Implementation Research: Taking Results Based Financing from scheme to system

Taking Results-Based Financing from Scheme to System: Armenia Case Study

Research report

[October 2015, Armenia]
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<th>ACRONYMS</th>
<th>Description</th>
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<tbody>
<tr>
<td>ASTP</td>
<td>Armenian Social Transition Program</td>
</tr>
<tr>
<td>BBP</td>
<td>Basic Benefit Package</td>
</tr>
<tr>
<td>CQI</td>
<td>Continuous Quality Improvement</td>
</tr>
<tr>
<td>DPCP</td>
<td>Disease Prevention and Control Project</td>
</tr>
<tr>
<td>FAP</td>
<td>Feldhser Acusherski Punkt</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussions</td>
</tr>
<tr>
<td>FM</td>
<td>Family Medicine</td>
</tr>
<tr>
<td>HMIS</td>
<td>Healthcare Management Information System</td>
</tr>
<tr>
<td>HS-STAR</td>
<td>Healthcare Systems Strengthening</td>
</tr>
<tr>
<td>IDI</td>
<td>In-depth Interview</td>
</tr>
<tr>
<td>MCD</td>
<td>Maternal and Child Health</td>
</tr>
<tr>
<td>MoF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NCD</td>
<td>Non-communicable Diseases</td>
</tr>
<tr>
<td>OE</td>
<td>Open Enrollment</td>
</tr>
<tr>
<td>P4P</td>
<td>Pay for Performance</td>
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<tr>
<td>PBF</td>
<td>Performance-based Financing</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary Healthcare</td>
</tr>
<tr>
<td>PHCR</td>
<td>Primary Healthcare Reform</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>RBF</td>
<td>Results-based Financing</td>
</tr>
<tr>
<td>SHA</td>
<td>State Health Agency</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WHO</td>
<td>World Health Organization</td>
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EXECUTIVE SUMMARY

TO BE COMPLETED

1. INTRODUCTION

1.1. Background

Results Based Financing (RBF) in the health sector has been defined as "a cash payment or non-monetary transfer made to a national or sub-national government, manager, provider, payer or consumer of health services after predefined results have been attained and verified. Payment is conditional on measurable actions being undertaken." (1). RBF has been increasingly used as a means to improve the performance of health systems (2) and help systems to move towards universal health coverage1.

In some low and middle-income countries (LMICs), RBF mechanisms have been successfully scaled up nationwide and well integrated in the national health system, however in many others they remain at their early stages of implementation, as pilot or demonstration projects (3). Further scaling up of these mechanisms to benefit more people requires better understanding of the factors that enable or hinder such processes. There is a considerable gap in understanding these factors and more generally, why RBF schemes achieved intended results in certain contexts, while failed in others (4), (5), (6). In addition, the existing evidence suffers from methodological problems (7).

Available evidence from LMICs suggests that when setting monetary incentives for good performance, RBF tends to focus on outputs rather than on health outcomes, and on quantity rather than on quality (8), (9). There is no sufficient evidence internationally that monetary incentives trigger better performance of healthcare providers. RBF case studies form different countries suggest that non-monetary incentives, such as more empowerment and involvement of staff, more flexibility, or fear of reputation loss, may have played an important role concerning improvements in healthcare delivery (5). There are strong reasons to believe that RBF schemes will also set perverse incentives and have undesired effects, since there is evidence from RBF in other settings for the existence of perverse incentives (10).

The case study presented in this paper explores the Armenia experience with RBF (called pay for performance (P4P) in Armenia) implemented from the year 2003 to April, 2015. As part of a multi-country research initiative supported by the AHPSR, the Armenia case study contributes to bridging the evidence gaps in RBF described above, by examining how P4P in Armenia have been designed, piloted and scaled up and investigates why initiative was successfully scaled up and what may be the possible effects of the P4P scheme as operated currently on health provider’s performance.

1.2. Study objectives

The American University of Armenia (AUA) School of Public Health conducted this case study in collaboration with Curatio International Foundation (CIF), Georgia with financial and technical support from the Alliance for Health Policy and Systems Research, WHO and the Institute of Tropical

1 http://www.rbfhealth.org/rbfhealth
Medicine, Antwerp. The main objective of this case study was to examine how P4P has been designed, piloted and scaled up in Armenia and how the RBF system was integrated into the National Healthcare financing system of the Republic of Armenia and investigate why such an initiative was successful. The study aimed at documenting and analyzing the development and scaling up process of P4P in Armenia from 2003 to 2015. The case study helps to address the gap in the literature about RBF initiatives worldwide.

The key hypothesis underlying the case study was that policy processes and actors involved in the design and implementation of the scheme, along with the changing policy context and content had determined the scale up results (both positive and negative) of the RBF scheme in Armenia. The key research question of our study was: What are the policy dynamics that enabled or hindered P4P scale-up decisions and/or implementation in Armenia?

The specific objectives of the study were to:

- Identify the reasons and means of pilot initiation and adoption for scale up, as well as for the subsequent changes in the design of the scheme
- Identify the main actors and drivers of these processes and the motivation behind this decision
- Explore the extent of P4P program scale-up success, and the factors explaining this
- Identify the strategies and processes which have been effective for scale up in terms of coverage, integration and sustainability of P4P, as well as those which have been barriers
- Explore changes made to the initial P4P design before and during statewide implementation, the reasoning behind these changes and their effects on the overall process
- Identify the actors and organizations responsible for being knowledge brokers and policy champions

In addition, the study explored whether the P4P scheme design and other structures at the point of service delivery (a) worked as intended, (b) providers behaved as intended, and (c) behavior change was due to scheme introduction or due to other accompanying processes. Along with expected changes, the study looked at the changes beyond immediate, intended results of Armenia P4P. The study explored dynamic interactions, whether and how this financing scheme triggered reactions in the system and how the system responded.

2. METHODOLOGY

2.1. Research Questions

Detailed research questions include:

1. How and why the P4P scheme was initiated as a pilot? What was the pilot design?
2. How and why the P4P scheme was adopted for scale-up in its initial design?
3. What was the motivation behind the decision to scale up? Who were the drivers, actors and what were the processes followed?
4. To what extent is the scale up of the P4P program being achieved? What are the factors explaining this?

5. Which strategies and processes have been effective for the scale up in terms of coverage, integration and sustainability of P4P? Which actors were most instrumental in this process? Which organizations and actors have played the role of the knowledge brokers/policy champions?

6. What changes in the initial P4P design and why have been introduced during the implementation and how and why these changes have affected the scale up and integration? Who was promoting these changes?

7. What are the strengths, weaknesses, opportunities, and threats to P4P?
   a) Do the P4P scheme design and other structures at the point of service delivery work as intended?
   b) Do providers behave as intended?
   c) Is behavior change due to scheme introduction or due to other accompanying processes?
   d) Where there any changes beyond immediate, intended results?

2.2. Research Design

Overall approach used for the proposed study was an exploratory and explanatory, holistic single case study design, as this method is best suited for observation and systematic documentation of the “real time” policy implementation and allows exploration of both “how” and “why”, while taking into consideration how the policy at interest is influenced by the context within which it is situated (11). As proposed by Keen and Packwood – “Case studies are valuable where policy change is occurring in messy real world settings”, as in Armenia and “…it is important to understand why such interventions succeed or fail” (12). The design also allowed both retrospective and prospective analysis of the policy initiative studied. The case study design helped to obtain comprehensive description on how the P4P was conceived, designed, piloted and scaled up in the Armenian health system and to compare the initial design of the P4P scheme piloted with the scheme scaled up nationally.

2.3. Conceptual Framework

The research team used “health policy triangle” proposed by Walt and Gilson (13) as an overarching conceptual framework for the study. This framework is comprised from four elements: policy process, content, context and actors.

The policy process was analyzed using the “stages heuristic” or the “policy cycle” framework (14). According to Kindgom, the policy cycle involves four stages agenda setting, policy formulation, policy adoption and policy implementation, with feedback, or policy evaluation loop to form the cycle. However, the health policy triangle is a broad framework, which not always captures the complex interactions and interrelations among the four elements, while the policy process does not always follow the stages of the policy cycle. This is particularly true for health care system, which in turn can be regarded as a “complex-adaptive system” with non-linear processes (15). Thus, in order to
operationalize the Walt and Gilson’s framework and better capture non-linear policy processes of P4P scale up and factors influencing this process, the research team used multi-dimensional definition of RBF scale-up process specifically developed for the AHSPR multi-country study (16) that draws on Hartmann and Linn (17) and Expandnet (18) concepts of scale up of health interventions. The P4P scale up was analyzed across five dimensions: population coverage, service coverage, health system integration (areas and depths/institutionalization of integration); cross-section diffusion and knowledge generation (16).

