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Morocco's Subsidized Health Insurance
Regime for the Poor and Vulnerable
Population: Achievements and Challenges

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ABBREVIATIONS AND ACRONYMS

AMO	Mandatory Health Insurance, <i>Assurance Maladie Obligatoire</i>
ANAM	National Health Insurance Agency, <i>Agence Nationale de l'assurance Maladie</i>
CNOPS	Health Insurance Fund for Civil Servants, <i>Caisse Nationale des Organismes de Prévoyance Sociale</i>
CNSS	Health Insurance Fund for Formal Sector Salaried Workers, <i>Caisse Nationale de Sécurité Sociale</i>
DH	Moroccan Dirham
GDP	Gross Domestic Product
ID	Identification
MAR	Morocco
MoH	Ministry of Health
RAMED	Subsidized Health Insurance Scheme, <i>Régime d'assistance Médicale</i>
SHI	Social Health Insurance
TUN	Tunisia
US\$	U.S. dollar
WDI	World Development Indicators

Preface to the second round of the Universal Health Coverage Study Series

All over the world countries are implementing pro-poor reforms to advance universal health coverage. The widespread trend to expand coverage resulted in the inclusion of the “achieving universal health coverage by 2030” target in the Sustainable Development Agenda. Progress is monitored through indicators measuring gains in financial risk protection and in access to quality essential health-care services.

The Universal Health Coverage (UHC) Studies Series was launched in 2013 with the objective of sharing knowledge regarding pro-poor reforms advancing UHC in developing countries. The series is aimed at policy-makers and UHC reform implementers in low- and middle-income countries. The Series recognizes that there are many policy paths to achieve UHC and therefore does not endorse a specific path or model.

The Series consists of country case studies and technical papers. The case studies employ a standardized approach aimed at understanding the tools –policies, instruments and institutions– used to expand health coverage across three dimensions: population, health services and affordability. The approach relies on a protocol involving around 300 questions structured to provide a detailed understanding of how countries are implementing UHC reforms in the following areas:

- **Progressive Universalism:** expanding population coverage while ensuring that the poor and vulnerable are not left behind;
- **Strategic Purchasing:** expanding the statutory benefits package and developing incentives for its effective delivery by health-care providers;
- **Raising revenues** to finance health care in fiscally sustainable ways;
- **Improving the availability and quality of health-care providers;** and,
- **Strengthening accountability** to ensure the fulfillment of promises made between citizens, governments and health institutions.

By 2017, the Series had published 24 country case studies and conducted a systematic literature review on the impact of UHC reforms. In 2018 the Series will publish an additional 15 case studies. A book analyzing and comparing the initial 24 country case studies is also available: *Going Universal: How 24 Developing Countries are Implementing UHC Reforms from the Bottom Up*. Links to the Series and the book are included below.

Daniel Cotlear, D. Phil.
Manager and Editor
Universal Health Coverage Study Series

Links:

<http://www.worldbank.org/en/topic/health/publication/universal-health-coverage-study-series>
<http://www.worldbank.org/en/topic/universalhealthcoverage/publication/going-universal-how-24-countries-are-implementing-universal-health-coverage-reforms-from-bottom-up>

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About the Author

Dorothee Chen is a Health Specialist with the World Bank Health, Nutrition and Population Global Practice. She has over 10 years of experience in lending operations and analytical work in Health and Social Protection in Europe and Central Asia, the Middle East and North Africa, and Africa. She currently works on a variety of issues related to health financing, service delivery, and universal health coverage, with a focus on the Europe and Central Asia region. Prior to joining the World Bank, she worked at the French Development Agency, where she was a Human Development Specialist, with a focus on health. She holds an MPhil in Health Economics and prepared a dissertation on the diachronic analysis of pooled health financing in Morocco, and a Master's Degrees in Political Science and International Relations.

Executive Summary

In Morocco, a reform process to establish universal health coverage through nonsubsidized and subsidized social health insurance (SHI) was launched in 2002. The government that year adopted the law on basic medical coverage, which launched a series of health financing reforms to establish universal health coverage through a subsidized SHI scheme (*Régime d'assistance Médicale*, RAMED), under which the poor would make no contributions, the vulnerable would make small contributions, and all others would be covered by nonsubsidized mandatory health insurance schemes (*Assurance Maladie Obligatoire*, AMO).

This case study focuses on the subsidized social health insurance scheme, RAMED. This program, which is Morocco's flagship social protection and health program and which had the support of the King Mohamed VI, was piloted in 2008 and scaled up to the national level in 2012. As of November 2016, 6.35 million people—19 percent of the population—had valid RAMED identification cards. RAMED relies on a sophisticated methodology to target poor and vulnerable households, combining proxy means testing and community targeting methods. However, the reform is yet to be fully implemented, particularly in three areas: actual management of contributions to RAMED by an SHI fund; definition of an explicit benefits package that would be similar to the nonsubsidized SHI schemes; and establishment of monitoring and evaluation mechanisms that would allow for actual monitoring of the services and benefits delivered under the program.

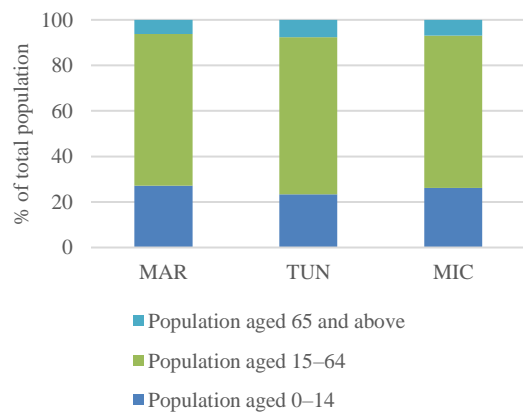
This case study reviews RAMED's achievements and identifies potential reforms to address the challenges RAMED is facing. After presenting details of the health financing and delivery systems and an overview of public health care, the case study reviews RAMED's institutional arrangements, poverty targeting, enrolment and identification mechanisms, benefits package, and information environment system. The study concludes with a discussion of potential areas of improvements.

1. General Health System Overview, Health Financing, and Service Delivery Systems

Overview and Health Results

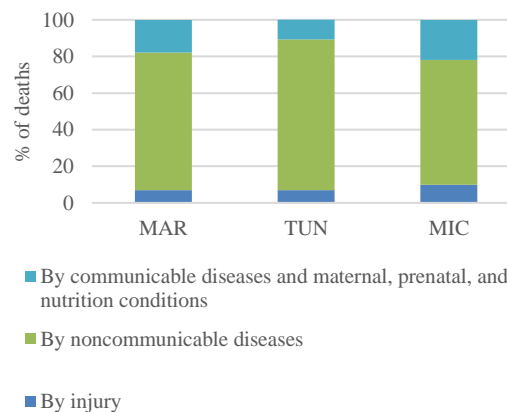
Morocco is in a socioeconomic, demographic, and epidemiologic transition and is facing a double burden of disease. Gross Domestic Product (GDP) per capita increased by 47 percent between 2004 and 2015. During the same period, the urbanization rate changed from 55 percent to 60 percent, while the fertility rate remained relatively low (at 2.5 births per woman) and the population aged (for example, the share of the population aged zero to 14 is now 27 percent compared to 31 percent in 2004 [figure 1]). The combination of these transitions contributed to lifestyle changes and an increased share of noncommunicable diseases, which now account for 75 percent of the causes of death. However, the share of communicable diseases and of maternal, prenatal, and nutrition conditions in the causes of death is still high compared to, for example, Tunisia, even though this share is below the average for middle-income countries (figure 2).¹

Figure 1: Distribution of the Population among Age Categories, International Comparisons, 2015



Source: WDI Database.

