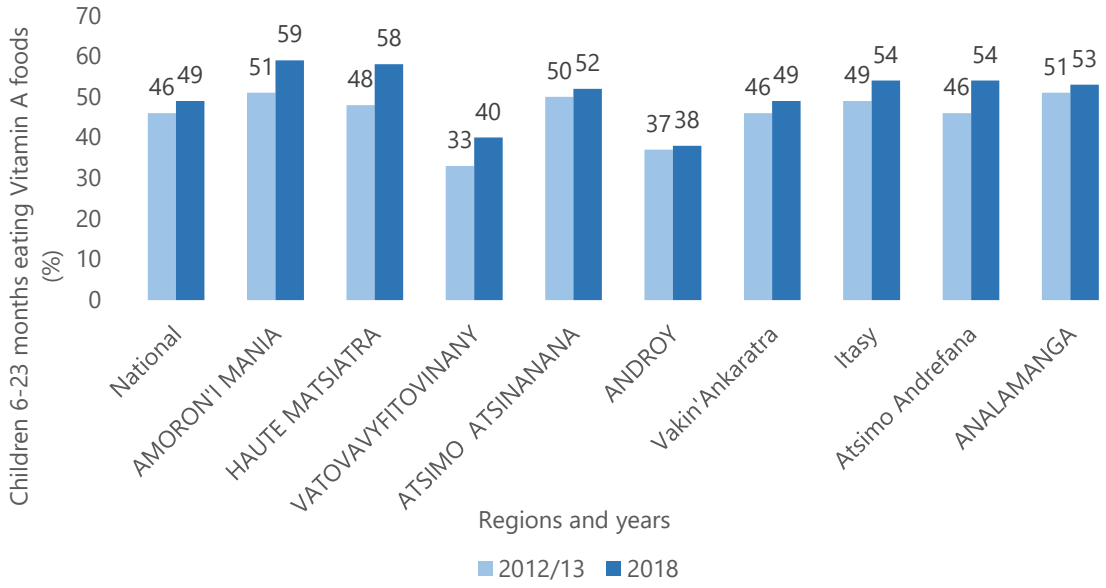
Sources: INSTAT 2013, and INSTAT, PNLP, IPM and ICF International 2016.

Figure D.29. Share of Children Ages 6–23 Months, Receiving a Minimum Diversified Diet (Four Food Groups), 2012/13–2018



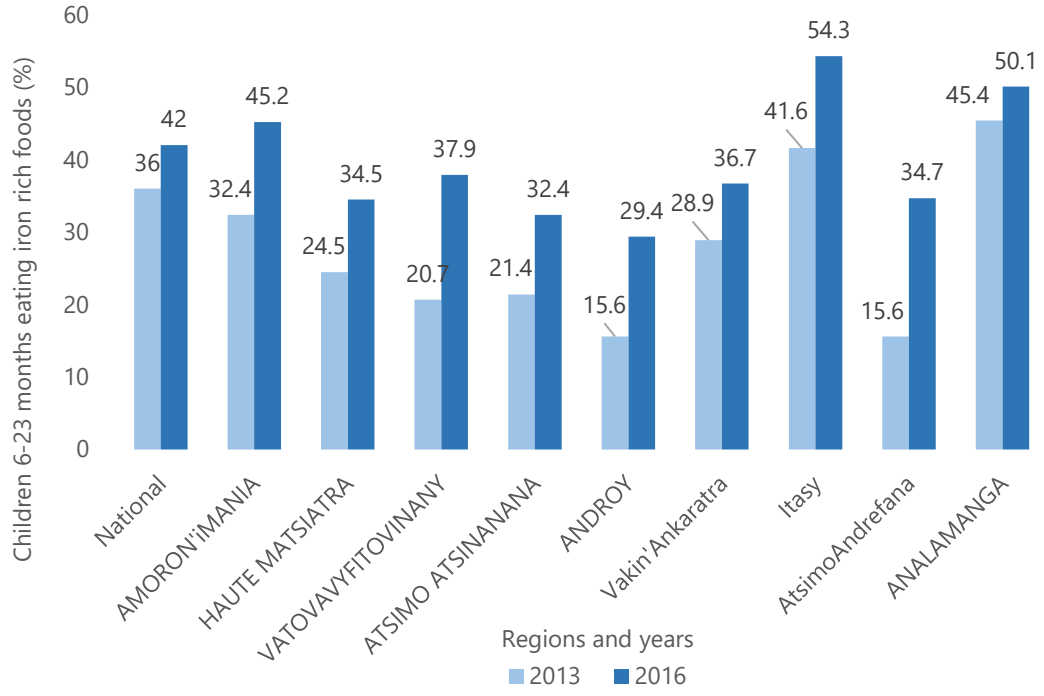
Source: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.30. Share of Children Ages 6–23 Months, Consuming Foods Rich in Vitamin A, 2012–2018



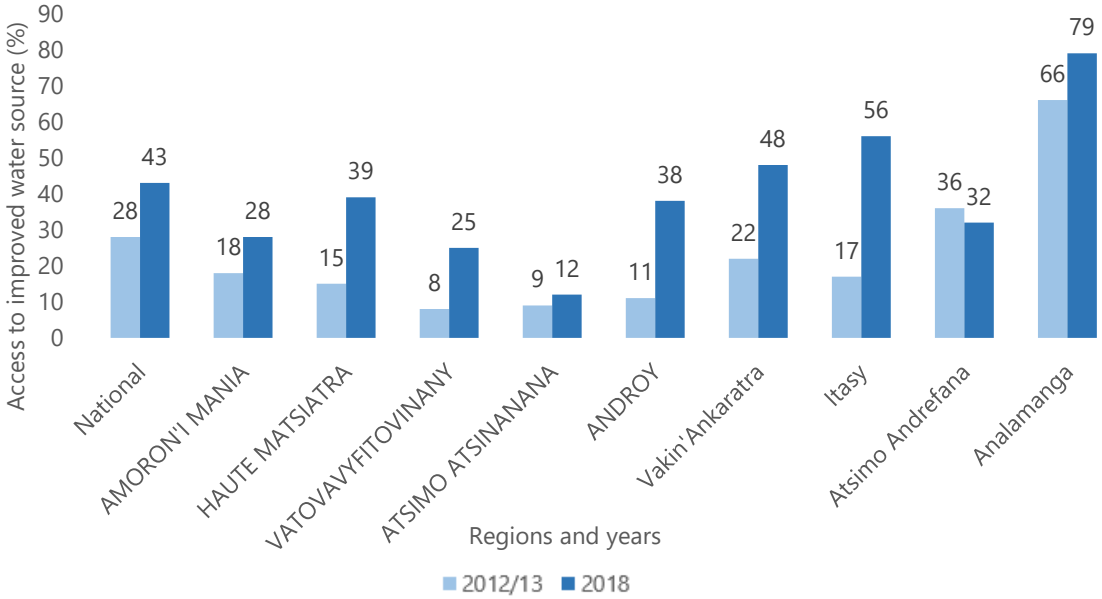
Sources: INSTAT 2013, and INSTAT and UNICEF 2018.

Figure D.31. Share of Children Ages 6–23 Months, Consuming Foods Rich in Iron, 2012/13–2018



Sources: INSTAT 2013 and INSTAT and UNICEF 2018.

Figure D.32. Share of the Population with Access to an Improved Drinking Water Source in Project Regions, 2012/13–2018



Source: ENSOMD 2012/13 and the Multiple Indicator Cluster Survey 2018.