The factors (enablers and barriers) affecting the P4P scale up process were identified using the list of “good practice hypothesis” suggested by Hercot et al (19). Additional factors were also identified across three remaining elements of the policy triangle: context, actors and content.

2.4. Instruments

The research team developed in-depth interview and focus group discussion guides based on the research questions and the sample guides provided by the Technical Advisory Group from AHPSR and Antwerp Tropical Institute and considering conventional qualitative research methods. The guides were designed to optimize the value of the data collected to meet the research questions of the qualitative study. The guides were progressively adapted based on the data collected in previous in-depth interviews or focus group discussions. The research team developed all guides in English and translated them into Armenian. The questions during the interviews were adapted to specific participants’ roles, responsibilities and professional/individual experience in the areas related to P4P in Armenia. The Technical Advisory Group from AHPSR and Antwerp Tropical Institute reviewed and provided feedback for the initially developed guides. The project used the following guides: for In-Depth Interviews (IDI) with Key Informants, IDI with heads of departments and facility managers, and Focus Group Discussions (FGDs) with health providers (both nurses and physicians) (see Annexes 1-3). The guides were further developed and adapted based on feedback provided by key informants during the initial interviews of the first stage of data collection.

2.5. Sampling

We selected five key informants for the first stage of the research and conducted in-depth interviews with them. The key informants included a first set of policy-makers, technical advisors and technical experts from the international organizations that were directly involved in the reforms of focus. They were identified through document review and the researchers’ own knowledge of key actors involved in the P4P implementation.

The second stage entailed 1) in-depth interviews with national and local level policy makers responsible for health financing arrangements (Ministry of Health, Ministry of Finance, State Health Agency and Heads of Marz Health Departments, health facility managers) directly engaged in the P4P scale-up and implementation and 2) focus group discussion with health providers affected by the P4P. The respondents for in-depth interviews conducted at the second stage of the study were identified through the snowball technique. We conducted 21 in-depth interviews at this stage of the study. See Annex 4 for the list of all interviewees.

Six Focus Group Discussions (FGDs) with the Primary Health Care (PHC) practitioners from polyclinics and ambulatories where the P4P scheme has been implemented were conducted in Yerevan and two
marzes [out of 11 marzes in Armenia including the capital city Yerevan (marzes are provinces in Armenia)]. Marzes were selected based on the following criteria: a) maturity with regard to P4P schemes, b) socio-economic characteristics such as proportion of population below the poverty line, and proximity to the capital city. Several facilities in Yerevan and Lori marz participated in piloting the P4P scheme and that is why they were included in the study (maturity). Lori marz is far away from the capital city Yerevan (proximity to the capital) and was among the poorest marzes in the country (38.7% of the population below the poverty line) (20). Ararat marz was selected because it is located closer to the capital city Yerevan and is among the top four marzes with high proportion of the population below the poverty line (34.6%). The proportion of the population below the poverty line in the capital city Yerevan is 25.6%. The providers were selected through purposive sampling from 3-8 facilities that agreed to participate in each marz (in Yerevan the participants were from 8 different polyclinics and in Lori and Ararat marzes the participants were from 3-4 polyclinics and ambulatories). Each of the FGDs had 8-10 participants (overall 50 participants). We had three FGDs with physicians and three with nurses; physicians and nurses participated in the FGDs separately.

The research team initially approached the Heads of the Health Department in Yerevan Municipality and Lori and Ararat Governor’s offices to inform them and to ask for their support with the research project. The Head of Health Departments informed all the Directors of Polyclinics and Ambulatories in their marz about our research. In Yerevan, the FGDs were organized at the premises of the American University of Armenia, and in Lori and Ararat marzes, in one of the polyclinics. After that, the first available physicians or nurse were recruited by convenience techniques. No one refused to participate, therefore, we did not use the snowball technique to recruit other people. The administrators (including chief doctor and chief nurse) were not invited to participate in the FGD (they were subjected only to in-depth interviews) to avoid “peer pressure.” All the FGD participants gave a written consent before starting the discussion.

### 2.6. Data collection

The data collection was done in two stages. The first stage involved a comprehensive review of relevant documents and key informant interviews. The documents reviewed included relevant documents published by the donor organizations that initiated the P4P (e.g. USAID reports, manuals and policy notes), the government and policy briefs and presentations throughout the P4P implementation period. Interviews with five key informants were semi-structured and based on the relevant guides (see Annex 1). The in-depth interviews with the key informants took about 73 minutes on average. The research team collected data from the key informants in March 2015.

The information collected during the desk review and the initial set of key informants was used for the revisions and fine-tuning of the in-depth interview and focus group guides that were used for further data collection. The second stage of the data collection took place in April-June 2015 and included 21 in-depth interviews (8 key informants/national policy makers and 13 managers), which took approximately 60 minutes on average. The in-depth interviews with stakeholders at this stage were conducted one-on-one using semi-structured interview guides fine-tuned at the first stage of the study (see Annex 1 for national policy makers and Annex 2 for heads of health departments and facility managers). Most in-depth interviews were audio-recorded with participants’ approval, in some cases the participant did not allow audio-recording and in those cases the second researcher took detailed field notes during the interviews. Audio recording was done with two recorders in
order to eliminate the probability of recordings being lost due to technical issues. Afterwards all the interviews were transcribed in verbatim and translated into English. No one was identified by name on the transcripts. The information recorded has been kept confidential, and no one else, except the research team has had access to the information documented during the interviews. The audio files were kept in the office computers of study researchers and were password protected for transcription purposes only. The audio files were destroyed after finishing transcribing.

Two FGDs were conducted in each marz separately for doctors and nurses, to avoid hierarchical influences of doctors over nurses. The FGDs took approximately 55 minutes on average and were conducted using the FGD guides that were fine-tuned during the first stage of the study. For the final FGD guide, see Annex 3. The FGDs were facilitated by at least two researchers, one leading the facilitation and second researcher taking notes. In order to ensure privacy, neutral and calm places were selected to conduct FGDs, where no one would have been able to disturb the process. The FGDs were conducted after the working hours to avoid disruption of the patient care process. The researchers provided refreshments to the FGD participants to facilitate more informal environment for the discussion and mitigate their possible discomfort of staying after the working hours. No one else but the people who took part in the discussion and researchers were present during this discussion. Most FGDs were audio-recorded with approval of all the participants, some FGD participants refused to be audio-recorded and in those situations one more researcher helped to take notes during the discussion to avoid missing any information. Audio recording was done with two recorders in order to eliminate the probability of recordings being lost due to technical issues. Afterwards they were transcribed in verbatim and translated into English; no one was identified by name on the tape or the transcripts. The information recorded was kept confidential, and no one else, except the research team had access to the information documented during the discussions. The audio files were kept in the office computers of study researchers and were password protected for transcription purposes only. The audio files were destroyed after finishing transcribing. The research team collected FGD data in May 2015.

The in-depth interview (IDI) and FGD participants were categorized into five groups: 1) Policy makers, 2) Experts, 3) Facility managers, 4) Health provider physicians and 5) Health provider nurses. The quotes in the results section are coded in accordance with the category of a participant.

2.7. Data Analysis

A grounded approach described by Corbin and Strauss (21) was used, in combination with Walt and Gilson’s (22) deductive approach, for the analysis of the qualitative data obtained through the variety of the data collection methods described above. This combination allowed capturing a complex environment and a range of new issues and propositions, which emerged during the study process, as opposed to focusing the analysis solely on predetermined propositions and prior understandings. The data collected at the first stage was used to conduct the overview of the key issues pertaining the agenda setting and policy formulation for the P4P introduction. This was done through developing an initial description of the chronology of the P4P scheme evolution with reference to key features of context, actors and design (Timeline for P4P). The timeline tool specifically developed for AHPSR multi-country study (16) was used to capture this chronology. The developed timeline also incorporated any changes in the P4P design introduced during the implementation up until the period of the study launch. The data collected at the second stage of the study was used to further
develop the timeline with more details on scale up process and to analyze actors, context and content using the study’s conceptual frameworks. The policy content, or the currently functioning P4P system characteristics were analyzed by comparing them to the recommended RBF design and implementation characteristics derived from Fritsche et al. and using SWOT technique.

A broad coding structure derived from the study’s overall conceptual framework was applied while analyzing documents and transcripts of in-depth interviews and focus group discussions. The coding structure was adapted and revised throughout the process of data analysis. Information derived from each of the sources of qualitative data used at every stage of the study was triangulated within and between data sources and data collection methods with the aim of identifying common understandings of the experiences of issues at focus, as well as differences of opinion between various stakeholders.