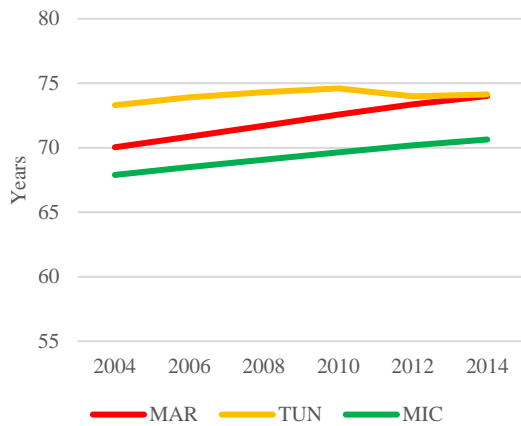
Figure 2: Causes of Death (% of total), International Comparisons, 2012



Source: WDI Database.

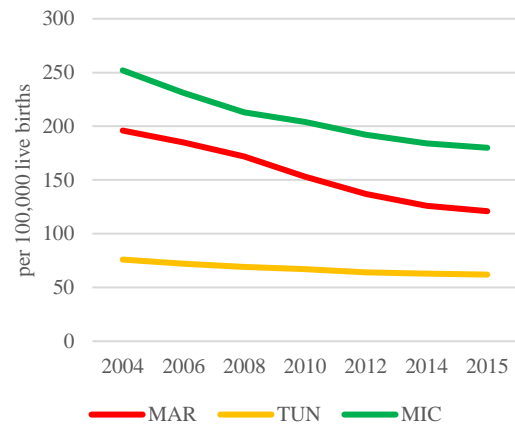
The Moroccan population is healthier than people living in middle-income countries, but less healthy than regional comparators, and inequalities in health outcomes persist. General life expectancy at birth in Morocco is above the average for middle-income countries and similar to Tunisia's (figure 3). Infant mortality and maternal mortality are below the average for middle-income countries, but higher than Tunisia's (figures 4 and 5). According to the most recent estimates (2011), inequalities in health outputs and outcomes persist. For example, the proportion of under-five children who are stunted is 2.4 times higher in rural areas than urban areas and 4.2 times higher in the poorest quintile than the richest. Similarly, the proportion of births attended by skilled health personnel is 1.7 times higher in urban areas than rural areas, and 2.5 times higher in the richest quintile than the poorest (figure 6).

Figure 3: Life Expectancy at Birth, Total (years), International Comparisons, 2004–14



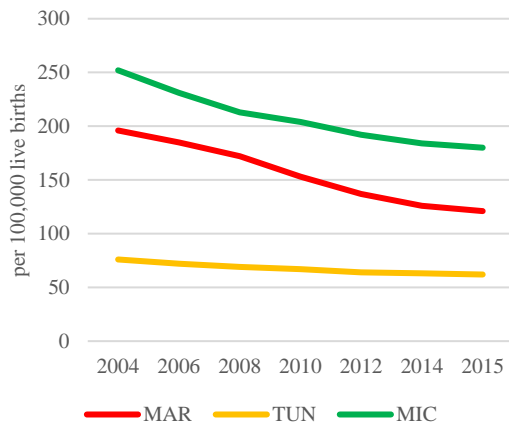
Source: WDI Database.

Figure 4: Mortality Rate, Under Five (per 1,000 live births), International Comparisons, 2004–15



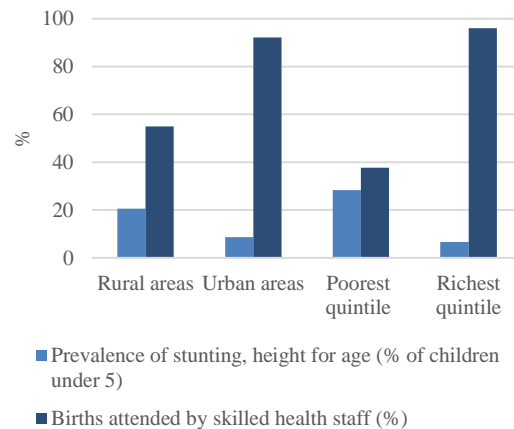
Source: WDI Database.

Figure 5: Maternal Mortality Ratio (modeled estimate, per 100,000 live births), International Comparisons, 2004–15



Source: WDI Database.

Figure 6: Geographic and Socioeconomic Disparities in Health, 2011



Source: Enquête sur la population et la santé familiale 2011.

Health Financing System

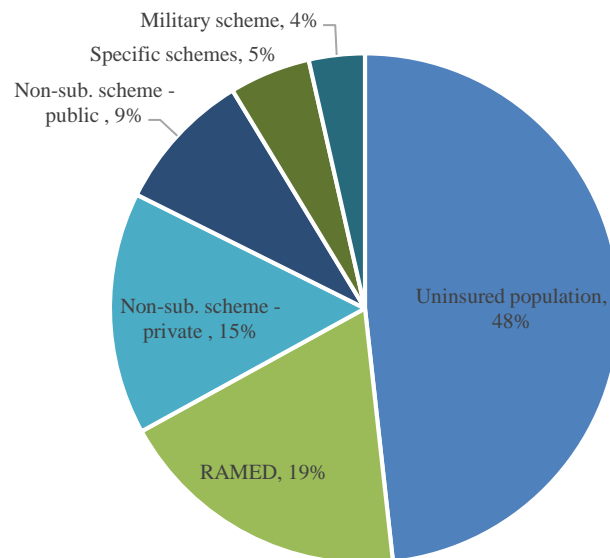
In Morocco, several health financing systems coexist. All the residents of Morocco are legally entitled to free public primary health care services, even though part of the population still faces geographic barriers.² By contrast, health care services delivered by public secondary and tertiary hospitals involve patients' payments, as do services delivered by private primary and secondary health care providers.³ During the second half of the 2000s, the government put in place

nonsubsidized mandatory SHI schemes managed by two public funds—one for public sector salaried workers (Health Insurance Fund for Civil Servants, *Caisse Nationale des Organismes de Prévoyance Sociale*, CNOPS), and the other for formal private sector salaried workers (Health Insurance Fund for Formal Sector Salaried Workers, *Caisse Nationale de Sécurité Sociale*, CNSS). An opt-out option was established for those who were already covered by health insurance schemes, which were typically managed by private insurance companies—in other words, salaried populations that used to be covered by independent health insurance schemes before the reform could keep their separate scheme. The SHI scheme for the military also remained separately managed.

The nonsubsidized health insurance schemes are fragmented as they are completely independent from each other—no pooling mechanism has yet been put in place—and the level of contributions to these schemes varies, as do their benefits packages. These nonsubsidized health insurance schemes (both SHI schemes and health insurance schemes managed by private insurance companies) typically cover generous benefits package though—health care delivered by private primary care providers and hospital care delivered by public and private facilities, outpatient drugs, dental and eye care, and so forth. The subsidized health insurance scheme for the poor and vulnerable population, RAMED, was subsequently piloted in 2008 and rolled out in 2012. By contrast with nonsubsidized health insurance schemes, RAMED’s benefits package is limited to health care services delivered by public providers (RAMED’s specifics are further discussed below). In recent years, the government has conducted preparatory work to extend the breadth of SHI to nonpoor, nonsalaried populations, including profiling of these populations, actuarial studies, and consultations with key stakeholders. However, the nonpoor, nonsalaried populations have no access at this stage to any SHI scheme, whether subsidized or nonsubsidized.