Definition of Indicators

- **Primary school dropout rate***:* proportion of pupils from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the next school year (source: Madagascar Ministere de l'Education Nationale 2014a, 2015 and 2016, Department of Statistics, Directorate of Educational Planning, Ministry of National Education)

- **Primary school repetition rate:** percentage of pupils who did not enter the higher-class level at the end of the school year but completed a second year of study in the same class level, compared with all pupils of the same class level (source: Madagascar Ministere de l'Education Nationale 2014a, 2015 and 2016, Department of Statistics, Directorate of Educational Planning, Ministry of National Education)

- **Passing rate of the Certificat d'Etudes Primaires Elémentaires test by students in the public primary school in Ambalatany Commune, Amoron'i Mania Region***:* **percentage of all 7th-grade students who passed the Certificat d'Etudes Primaires Elémentaires exam** (data collected during the Independent Evaluation Group's visit to the school)

- **Share of live births that had benefited from prenatal care provided by qualified staff:** percentage of women ages 15–49 years who gave live births during the two previous years who made at least one prenatal visit assisted by a qualified health (sources: INSTAT and IFC Macro 2010; INSTAT 2013; INSTAT and UNICEF 2018)

- **Share of women ages 15–49 years who made four prenatal visits during their most recent pregnancy:** overall women in this age group who were pregnant during a determined period (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Utilization rates of prenatal services:** women who are newly registered for prenatal services during a certain period compared with the total expected number of new pregnancies in a given population (source: Madagascar Ministère de la Sante Publique 2014b and 2016b, Ministry of Public Health)

- **Share of births delivered in health facilities:** share of all women who gave birth during a certain period who delivered in a health facility (sources: EDS 2008/09, ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Share of deliveries assisted by a qualified provider:** share of women ages 15–49 with live births over the past two years who were assisted by a qualified health

provider (sources: EDS 2008/09, ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Share of mothers seeking postnatal care services:** share of mothers ages 15–49 years who have had a live birth in the last two years who sought postnatal care services in a health facility or at home (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Total vaccination coverage of children ages 12–23 months:** share of children ages 12–23 months vaccinated against preventable childhood disease at any time before the survey (basic vaccines: BCG vaccine, Polio3, DTC3; sources: EDS 2008/09, ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Coverage of children under 12 months with DPT3 in basic health centers in project regions***:* share of all children under 12 months who were vaccinated with DTC3 in a basic health facility (source: Madagascar Ministère de la Sante Publique 2014b and 2016b, Ministry of Public Health)

- **Share of children under five years with diarrhea who sought care at a health facility or with a service provider:** share of children 0–59 months with symptoms of diarrhea within the two weeks preceding the survey who were brought to a health facility or a health provider for advice or treatment compared with all expected cases of diarrhea in this age group for the same period (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Share of children under five years with upper respiratory infections who sought care at a health facility or with a service provider:** share of children 0–59 months with symptoms of upper respiratory infections within the two weeks preceding the survey who were brought to a health facility or a health provider for advice or treatment compared with all expected cases of upper respiratory infections in this age group for the same period (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Share of children under five years with fever who sought care at a health facility or with a service provider:** share of children 0–59 months with symptoms of fever within the two weeks preceding the survey who were brought to a health facility or a health provider for advice or treatment compared with all expected cases of fever in this age group for the same period (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Stunting (chronic malnutrition): height for age < –2 standard deviations (SD) of World Health Organization (WHO) Child Growth Standards median:** share

of children under five who are stunted (sources: EDS 2008/09, ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

- **Wasting (acute malnutrition): weight for height < −2 SD of the WHO Child Growth Standards median:** share of children under five who have acute malnutrition (sources: EDS 2008/09, ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Underweight: weight for age < −2 SD of the WHO Child Growth Standards median**: share of children under five who are underweight (sources: EDS 2008/09, ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Rate of exclusive breastfeeding:** share of mothers who delivered babies during a period defined by the study who feed their infants breastmilk exclusively for their first six months of life (but allows the infant to receive oral rehydration salts, drops, syrups (vitamins, minerals, and medicines; sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Prevalence of anemia among women ages 15–49 years:** share of all women in this age group who are anemic (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Prevalence of anemia among children 6–59 months:** share of all children in this age group who are anemic (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Share of children 6–23 months receiving a minimum diversified diet (four food groups):** share of all children in this age group whose mothers report that they consume a diversified diet (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Share of children 6–23 months consuming foods rich in vitamin A:** share of all children in this age group whose mothers report that they consume foods rich in vitamin A (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Share of children 6–23 months consuming foods rich in iron:** share of all children in this age group whose mothers report that they consume foods rich in iron (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)
- **Share of the population with access to an improved drinking water source**: (sources: ENSOMD 2012/13, Multiple Indicator Cluster Survey 2018)

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Appendix E. Results Framework and Key Outcome Indicators

Table E.1. Results Framework and Key Outcome Indicators

Original Design[a]	Additional Financing[b]	Actual Outcomes[c]
Original closing date (CR: 5186) 07/31/2016	*Original closing date for AF (Cr. 5382): 07/31/2016*	*Extended closing date (Cr. 5186): 07/30/2017*
Project development objective: Preserve critical education, health, and nutrition service delivery in targeted vulnerable areas in the recipient's territory		
Project outcome indicators/project development objective level results indicators		
Cross-cutting		
1. Number of direct project beneficiaries *Baseline (2012):* 0; target *(2016):* 1,916,726	Increase in 2016 target value: 2,603,603 Decrease in target value under third restructuring in July 2016 (Implementation Completion and Results Report Review): 2,139,153	2,642,180 (July 30, 2017) All targets exceeded
Of which female (percent) *Baseline (2012):* 0; target *(2016):* 55 percent		59.3 percent (July 30, 2017) Target exceeded
Education		
2. Students enrolled in primary schools in project areas *(that is, public primary schools, which receive school grants and payment of teacher salaries funded by project)* *Baseline (2012):* 974,300; *target (2016):* 974,300	-	1,131,353 (December 31, 2016) Target exceeded
Of which female (percent) *Baseline (2012):* 49 percent; target *(2016):* 49 percent	-	49.9 percent (December 31, 2016) Target achieved
3. Total number of schools receiving school grants funded by the project *(the number of public primary schools can vary slightly from year to year because of school closures and openings)* *Baseline (2012):* 0; target *(2016):* 6,050	-	6,682 (December 31, 2016) Target exceeded
Health and nutrition		
4. People with access to an improved basic package of health, nutrition, or reproductive health services not available in 2012 (number) *Baseline (2012):* 0; target *(2016):* 932,426	Increase in target value 2014/(AF): 1,619,303	2,268,854 (July 31, 2017) All targets exceeded
Pregnant/lactating women *Baseline (2012):* 0; target *(2016):* 182,161	Increase in target value 2014/AF: 311,350	508,312 (July 30, 2017)

Original Design[a]	Additional Financing[b]	Actual Outcomes[c]
Children under 5 *Baseline (2012):* 0; target *(2016):* 750,265	Increase in target value 2014/AF: 1,307,953	All targets exceeded 1,760,542 (July 30, 2017) All targets exceeded
Health		
5. Birth (deliveries) attended by skilled health personnel in project areas (number) *(to evaluate access to quality delivery care at health facility level)* *Baseline (2012):* 0; target *(2016):* 12,600	-	131,431 (December 31, 2016) Target exceeded
6. Children immunized (number) *(to evaluate access to child health services; full immunization package: DTC3HepB3Hib3, children 0–11 months)* *Baseline (2012):* 0; target *(2016):* 18,300	Redefinition: Children under 12 months immunized against DTP3 *Baseline:* 0; *target (2016):* 18,300	286,194 (December 31, 2016) Target exceeded
Nutrition		
7. Children under age 24 months benefiting from improved infant and young child feeding practices *Baseline (2012):* 70,160 (original project paper; Implementation Completion and Results Report reports a 0 baseline); *target (2016):* 164,220	Increase in target value 2014/AF: 289,340	425,360 (July 30, 2017) All targets exceeded
Intermediate results indicators: education		
8. Number of community teachers certified to be in service paid *(every two months certification of service for community teachers issued and signed by teacher, parents' association, and school director and submitted to subsequent levels of administrative chain.) Baseline (2012):* 0; target *(2016):* 10,000		16,999 (December 31, 2016) Target exceeded
Of which female (percent) *Baseline (2012):* 49 percent; target *(2016):* 50 percent	-	50.5 percent (December 31, 2016) Target achieved
9. School grants paid on time *(by first quarter of the school year: October–December)* *Baseline (May 2012):* 0; target *2016):* 95 percent	-	99.9 percent (December 31, 2016) Target exceeded
10. Number of school-age children receiving antihelminth treatment *Baseline (2012):* 0; target *(2016):* 667,944	-	1,804,964 (December 31, 2016) Target exceeded
11. Number of parents' associations/school management committees trained on teacher accountability process and use of school grants *Baseline (2012):* 0; target *(2016):* 6,050	-	6,688 (December 31, 2016) Target exceeded
12. Number of teachers trained in school health and nutrition activities	-	19,852