Moreover, during data analysis the project team has concentrated both on manifest and latent content, paying attention to the body language and emotional expressions of participants from the FGDs and IDIs[6]. This process was facilitated through notes made by the moderator and note-taker during discussions, as well as the emotional expressions evident from the recordings. The necessity for this arose, as during the interviews and discussions a difference in attitude was observed by the moderators among participants from different groups.

During preparation of the final report the research team met frequently to reflect and review their evolving understanding of the experiences being analyzed. The researchers’ views and understandings derived from the stakeholder interviews and focus groups discussions were validated through the Principal Co-investigator’s (from CIF team) review of the results and their comparison with a selected number of transcripts from in-depth interviews and FGDs. Lastly, the research team obtained input from the external peer reviewers (Technical Advisory Group from AHPSR and Antwerp Tropical Institute) to finalize the study report.

2.8. Ethical considerations

The AUA Institutional Review Board (IRB) and WHO Research Ethics Review Committee reviewed the study protocols to ensure compliance with locally and internationally accepted ethical standards and provided approval before the fieldwork. At the beginning of each interview or discussion, all participants were provided with consent forms, which was also read out loud to them by the moderator and clarified all the questions. The consent introduced to the study and informed about their rights (voluntary basis of participation, right to discontinues their participation at any time, right to refuse answering any question at any point during the interview/discussion and right to anonymity and confidentiality of information). A written consent-form was provided to all the FGD participants before the start of the discussion, which was signed by the discussion moderator – one full copy of the consent form was left with the participant, while a copy of the last page with the signature of the participant was collected by the moderator. Audio-recording was only conducted once all participants agreed to be recorded. If a participant did not want to be audio-recorded, only written notes were taken; in case of FGDs, if a single participant refused recording, an additional note-taker was included in the process to improve the quality of works. To comply with the anonymity and confidentiality of participants, all recordings of interviews have been deleted from the files, and the
final report does not contain any identifying elements, such as: names, positions, or institution names.

3. RESULTS

3.1. Description of the sample (Focus Group Discussion participants)

Overall 76 individuals (67 females and 9 males) participated in the study from all three marzes through 21 in-depth interviews and six FGDs (2 per marz). A total of 50 PHC providers were recruited for the six FGD (16 from Yerevan, 16 from Lori and 18 from Ararat), all of them were women. Table 3 presents the number of participants per FGD; Table 4 provides further details about the Focus Group Discussion participants.

Table 3. Number of FGD participants

<table>
<thead>
<tr>
<th></th>
<th>Physicians</th>
<th>Nurses</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Yerevan</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Lori marz</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Ararat marz</td>
<td>8</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>26</strong></td>
<td><strong>50</strong></td>
</tr>
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</table>

Table 4. Demographic information of 50 FGD participants

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
</tr>
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<tbody>
<tr>
<td>Duration of interview (minutes)</td>
<td>41</td>
<td>69</td>
<td>50.1</td>
</tr>
<tr>
<td>Age, in years completed</td>
<td>24</td>
<td>69</td>
<td>48.0</td>
</tr>
<tr>
<td>Total years of education (beginning from 1st year of school)</td>
<td>11.0</td>
<td>19.0</td>
<td>14.8</td>
</tr>
<tr>
<td>Total years working in a given profession</td>
<td>2.0</td>
<td>46.0</td>
<td>23.7</td>
</tr>
</tbody>
</table>

While some key informants required several attempts to set a date for interviews, all FGD participants were quite enthusiastic to participate in the discussions. This was specifically true for the nurses, who all expressed their gratitude to the team for being given an opportunity to gather together and discuss their issues (related to the overall healthcare system and the P4P). Majority of key informants were very active and wanted to support the study team, however one refused to speak regarding the pilot phase.

3.2. PROCESS

The P4P introduction and scale-up process is divided in sub-sections characterizing various stages of the policy cycle (agenda setting stage, formulation and piloting stage, adoption stage, implementation stage). At the end of this section the P4P introduction and scale up process is summarized as graphical depiction of the P4P Timeline (see Figure 1) and a description of the P4P scale up status is provided. This includes the description of key milestone achieved across the scale up dimensions described in the conceptual framework of this study.
3.2.1. Agenda Setting – how and why P4P concept was introduced

Agenda setting for P4P introduction in Armenia was mainly driven by an external actor – USAID. According to the key informant interviews, P4P and Open Enrollment were conceived as a part of a larger component of the USAID developed new model of PHC based on family medicine. Development of this model was one of the objectives of the USAID financed Armenia Social Transition Project (ASTP). During the preparatory stage in 2000-2001, the ASTP’s Health Team (comprised from international and national experts) identified some major issues, such as the extremely low utilization of services and gaps in the financial system, which motivated them to look for innovative solutions in addressing these issues: “...We developed a so called “new model of care”. The main idea was to introduce family medicine with an assumption that this is the best way to manage clinically effective PHC, to be efficient financially... We started with various types of financial assessments, basically clarifying what the financial gap, distortion and financial allocation towards the PHC in the country were, which we would have to deal with. But quite soon we came to the conclusion that any change in provider payment method when it doesn’t reach a particular provider/health worker, is not sufficient and doesn’t make much sense” (Expert 4.2.2.1, IDI).

National policy makers have embraced the P4P concept from the very beginning, as it presented an opportunity to address some of the challenges in provision of health services: “To my knowledge, the financing system with bonuses was created when we decided, within the frameworks of the health system financing reforms, to start per-capita financing of the PHC. That is where we faced this issue of it being a passive financing system, where the physician would be paid for just sitting there regardless of what they were doing” (Policy maker 4.2.2.3, IDI); and the “...The main reason that this [P4P] was initiated is [that] the financing system of the entire primary health care sector was on per-capita basis, and we had no means to evaluate the outcomes. So the government was motivated, as it provided the resources but could not know whether or not the therapist had examined his/her potential patients or not, how informed he/she was of their patients, what procedures had been conducted. (Policymaker 4.2.2.1, IDI).

National policy makers were also concerned with low motivation of staff and widespread Out-of-Pocket Payments - OOP (about 61% of total health expenditure in 2003) due to the low remuneration of PHC providers (23): “Our physicians’ and nurses’ state salary remained really low, which was not motivating for the quantity or quality of their work... We had another challenge in Armenia... a large proportion of patients were paying out of pocket, both formally and informally. (Expert 4.2.2.1, IDI).

By the year 2000, when the policy makers in Armenia had already decided to move away from expensive hospital care inherited from the Soviet times to more cost effective primary health care, the average number of visits to PHC facilities per person per year was very low at 2 visits per capita and policy makers wanted to try innovative methods to address this issue: “…in those days the level of utilization of services at the PHC level was devastatingly low... But this was much more than an issue with services, because at that time the population was really showing little interest in the public system: they were not visiting polyclinics. First of all, in cities, not showing up at the polyclinics basically means skipping them and going straight to hospitals at different levels. We were supposed to build this trust in the population through various innovative mechanisms.” (Expert 4.2.2.1, IDI)

The P4P mechanism proposed under the new PHC model was seen as means to motivate PHC physicians and measure outcomes of their performance: “Motivating physicians was among the
successes of this project [ASTP]. It was a new thing, a new concept in our system. So they [USAID ASTP Health Team] began speaking about how such things exist, and people started becoming interested in it…. We wanted to try and have a measurable outcome for the work of the therapists [PHC physicians], so we could evaluate the activities that had been performed. From this point of view, the project was very attractive (Policy maker 4.2.2.2, IDI).

Furthermore, P4P was also perceived as a mechanism to mitigate OOPs by substituting the formal and informal income for PHC providers through P4P and to increase the utilization of PHC services by the population once the quality of services would have improved as result of better financial incentives.

3.2.2. Formulation Stage – what was the P4P design and how the I phase of piloting proceeded

The formulation stage for P4P introduction was confined to a one and half year period from 2002 through mid-2003, which was the preparatory phase for the initiation of the PHC model pilot under ASTP (I phase of piloting for P4P in Armenia) and the I phase of piloting which lasted for two years (2004-2005).

The new PHC model as designed aimed to (a) strengthen PHC organizations and providers, (b) revise financing and payment approaches to include incentives for performance, and promote prevention, early detection and treatment, thus reducing resource needs in the secondary and tertiary sectors, (c) promote higher utilization of PHC services through improved service quality and expanded scope of services. Through pilot PHC facilities, USAID/ASTP and the MoH of the Republic of Armenia intended to demonstrate concrete examples of the proposed model to further inform national policymaking and scale up of the PHC reforms to additional facilities (24).