A third of the population is now covered by nonsubsidized SHI schemes, 19 percent is covered by RAMED, and 48 percent is uncovered. The Government of Morocco initially planned to cover one-third of the population with nonsubsidized health insurance schemes for salaried workers, around 25 percent of the population with RAMED (that is, the poor and vulnerable population), and the rest of the population with nonsubsidized health insurance schemes for nonsalaried workers.⁴ According to our estimates, the nonsubsidized SHI schemes now cover around 33 percent of the population. So far, 9.79 million people (29 percent of the current population) have been enrolled in RAMED and, in November 2016, there were 6.35 million people (19 percent of the current population) with a valid card. Hence, around 48 percent of the population is covered by neither a nonsubsidized health insurance scheme nor RAMED (figure 7).⁵

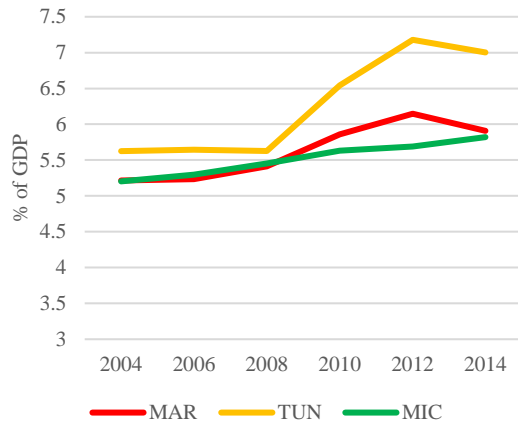
Figure 7: Distribution of Population across Health Insurance Schemes, Morocco (latest available data)



Sources: ANAM 2016; and National Statistical Institute's results of the 2014 national census (<http://rgphentableaux.hcp.ma/Default1/>).

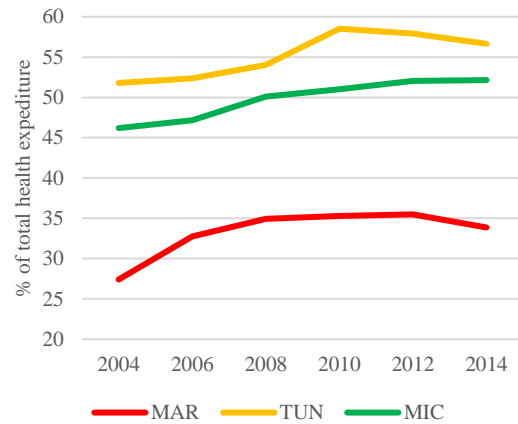
Spending on health and, in particular, public spending, remains limited. Total expenditure on health as a percent of GDP has been steadily increasing in Morocco and is similar to the average for middle-income countries, but below the Tunisian percentage (figure 8). However, public health expenditure as a share of total health expenditure is particularly low in Morocco and below both comparators (figure 9). According to the latest estimates, the general budget and nonsubsidized social health insurance schemes represent, respectively, 57 percent and 43 percent of the public resources for health (National Health Accounts for 2010).⁶ Also, the share of public health expenditure in total government expenditure suggests that health is slightly less a priority for the Government of Morocco than the governments of comparator countries. In Tunisia, in particular, the share is more than twice as big as in Morocco (figure 10). This contributes to a high share of out-of-pocket payments in total health expenditure with regard to comparator countries (figure 11).⁷

Figure 8: Total Health Expenditure as a Share of GDP, International Comparisons, 2004–14



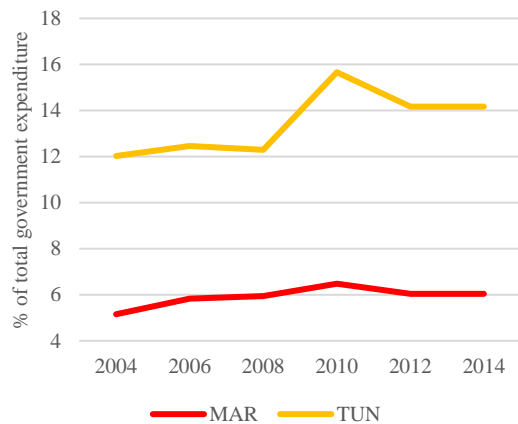
Source: WDI Database.

Figure 9: Public Health Expenditure as a Share of Total Health Expenditure, Morocco, 2004–14



Source: WDI Database.

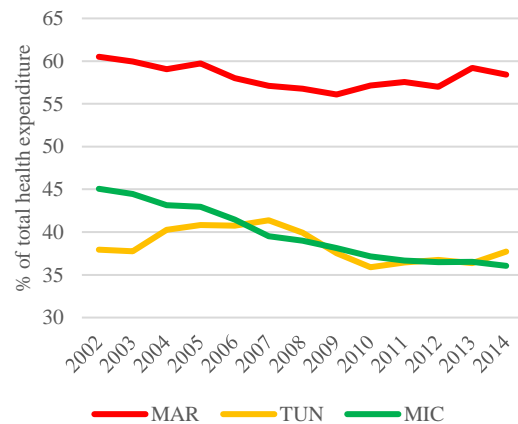
Figure 10: Public Health Expenditure as a Share of Total Government Expenditure, International Comparisons, 2004–14



Source: WDI Database.

Note: Value for middle-income countries is unavailable.

Figure 11: Out-of-Pocket Payment as a Share of Total Health Expenditure, International Comparisons, 2004–14



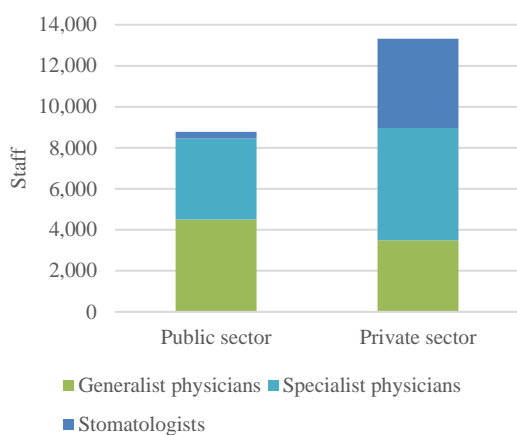
Source: WDI Database.

Service Delivery System

In Morocco, health care service delivery relies on public and private providers.⁸ The four tertiary hospitals, which in principle ensure more sophisticated health care than secondary hospitals and include medical schools, are located in the country's main cities⁹ and belong to the public sector. By contrast, the private sector represents the majority of medical staff working at the primary and secondary levels of care (60 percent).¹⁰ Private providers are more concentrated in stomatology, where they represent 93 percent of the medical workforce, and specialized practice, where they represent 58 percent of the workforce. Medical staff working in public primary and secondary health care facilities are more concentrated in general practice, where they represent 56 percent of the workforce (figure 12).

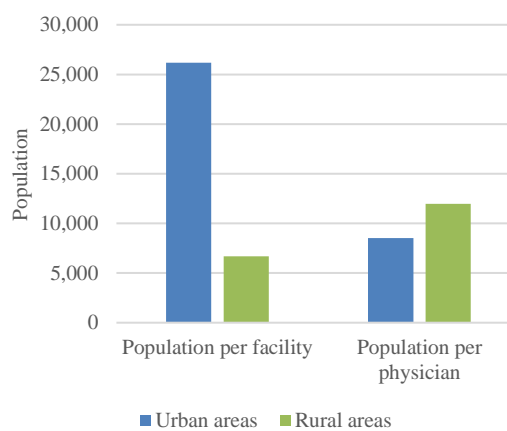
Health services are unevenly distributed. There are important disparities between regions and urban/rural areas in terms of density of primary health care facilities and medical staff. While the density of public primary health care facilities is higher in rural areas than urban areas, the density of medical staff is lower. Since public hospital services¹¹ and private providers are also dramatically concentrated in urban areas, rural areas face shortages in medical staff (figure 13).

Figure 12: Distribution of Medical Staff between Sectors, Morocco, 2013



Source: MoH's Statistical Yearbook for 2014.

Figure 13: Density of Primary Health Care Inputs, Morocco, 2013



Source: MoH's Statistical Yearbook for 2014.