Original Design[a]	Additional Financing[b]	Actual Outcomes[c]
Baseline (2012): 0; target *(2016):* 3,750		(December 31, 2016) Target exceeded
Intermediate results indicators: health		
13. Pregnant women receiving antenatal care during a visit to a health provider *Baseline (2012):* 0; target *(2016):* 18,283	-	113,131 (December 31, 2016) Target exceeded
14. Health facilities constructed, renovated, and/or equipped *Baseline (2012):* 0; target *(2016):* 347	-	347 (December 31, 2016) Target achieved
15. Number of syphilis treatments distributed to pregnant women in public health centers in project areas *Baseline (2012):* 0; target *(2016):* 2,650	Change in indicator to percent of women attending antenatal clinic who are tested for syphilis: *Baseline (2012):* 36 percent *Target (2016):* 90 percent	48 percent (December 31, 2016) Target not achieved
16. Percentage of facilities visited by the district technical assistants *Baseline (2012):* 0; target *(2016):* percent	-	100 percent (December 31, 2016) Target exceeded
Intermediate results indicators: nutrition		
17. Number of children under 2 years enrolled in the growth monitoring program *(to evaluate coverage of the growth monitoring and the efficacy of project nutrition sites' promotion activities)* *Baseline (2012):* 140,319; *target (2016):* 234,600	Increase in target value in 2014/AF: 413,343 Decrease in target value in 2016 restructuring: 321,000	462,315 (July 30, 2017) All targets exceeded
18. Number of children enrolled in the mid-upper-arm circumference program between 2 and 5 years of age *(quarterly monitoring of mid-upper-arm circumference of children 2–5 years at community nutrition sites* *Baseline (2012):* 207,368; *target (2016):* 341,000	Increase in target value in 2014/ AF: 600,810 Decrease in target value in 2016: 433,204	515,764 (July 30, 2017) 2014 target not achieved; 2016 achieved
19. Number of certified nursing assistants trained to provide health and nutrition education *Baseline (2012):* 1,484; *target (2016):* 2,000	Increase target value in 2014/AF: 2,837	3,582 (July 30, 2017) All targets exceeded
20. Percentage of nutrition sites' monthly report submitted within +5 days of the end of the month through mobile phones *Baseline (2012):* 65 percent; target *(2016):* 95 percent	-	92 percent Target essentially achieved
21. Number of schools supported by certified nursing assistants during deworming sessions *Baseline (2012):* 0; target *(2016):* 2,500	-	6,587 (December 31, 2016)

Original Design[a]	Additional Financing[b]	Actual Outcomes[c]
		Target exceeded
	New Indicator 2014/AF:	23,114
	Number of households receiving kits for short-cycle agriculture and livestock projects	(July 30, 2017)
	Baseline (November 2013): 0	Target achieved
	Target (2016): 23,114	

Note: Project targets are defined in the original project paper for Year 3. Given April 2013 effectiveness, end-of-project targets should be achieved by mid-2016, the end of the full third year of implementation, which also coincides with the original closing date of July 31, 2016. Some project targets changed under additional financing with the scaled-up geographic scope, but the original closing date of July 31, 2016 was still expected. The closing dates of both the original credit and the additional financing credit were extended by one year to July 31, 2017, under the July 21, 2015 Amendment No. 1 to the Financing Agreement dated December 3, 2012. AF = additional financing; ONN = National Nutrition Office (Office National de Nutrition, Madagascar).

a. Drawn from original project paper and the financing agreement.

b. Drawn from AF project paper and financing agreement: supporting geographic scale-up of nutrition interventions.

c. Sourced from project data, validated in the field with ONN and project implementation units.

Appendix F. National Policies, Strategic Plans, and Budgets for Nutrition

Box F.1. National Nutrition Policy (2004) and First National Nutrition Action Plan (2004–15)

National Nutrition Policy (2004)

General Objectives (2004–15):

i. Reduce by half the prevention of chronic malnutrition among children under 5 years old;

ii. Contribute to the reduction of mortality among children under 5 years old.

Specific Objectives:

i. Reduce by half the prevalence of underweight (weight/age <−2 standard deviations [SD]) among children under 5 from 40 percent (EPM 2000) to 20 percent;

ii. Reduce by half prevalence of acute malnutrition (weight/height < −2 SD) among children under 5;

iii. Reduce by three-quarters severe acute malnutrition (weight/height < −3 SD) among children under 5;

iv. Reduce by half low birth weight;

v. Increase the rate of exclusive breastfeeding from 0–6 months from 50 percent to 90 percent and maintain the rate of breastfeeding up to 2 years at or above 95 percent;

vi. Reduce by half the population that falls victim to food insecurity, defined as not attaining the minimum calorie intake of 2,300 kilocalories per person per day, from 65 percent to 30 percent;

vii. Virtually eliminate vitamin A deficiency among children under 5;

viii. Reduce by half iron deficiency anemia in children under 5, school-age children, and pregnant women;

ix. Virtually eliminate issues due to iodine deficiency in the whole population.

Essential Actions for Better Nutrition:

- Exclusive breastfeeding up to 6 months;
- Adequate supplemental feeding and breastfeeding;
- Feeding of sick children, especially those who are malnourished;
- Adequate feeding, especially of pregnant and lactating women;
- Fight against vitamin A deficiency;
- Fight against iron deficiency anemia;
- Fight against iodine deficiency.

Source: Government of Madagascar, National Nutrition Office (Office National de Nutrition, Madagascar) 2004.

Box F.2. Second National Nutrition Action Plan (2012–15): Strategies

Global Objectives:

- Reduce stunting prevalence in children under 5 from 50.1 percent to 42.8 percent
- Contribute to the reduction of under-five mortality from 72 per 1,000 live births in 2008 to 56 per 1,000 live births in 2015.

Specific Objectives:

- Reduce underweight prevalence in children under five to less than 28 percent
- Reduce acute malnutrition in children under five to less than 5 percent
- Reduce prevalence of underweight in children under five to less than 10 percent
- Increase the rate of exclusive breastfeeding of children up to 6 months from 51 percent to 65 percent and maintain breastfeeding until age 2 years or older to 98 percent
- Reduce the share of victims of food insecurity from 65 percent to 45 percent (defined as people consuming less than 2,300 kilocalories per day)

Strategies:

x. Promotion of breastfeeding and supplemental feeding

xi. Nutrition interventions at the community level

xii. Fight against micronutrient deficiencies (TDCI, vitamin A and anemie ferriprive)

xiii. Integration of nutrition interventions into primary health care

xiv. Care and treatment of severely malnourished children

xv. Improvement of household food security

xvi. Nutrition interventions in schools

xvii. Communication strategy

xviii. Convergence of development policies

xix. Emergency preparedness to respond to nutrition emergencies

xx. National surveillance system for food and nutrition

xxi. Development of national capacities

xxii. Preparation and application of legislation and norms for food and nutrition

xxiii. Emerging problems

Source: PNAN II (2012–15) and National Nutrition Office (Office National de Nutrition, Madagascar) website.

Box F.3. Third National Nutrition Action Plan 2017–21

General Objective:

- Improve the nutritional status of the population of Madagascar, especially the vulnerable

Specific Objectives:

- Reduce the prevalence of stunting from 47.3 percent (Enquete OMD 2012–13) to 38 percent
- Reduce the prevalence of underweight from 32.4 percent to 25 percent
- Maintain the rate of acute malnutrition at a level under 5 percent
- Reduce the prevalence of low birth weight from 11.4 percent to 9 percent

Strategic Orientations, with specific objectives:

- Nutrition-specific
- Reduce prevalence of anemia in children under five years, pregnant women, and adolescents
- Reduce prevalence of malnutrition among women of reproductive age
- Reduce vitamin A deficiency among children 6 to 59 months
- Increase the rate of exclusive breastfeeding up to age 6 months
- Increase the proportion of children 6–23 months who have a minimum acceptable diet
- Improve the cure rate at centers that rehabilitate malnourished children

Nutrition-Sensitive

- Strengthen the food security and contribute to the social protection of vulnerable households
- Improve the nutritional status of school-age children
- Improve the rate of households with access to potable water, sanitation, and good hygiene practices

Governance

- Strengthen the policy and legal framework regulating the nutrition sector
- Strengthen the coordination mechanism to align all actions with a framework of common objectives
- Increase the mobilization of internal and external resources for the fight against malnutrition

Cross-Cutting: Communications

- Increase at least to 30 percent the share of the population having adequate food
- Increase the share of people who adopt good nutrition practices

- Cross-cutting: management of risks and catastrophes
- Ensure food and nutritional security of populations exposed to hazards
- Strengthen their means of subsistence in the face of catastrophes

Source: Independent Evaluation Group.