This stage was led by the USAID ASTP Health Team with the involvement of the national and local policy makers: “It was team work within the project and it was a mix of international expertise and domestic knowledge and expertise, as well as consultations, firstly with the State Health Agency (SHA).” (Expert 3.2.1.1, IDI).

As reported by one of the key informants who had participated in the project as an expert, the pilot design was done through participatory methods within the ASTP team which consisted of specialists with different background. Not only did this ensure effective brainstorming, but it also meant that the idea was being approached from various angles and perspectives. The ASTP developed the entire methodology for the pilot project. The existing capitation payment system was reviewed by the ASTP project team and updated: “...We were basically supposed to refresh the whole idea of capitation; I personally proposed to review the capitation system instead of refreshing it. So we invented a combined formula towards which a particular portion of financing would be directed, and for this we used the term Performance Based Financing... And in order to bring this incentive component into the system, we decided that instead of going ahead with renewal of capitation rates alone, we should combine the capitation approach with the performance approach.” (Expert 4.2.2.1, IDI).

The Ministry of Health (MoH) and USAID/ASTP were responsible for the development and piloting of the Open Enrollment (OE) mechanisms under the Decree No 1533 (25). A new form for collecting data on PHC providers and enrollees was developed by the MoH with the support from ASTP
specialists. According to key informants, the OE approach, which would move away from the catchment area approach (and thus an automatic assignment of a catchment area population to a provider) to choosing a PHC provider, was identified as a motivational solution to encourage people to visit the PHC facilities and encourage providers to be more attentive and responsive to their patients.

The addition of the performance-based financing component within the PHC reform aimed to enhance the motivation of staff in provision of the higher quality services, as well as to increase the level of their professional knowledge and qualification and thus to improve the efficiency of PHC services (26). According to this new mechanism, along with base salaries, PHC personnel would also receive payrolls depending on achieving the specific quantity and quality performance targets (27). The design team was aware that the size of bonus payments proposed for the healthcare staff would most likely determine whether the new mechanism will be successful in motivating PHC staff and curbing the OOPs: “…Through the new PBF [P4P] system, we were also competing with this private flow of funds. So basically, for us there was the question of what the share of the salary should be (a salary with all the components, including PBF [P4P] bonuses). We were wondering whether or not we would be able to compete with the income that our physicians were generating when providing private services - both formal and informal).” (Expert 4.2.2.1, IDI).

The summer of 2003 marked the end of the pilot design and the beginning of pilot implementation. Three polyclinics were initially chosen as pilot sites: one public and one private polyclinic (Multispecialty PHC clinic) in Yerevan and a public polyclinic with narrow specialist outpatient services in Vanadzor city, Lori Marz. In spring 2004, three pilot sites Lori Marz (Dsegh, Tumanian and Vahagni) were also added. Only one institution-level indicator was chosen for the assessment of the performance of the pilot PHC facilities in 2004 (27). This was associated with population OE and was the number of enrolled individuals with specific PHC physicians. In other words, these pilot facilities were granted the opportunity to receive additional financing through open enrollment of patients: in addition to capitation payment, each PHC facility received additional payments based on the number of enrolled/registered patients. In each pilot facility, this amount was accumulated in a remuneration fund, which was then distributed among PHC personnel based on their monthly performance indicators adopted by the PHC facility. The performance of PHC physicians - among which the facility distributed the finances collected through population OE - was assessed based on several quantitative and qualitative indicators (26). In March 2005, six additional polyclinics in Yerevan and Lori marz started implementing the new PHC model. The pilot process thus enlarged in a geographical scale encompassing Erebuni Hamaynk (District) in Yerevan and Vanadzor city as full pilot areas (24). In total, thirteen PHC facilities were involved in the piloting over 25 months (25). Several modifications in indicators were introduced during the same period. Starting from 2005, the assessment of the performance of pilot PHC facilities was conducted using 7 indicators (instead of one indicator), while the performance of PHC personnel – using 10 indicators, which were linked to those applied for the facilities (25).

At first, the pilot project was being set up and ran in a “simulation mode” - the bonus payments were calculated and not actually disbursed. Yet, the participating providers were enthusiastic for the expected change. As the ASTP team realized that given the overall situation on the PHC level, the actual financial incentives were very important, this issue was discussed with the government and the initial proportion for bonus payments during the piloting was set at 10% of the annual salary.
amount to be paid by the SHA: “...At that time we spoke about meaningful amounts of funds, so it was initially established at 10% of the payroll fund for all our pilot sites. So since the beginning we were thinking that in terms of effectiveness this mechanism should be providing sufficient incentives to have real impact on the behavior of providers, because, as you know, when the amount is small, you cannot expect much change.” (Expert 3.2.1.1, IDI).

By the beginning of 2004, the pilot P4P scheme was organized in the following manner: the specially designed performance forms would be completed, data entered and then the trained coordinators would analyze the data to identify the top performers who would be the recipients of the bonuses. According to one of the participants (facility manager), they were quite satisfied with the bonus amounts provided to them at this stage of the program. Moreover, according to the same participant, there was more cooperation and contact between them and the implementing team during the pilot project than currently, and they received constant trainings. Not only was this an important factor in increasing their knowledge level, but it also improved their overall attitude towards the innovation. However, another facility manager contradicted this, stating that they did not have much information concerning the pilot program and were just provided with the list of indicators, according to which they would provide the necessary data. This contradiction may indicate an uneven support provided by ASTP and MoH to the pilot facilities.

According to key informants, one of the key mechanisms through which the ASTP and MoH supported the pilots was the establishment of “quality control groups” at each pilot facility, responsible for the review and quality control of reporting on performance. These groups appear to have functioned with significant degree of autonomy with possibly insufficient coordination from USAID or the MoH side: “...During the pilot project, quality control groups were formed in each policlinic. Perhaps at that time it was about the performance of existing state standards. The members of that council [quality control group], were in working groups and we all had them. The medical record cards were compiled once in a quarter or once in a trimester, it would even happen so that we would also discuss the situation. They would look at the indicators and see how these were performed by particular doctors. There was no specific coordination from above, only those checkups, which were self-checkups within the policlinic.” (Facility manager 5.2.2.1, IDI, Lori marz). The effectiveness of these quality control groups was questionable: “...At that time there were no manuals or anything, so we were basically concerned about validity or credibility of statistics only. However, I cannot say that we had a very rigid and sound verification process.” (Expert 4.2.2.1, IDI).

During the piloting it became apparent that there were many challenges including the lack of adequate infrastructure, resources, and information systems (even though a special electronic module had also been created by the ASTP team): “...A small project module had been developed, which was very good, and according to physicians it was used for registrations, etc; it was automatized. This process was very well organized, but all the rest of the sub-systems, and most importantly the development of institutional capacities and the resources available at the time were completely inadequate. Because there was no concept at all about this in the health care system. (Policy maker 4.2.2.2, IDI).

All these issues were presented by the MoH/SHA to the donor organization (USAID/ASTP): “There were multiple problems back then [during the piloting phase], which we made them [ASTP] aware of...” (Policy maker 4.2.2.2, IDI). Yet, USAID/ASTP still encouraged providing the promised incentives
regardless of the given situation, as a huge amount of work had been done with providers and facilities. The government provided funding through SHA only for one year (2004), after which the public funding for the P4P pilot stopped and was not provided in 2005. According to the key informant, the problems experienced during the piloting were main reasons why the pilot was discontinued and no national scale up occurred at that time: “This is the reason why it did not develop in the future, because there were many issues: with the registration system, with monitoring, the agency (SHA) didn’t have sufficient capacity, the ministry was not prepared, both from a political and other points of view, and there were issues with organization of proper coordination.” (Policy maker 3.2.1.2, IDI)

FGD participants explained that although the pilot project had only a short term and localized effect, it served as a basis to identify issues and provided the opportunity to restart the pilot later in 2006-2010. As one key informant put it: “When you look at it only from a point of view of trying something new, it was very good. It probably also served as an important base in the future... but when assessing its effectiveness, it wasn’t that good. I do not know if any official assessments have been conducted.” (Policy maker 4.2.2.2, IDI).

In 2006, the USAID supported Primary Healthcare Reform (PHCR) project conducted a small scale qualitative review of ASTP’s Health Team’s work through 11 in-depth interviews and seven FGDs (28). Participants of this review had a positive opinion about the reforms in the PHC sector and recommended that gradual changes be implemented nation-wide. Among the strengths the participants mentioned development and introduction of new legal regulations to support the PHC reform and among weaknesses participants mentioned concerns for sustainability of piloted approaches and too much paperwork for the program. The findings of this small review suggested that the OE idea was acceptable but some of the used strategies had issues such as double registration, mistakes in the registration database, and difficulty with organizing PHC staffs’ home visits. The review of health financing related reforms suggested that providers were not happy with the per-capita payment amounts; the providers suggested that bonus payments based on performance indicators constituted a small portion of their income; because of calculations of the bonus amounts the salaries could be delayed, and there was general skepticism toward the P4P approach (28).