2. Health Care Supply Challenges

In principle, access to free-of-charge public primary health care services is universal. All residents of Morocco are entitled to visit public primary health care facilities and receive services free of charge. However, part of the population still faces geographic barriers.¹² In addition, in the absence of a guaranteed benefits package, patients face an implicit rationing of inputs, and the quality of care is deemed low. According to the latest estimates, 59 percent of patients in rural primary health care facilities complained about the cost of prescription drugs (51 percent in urban primary health

care facilities), 58 percent about the waiting time (45 percent in urban facilities), 62 percent about the quality of infrastructure (55 percent in urban facilities), and 29 percent about the facility hygiene (45 percent in urban facilities). Patient dissatisfaction was correlated with objective characteristics of facilities: staff absenteeism, limited training, and lack of infrastructure maintenance. In addition, according to the 2010 World Bank Health Users' Survey and a 2011–12 Public Expenditure Tracking Survey, 60 to 75 percent of patients did not receive the basic care necessary for the prevention and early management of noncommunicable diseases (blood pressure, weighing, physical examination, and interview on medical history).

The poor and vulnerable populations also have access to public hospital services free of charge. However, these services face quality challenges and input shortages. As mentioned, there are fees for public hospital services. These fees are—partially—covered by nonsubsidized health insurance schemes. The poor and vulnerable populations enrolled in RAMED are exempted from these payments. The rest of the population use out-of-pocket payments to cover these public hospital fees. According to the aforementioned surveys, the quality of care was also deemed low at the hospital level, particularly in regional hospitals, where 83 percent of patients complained about the cost of prescription drugs (67 percent in subregional hospitals), 82 percent about the waiting time (61 percent in subregional hospitals), 50 percent about the quality of infrastructure (42 percent in subregional hospitals), and 46 percent about the facility hygiene (36 percent in subregional hospitals).

The cost of health care delivered by private providers is—partially—covered by the nonsubsidized health insurance schemes only. Nonsubsidized health insurance schemes cover part of the costs of health care services delivered by private providers, but the share of actual copayments for their beneficiaries is unknown.¹³ The rest of the population must make out-of-pocket payments to cover these fees.¹⁴

3. RAMED Institutional Architecture and Interaction with other Health System Stakeholders

RAMED is part of a broader reform aimed at establishing universal health coverage. As mentioned in section 1, in 2002, the Government of Morocco launched a health financing reform with the aim of establishing universal health coverage through (a) the Subsidized Social Health Insurance Scheme (RAMED), a scheme under which the poor made no contributions and the vulnerable, small contributions; and (b) nonsubsidized mandatory health insurance schemes for all others.

By contrast with other nonsubsidized health insurance schemes, RAMED is not yet a full-fledge SHI scheme. The program has a structured list of the poor and vulnerable populations that are enrolled, which is based on a sophisticated targeting system. However, key elements of the program are missing, particularly the institutional arrangement initially designed. According to the law, there should be various contributions to RAMED. These resources should be managed by the National Health Insurance Agency (*Agence Nationale de l'assurance Maladie*, ANAM), which is an autonomous public institution with financial autonomy. However, only part of the contributions to RAMED are actually transferred to ANAM. In addition, ANAM does not yet purchase health care services, and these resources are now frozen in a bank account. By contrast with CNSS,

CNOPS, and private insurance companies that manage nonsubsidized health insurance schemes for their beneficiaries by collecting their contributions and purchasing health care services, ANAM is not yet a full-fledged purchasing agency.

4. Identification, Targeting, and Enrolment of Beneficiaries

In 2012, the government launched a national enrolment process of the poor and vulnerable populations. This enrolment process relied mainly on a national communications campaign including media announcements; an information campaign ensured by civil servants, particularly health staff from public facilities who constantly encouraged potentially eligible patients to enroll; and the establishment of a website available in Arabic and French, where applicants can download the application form.

The establishment of RAMED required the development of a specific poverty/vulnerability targeting mechanism and an independent registry. Existing programs targeting the poor relied on heterogeneous poverty targeting methods and/or inadequate registries. The national poverty program (National Human Development Initiative), which mainly aims to improve infrastructure in areas with high poverty rates, did not target and register poor individuals/beneficiaries. The conditional cash transfer program in education, which aims to avoid school dropouts, relied on a registry that included elementary-school-age children enrolled in public schools and their parents in geographic areas with the highest poverty and dropout rates. The social assistance programs of the Department of Social Development, which aim at improving the living conditions of varied categories of the poor (such as the disabled, the elderly, and orphans), relied on heterogeneous and often ad-hoc poverty targeting methods and decentralized registries.

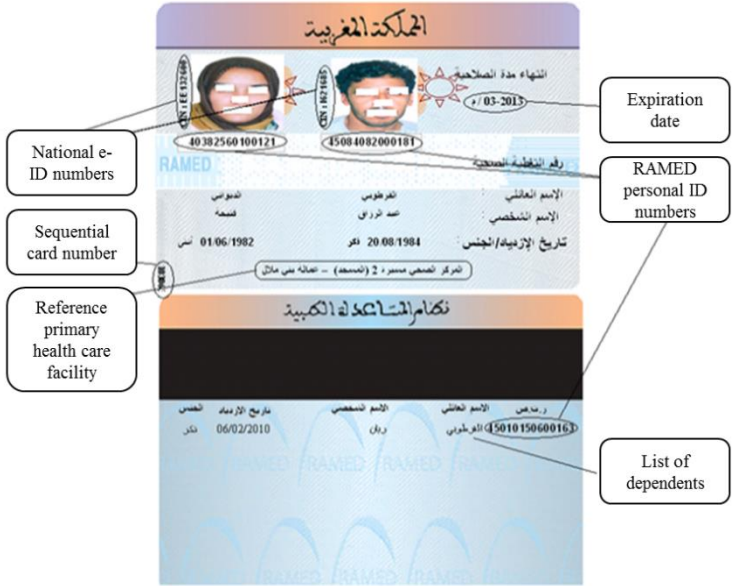
A sophisticated targeting system was put in place, which relies on a combination of proxy means testing and community targeting. To enroll in RAMED, individuals submit their application to the Ministry of Interior. This institutional arrangement was based on the government's cross-sector agreement that the Ministry of Interior had the most adequate local representation, through its "administrative annexes." The enrolment form includes the national e-ID number for adults, as well as other individual identity information that also pertains to the national e-ID database. Personal identity information is then verified through data cross-checking with the national e-ID database. The application form also includes fields about the applicant's socioeconomic conditions (household composition, number of dependents, assets, income, whether insured or not insured). Most of the information related to socioeconomic conditions is not verified; however, the data on the applicant's status vis-à-vis nonsubsidized SHI schemes are cross-checked with nonsubsidized SHI databases.

Declared socioeconomic conditions data are then used by the Ministry of Interior to generate weighted income and socioeconomic scores according to a predetermined proxy means-testing formula based on the 2001 household consumption survey conducted by the National Statistical Office. Interministerial local committees (composed of members from the Ministry of Health, Ministry of Finance, Ministry of Interior, and Ministry of Social Development) ultimately decide on the eligibility of applicants, especially for those whose weighted income/scores are above poverty/vulnerability thresholds. Each provincial/prefectural administration has a "grievance committee" to which applicants can appeal if they are not satisfied with the decision of the local committee. This process engages a review of the application and additional investigation about the applicant's living conditions.