Table F.1. Summary of Public Budget for Nutrition, 2005–20 (Aria)

Year	RPI/Finance Law	Equivalent in $ millions	HIPC Funds	Total	Disbursement of RPI/ Finance Law (percent)
2005	28,303,838,400	8.09		28,303,838,400	100.00
2006	8,355.863,000	2.39	4,500,000,000	12,855,863,000	100.00
2007	10,985,190,000	3.14	4,500,000,000	15,485,190,000	100.00
2008	13,324,343,000	3.81	3,172,387,000	16,496,730,000	100.00
2009	19,904,000,000	5.69		19,904,000,000	90.89
2010	23,851,561,000	6.81		23,851,561,000	.33
2011	19,057,296,000	5.45		19,057,296,000	57.04
2012	16,272,906,000	4.65		16,272,906,000	68.78
2013	14,792,110,000	4.23		14,792,110,000	31.44
2014	7,957,195,000	2.27		7,957,195,000	65.86
2015	4,500,000,000	1.29		4,500,000,000	95.33
2016	5,250,000,000	1.50	300,000,000	5,550,000,000	100.00
2017	8,750,000,000	2.50	2,750,000,000	11,500,000,000	—
2018	10,255,270,000	2.93	2,750,000,000	13,005,270,000	—
2019	8,221,041,750	2.35	1,796,859,000	10,017,900,750	—
2020	4,780,000,000	1.37		4,780,000,000	—
Total	204,560,614,150	58.45	19,769,246,000	224,329,860,150	

Source: Ministry of Finance data provided to Independent Evaluation Group mission.
Note: — = not available; HIPC = heavily indebted poor countries; RPI = resources propres internes (internal own resources).

Appendix G. World Bank Education, Health, and Nutrition Lending Portfolio, 1976–2018

Table G.1. World Bank Portfolio of Supporting Education, Health, and Nutrition Sectors

						Sectors		
Code	Title	Objective	Commitment Amount ($, millions)	Approval Date	Closing Date	Primary Education	Health	Nutrition
P001481	Education Project (02)	To assist the borrower in its plan to decentralize educational control and to improve the quality and efficiency of basic education	14.0	11/02/1976	12/31/1984	X		
P001520	Health Sector Improvement Project	To support the borrower in the execution of the Health Sector Program to reduce mortality, morbidity, and fertility levels; increase the efficiency of public health service delivery on the primary, intermediate, and national levels; and improve the responsiveness of the health sector policy framework to prevailing needs and conditions	31.0	05/28/1991	12/31/1999		X	
P001515	Education Sector Reinforcement	To improve the quality and the internal and external efficiencies of the education system	39.0	02/13/1990	06/30/1998	X		
P001544	Economic Management and Social Action Program Project	To assist the borrower in its efforts to achieve universal access to primary education, support a gradual expansion and improvement of secondary education, and promote the modernization and diversification of higher education	22.0	12/06/1988	06/30/1996		X	X
P001553	Food Security and Nutrition	To reduce food insecurity and malnutrition in the borrower's provinces of Antananarivo and Toliary	21.3	03/18/1993	12/31/1998		X	X
P035914	Cyclone Emergency Rehabilitation Project	To provide urgent assistance to rebuild facilities damaged by cyclones and to develop further measures to minimize potential damage arising from future natural disasters	13.1	06/09/1994	04/30/1998		X	

Code	Title	Objective	Commitment Amount ($, millions)	Approval Date	Closing Date	Sectors		
						Primary Education	Health	Nutrition
P035669	Social Fund Project (02)	To alleviate poverty and support community development through provision of financial resources to support subprojects of benefit to the community	40.0	09/14/1995	12/31/2000	X	X	
P001559	Education Sector Development Project	To support the second national education program that aims to (i) achieve universal access to a quality primary education; (ii) support a gradual expansion and improvement of secondary education; (iii) modernize and diversify higher education; and (iv) continue the reforms in vocational training initiated in 1992 and supported by PREFTEC	65.0	03/10/1998	03/31/2005	X		
P001568	Second Community Nutrition Project	To improve the nutritional status of children under 3, primary school children, and pregnant and lactating women, and ensure long-term sustainability of nutrition outcomes by improving quality and quantity of food intake by children at home; and in so doing improve quality of life and productivity, decrease child morbidity and mortality rates and support primary education	27.6	04/21/1998	07/31/2011	X	X	X
P051741	Second Health Sector Support Project	To assist the borrower in improving the health of its population by increasing the access to, and the quality of, its health services through, among other things, (i) delivery of improved primary health care services in urban and rural areas; (ii) reduction of endemic infectious diseases; (iii) promotion of reproductive health and family planning; (iv) adequate child nutrition services; and (v) strengthening of institutional capacity within the health sector	40.0	12/02/1999	12/31/2007		X	X
P070998	Cyclone Emergency Social Fund III Supplemental	To provide emergency support after cyclone damage	18.1	7/20/2000	n.a.	X	X	

Code	Title	Objective	Commitment Amount ($, millions)	Approval Date	Closing Date	Sectors		
						Primary Education	Health	Nutrition
P072987	Multisector STI/HIV/AIDS Prevention I	To support the borrower's efforts to promote a multisectoral response to the HIV/AIDS crisis and contain the spread of HIV/AIDS on its territory	20.0	12/14/2001	12/31/2007		X	
P080345	Emergency Economic Recovery Credit	To contribute to a recovery program designed to achieve macroeconomic stability, rebuild physical assets, and restore economic and social activities, after the social and political crisis in the aftermath of disputed presidential elections in December 2001 through financing of a positive list of imports necessary to program implementation	50.0	11/14/2002			X	
P084601	Nutrition II – Supplemental Credit (aka Cyclone Emergency Fund III Supplemental Credit)	To reduce chronic malnutrition among children under 3 and to improve nutritional status of school-aged children, pregnant and lactating women (expanding program and addressing effects of cyclone on nutrition and food supply)	10.0	10/28/2003	n.a.	X	X	X
P070999	Poverty Reduction Strategy Credit I	To support the implementation of a first phase of policy actions under government of Madagascar's PRSC in the areas of good governance and human development	125.0	07/20/2004	06/30/2005		X	
P088729	Supplemental Credit for Second Health Project (CRESAN II)	To contribute to the improvement of the health status of the population through more accessible and better-quality health services (project information document)	18.0	06/28/2005	n.a.		X	X
P090615	Second Multisectoral STI/HIV/AIDS Prevention Project	To support the government of Madagascar's efforts to promote a multisectoral response to the HIV/AIDS crisis and to contain the spread of HIV/AIDS on its territory	30.0	07/12/2005	09/30/2014		X	X
P083326	Poverty Reduction Strategy Credit II	To support the government of Madagascar's PRSC implementation with a view to improving governance, achieving broad-based growth, and providing human and material security	80.0	07/12/2005	12/31/2010		X	

Code	Title	Objective	Commitment Amount ($, millions)	Approval Date	Closing Date	Sectors		
						Primary Education	Health	Nutrition
P096296	Community Development Fund/Additional Financing (FID IV) Supplemental	To improve the use and satisfaction with project-supported social and economic services provided among participating urban and rural communities	18.0	08/03/2006	06/30/2008	X	X	
P100966	Second Community Nutrition – Additional Financing	To (i) improve the nutritional status of children under 3, pregnant and lactating women and school-aged children; and (ii) ensure long-term sustainability of nutrition outcomes by improving the quality and quantity of food intake by children at home	10.0	11/21/2006	n.a.		X	X
P103606	Sustainable Health System Development Project	To contribute to the strengthening of the Recipient's health system and enhance the institutional capacity of Ministry of Health FPSP to improve the access and use of health services, especially in rural and remote areas	10.0	05-22-07	12/31/2009		X	
P099420	Fourth Poverty Reduction Strategy Credit	To: (i) establish an efficient and effective government budgetary process; (ii) reduce corruption through regulatory and institutional mechanisms; (iii) decentralize government administration by improving resource allocation to communes; (iv) improve access and quality of service delivery in education, health, and nutrition	40.0	07/31/2007	07/31/2008	X	X	X
P105135	Fifth Poverty Reduction Strategy Credit	(same as above, as fourth and fifth PRSC together make up Phase 2 of the government of Madagascar PRSC implementation)	50.0	06/26/2008	07/31/2009	X	X	X
P113224	Supplemental PRSC V Grant	To contribute to the sustainability of the overall reform program of the government of Madagascar (Food Price Crisis Response Trust Fund)	10.0	08/13/2008	07/31/2009		X	X