3.2.3. Adoption stage (P4P adoption for the national scale up)

The process of adoption of P4P for the nationwide implementation was facilitated by USAID through USAID’s second project – the PHCR. This project in cooperation with other development partners, first of all the World Bank, engaged national partners, including the MoH, the Ministry of Finance (MoF), marz (region) health departments, SHA, and others in policy dialogue and advocacy efforts.

By the end of 2005, the issues that had been faced during the ASTP pilot project, still continued to affect the PHC sector. Regardless of the perceived failure of the PHC model piloted in 2003-2005, the USAID in cooperation with the World Bank advocated that the key principles of this model were still valid for further development of the PHC field. According to key informants, USAID’s second health project – the Primary Healthcare Reform (PHCR) engaged the national policy makers in intensive policy dialogue, organized study tour and disseminated policy briefs on lessons learned from the PHC model pilots: “…we received suggestions from the donor organizations for further improvement of practices in primary care in Armenia. There were several projects that were aimed at the
improvement of the primary health care services in Armenia, initiated by donor organizations such as the World Bank and USAID.” (Policy maker 4.2.3.1, IDI).

As a result, the “buy in” from key national stakeholders (MoH/SHA) in this approach was achieved and by the end of 2006, the Government of Armenia adopted a principal decision for the nationwide implementation of the RBF scheme: “The initiative came from the donor organizations, but the SHA was a great partner and cooperated in all details during these activities. Moreover, the government welcomed this initiative so much... from the government’s side, all the decisions were passed in a timely manner.” (Policy maker 4.2.3.2, IDI).

As noted earlier, the Armenia’s RBF had two key components: (1) population open enrolment and (2) P4P mechanism itself, which had to be linked together: “...We were saying that unless the open enrollment system is adopted, allowing people to choose their own doctor, be registered in electronic databases, etc. this system cannot develop and cover the entire Republic.” (Policy maker 4.2.3.2, IDI).

In order to avoid multiple challenges in implementing these two components together, the government made a decision to first introduce the OE in 2007, which improved the PHC level attendance and activities, making it possible to introduce the P4P component in 2009 (29). As noted by one key informant: “One of the components of the program was implementation of performance-based financing, while the other component was implementation of the open enrollment policy. Both these components were introduced to improve quality of health care and to create motivation for the improvement of health care. So, first we introduced the open enrollment nationwide and linked it to financing.” (Expert 4.2.3.1, IDI).

The decision to adopt open enrollment and P4P for nationwide implementation was perceived as a natural continuation of the health care reform process: “In fact, all our steps were already going in that direction [referring to P4P]: the process of establishment of family medicine, development of a family medicine system, etc. Sooner or later all these steps would have led us in that direction. Introduction of the P4P program was one of the steps to improve the primary health care system.” (Policy maker 4.2.3.1, IDI).

3.2.4. Implementation – (P4P national scale up process)

Once the decision on stepwise nationwide implementation of the RBF program was adopted by the Government of Armenia, the Ministry of Health and SHA, with technical assistance from the USAID PHCR project began the second phase of preparation activities for RBF scale up. The results of the ASTP project were passed on to a new MoH/USAID team which spent the period between 2006-2010 supporting the national scale up of the RBF by building on the same concept and based on the experience of 2003-2005 pilots. However, significant alterations were introduced in the P4P compared to the model that was piloted previously. For example, according to key informants, new P4P indicators were developed, instead of adopting the ones used in 2003-2005 pilot. In preparation of the national implementation of the OE, the Open Enrollment Coordinating Group was established to draw recommendations for the MoH on policy decisions and monitor the preparation and implementation of the OE system (30). In the meantime, an MoH decree was drafted through the support of PHCR to endorse (a) the legal rights of patients to choose their physician, (b) policy around the enrollment-based principle and (c) regulations for its implementation. The decree was approved on March 30, 2006, while its further amendments – in 2008. Alongside these initiatives, PHCR also
conducted a number of outreach seminars and trainings on the use of OE automated systems for PHC providers and the general population (30).

**Scale up of the Open Enrollment system**

The nationwide implementation of OE was launched on the 1st of April 2007. The dynamics of its rollout are presented in Figure 4 (30).

![Figure 4. Open enrollment dynamics in Armenia (29)](image)

In order to support the implementation of OE and prepare for automated P4P system in Armenia, important activities were initiated by USAID/PHCR in cooperation with national stakeholders (30):

1. The OE information system was established that consisted of patient registration forms, software and hardware along with trainings for the medical and IT staff. The implementation of the computerized OE system began in 2007, and by mid-2009 it was implemented in all 346 PHC facilities in Armenia and 20 other administrative sites (totaling to 366 PHC provider sites).

2. A new patient encounter form was developed and implemented in all PHC facilities (enabling the format for electronic application) to efficiently accumulate data on patient health and physician performance outcomes.

3. To computerize management information system, MIDAS-3 was developed and by the end of 2009 it was installed in all 366 PHC provider sites and healthcare management agencies in Armenia, and more than 500 staff members were trained in its use. MIDAS-3 integrates the enrollment, patient encounter and hospital systems. In 2010, all PHC facilities were submitting their Patient Encounter Databases to SHA for analysis of the PHC performance.

By 2011, more than 90% of the Armenian population was enrolled with a PHC physician. However, the analysis conducted earlier in HS-STAR revealed that 80% of the PHC physicians in Yerevan had
fewer enrolled patients than required by the national standards. Moreover, SHA still used catchment area population data to calculate base budgets for PHC facilities with insufficient adjustments to per capita rates for enrolled populations. Using the budget data from 2011, HS-STAR generated a simulation model and found that facilities with less than 88% enrollment (this captured nearly half of Yerevan’s polyclinics) would face budget cuts under the enrollment-based financing system, according to the 2011 budget and payment rates (32). This evidence helped convince the government of Armenia to issue amendments to the Decree regarding population OE (No 318) supporting the full transition to enrollment-based financing for all PHC providers. This also led to the adoption of a phased approach with the engagement of PHC managers to address the overstaffing issue in PHC facilities. The SHA introduced the enrollment-based financing in 2014 (33).

**Scale up of P4P system**

USAID/PHCR worked with SHA/MoH on the nationwide introduction of the P4P mechanism. There was much discussion and deliberation on selection of initial indicators for the scaled up P4P scheme. According to key informants, one of the important events that influenced the indicator development process was MoH/USAID study tour to UK in 2008, where the team became acquainted with the UK RBF system. This visit had left such a big impression on the team and the MoH representatives that after returning to Armenia: “. . . We had a study tour to London, United Kingdom where we were introduced to their health system. This had a huge impact on our future work, because we studied everything: contracting, developing of indicators, and thresholds for indicators.” (Expert 4.2.3.1, IDI).

After the study tour the team immediately set out to develop special indicators that would be suitable for Armenia, instead of adopting the ones developed during the first pilot in 2003-2005. As a result, ten performance indicators were developed for Armenia. These included three preventive indicators related to quality of pediatric and obstetric care, four indicators related to management of chronic non-communicable diseases, and three electronic disease registries.

The launch of P4P was preceded by nationwide trainings supported through USAID/PHCR: “Relevant trainings were conducted beforehand [prior to implementation], as a result of which the physicians were informed about the indicators they should pay attention to during their services. Then there was a test period without remuneration because the staff was being taught. We had an additional specialist who was performing the duties of a secretary, as workload had expanded significantly… this person and another were trained as operators. The accountant responsible for reporting in accountancy was trained, as were the specialist doctors who were to implement the program: mainly therapists and pediatricians.” (Facility manager 4.2.4.1, IDI, Lori marz).

However, there may have been gaps in the knowledge transferred to health providers as a result of these trainings: “[In 2010] We began conducting huge amounts of activities, including trainings in all the marzes. I went through the available material and mastered all the details on why certain indicators were selected, which one was considered as a target, how the data should be entered, etc. and I realized that there were many gaps in the medical facilities. USAID created groups of trainees to assist regional medical facilities in the implementation of the program, but from my point of view the program failed in providing ordinary physicians with any information at all in understanding how they should complete the 002 forms. I could just feel how much our physicians were against doing additional work.” (Policy maker 4.2.4.3, IDI)
At this stage, similar to what has been done during the first phase pilots in 2003-2005, everything was tested through a small pre-testing on a country wide-scale as a non-financed trial - including the indicators in 2010: “...The P4P project was launched in all health-care facilities. We can only speak of a pilot from an indicator point of view. We were testing the indicators... I mean, which indicators were appropriate to be selected for the evaluation of the physicians’ performance. We currently have 30 indicators; in the past we began with only 6,7,10 indicators and then started to increase them. We were testing the indicators – whether they were working or not.” (Policy maker 4.3.2.1, IDI).