Verification of identity at the point of service for RAMED beneficiaries remains limited. Eligible applicants are then registered for a period of three years in the list of beneficiaries managed by the

Ministry of Interior, which is shared with ANAM. ANAM issues RAMED identification cards, which are immediately valid for three years for poor beneficiaries. For vulnerable beneficiaries, the cards are valid for one year upon payment of an annual contribution of Moroccan Dirham (DH) 120 (US\$12) per beneficiary, with a cap of DH 600 (US\$60) per household. The card includes a magnetic stripe that has not yet been activated, and pictures of the head of household and the spouse, along with basic individual identity information, including their personal RAMED and e-ID numbers. The card, which also covers children, includes the same basic individual identity information, except the e-ID numbers (Photo 1). In the absence of further information included in RAMED cards (including the magnetic stripe) and magnetic stripe readers at the point of service (public hospitals), verification of identity relies on pictures, dates of birth, and eventually e-ID numbers for the head of household and the spouse and limited identity information (mainly the date of birth) for dependents. Further details about the targeting, enrolment, and identification systems, including their strengths and weaknesses and recommendations for improvements with regard to the international best practice, are discussed in the Annex.

Photo 1 Sample of RAMED Identification Cards



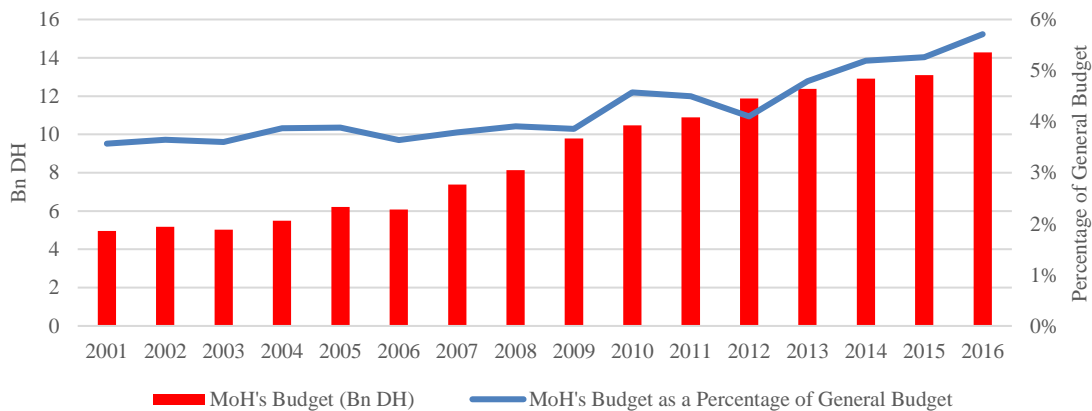
5. Management of Public Funds under RAMED

ANAM is the de jure financing agent of RAMED. According to the law on basic medical coverage, ANAM should receive resources from the individual contributions of vulnerable beneficiaries (an annual per capita contribution of DH 120 [US\$12] with a cap of DH 600 [US\$60]) per household, local governments (an annual contribution of DH 40 [US\$4] per poor individual living in their catchment area), and the general budget.¹⁵ These resources would be used by ANAM to purchase health care services provided to RAMED beneficiaries by public hospitals and for its operating costs.

ANAM, however, actually receives only part of these funds, and does not purchase health care services. To receive their RAMED identification cards, vulnerable populations deposit their annual contributions at the post office, and the contributions are then transferred to ANAM’s bank account. Between 2008 and 2015, DH 120 million (US\$12 million) were deposited on ANAM’s bank account. However, these funds are frozen in ANAM’s bank account, because the government has not yet adopted the bylaws on the use of these funds. In addition, as per the bylaw on RAMED,¹⁶ which tends to contradict the law on basic medical coverage, local government contributions are transferred to the MoH’s bank account for drug purchasing instead of ANAM’s bank account (as planned by the law on basic medical coverage). Finally, ANAM receives an annual transfer from the general budget, as well as annual lump sums from the Social Cohesion Fund, which was created in 2012 to support various programs targeting the poor and vulnerable populations, as well as disabled people and poor widows. These resources, however, are exclusively used to cover ANAM’s operating costs (including the management of RAMED’s registry and issuance of RAMED’s beneficiary cards), because ANAM does not yet purchase health care services.

Even though RAMED is not yet a full-fledged scheme, its establishment has involved an unprecedented rise in the MoH’s resources. The MoH’s budget increased by 75 percent from the beginning of RAMED’s implementation in 2008 to 2016, while the general budget increased by 20 percent (figure 14). In addition, since 2013, lump sums from the Social Cohesion Fund have been allocated annually to selected institutions in addition to their general allocations from the general budget, to compensate for the work they presumably perform under RAMED (table 1).¹⁷ These amounts are not based on the actual costs of activities that explicitly benefit RAMED beneficiaries, however.

Figure 14: MoH’s Budget, 2001–16



Source: Budget Laws 2001-16.

Table 1: Lump Sums from the Social Cohesion Fund Allocated to Selected Institutions for Activities Allegedly Performed under RAMED (in millions DH)

	2014	2015
Rabat Tertiary Hospital	40	230
Casablanca Tertiary Hospital	100	100
Fes Tertiary Hospital	70	30
Marrakech Tertiary Hospital	70	100
Oujda Tertiary Hospital	0	54
MoH's Bank Account for Drug Purchasing	857	800
ANAM	15	20
Pasteur Institute (Laboratory)	7	0
Total	1,159	1,334

Sources: MoH; ANAM's 2016 Annual Report.

6. Management of RAMED Benefits Package

RAMED's benefits package is broadly defined. By law, it includes the following health care services: preventive care, medical and surgical procedures, pre- and postnatal care and deliveries, hospitalization, laboratory tests, radiology and medical imagery, function tests, drugs and pharmaceuticals that are delivered during the episode of care, human blood and blood derivatives, medical implants, medical glasses, dental care, pediatric orthodontics, rehabilitation and physiotherapy, paramedical care, and medical transportation. Plastic surgery is excluded. It is also de jure specified that RAMED beneficiaries are entitled to free-of-charge health care for these services subject to availability in public hospitals, paving the way for implicit rationing.

All public hospitals provide RAMED beneficiaries with health care. Accreditation is not yet required, even though the MoH has already started to develop accreditation tools. By design, RAMED beneficiaries have access to secondary and tertiary public hospitals only if they have a recommendation from medical staff from their reference primary health care center. This gate-keeping function applies only to RAMED beneficiaries. Other patients (beneficiaries of nonsubsidized health insurance schemes and uninsured populations) can visit hospitals directly. In addition, and by contrast with nonsubsidized schemes, the RAMED benefits package does not include health care delivered by private providers.

7. Information Environment of RAMED

The RAMED monitoring and information system relies on the existing hospital management and information system. Despite recent MoH efforts to computerize Agadir and Fes tertiary hospitals, the existing hospital management and information system is largely paper based and fragmented, with no patient record sharing among units within hospitals. Hospitals collect and report only statistical data about the number of services delivered. The number of patients is not reported.

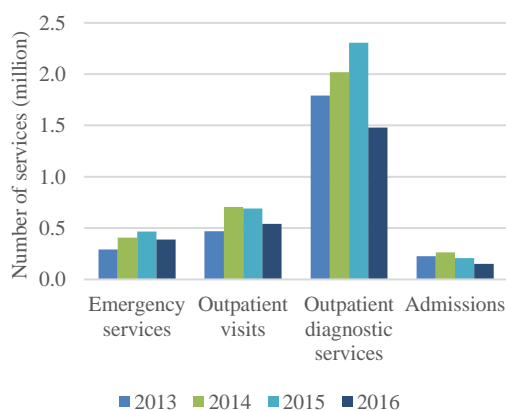
Hence, the number of people enrolled in the program is known, as is the number of health care services delivered under RAMED. However, the number of actual beneficiaries (or patients/people

who used health care services) is unknown. Based on the aforementioned RAMED registry shared by the Ministry of Interior and ANAM, and the number of services reported by public hospitals, the government can estimate:

- The number of people who have been enrolled so far (9.79 million).
- The number of valid RAMED identification cards (6.35 million). The peak was reached in June 2015 (8.48 million people, or 25 percent of the population), after which the number of new enrolments and re-enrolments were fewer than the number of cards reaching their expiration date that were not renewed.
- The number of enrolled people who actually pick up their identification cards. While virtually all the beneficiaries deemed poor pick up their RAMED identification cards, around 30 percent of those deemed vulnerable—and who have to pay premiums to receive their identification cards—do so.
- The total number of health care services delivered under RAMED during the first years of implementation. Assuming that RAMED beneficiaries systematically represent 80 percent of hospital services,¹⁸ these estimates show that while the number of RAMED beneficiaries decreased, the number of services delivered in 2016 also declined.