Code	Title	Objective	Commitment Amount ($, millions)	Approval Date	Closing Date	Sectors		
						Primary Education	Health	Nutrition
P113134	Emergency Food Security and Reconstruction Project	To: (i) increase access to short-term employment in targeted food-insecure areas; and (ii) restore access to social and economic services after natural disasters in targeted communities	40.0	12/16/2008	06/30/2013	X		X
P128169	Second Multisectoral STI/HIV/AIDS Prevention II – Additional Financing	To increase use of STI/HIV/AIDS, maternal and child health and nutrition services in the project area. (original project development objective revised to include nutrition focus)	6.0	06/14/2012	n.a.		X	X
P131945	Emergency Support to Critical Education, Health, and Nutrition Services Project	To preserve critical education, health, and nutrition service delivery in targeted vulnerable areas in the Recipient's territory	65.0	11/29/2012	07/30/2017	X	X	X
P132616	Emergency Support to Education for All Project	To preserve access to primary education and improve the teaching and learning environment in targeted areas in the Recipient's territory	85.4	10/16/2013	12/31/2017	X		
P148749	Additional Financing Emergency Support to Critical Ed, Health, and Nut'n	To preserve critical education, health, and nutrition service delivery in targeted vulnerable areas in the Recipient's territory (this support for nutrition-services-only)	10.0	02/27/2014	07/30/2017		X	X
P160554	Additional Financing Social Safety Net Drought Response	To support the government in increasing the access of extremely poor households to safety net services and in laying the foundations for a social protection system	35.0	11/10/2016	n.a.		X	
P160848	Improving Nutritional Outcomes Using the Multiphase Programmatic Approach	To increase use of an evidence-based package of RMCHN interventions and improve key nutrition behaviors that are known to reduce stunting in targeted regions and to provide immediate and effective response to an eligible crisis or emergency (first phase of the MPA program)	80.0	12/12/2017	07/31/2023		X	X

Code	Title	Objective	Commitment Amount ($, millions)	Approval Date	Closing Date	Sectors		
						Primary Education	Health	Nutrition
P160442	Basic Education Support Project	To improve learning and promotion within the first two subcycles of basic education	55.0	03/29/2018	12/31/2022	X		

Source: World Bank Project Information System: "Primary Education Subsector" for primary education; "Health Sector" for Health; Nutrition and Food Security Theme for Nutrition. Objectives are taken from Legal Agreements.

Note: n.a. indicated as closing date for supplemental/additional financing in the World Bank's information system, as main project's closing date prevails. AIDS = acquired immune deficiency syndrome; HIV = human immunodeficiency virus; STI = sexually transmitted infection.

Appendix H. World Bank Education, Health, and Nutrition Analytical Work, 1996–2021

Table D.1. World Bank Portfolio of Analytic Work Addressing Education, Health, and Nutrition

Project ID	Project Name	Closing FY	Themes
P012923	POVERTY ASSESSMENT	1996	Social Protection Social Safety Nets
P059857	PUBLIC EXPEND. REV.	1999	Human Development and Gender
P074901	Madagascar - Poverty and Socioconomic Development: 1993–99	2002	Social Protection Social Safety Nets Health Systems and Policies Health System Strengthening
P076024	Madagascar: Health Sector Study	2005	Human Development and Gender
P076067	Madagascar - Rural/Environmental Sector Study	2003	Social Protection Human Development and Gender Education Social Safety Nets Access to Education Education Financing
P077859	Education and Training in Madagascar	2006	Human Development and Gender Education Access to Education Education Financing Teachers
P077869	Education and Training in Madagascar- Toward a Policy Agenda for Economic Growth and Poverty Reduction	2003	Human Development and Gender Education Access to Education Education Financing Teachers Standards, Curriculum and Textbooks
P078160	Madagascar - Strategic Country Gender Assessment	2003	Human Development and Gender
P078914	MADAGASCAR - COMMUNE FINANCE	2004	Social Protection Human Development and Gender Social Safety Nets
P082823	Madagascar: Public Expenditures for Service Delivery	2005	Human Development and Gender
P085165	Risk Management and Social Protection Strategy	2006	Social Protection Human Development and Gender Social Safety Nets

			Social Protection Delivery Systems
P089525	Social Protection Plan for Madagascar	2005	Social Protection Social Safety Nets
P090915	Social Sector Policy Dialogue	2005	Human Development and Gender Health Systems and Policies Health Service Delivery Adolescent Health Child Health
P091370	Evaluate the impact of user fees and community financing on health care use	2005	Human Development and Gender Health Systems and Policies Health System Strengthening
P092408	Poverty and Social Impact of Service Delivery (Health user fees)	2006	Social Protection Social Safety Nets
P094286	Donor assessment Madagascar EFA Plan	2008	Human Development and Gender Education Access to Education Education Financing
P094838	Social Protection Plan for Madagascar II	2005	Social Protection Social Safety Nets
P095282	Social Protection Plan for Madagascar III	2005	Social Protection Social Safety Nets
P095440	DL Course on Health Financing for Madagascar	2006	Human Development and Gender Health Systems and Policies Health System Strengthening
P096059	MG-Donor Coordination (FY06)	2006	Human Development and Gender
P096137	Madagascar Public Expenditure Review 2006/7	2007	Human Development and Gender
P096530	Madagascar: Country Economic Memorandum	2008	Social Protection Social Safety Nets
P096606	AGEPA Implementation and Evaluation Madagascar	2008	Human Development and Gender Health Systems and Policies Health Service Delivery Adolescent Health Child Health
P096907	Madagascar Rice Policy Advice	2006	Social Protection Social Safety Nets
P097460	AFRF Conduire la réforme hospitalière	2006	Human Development and Gender Health Systems and Policies Health System Strengthening

P098165	Madagascar Social Accountability TA (TASA)	2011	Social Protection Social Safety Nets Social protection delivery systems
P099821	Contracting, Training of Trainers Madagascar	2006	Human Development and Gender Health Systems and Policies Health System Strengthening
P101491	Social Risk Management in Madagascar	2007	Social Protection Social Safety Nets
P102241	Madagascar Post Primary Education	2008	Education Access to Education Education Financing Teachers Standards, Curriculum and Textbooks
P102241	Madagascar Post Primary Education	2008	Human Development and Gender
P103185	Madagascar: Regional Integration Strategy Workshop	2007	Human Development and Gender
P104033	AGEPA Implementation and Evaluation Madagascar	2010	Human Development and Gender Education Access to Education Education Financing
P105035	Madagascar 2 - Social Risk Management: from strategy to implementation	2014	Social Protection Social Safety Nets
P107281	Madagascar programmatic labor market review	2011	Human Development and Gender
P108430	Madagascar: Accounting and Auditing ROSC (FY08)	2008	Human Development and Gender Health Systems and Policies Health Service Delivery Adolescent Health Child Health
P115696	Madagascar Impact Evaluation of School Feeding	2013	Human Development and Gender Education Access to Education Education Financing
P117076	Madagascar: A Country Status Report on Health, Nutrition, Population and HIV/AIDS	2010	Human Development and Gender Health Systems and Policies Nutrition and Food Security Health System Strengthening Reproductive and Maternal Health Child Health Nutrition Food Security

P118535	Madagascar - Support for Education Development	2010	Human Development and Gender Education Access to Education Education Financing Teachers Standards, Curriculum and Textbooks
P119430	Madagascar - Education Sector Technical Assistance	2011	Human Development and Gender Education Access to Education Education Financing Teachers Standards, Curriculum and Textbooks
P119434	Policy Notes Collection	2010	Human Development and Gender Education Access to Education Teachers Standards, Curriculum and Textbooks
P122595	Three Years into the Crisis: An Assessment of Vulnerability and Social Policies and Prospects for the Future	2012	Social Protection Human Development and Gender Social Safety Nets Social protection delivery systems
P122989	Madagascar: Public Expenditure Review	2012	Human Development and Gender
P126805	MG-Assessing Negative Impacts of the Political Crisis and Protecting Access to Essential HNP Services	2014	Human Development and Gender Health Systems and Policies Nutrition and Food Security Health System Strengthening Health Service Delivery Adolescent Health Child Health Nutrition Food Security
P127810	Madagascar - Primary Education in Times of Crisis	2014	Human Development and Gender Education Access to Education Education Financing
P128750	A 10-Year Follow-up of a Community-Level Nutrition Program in Madagascar	2016	Human Development and Gender Health Systems and Policies Education Nutrition and Food Security Child Health Access to Education Teachers Standards, Curriculum and Textbooks