All of these were important factors that facilitated the preparatory phase for the national scale up as they assured provider satisfaction and improved trust between various stakeholders involved in the process: “Work was done on a daily basis and the reason why the project had good credits from the healthcare facilities is because we had closely worked together with them... [Feedback was collected] during meetings, by telephone, in person, as we were usually in regions all the time. (Expert 4.2.3.1, IDI).

To better monitor performance of facilities and individual physicians, PHCR developed, piloted and supported nationwide implementation of the MIDAS-3 system. The latter also integrated Patient Encounter System and Chronic Disease Registries which were designed and implemented nationwide, in collaboration with regional healthcare departments, SHA regional branches and 49 Quality Coordinators trained by PHCR. Computerized recording of patient encounter data began in 2010 in all PHC facilities. These data were used by SHA to make initial payments based on performance achievements in early 2011. According to key informants, this was the most challenging element necessary for the P4P implementation: “...the most interesting and challenging part was the implementation of software when we worked with the IT team to implement a program which made it possible to evaluate indicators and share resources accordingly. It is possible that a given indicator be included into the system package incorrectly, which will result in its incorrect recording, evaluation and therefore dissemination of resources.” (Expert 4.3.2.1, IDI)

Following the launch of the national PHC P4P system in 2009, by the year 2011, 61% of the PHC facilities reported receiving incentive payments from SHA. In 2012, the percentage of facilities receiving the performance bonuses reached 94% and in 2014 all 366 PHC facilities in the country were included in the P4P system. “The introduction of PBP was one step forward from the system, which was operating. In other words, per capita financing was in place, and the incentive for medical personnel (for the medical personnel and nurses in the Primary Health care sector) was introduced. Certain financial aspects in the overall financial situation of the country made it possible to introduce the PFP system. These became supplementary payments from the state budget.” (Policy maker 4.2.4.2, IDI)

in 2013, the World Bank initiated support for further scale up (across service coverage dimension) of the existing P4P program by beginning cooperation with the government through the newly launched Disease Prevention and Control Project (DPCP). Although there were attempts to implement the cervical cancer screening of women on a nationwide scale in 2005, it had not been very successful; therefore, the newly integrated system was seen as a good means to improve these services – as well as hypertension and diabetes screenings – through provision of incentive/bonus payments: “[WB PIU] didn’t introduce new things... we are just conducting screenings for hypertension and diabetes, as well as PAP smear tests, which might be new procedures conducted
within the frames of the Polyclinic. In 2005 we had a nationwide program for cervical cancer screening, but the performance level was very low; now we have only improved those services.” (Expert 4.2.4.2, IDI)

As with the previous components of the program, training-sessions were organized for health providers, including laboratory staff, for proper PAP smear taking, preparation, and interpretation. Within the frameworks of this program the WB PIU team came to an agreement with the SHA: the overall funds provided by the bank were merged with the existing government funds for incentives and will be distributed equally for all 27 indicators (not just the 3 from World Bank). Moreover, another development in the field has been that due to the requirements of the WB incentives will be calculated and provided twice a year. Participants explained that the merging of the two funds had resulted in an almost 2-fold increase in incentive payment amounts.

In parallel, the SHA, with the assistance of HS define new per capita rates that more accurately reflect the actual costs among different categories of PHC service users. Using the MIDAS health information system database, HS-STAR and SHA generated per capita rates for four age categories for both males and females: 0-7, 7-18, 18-45, and 45 and older. These new rates are expected to increase the efficiency of PHC services (33).

The status of RBF national scale up

Key events of the RBF scale up process in Armenia are summarized on the Timeline (see Figure 5). This events are presented across five dimensions: population coverage, service coverage, health system integration (areas and depths/institutionalization of integration), cross-sectoral diffusion and knowledge generation/status.

**Population coverage**: the population covered under the first pilots of P4P in 2003-2005 have reached up to 140,000 (9% of the total country population) enrolled with 12 pilot facilities in Yerevan and Lori marz. With the adoption of the RBF program for the nationwide implementation in 2006, the population participating in the OE increased from under 10% in 2006, to over 90% of the total population in 2010. The P4P component was introduced in 2010-2011 in all PHC facilities serving entire population of Armenia.

**Service Coverage**: the number of facilities covered by RBF program increased from 12 in 2004-2005 to 366 (all PHC facilities of the country) in 2010. The range of services covered by P4P indicators have been expended from 3 interventions for MCH (immunization, anemia screening in children and antenatal care registration for women) and 4 interventions for NCD management (ophthalmoscopy exams for diabetes patients, ECG monitoring for patients with hypertension and coronary heart disease) to 24 interventions covering wider range of services aimed at Maternal and Reproductive Health (3 indicators); child care (7 indicators); NCDs prevention (6 indicators); NCDs control (7 indicators), and TB control (1 indicator). Three additional indicators were added by the year 2015 targeting screening for cervical cancer, early detection of arterial hypertension and quality of antenatal care.

**Health system integration (areas)**: health system integration progressed across several health system building blocks.
In the area of governance and leadership the scale up of the RBF program resulted in integration in the national policies and regulations. The P4P development is stipulated by the National Primary Health Strategy of the Republic of Armenia\(^2\) and Medium Term Expenditure Frameworks of the Republic of Armenia from 2009 to 2018.

In the area of health financing, the P4P is fully integrated in the provider reimbursement system from the year 2010 and the full amount of incentive payments (amounting to 3% of the salary fund for PHC providers) were covered fully by SHA up until the year 2015, when the supplemental funds for P4P were introduced through the World Bank loan to the Government of Armenia.

In the area of human resources, the P4P is fully integrated into the regular PHC health worker remuneration schemes and completing the form 002, which records the providers’ tasks performed for P4P, became mandatory since the year 2011, when RA Minister of Health order # 2100-A, dated October 26, 2011 was entered into the force.

In the area of health information systems, the introduction of OE and P4P has determined the upgrade of the health information system and creation of the MIDAS 3 web-based system (www.ehealth-portal.net) that is implemented in all PHC facilities throughout the country from the year 2009.

In the area of health services provision, the P4P has introduced the changes to the PHC provider contracting system (between SHA and PHC facilities) from the year 2011 and triggered the introduction of the quality assurance system for PHC services that is currently under implementation since the end of 2014 (31).

**Health system integration (institutionalization).** The state of Institutionalization of the P4P in Armenia across several facets can be characterized as following:

*Formal state* – along with sustained reflection in the country’s MTEFs, the OE and the P4P stipulated by (a) the Governmental of Armenia Decree N420-N dated March 30, 2006, which defined the OE process; (b) the Minister of Health order # 2100-A, dated October 26, 2011 mandated the electronic registration of delivered PHC services for P4P using the Form 002; and (c) the Minister of Health order N2312-A, titled "Procedures for Health Care and Services under the State Order" dated October 12, 2012, which requires a special license for PHC facility for the provision of PHC services and that PHC facility should have defined enrolled population in accordance to the Decree N420-N.

*Expected and practiced state* – key enforcement mechanisms for P4P functioning were progressively put in place: the USAID/MoH/SHA working group had coordinated the launch and implementation of 2003-2005 pilots, however at somewhat limited scope and scale. The enforcement mechanisms were strengthened with the launch of the nationwide implementation of the RBF program in 2007, by creating a joint Coordination Group for the OE implementation in 2007 and the SHA working group for the implementation of the P4P in 2011; three waves of health provider trainings at the national level in 2007 (for the OE), 2010 (for the P4P component/Form 002 and 2014-2015 (for additional indicators supported by the World Bank); and creating a functional web portal for P4P execution that is routinely used by all PHC facilities from the year 2011. Furthermore, the PHC facilities sign annual purchaser-provider agreement (also known as the PHC performance agreement) with the

\(^2\) http://www.nationalplanningcycles.org/planning-cycle/ARM
MoH, through its SHA and the SHA regularly and timely funds the P4P component since 2011. The frequency of P4P payments for PHC providers have changed from annual to semi-annual payments in 2015, once the World Bank supplemental funds P4P became available. Also, since 2014 the SHA, in cooperation with the World Bank PIU (at the MoH) adopted 2 monitoring indicators to improve the enforcement mechanism for P4P. These indicators assess the practical functioning of P4P component by measuring the share of PHC facilities paid on time (within two months of semi-annual P4P report submission) and Proportion of PHC facilities undergoing enhanced verification of results by the SHA/Working Group.