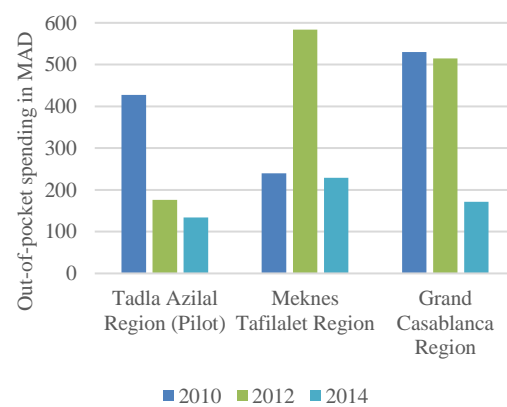
An ad-hoc impact evaluation study showed an important decrease in out-of-pocket spending for RAMED beneficiaries. Impact evaluation surveys were conducted in 2010, 2012 and 2014 in the pilot region (Tadla Azilal), where RAMED pilot implementation started in 2008, and two other regions where implementation started in mid-2012. The surveys covered various services (deliveries, pediatric services, surgical services, hemodialysis, oncologic services) (figure 15). The results show a sharp decrease in the amount of out-of-pocket spending for RAMED beneficiaries (figure 16).

Figure 15: Number of Services, Estimates, 2013–16



Source: MoH.

Figure 16: Out-of-Pocket Spending for Selected Conditions in Three Regions, 2010–14



Source: European Union 2014.

8. Pending Agenda

The development of RAMED as a full-fledged scheme will require the establishment of a proper SHI fund. The government is fully aware of this challenge and this governance reform is on its legislative agenda for 2017. Several options were considered by the administrative services in charge of the preparation of the reform: (a) bylaws that would actually allow ANAM to use contributions to RAMED and become a purchasing agency; or (b) a change in the law on basic medical coverage that would transfer this purchasing responsibility to an ad-hoc fund or an existing SHI Fund—that is, CNSS or CNOPS (table 2).

Table 2: Pros and Cons of Options for Future Institutional Arrangement

	Pros	Cons
ANAM	<ul style="list-style-type: none"> - Adequate legislative framework in place 	<ul style="list-style-type: none"> - Lack of experience in SHI management and health care purchasing - Lack of separation of regulation/purchasing functions* - Further institutional segmentation of SHI funds
Existing SHI Fund – CNSS or CNOPS	<ul style="list-style-type: none"> - Experience in SHI management and health care purchasing - Separation of the purchasing function from other health system functions - Institutional integration, which should facilitate in the medium/long term a harmonization of benefits packages 	<ul style="list-style-type: none"> - Need to revise the legislative framework
Ad-hoc SHI fund	<ul style="list-style-type: none"> - Separation of the purchasing function from other health system functions 	<ul style="list-style-type: none"> - Lack of experience in SHI management and health care purchasing - Need to revise the legislative framework - Further institutional segmentation of SHI funds

Source: Consultations with the government.

Note: * In addition to its theoretical role as the purchasing agency under RAMED, ANAM performs stewardship functions, such as supervising the negotiations between the SHI Funds (CNSS and CNOPS) and the private providers about the national tariffs and reimbursement rates under the nonsubsidized SHI schemes; see footnote 18.

The definition of an explicit benefits package under RAMED that would be similar or at least closer to the nonsubsidized SHI schemes would be needed. It is recommended that the government consider broadening the RAMED benefits package to narrow the gap with nonsubsidized SHI schemes, which typically include an increasing number of health care services delivered by private providers. The government might want to consider starting such a reform with the definition of an explicit outpatient drug benefits package or an explicit outpatient diagnostic services benefits package similar to the lists of drugs and services included in the nonsubsidized SHI schemes’

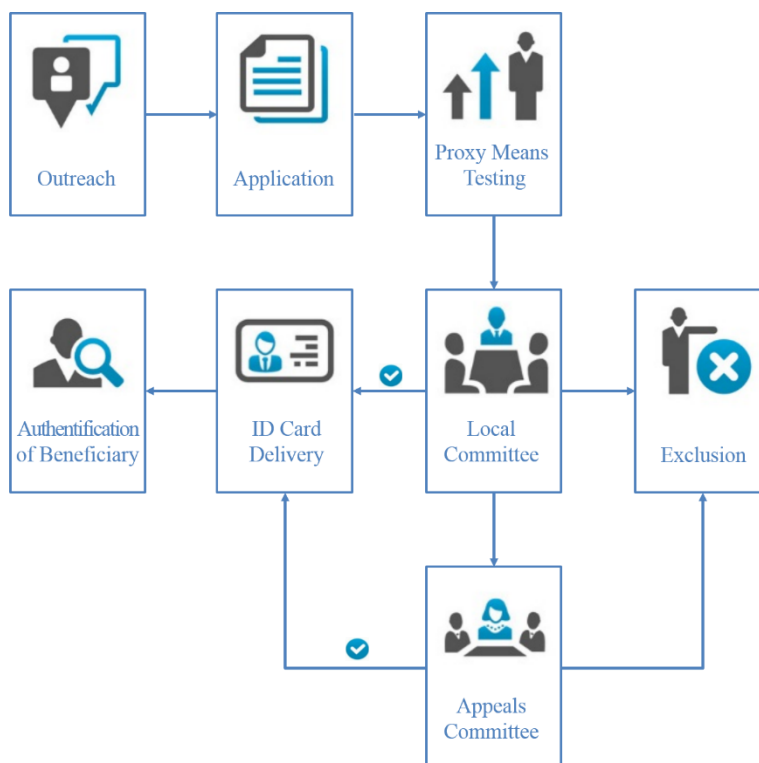
benefits packages, because these drugs and services are the main drivers of RAMED beneficiary out-of-pocket payments.

Another key priority should be establishment of routine monitoring and evaluation mechanisms that would allow for actual monitoring of the services and benefits delivered under the program, as well as impact evaluations of outcomes and outputs (health status, financial protection, utilization, and so forth). There is an urgent need for public hospitals to monitor the number of patients covered by RAMED, and the services delivered to these patients, to ensure that the government has an overview of the benefits effectively delivered under the program. In addition, better assessment of health financing reforms is needed. The World Bank supported the preparation of a specific module for household surveys to assess health coverage, including under RAMED. The module was incorporated into the questionnaire administered in 2015 by the National Observatory for Human Development during the third round of its panel survey. In the short term, it is recommended that the National Observatory for Human Development share the results so that differential impacts of the various SHI schemes in Morocco, including RAMED, can be assessed. In addition, this module should be incorporated regularly into household surveys to ensure comparisons over time.