			Nutrition Food Security
P130446	Poverty Gender and Inequality Assessment	2014	Social Protection Human Development and Gender Health Systems and Policies Social Safety Nets Health Service Delivery Adolescent Health Child Health
P132070	Madagascar Education Transition Plan	2013	Human Development and Gender Education Access to Education Education Financing
P143293	Addressing Malnutrition in Madagascar - PNNC/Seecaline	2018	Human Development and Gender Nutrition and Food Security Nutrition Food Security
P146612	MG Reengagement Policy Notes	2015	Human Development and Gender Health Systems and Policies Health Service Delivery Adolescent Health Child Health
P146919	Madagascar Next Generation in Social Protection	2015	Social Protection Human Development and Gender Education Nutrition and Food Security Social Safety Nets Access to Education Education Financing Nutrition Food Security
P149554	Developing Madagascar's Safety Net	2016	Social Protection Human Development and Gender Nutrition and Food Security Social Safety Nets Social protection delivery systems Nutrition Food Security
P152156	Madagascar Donor Coordination	2015	Human Development and Gender Nutrition and Food Security Nutrition Food Security

P152326	MG - Employment and Poverty Analysis	2016	Social Protection Human Development and Gender Social Safety Nets Social Protection
P156067	promoting child development and protecting children from the adverse consequences of weather shocks	2018	Social Protection Human Development and Gender Health Systems and Policies Nutrition and Food Security Social Safety Nets Child Health Nutrition Food Security
P156330	Madagascar - Raising Education Outcomes	2017	Human Development and Gender Education Access to Education Teachers
P158839	Building Nutrition Sensitive Safety Nets	2019	Social Protection Human Development and Gender Nutrition and Food Security Social Safety Nets Nutrition
P160535	Madagascar Service Delivery Indicators	2018	Human Development and Gender Health Systems and Policies Health Service Delivery
P162747	Madagascar Social Safety Net Project: Impact Evaluation of a Behavioral Approach to Improve Outcomes in Early Childhood	2020	Social Protection Human Development and Gender Health Systems and Policies Social Safety Nets Child Health
P164034	Strengthening Social Resilience in Southern Madagascar	2021	Social Protection Social Safety Nets Social Protection Delivery Systems
P164662	Madagascar Universal Health Coverage/Health Financing Support	2020	Human Development and Gender Health Systems and Policies Nutrition and Food Security Health Finance
P164662	Madagascar Universal Health Coverage/Health Financing Support	2020	Nutrition
P164705	A multisectoral analysis of stunting in Madagascar	2018	Human Development and Gender Nutrition and Food Security Nutrition

P167768	EVIDENCE FOR BUILDING MADAGASCAR'S SOCIAL SAFETY NET	2019	Social Protection Social Safety Nets
P168944	Taking students to schools: expansion of the lower secondary education in Mozambique and Madagascar	2020	Human Development and Gender Education Access to Education Education Financing Teachers Standards, Curriculum and Textbooks Education Facilities
P170724	Madagascar Digital Economy Assessment	2020	Human Development and Gender
P172037	Enhancing the role of social protection	2021	Social Protection Human Development and Gender Social Safety Nets Social Protection Delivery Systems
P172202	Madagascar ID User Research and Outreach	2020	Human Development and Gender
P172336	Madagascar Service Delivery Indicators - Round 2 - Education sector	2021	Human Development and Gender Education Teachers Education Governance, School-Based Management

Source: World Bank Operations Portal
Note: FY = fiscal year.

Appendix I. Data on Project Financing

Table I.1. Planned versus Actual Disbursements of Original IDA Credit 5186-MG by Disbursement Category

Disbursement Category	Original Allocation (SDR, millions)	July 2015 Amendment (SDR, millions)	June 2016 Restructuring (SDR, millions)	Actuals (SDR, millions)	Actual/ Original (percent)
(1) Minor works, goods, consultants services, nonconsulting services, including operating costs and training under component 1 of the project, excluding school grants and teacher subsidies	5.350	6.386	6.386	6.03	113
(2) Teacher subsidies	5.850	5.850	5.850	5.20	89
(3) School grants	4.100	4.100	4.100	4.20	102
(4) Minor works, goods, consultants services, nonconsulting services including operating costs and training under component 2 of the project	16.200	17.220	17.220	17.28	107
(5) Minor works, goods, consultants services, nonconsulting services including operating costs and training under component 3 of the project	6.800	7.658	8.151	8.45	124
(6) Unallocated	3.900	0.493	0.00	0.00	—
(7) Results-based payments under component 2c of the project	—	0.493	0.493	0.10	—
Actual disbursements				40.70	96
Canceled				1.50	4
Total amount	42.2	42.2	42.2	42.2	

Source: For original allocation: Financing Agreement of December 3, 2012; for July 2015 Amendment: Amendment No. 1 to the Financing Agreement dated December 3, 2012; for actuals: World Bank system (totals may not add up because of rounding).
Note: IDA = International Development Association; SDR = special drawing rights.

Table I.2. Planned versus Actual Disbursements of Additional IDA Credit 5382-MG by Disbursement Category

Disbursement Category	Original Allocation (SDR, millions)	Actual (SDR, millions)	Actual/Original (percent)
(1) Minor works, goods, consultants services, nonconsulting services including operating costs and training under component 3 of the project	6.500	6.486	100
Canceled		14	< 1
Total amount	6.500	6.500	

Source: For original allocation: Financing Agreement of March 27, 2014; for actuals: World Bank system.
Note: IDA = International Development Association; SDR = special drawing rights.

Appendix J. Other Donors Supporting Nutrition in Madagascar

Appendix K, question 6, provides more information about partners supporting nutrition.[1]

World Food Programme

Activities:

- Food assistance
- School meals
- Support to smallholder farmers
- Resilience building

Regions of intervention:

- Alaotra-Mangoro
- Androy
- Anosy
- Boeny
- Vatovavy Fito Vinany

United Nations Children's Fund

Activities*:*

- Advocacy, strengthening national information system
- Community-level interventions to prevent chronic malnutrition, focusing on pregnant women and children under two
- Support to improve quality of treatment of severe acute malnutrition cases
- Support to improve multisectoral integration and coordination, with focus on health and water and sanitation
- Anticipate and respond to nutritional crises

Regions of intervention:

- Atsinanana
- Atsimo Atsinanana
- Betsiboka
- Diana
- Matsiatra Ambony

Food and Agriculture Organization

Activities:

- Sustainable and income-generating intensification of agricultural production and nutrition education and promotion
- Governance and sustainable management of natural resources
- Strengthening of household resilience to shocks and natural hazards in the context of climate change adaptation
- Government capacity building to manage and respond to emergencies and the effects of locust infestations, floods, cyclones, drought, and other consequences of climate change

Regions of intervention: (not specified)

World Health Organization

Activities: Support to nutrition activities delivered by the health sector, especially those focused on reproductive health, maternal health, and child health.

Regions of intervention: (not specified)

US Agency for International Development Programs: Accelerating Progress in Nutrition

Although not mentioned on the National Nutrition Office's (Office National de Nutrition, Madagascar) website, US Agency for International Development (USAID) support to nutrition, as itemized in its Madagascar Nutrition Portfolio (USAID 2018) has been substantial:

- Integrated Social Marketing Project (2012–18): promotes cross-cutting health behaviors that prevent diarrhea, pneumonia, and malnutrition
- USAID MIKOLO Project (2013–18): aims to increase the use of community-based primary health care services and the adoption of healthy behavior
- Food for Peace (FFP) ASOTRY (2014–19): seeks to reduce food insecurity and vulnerability among food-insecure households and communities in Amoron'i Mania, Haute Matsiatra, and Atsimo Andrefana regions
- FFP FARARANO (2014–19): seeks to reduce food insecurity and vulnerability in Atsinanana, Vatovavy Fitovinany, and Atsimo Andrefana regions
- USAID Community Capacity for Health Program (*Mahefa Miaraka*; 2016–21): seeks to increase access to and use of key health services, including maternal and child health care and nutrition
- FFP Households Averting Vulnerability by Expanding Livelihood Opportunities (2017–19): seeks to prevent undernutrition by increasing access to and use of basic health and nutrition services and improving households' access to food in sufficient quantity and quality
- Supporting Health Outcomes through Private Sectors Plus Activity (2017–21): focuses on expanding access to and use of priority family planning and reproductive health products
- FFP contribution to World Food Programme Transitional Interim Country Strategic Plan (2018–19): provides food assistance and nutritional support in five southern and southeastern regions

[1] National Nutrition Office (Office National de Nutrition, Madagascar) website. https://www.office-nutrition.mg

Appendix K. Findings from an In-Depth Look at Nutrition

This appendix focuses exclusively on the nutrition sector. As a contribution to an ongoing Independent Evaluation Group (IEG) study on the effectiveness of the World Bank's support to nutrition, it provides findings aligned to the thematic evaluation's five evaluation questions, gleaned from the assessment of the relevance, effectiveness, and efficiency of Madagascar's experience in the design and implementation of the Emergency Support to Critical Education, Health, and Nutrition Services Project. The work of this Project Performance Assessment Report (fieldwork and document review) also raises a sixth evaluation question, which might also contribute to IEG's cross-country study on nutrition.