*Moral State* – the interviewed decision makers at MoH and SHA demonstrate their ownership of and the commitment to the P4P system. The findings from IDIs and FGDs show some signs of changing working culture among PHC providers – negative attitudes initially shown by some providers are changing towards positive, however there are still number of problems related to health workers’ overall low financial motivation, concerns with increased workload that are affecting the full embracement of the P4P system by the key stakeholders (see for more details section 3.5 Content).

**Cross-sectoral diffusion.** According to one of the key informants, the targeted increase in the national budget for PHC that was tied to the performance results has influenced the introduction of the results based budgeting practice within the national budget cycle.

**Knowledge diffusion.** The knowledge of external (USAID) consultants derived from the international RBF experience was critical for the design of the P4P pilots in 2003. However, the knowledge diffusion/transfer started from the very beginning of the 2004-2005 pilots, as many local experts and decision makers get involved in these pilots as part of the MoH/USAID working group. The diffusion process accelerated with the start of the nationwide implementation of P4P in 2006-2010 and was supported through the study tours (Estonia in 2006, UK in 2008), nationwide trainings on P4P and practical experience of implementing the P4P from 2011. It appears that by the year 2015, both the explicit and tacit knowledge of P4P is held internally by decision makers and local experts at MoH and SHA and many of the health managers that participate in the P4P throughout the country.
Figure 1: Timeline of RBF program introduction and scale up in Armenia
3.2.5. Dissemination of information among PHC workers

While exploring the P4P introduction and scale up, the research team devoted a special attention to the dissemination of information among PHC workers, who are the ultimate end-users of the system. According to key informants, throughout the different phases of the project, various trainings were organized both for the implementation team, as well as the PHC providers.

The first set of trainings in form of study tours was organized to give the stakeholders included in development and organization of the P4P system understanding of how similar systems were operating in other countries. Team members were flown to Estonia in 2006 and the United Kingdom in 2008 to gain first-hand experience by witnessing the structure and process of the systems in other countries, as well as exchange experience with international specialists.

The second set of trainings were organized and implemented to introduce the P4P project to PHC providers, explain all the details and procedures, provide guidelines and in later stages to also help address issues discovered in the system. “The support of PHCR was big in terms of trainings. We have conducted training of trainers who in the future conducted trainings regarding P4P in the PHC facilities...During the scale up preparatory phase] We provided trainings for the accountants of health care facilities to prepare them for the new system of payment. So they would first be able to understand how the funds are calculated, disseminate them correctly and then also explain to the physicians.” (Expert 4.2.5.1, IDI).

One of the facility managers underscored the importance of trainings in addressing the difficulties the new system created for health providers: “It [P4P] was accepted with considerable difficulty because it was new to us. It was something new as the load for the doctor was increased. Everything had to be transferred onto paper and then be inputted into computers.” (Facility manager 4.2.5.2, IDI, Yerevan).

According to the respondents, after implementation, additional trainings were constantly organized with various members of the PHC facility staff members (including accountants, heads of facilities and computer operators) to try and address issues, provide better clarifications for weak points, introduce changes: “There were three participants who were initially trained from out facility. I and 2 other people, one operator and the facility director were trained during the initial phase. Then apart from us there were other specialists from other polyclinics also....” (Health Provider/physician 4.2.5.3, FGD, Lori marz)

It was reported that the last phase of trainings was conducted within the frameworks of the newly introduced WB screening program when 5-day-long trainings were conducted in all marzes of Armenia for 1000 individuals for the three new indicators: “During the preparatory stage of this project [referring to WB involvement], certain activities were conducted during 2013 and 2014. The working groups developed instruction manuals, and conducted widespread trainings in all marzes. We conducted trainings for more than 1 000 persons in all the marzes. 1000 people from the related areas of the primary care medical facilities: directors, deputy directors, accountants, etc.” (Policy maker 4.2.5.3, IDI). These trainings helped to adequately prepare all key stakeholders for the introduction of the new P4P measures supporting the screening programs: “Stakeholders in the entire system have been adequately notified, so that the realization of screenings, early detection processes, and preventative activities also become a basis for bonus payments and for revision of the basis for payments. Medical personnel in the PHC sector have undergone 5-day long trainings within the framework of the screening program. Apart from that, they have been given a short lesson
dedicated to the incentive program, which shows the link between the implementation of screenings and the bonus payments.” (Expert 4.2.5.2, IDI). This is also confirmed by the health providers that participated in our study: “They [coordinators] were also trained regarding the new three indicators. Particularly on how those indicators should work and what would be the conditions for getting the bonuses. I am talking about this 60% condition. So the indicator is considered completed once you have tested or included 60% of the population that falls in this age-group, or 60% of the population within a certain disease group that is registered to receive services from you or your facility. Regardless of our desire we have to perform in that manner... but we were informed.” (Health Provider/physician 4.2.5.4, FGD, Yerevan). “They [referring to the trained coordinators] conducted daily meetings with us.” (Health Provider/physician 4.2.5.5, FGD, Yerevan)

The training of trainers approach was used in these trainings. The majority of participants from the FGDs with physicians explained that before introduction of the new P4P scheme, one person had been selected from each of their facilities to undergo trainings concerning the new P4P system, while a few others could not recall this period clearly. Upon their return these people had been responsible for the training of others at their own facility, including on providing instructions to fill in the reporting forms. These coordinators worked with the rest of the PHC providers on a daily basis and were later also trained on the new indicators introduced by the World Bank. Additionally, quality improvement committees were formed, which operated for approximately one year at the beginning of the project. One provider recalls: “If I recall correctly, one person went for trainings from our facility. Then they returned and showed us how to fill in the 002 forms”. (Health Provider/physician 4.2.5.1, FGD, Lori marz). Other providers also note that:

“there was a specially trained physician who learned all those things [details about P4P] during trainings, and then introduced us to the form. We were also discussing quite often.” (Health Provider/nurse 4.2.5.1, FGD, Yerevan)

“I just don’t recall things anymore. But as far as I recall, nobody went from our facility, so I can’t even give any details on this.” (Health Provider/physician 4.2.5.2, FGD, Lori marz)

“In the beginning they told us that quality improvement committees would be formed. These were formed and we worked in that manner initially, for about a year, after which the 02 forms were introduced... I think it was about 5 years ago.” (Health Provider/physician 4.2.5.3, FGD, Lori marz)

When asked whether they received complete information and satisfactory responses from the project team to all their questions at the beginning of state-wide implementation when trainings were being conducted and the P4P program being introduced, almost all participants from FGDs with both nurses and physicians initially provided affirmative responses:

“They [project organizers] came and explained everything about the project to us. Which indicators to take, how to complete them every month.” (Health Provider/physician 4.2.5.3, FGD, Lori marz)

“[They came and met with us] Both here [Masis] and in Artashat... we had a few days of trainings, where all the points were presented in detail.” (Health Provider/physician 4.2.5.6, FGD, Ararat marz)
“The woman who went for the training returned, after which they invited us to another training, where she explained everything to us: the 02 form, its intention, how to fill it in, etc.” (Health Provider/physician 4.2.5.7, FGD, Lori marz)

“They [project organizers] even provided us with books and their phone numbers.” (Health Provider/physician 4.2.5.8, FGD, Ararat marz)

“But then they [project organizers] came and explained again and they provided us with books too.” (Health Provider/physician 4.2.5.9, FGD, Lori marz)

“Of course the organizers came and explained everything to us [at the start of the program].” (Health Provider/nurse 4.2.5.2, FGD, Lori marz)

“The head of the department informed us about the forms.” (Health Provider/nurse 4.2.5.3, FGD, Yerevan)

“We are satisfied with the information provided [by the organizers at the start of the project].” (Health Provider/nurse 4.2.5.3, FGD, Lori marz)

“Yes, they [project team] explained everything in detail... what should go in which line.” (Health Provider/physician 4.2.5.10, FGD, Ararat marz)

“They [project team] provided satisfying responses to all of our questions.” (Health Provider/physician 4.2.5.11, FGD, Yerevan)

“Yes, we have called them and received answers to the questions we had.” (Health Provider/physician 4.2.5.9, FGD, Lori marz)

“They provided us with guidelines that we were meant to read to understand the details of the program.” (Health Provider/nurse 4.2.5.4, FGD, Ararat marz)