Annex 1: RAMED Identification, Targeting, and Enrolment System: Strengths and Weaknesses and Potential Areas of Improvement

This annex explains the steps of the RAMED targeting system, which are summarized in figure A.1. Strengths and weaknesses with regard to international best practice are identified, and options for enhancements suggested.¹⁹

Figure A.1 RAMED Targeting System



Source: Consultations with key stakeholders

RAMED Outreach

In 2012, following a four-year pilot, RAMED was rolled out and the government launched a national outreach campaign that targeted the whole population, and encouraged potentially eligible populations to apply. In addition to the campaign, health staff from public facilities constantly inform potentially eligible patients about the program, and a website in Arabic and French informs the population about the enrolment process. The website allows potential applicants to download a form used to score household living conditions.

According to international best practices, social workers participate in the process of population outreach, especially in the most remote and deprived areas, in order to minimize errors of exclusion of the poor and vulnerable populations. In the Dominican Republic, for example, the targeting system used by social safety nets, and which includes the country's subsidized health coverage scheme, raises awareness and informs potential beneficiaries over the phone.

Morocco has not yet established a systematic process of population outreach. Social workers accompanying potential beneficiaries early in the process would help reduce time-consuming and expensive back-and-forth processes to complete applications (often associated with missing supporting documentation). Social workers would also support the illiterate population in filling out the form used to score households based on their living conditions.

The following institutions could be considered to conduct this social work at the early stage of the registration process:

- The Ministry of Social Development and the agencies under its supervision (“*Pôle social*”) and its partners from civil society that are based in poor and/or remote communities
- Municipal workers and/or young social workers in the public offices where registration requests are submitted (local “administrative annexes,” “pachaliks,” and “*caïdats*”).

Prior actions to implement these suggested improvements would include:

- Preparing registration guidelines, including a section about how to fill out the form about household living conditions and supporting documentation
- Training of the administrative staff who will be involved in this process of social outreach.

Application

Applications to RAMED are submitted at the local “administrative annexes,” which are the closest territorial administrative network. This approach or service provision at the local level is consistent with international best practices for “on demand” welfare programs.

Internationally, application processes vary across programs and across countries. Brazil, Georgia, Iran, Jordan, and Romania, like Morocco, record applications “on demand.” This process, however, can introduce risks of excluding the poorest segments of the population, who might be less informed about the services or have less access to the points where applications are submitted. Other countries have chosen to conduct social surveys whereby the administration that records applications is in charge of outreach to households and collecting data about household living conditions (such as Colombia, Costa Rica, and Rwanda). This second approach is generally more expensive and requires complex logistics. As such, many countries have adopted mixed systems, combining “on demand” with population outreach targeted at the poorest and most remote areas (such as Egypt, Indonesia, and the Dominican Republic).

In Morocco, the most disadvantaged segments of the population are likely to face higher risks of exclusion, since some live far from the closest local administrative office. In that case, the current system of “on demand” application could be reinforced by, for example, a system in which mobile teams conduct outreach to the potentially eligible population living in poor and remote areas. These mobile teams would include staff responsible for collecting data about household living conditions and submitting applications. If necessary, the mobile teams could also include staff in charge of delivering the supporting documentation needed to complete the applications.

Prior actions to implement these suggested improvements would include mobilizing additional human resources to strengthen support staff at administrative annexes and to develop mobile outreach teams; mobilizing additional resources (including for staff training); and ensuring

coordination of administrative services, in particular within mobile teams (capitalizing the enrolment process experience of the conditional cash transfer program in the education sector, which is accompanied by the Ministry of Interior's services that deliver the supporting documentation needed to complete the applications).

Proxy Means Testing

Based on the data collected through the application form on household living conditions, administrative services grant the applicant a "score." The current proxy means-testing formula varies between urban and rural areas. In urban areas, households are eligible for the program if their score on socioeconomic conditions and their annual declared weighted income are both below a predetermined threshold. In rural areas, households are eligible for the program if their assets score and their score on socioeconomic conditions are both below a predetermined threshold. This methodology, which has proven to be effective in some cases in identifying poor households,²⁰ has been adopted by many countries, including Brazil, Chile, and Georgia.

However, based on international best practices, RAMED's current proxy means-testing system still has room for improvement. For example, the formula was calibrated based on household socioeconomic data that are more than 10 years old and that may no longer reflect the socioeconomic reality of households in Morocco. Further, it is based on a statistical definition of household, while the RAMED's beneficiary unit is the nuclear family. This divergence may contribute to application errors and distortion of the estimated living conditions and scores. Finally, self-reported income could be underdeclared by applicants. However, developing an objective verification of self-reported income is complex, especially in countries with a large informal economy.

It is therefore recommended that the following revisions of the scoring formula be considered:

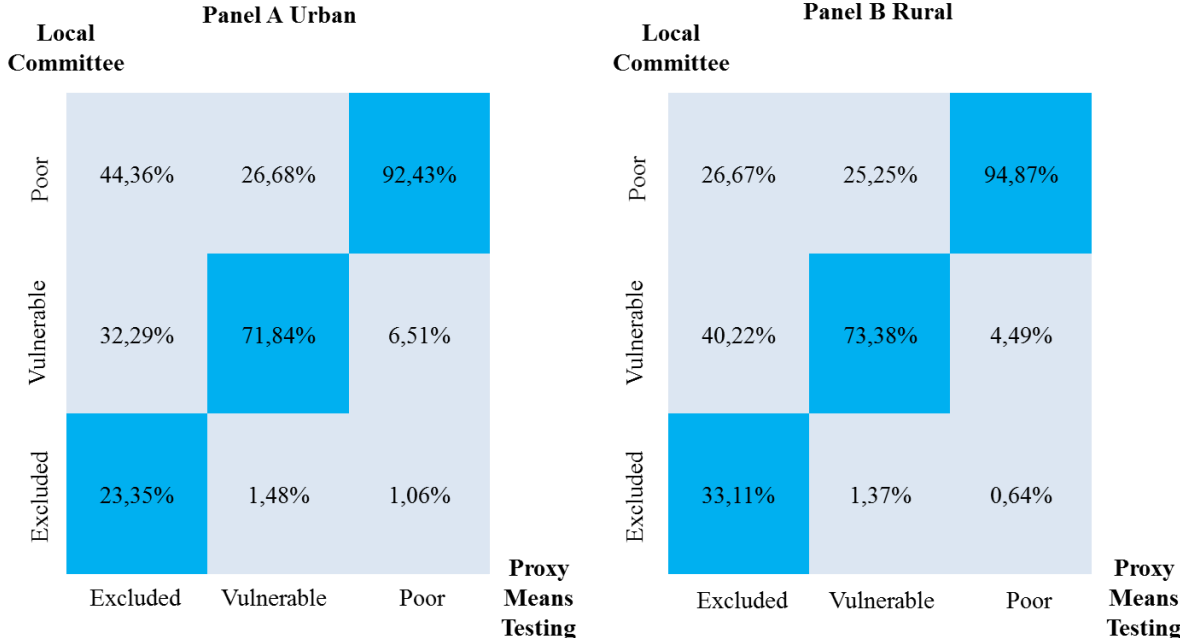
- Recalibrate the formula periodically using the most recent data on household living conditions. This could include revising the variables included in the formula and their weight. This could also entail the possibility of including health status as a variable, since some health conditions involve high out-of-pocket expenditure and have important impacts on households' living conditions.
- Review the application form to remove the current ambiguity between households and nuclear families. Questions should clearly refer to all members of the household in the statistical sense (living in the same dwelling, sharing food, and having a household head) beyond only the nuclear family. It is important to test and validate the revised form in the field to ensure that it is clear to all stakeholders (including applicants and staff involved in the registration process).
- Exclude self-reported income from the proxy means-testing formula. In principle, a score based on observable criteria that are highly correlated with poverty levels could be sufficient to classify households according to different socioeconomic conditions.