1. To what extent is the World Bank supporting relevant interventions to improve nutrition outcomes, as per country context, needs, and priorities?

Chapter 2 and appendix A confirm that the project was grounded in global evidence and best practice, as encapsulated in The Lancet's two series of articles on nutrition published in 2008 and 2013. The project reflected the evidence and recommendations of the 2008 series, which highlighted the importance of targeting a package of proven, cost-effective, community-based interventions to address and prevent stunting and other forms of malnutrition to children during the first 1,000 days of life (from conception to the second birthday). The project thus supported Madagascar in seizing the window of opportunity to ensure the health and nutrition during that critical period of a child's life, which has optimal effect on enabling that child to reach his or her full potential in cognitive and physical development, productivity, and income-earning ability.

The Lancet's second series on nutrition was published in 2013, a year after this project was designed. Still, the project reflected some of the evidence and advice proffered in this series. The Lancet reaffirmed, with additional evidence, the importance of community-based nutrition services targeted to mothers and children, especially children under age two. In addition to these nutrition-specific interventions, it advocated unleashing the potential importance of nutrition-sensitive programs to address key underlying determinants of nutrition. It pointed especially to agriculture and food security, social safety nets, early child development, health and family planning services, maternal mental health, women's empowerment, child protection, education, and water and sanitation. The original project design expressly and successfully supported the establishment of synergies between the community-based nutrition services and front-line basic health services, and synergies between these two sectors and primary schools to establish school-based health and nutrition services.

During project implementation, even more nutrition-sensitive activities were added: food security, income-generation activities, early child stimulation, and women's empowerment. (More on the multisectoral approach is addressed in Question 2).

However, the project did not take up fully the second major recommendation of The Lancet 2013 series: to create an enabling environment to build commitment and strengthen sector stewardship that would ensure that this commitment is translated into outcomes. This aspect of the project is further assessed under Questions 2, 3, and 5.

The extent to which the project was grounded in local evidence is mixed. The project's design drew heavily on in-depth analytic work carried out in the country by the World Bank, by other development partners, and by the government. However, IEG's exchanges with regional and operational levels revealed their concern that their local-level knowledge, partnerships, data, and development plans may have been underexploited (see also Question 3).

2. Did the World Bank support a multisectoral approach, and to what extent did it create synergies for addressing the nutrition of poor and vulnerable mothers and children?

The project, as originally designed, did indeed create synergies across the three targeted sectors: education, health, and nutrition. It is interesting to note what IEG field visits revealed. Both through observation and discussions with a range of actors and stakeholders at regional and operational levels, the synergies and close coordination of nutrition activities across the three sectors appeared to be stronger and more cohesive in the two regions where the project supported all three sectors than in the region that received only nutrition support when the additional financing was approved. This is not to say that there was no collaboration across sectors in the nutrition-only region. That region reported and exhibited that they do indeed collaborate across sectors, but more on an ad hoc, as-needed basis—a looser partnership than was observed in the other two regions.

The cross-sectoral synergies achieved through the original three sectors and through additional nutrition-sensitive interventions became very evident through IEG's exchanges with project beneficiaries in all three regions. Food security interventions (targeted in an initial phase to the 14 poorest, women-headed households) allowed these women to have an immediate food source for their children, maintain and expand their activities of gardens or livestock, earn income (which they spent on their children's well-being: school, food, and health care), and (for the most successful) acquire additional assets and wealth (land for cultivation, large animals for cultivation or resale, and construction of new, secure homes). Human-centered development initiatives helped

women develop entrepreneurship skills, self-confidence, and empowerment, and their accomplishments spilled over into their desire to help other women in their communities achieve the same. The testing of early stimulation of the child has been learned and appreciated by women to be an important investment in the cognitive potential of their children. Many beneficiaries have spontaneously summarized the results of exposure to nutrition-specific and nutrition-sensitive interventions by noting significant improvements in the nutritional status of their youngest children (who benefited from these interventions) compared with the status of their older children (who had little or no exposure to the project).

These synergies notwithstanding, there is a considerable unfinished agenda. The Lancet (and other literature) point to the importance of still other sectors for the fight against malnutrition, especially water and sanitation in Madagascar. Though not mentioned specifically in The Lancet, regions also compellingly raised the importance of electricity and roads to this end. Additionally, there is still no established multiyear nutrition program that includes the roles and value-added of these key sectors. Furthermore, the World Bank has not yet fulfilled its potential for promoting and supporting a multisectoral approach through its ongoing operations or through its institutional support to the National Nutrition Office (Office National de Nutrition, Madagascar; ONN).[1]

3. Did the World Bank strengthen national institutional frameworks and capacities, and to what extent did it enable cross-sectoral efforts within government and with national and international development partners?

Because of its original design as an emergency project preserving the services of three sectors, the World Bank did not envision major support to the institutional frameworks and capacities for nutrition. Its pragmatic choice was to draw on the expertise of existing, experienced project implementation units for each of the three sectors to facilitate implementation and monitoring. A technical steering committee chaired by the General Secretary of the Ministry of Finance was established to foster communication and coordination across the three sectors, including the General Secretaries of the Education and Health Ministries and the National Coordinator of ONN. This committee, supported by a project coordination unit, met every two years to facilitate coordination of project activities across the three sectors (in particular mass antihelminth drug administration at the community level) and school health and nutrition interventions.

There is a significant, unfinished agenda for strengthening the institutional framework and capacities for nutrition in Madagascar. ONN's capacity and authority for the multisectoral coordination of nutrition activities needs to be strengthened to allow it to fulfill its primary function. This will strengthen the horizontal integrity of Madagascar's

efforts to fight malnutrition. In this sense, there is potential for strengthening partnerships within the government across all sectors that have the potential and accountability to deliver nutrition-sensitive interventions. There is also potential for strengthening partnerships between the government and nongovernmental partners, in line with The Lancet's 2013 recommendations, including civil society, associations, nongovernmental organizations, religious groups, traditional leaders, and elected officials. The 2016 audit of ONN confirmed the primary function of ONN: the multisectoral coordination of nutrition activities in Madagascar. The audit was clear in its recommendations to address a number of constraints to the full ownership and implementation of that function. These recommendations have yet to be implemented and could benefit from the World Bank's technical and financial support, especially because the prime minister delegates this responsibility to ONN through the National Council for Nutrition and its Permanent Office (see chapter 2, paragraph 2.33).

Multisectoral coordination is not the sole responsibility of the ONN. This coordination needs to happen (and already does to some extent) at the community level where services are delivered, and at the district and regional levels where technical experts, local authorities, and other local partners have considerable potential to make it happen. The current distribution of roles and responsibilities up and down the various levels of the government's system do not fully exploit the comparative advantages of each level. This potential will be undermined unless and until decentralization is allowed to happen, enhancing capacities, decision-making authority, and human and financial resources of these levels. If and when this does happen, these levels will need to develop their capacities for local-level data collection and analysis and the preparation of multisectoral and integrated local development plans.

4. How and to what extent did the monitoring and evaluation (M&E) design and implementation improve cross-sectoral management, coordination and oversight, increase learning, and support policy and decision-making?

Chapter 2 and appendix A assess the shortcomings of the M&E design and implementation, characterized by a somewhat truncated results chain and the choice of indicators that did not fully capture some of the significant intermediate outcomes and final outcomes the project design aimed to address. Both the initial design's emergency nature and the absence of a truly multiyear, multisectoral action plan for the fight against malnutrition served to undermine the quality and relevance of the M&E of the project's nutrition component. Another shortcoming of the nutrition component's M&E was the failure to use data at the point of collection to assess and improve performance and results.

M&E is not an end in itself but rather a critical tool for the nutrition program to track its progress and impact and to contribute to learning and fine-tuning of program design and effectiveness. As such, it is an integral part (the beginning and end) of the strategic management cycle, which includes the analysis of the baseline situation; planning, programming, phasing, and prioritization of interventions; their monitoring during implementation; their periodic evaluation for effectiveness and impact; and the incorporation of evaluation findings and recommendations into strategic decision-making and a more effective program. Better M&E for nutrition is contingent on a better M&E plan, strategy, and capacity that is grounded in a national strategic plan with a hierarchy of goals and which is multisectoral in nature, with indicators and accountabilities for each contributing sector.

Although there are national surveys that collect such data, the project M&E did not include the tracking of short-term outcomes, which could plausibly be linked to the project: stunting, low birth weight, exclusive breastfeeding, anemia prevalence among women and children, and reduced childhood infections (especially intestinal worms). It also did not include relevant intermediate outcomes, such as improved knowledge, awareness, and behaviors. There were regular community-level reviews of project implementation, but nutrition data collected by the project was not regularly reviewed together by all involved sectors (especially those added under additional financing and restructuring) at the regional level or used by regions in the preparation of their local development plans to justify and prioritize nutrition interventions; set nutrition goals, targets, and objectives; provide the basis for detailed planning, programming, and cost estimates of interventions; or solicit financing from central government and development partners.

The project did support the generation of local-level evidence on what works through research and studies. The project's M&E for nutrition did include World Bank–executed research, jointly carried out with the University of Antananarivo and other universities based in the United States, to pilot and assess the value-added of nutrition interventions through a randomized controlled trial design.[2] These interventions include extra counseling and home visits, lipid-based nutrient supplementation for pregnant and lactating women and for children during weaning, and early stimulation to improve development.

Actors and stakeholders at regional and operational levels expressed to IEG during field visits a strong interest in participating in evaluation work, being informed about evaluation results, and using these results to improve their work. There is potential for them to contribute and to benefit from evaluations, both countrywide and at local levels.

5. How and to what extent did project interventions identify, target, and track specific behaviors to improve nutrition outcomes?

Although its design emphasized information, education, and communication activities, and later under the additional financing, supported more intensive behavior change communications activities to encourage healthier behaviors, neither the original nor revised design or the indicators specifically targeted any at-home practices or behaviors that would support improved maternal and child nutrition. Both the health and nutrition sector designs articulated goals and indicators for increased uptake of health and nutrition services supported under the project, which is a type of behavior change. However, this did not replace the importance of setting goals for and measuring critical household behaviors.

6. To what extent did the project plan for and ensure sustainability of interventions and results, and what are the results and prospects for improving aid effectiveness?

Because it was designed as an emergency intervention, the project did not factor sustainability issues into its design. Even after additional financing and project restructuring, which extended nutrition services into other geographic areas and expanded the range of nutrition services to include additional sectors, the sustainability of nutrition services was not squarely addressed under the project. Appendix A identifies considerable risks to the development outcomes of this project and to continued delivery of services. For the nutrition sector, there is a big constraint in the continued financing of services. Since the precrisis time to the present, government financing for nutrition has been declining, and this is in the face of nutrition program commitments to expand coverage to 90 percent of Madagascar's population to achieve the greatest impact on the still very high stunting levels. Exchanges with government, regional and operational actors and stakeholders, and other partners (both national and international) all revealed a long-standing and increasingly acute tension between continued financing and technical support of existing services (both to preserve them and to improve their quality and effectiveness with increasing multisectoral interventions) and the drive to expand services to new areas. The costing and financing of these options has yet to be assessed and will be critical for mobilizing adequate financing to maintain and improve nutrition outcomes. In the meantime, field visits revealed the effects of the project's closing and the end of financial support, among which: the closure of contracts with nongovernmental organizations, which play a critical role of linking and backstopping services and beneficiaries, and no replenishment of essential materials and supplies (equipment and food for cooking demonstrations, kits to attract people to health services, among others).

The project was designed and launched during a time of political crisis, when other international development partners had temporarily withdrawn their support. When those partners returned, the project made efforts to ensure partnerships and complementarity with what other development partners were doing in country, particularly the United Nations Children's Fund and the World Food Programme. However successful these efforts were under the project, it does not address the facts that (i) a high number of local and international partners are supporting nutrition efforts throughout the country, largely through projects of all sizes and types and of their own design; and (ii) many of these do not involve—and some do not even inform—ONN of the activities, lessons, and evaluations.

ONN has made a formidable effort to inventory and analyze the range of partners and interventions supporting Madagascar's nutrition sector in 2019, also indicating regions of intervention.[3] This compilation reveals a staggering number of partners across both nutrition-specific and nutrition-sensitive interventions. A few indicators of the range of partners and the challenge of their coordination can be captured in a few examples drawn for this work. Within the category of nutrition-specific activities: 28 partners support nutrition interventions for pregnant women, 56 support prevention activities for children under five, and 46 support the treatment of cases of acute malnutrition. Within the category of nutrition-sensitive activities: 58 partners support household food security activities, 55 support social protection activities for nutrition, 75 support water and sanitation for health activities for better nutrition outcomes, and 12 support school-based nutrition services. ONN's inventory and analysis is a powerful instrument and points to formidable challenges for aid coordination and aid effectiveness at the national, regional, and operational levels. Regions emphasized the importance of their role in both attracting and coordinating the support of partners (versus a top-down project approach) to avoid the risks of excessive coverage of one area within their regions and the lack of any coverage of other areas equally or more in need of services. Indeed, in one commune, IEG encountered three projects with their own staff all working at one nutrition site. This again raises the importance of evidence-based regional development plans, which would include a nutrition component

[1] The new nutrition project (multiphase program for nutrition) supports only two sectors: health and nutrition. The World Bank's Social Safety Net Project is providing some nutrition support but not necessarily in the same regions, and the line ministry in charge of its implementation (the Ministry of Population) has limited institutional links or accountabilities to the Office National de Nutrition. The annex to the new nutrition project itemizes other nutrition-sensitive sectors supported by the World Bank and shows very little overlap with The Lancet's recommendations.

[2] The other US universities are the University of California at Berkeley, the University of California at Davis, and the University of Reno.

[3] Partners assessed in this exercise include various sectors and government implementing agencies, nongovernmental organizations, and other local and international partners.

Appendix L. Borrower Comments

COMMENTS FROM THE GOVERNMENT

1. FONDS

AXES STRATEGIQUES	RESULTATS ET CONSTATATIONS	LEÇONS APPRISES
INTERVENTIONS BASEES SUR L'EVIDENCE	- PTBA au niveau décentralisé non considérée par le central - Données de l'INSTAT exploitées pour la conception du Projet, pas à jour	- Exploiter les données récentes de INSTAT - Impliquer et considérer les niveaux décentralisés dès la conception du projet
COORDINATION MULTISECTORIELLE	- Leader du Projet : entité nutrition - Absence de coordination au niveau décentralisé - Conflit de coordination et d'activités entres les entités concernées	- Implication de tous les secteurs concernés - Mise en place d'une entité de coordination pour chapoter les secteurs intervenants
CADRE ET CAPACITES INSTITUTIONNELLE	- Autorités locales non impliquées - Ressources non considérées par d'autres projets	- Importance d'implication des autorités locales - Transfert de compétences
SUIVI EVALUATION	- Données non cohérentes et non à jour au niveau des entités concernées (INSTAT, région, agence d'exécution, direction régionale) - Insuffisance de matériels au niveau décentralisé	- Coordination collecte et mise à jour des données au niveau de Région - Collaboration et synergie de toutes les entités concernées
CHANGEMENT DE COMPORTEMENT	- AC et bénéficiaires de l'ASAM et Approche HCD , économie des ménage : responsable (mentalité) - Evolution des ménages bénéficiaires	- Importance de l'approche HCD - Motivation en nature des bénéficiaires et HCD
PERENISATION	- Spécificité de PAUSENS : résultats positifs des activités génératrices de revenu - Considération des prestataires internationaux au détriment des prestataires locaux déjà expérimentés dans les domaines et dans les zones d'interventions	- Nécessité de forte implication des Régions (notamment équipe technique) - Continuation et prise en charge des activités initiées par le Projet par chaque structure de l'Etat, après la date de clôture - Considération de spécificité (atouts et faiblesses) de chaque zone d'intervention

2. FORMES

Pour faciliter la compréhension et pour accélérer envoi des commentaires, la partie nationale souhaiterait que les prochains documents seront:

- en format word (pour track change)
- en langue française

3. AUTRES

- Contraintes temps : Délai de feedback très court, ne permettant pas à la partie Malagasy d'analyser le contenu du document
- Les secteurs Santé et Education ne faisant pas partie de la mission d'évaluation
- Comme PAUSENS est déjà clôturé, la majorité des Intervenants des entités concernés à l'époque, ont été déjà remplacés par d'autres (niveau central et régional), notamment équipe de UCP santé