Selection Committees

RAMED's targeting method relies on a combination of proxy means testing and community targeting. In addition to the aforementioned proxy means-testing formula, interministerial local committees ultimately decide on the eligibility of applicants, especially for those considered by

the proxy means-testing system as excluded or vulnerable.²¹ The human component is introduced as a mechanism to reduce potential exclusion errors and the scores are only indicative. For example, local committees take into consideration other information such as the applicants' health status and health-care-related expenses.²² As panels A and B in figure A2 show, while the committees generally endorse the categorization of the proxy means-testing system, they tend to also include as eligible some applicants who would otherwise be excluded based on the formula.

Figure A2 Population Categorization – Results of Proxy Means Testing compared to Local Committees



Source: Ministry of Interior.

Note: For example, in urban areas, 23 percent of the applicants who were excluded by the proxy means-testing system were also excluded by the local committee, while 32 percent were considered vulnerable and 44 percent poor.

Each provincial/prefectural administrative annex also has an “appeals committee” to which applicants can appeal if they are not satisfied with the decision of the local committees. This process entails a review of the application and additional investigation about the applicants’ living conditions. In accordance with best international practices, it is recommended that these investigations, as well as the procedures for reviewing applications, be codified and standardized to minimize discretion. In addition, local committees should systematically request further investigation when they have limited knowledge of the applicants.²³

Finally, in accordance with international best practices, it is strongly recommended that errors of inclusion (beneficiaries not falling within the categories of the target population) and errors of exclusion (target population that is not included) through household surveys be evaluated, preferably by existing household surveys conducted by the National Statistical Institute, the Ministry of Health, or the National Observatory for Human Development. In Colombia, for example, the targeting system for social protection programs is evaluated and updated every three years.

Card Delivery and Authentication

Households considered “poor” by the local committees receive RAMED identification (ID) cards that are valid for three years. Households considered “vulnerable” by the local committees receive RAMED ID cards that are valid for only one year once the annual contribution is paid (validity is renewable twice, so long as households pay their annual contribution). The RAMED ID card is a low-end card with a magnetic stripe. The card contains the photos of the family head and the head’s spouse, along with their respective RAMED individual ID number and national ID number. On the back, the card lists the dependents and their associated RAMED individual ID numbers.

In 2014, an assessment of the ID ecosystem in Morocco, including RAMED’s ID system, was carried out using a standardized tool.²⁴ The report emphasized that the authentication of RAMED’s identity at the point of service (that is, to check whether someone requesting health services at a public hospital is really the beneficiary he or she claims to be) was weak compared to international standards. The risk of fraud is particularly high for beneficiaries listed on the back of the RAMED ID card, generally children, who do not provide a picture and who do not have yet a National ID number. In addition, the RAMED card does not have logic or security functions, and could be easily forged or imitated. Finally, RAMED’s ID system can be considered as an autonomous system since it requires a copy of the national identity card and does not establish direct links among the databases.

Recommendations to improve RAMED’s ID system assessment include:

- Develop the interoperability of RAMED’s information systems, the national identity card, social insurance, and other national programs to verify the applicants’ declarations.
- Strengthen the authentication system through establishment of a robust card associated with an identity authentication system at the point of service (hospital).

Notes

¹ These results, as well as other results cited in this chapter, are based on international databases, which allow for international comparisons. They may differ from national data.

² According to the MoH's latest estimates, for around 20 percent of the population the distance between the closest health facility and place of residence is more 10 kilometers.

³ Hospital care prices are lower than their costs (and tariffs in the private sector) though, because these services are partly subsidized by transfers from the MoH to public hospitals.

⁴ These numbers have not been formally updated even though the distribution of the population among socioeconomic categories has changed since the beginning of the reform in the 2000s. In particular, according to the National Statistics Institute, the share of poor and vulnerable people in the population decreased from around 24 percent in the mid-2000s to 17 percent in the mid-2010s.

⁵ For more information about these schemes, see Chen (2010) and Chen and Viossat (2016).

⁶ In Morocco, the health sector is highly centralized. According to the latest estimates, the central government and local governments manage 94 percent and 6 percent of fiscal resources for health, respectively.

⁷ Figure 11 shows that out-of-pocket payments have been increasing since the end of the 2000s despite the development of nonsubsidized and subsidized health insurance schemes. This may reflect an increase in health care utilization by the insured populations vis-à-vis services that are not—or are partially—covered by the new schemes.

⁸ In Morocco, data that allow for comparisons between private and public providers focus on medical human resources.

⁹ The existing full-fledged tertiary hospitals, including medical schools, are located in Rabat, Casablanca, Marrakech, and Fes. A fifth one is under development in Oujda. Tertiary hospitals are more autonomous than secondary hospitals, which means that they manage their own budget for recurring expenditures and part of tertiary-level capital expenditures, in addition to their own resources.

¹⁰ *Source: Statistical Yearbook for 2013 published online by the MoH.*

¹¹ Public health care facilities include secondary and tertiary hospitals.

¹² See footnote 2.

¹³ In principle, private providers should use national tariffs agreed upon and included in bylaws in the mid-2000s. In practice, they claim that these tariffs should be revised and do not comply with these regulations, as there is no control and sanction system. For example, for consultations, private providers should charge the amounts agreed upon with the government—DH 80 (US\$8) for a consultation with a general practitioner, and DH 150 (US\$15) for a consultation with a specialist. Patients covered by the SHI scheme for private sector salaried workers managed by CNSS should contribute 30 percent, and patients covered by the scheme for public sector workers managed by CNOPS, 20 percent. However, out-of-pocket payments are actually much higher because private providers do not comply with the agreements with the government, and patients end up paying the official copayments and the difference between the official and the actual tariff.

¹⁴ There is an exception for private hemodialysis hospital services. All patients have access to these services under a public-private partnership between private providers and the MoH, which directly pays private providers for these specific services.

¹⁵ Vulnerable beneficiary and local government contributions were set initially, in 2008, and have never been revised. The law mentions the possibility that ANAM receive contributions from the general budget without defining the amount.

¹⁶ Decree 2-08-177.

¹⁷ The Social Cohesion Fund was created in 2013 to raise funds for programs targeting the poor, including RAMED. Its resources come from, among other sources, a tax on foreign assets, a tax on benefits and incomes, a tax on airfreight, a tax on tobacco consumption, and a tax on insurance contracts.

¹⁸ This assumption is based on actual administrative data for a sample of hospitals.

¹⁹ This section is based on international best practices in terms of identification, poverty targeting, and enrolment systems, which do not necessarily pertain to health programs.

²⁰ Proxy means-testing formulas need to be evaluated and updated periodically to remain effective (that is, to avoid errors of inclusion and exclusion).

²¹ This category pays a fee of DH 120 (US\$12) per year per beneficiary, to a maximum of DH 600 (US\$60) per year per household, to be granted its RAMED beneficiary card.

²² This hybrid approach is consistent with international best practices. In Indonesia, the World Bank demonstrated that proxy means-testing systems were generally more accurate than local community targeting. Errors of inclusion (beneficiaries not falling within the categories of the target population) and errors of exclusion (target population that

is not included) were generally lower. However, local committees included the poorest population more effectively than the proxy means-testing systems (that is, there were fewer errors of exclusion in the poorest decile).

²³ To improve local committees' knowledge of applicants' living conditions, including civil society might be considered, in accordance with recommended international best practices and the experience of local National Initiative for Human Development (Initiative nationale pour le développement humain) committees.

²⁴ This tool was developed by the World Bank in partnership with other international institutions. It consists of a questionnaire to assess identification systems associated with social protection programs and results in the preparation of standardized national reports.

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- **Progressive Universalism:** expanding coverage while ensuring that the poor and vulnerable are not left behind
- **Strategic Purchasing:** expanding the statutory benefits package and developing incentives for its effective delivery by health-care providers
- **Raising revenues** to finance health care in fiscally sustainable ways
- **Improving the availability and quality of health-care providers**
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