However, at later stages during the discussions, various study participants would refer back to this topic expressing uncertainty that maybe they had not understood everything well from the start, or maybe things had not been explained to them as detailed as was necessary. According to a participant from the IDIs with managers, the main issue at hand was related to the PHC providers’ overall attitude towards trainings, their lack of desire to work on themselves and improve their skills: “If the health providers say that things have not been properly explained to them, it is because their attitude is so bad that they don’t even want to learn. I am telling you there are many things that I do for myself, to improve my work.” (Facility manager 4.2.5.2, IDI, Lori marz). A policy maker, the study participant, suggests that facility managers may be at fault: “We are working with medical centers and not with separate doctors. We have contracts only with them and not with doctors. If an issue arises, we communicate with the director of the facility. The fact that the doctors were not aware of RBF at the onset of the program was not our fault, but rather the fault of medical facility managers, who had not conducted trainings within their centers.” (Policy Maker 4.2.5.2, IDI). The FGD participants provide various explanations:

“Maybe we just didn’t receive the correct information from the very start? Maybe we didn’t know... I think that the work we were meant to do and the benefits from it were not presented to us correctly. We did not receive very detailed information on this I think... Did you [addressing colleague...
who counters her argument] understand everything about the 02 form? What that is and how to complete the whole thing?” (Health Provider/nurse 4.2.5.5, FGD, Ararat marz)

“The whole problem is that only one person was sent to the training at the very beginning. If I am not mistaken that was (X) and nobody else other than her.” (Health Provider/physician 4.2.5.7, FGD, Lori marz)

“No, initially they explain things and you think you have all the details. It is different that once you begin the actual work, you may be faced with some problems which will need further clarification. So you start doing the things that you know the details of, but then you are told that you are doing something wrong and so you change the way you work.” (Health Provider/nurse 4.2.5.6, FGD, Ararat marz)

3.3. CONTEXT

3.3.1. Global Context

The initiation of the first P4P pilot in Armenia in 2000-2003 coincided with the introduction of RBF in international development agenda, as a continuation of international efforts to make development aid more effective (10). During the last decade, when the Armenia P4P was scaled up, the increased global interest towards RBF was maintained as healthcare coverage remained insufficient and improvements of health outcomes lagged behind targets such as the Millennium Development Goals (MDGs) in many developing countries (32). Proponents of results-based funding hoped that it might deliver results that could not have been achieved by other aid modalities. USAID and the World Bank who were and are principal sponsors of P4P initiative in Armenia are among the key development partners supporting RBF schemes worldwide (33) (34). Furthermore, under the leadership of the WHO more than 190 countries, including Armenia agreed in 2011 on global mechanisms to reduce the avoidable NCD burden including a Global action plan for the prevention and control of NCDs 2013-2020 (35). Some of these countries are exploring innovative health financing mechanisms, including RBF, for prevention of NCDs (36). Similar to many low- and lower middle-income countries, Armenia today faces the dual challenge of the unfinished Millennium Development Goals (MDG) agenda and a record increase in Non-Communicable Diseases (NCDs) (31), making the country an ideal ground for “testing” the RBF approaches with dual target at maternal and child health and NCDs for the international development partners (in this case the World Bank and USAID). The World Bank’s Health Results Innovation Trust Fund (HRITF) supports RBF initiatives in 32 low and middle income countries3. From 2015, the HRITF Grant finances MCH-related tests and performance incentives in Armenia’s P4P system.

3.3.2. General Country Context

Macroeconomic Context

Throughout the early 2000s, as Armenia was slowly recovering from the economic shock of the 1990s, macroeconomic growth was evident in the country. According to data from the Armenian State Statistical Service, the annual growth of the Gross Domestic Product (GDP) of the country was

3 www.rbfhealth.org
positive for the periods of 2000-2008 (37). In 2004, Armenia moved from “low income” category of the World Bank to “lower middle income” (38). The stable economic growth was one of the important specifics of the context within which the Government of Armenia made a decision to reform its social system including the Primary Health Care sector and was willing to allocate more funds for these purposes. Including for the performance incentives for PHC providers. As one of the key informants noted: “I think that the fact that this mechanism was financed through government sources really indicated that it was the right moment to try, as in the country it was economically possible. I don’t remember economic growth at that time but these were the years of economic growth... not stagnation and certainty not crisis. Therefore, these consultations and negotiations with the ministry of health and the SHA took some time, but did not last long. They were really efficient in time. I believe that there was that environment. The donor didn’t have to invest in the mechanism, except agreeing with the design and methodology... that’s all. We didn’t need any donor to do the work, and compared to other countries, I think it was uniquely great” (Policy maker 4.2.1.1, IDI).

Following the global financial crisis of 2008, a downturn in economic activity was experienced in Armenia as well. As a result of the global market meltdown and financial instability, the annual GDP growth in 2009 was negative – the GDP shrunk by 14% compared to 2008\(^4\). Even though the country has been slowly recovering from this shock, and a gradual increase in GDP has been noted in subsequent years, this period coincided with the launch of the P4P system on a nation-wide scale and consequently had its negative effect on the decisions of how much money could be allocated for the health sector and for PHC in particular. This in turn may have affected the amount funds invested in P4P and the size of the performance incentives, as suggested by another key informant: “I would say that there was no adequate response to our suggestions, because whatever we suggested was not taken into consideration and here...yes, I would say that the macroeconomic situation of the country and current situation played their roles, because the payment is not adequate to the work” (Expert 4.2.1.2, IDI, Lori marz). However, according to other stakeholder, the full extent of impact of the current economic context on P4P scale up process in the country may still be unclear as the national scale up has occurred relatively recently: “[P4P] has recently been introduced; consequently I cannot say anything at present concerning the macro economy of the country. Time must pass before it will be possible to assess the results” (Policy maker.4.2.1.2, IDI).

Social Sector Context

Starting from the beginning of the millennium, the government of the Republic of Armenia was focusing on various political, social and economic reforms, which would better fit the needs of the market-oriented economic system that the country had embarked upon transitioning to after the collapse of the centrally planned system of the Soviet Union. Even though activities begun in as early as 1991, they picked up speed in the beginning of 2000s. As a result of the adoption of the WB Poverty Reduction Strategy Papers (PRSP) in 2003 and subsequent comprehensive reforms introduced in various sectors, the country excelled in comparison to other similar countries (38).

With assistance from international organizations – mainly WB and USAID - the government worked towards decreasing poverty levels, providing employment opportunities, state pension system reforms, development of a personal identification number system, provision of poverty family benefits, and others. Together with the social reforms, attention was also placed on reviving the

\(^4\) http://www.worldbank.org/en/country/armenia/overview
collapsed, semi-functional health-care sector of the country, as the two were interlinked in some areas and required a joint approach. There was a political will to improve the PHC system in the country through comprehensive and multifaceted reforms in the context of broader social transition process. Starting 2003, the Government of Armenia Mid-term expenditure frameworks and the PHC Strategy documents reflected that PHC reforms were given a priority. Therefore, when the cooperation with USAID led to the launch of the Armenian Social Transition Program (ASTP) in 2000, it combined these two (social and health reforms) in a complex, multi-faceted five-year program. According to key informants, the ASTP focused on strengthening Armenia’s social safety net with a strategy that was directed at both addressing the immediate issues in the social and health care services of the country, and ensuring their sustainability and effectiveness.

3.3.3. Health System context

After the collapse of the Soviet Union, Armenia inherited the Semashko model of healthcare system. In this model, the healthcare system was centrally financed and managed, with free universal access and the number of hospital beds and outpatient visits serving as the units for management (39) (30). However, after independence and being faced with various economic and socio-political hardships, the Armenian government was no longer able to provide free universal access to healthcare. This was associated with diminished public spending on healthcare, as well as a shift towards providing specialized medical services in hospitals and polyclinics, while the burden of healthcare financing was left on individual citizens (39). The ultimate result was a decline in healthcare indicators, including life expectancy as reported by the World Health Organization (WHO); although these data do not correspond to those reported by the Armenian National Statistical Services) (30).

In response, in mid-1990s, the Armenian government passed several regulations, laying the legal grounds necessary for healthcare reforms, with an aim to strengthen the primary healthcare (PHC) system of the country, through decentralizing the healthcare system management and improving healthcare financing and optimizing health facilities and personnel (39) (30). As a result of decentralization of the healthcare system – which aimed to enhance the responsibility of local and regional authorities in the provision and management of healthcare services - many hospitals were privatized. A Basic Benefit Package (BBP) was established, which included publicly funded PHC services (23). In 1998 the State Health Agency (SHA) was introduced into the system; it separated the provider and financing functions of the state in the delivery of the BBP. Armenia had one of the lowest public allocations to health, at a level of 1.8% of GDP in the Eastern Europe and Central Asia region in 2009-2013 (10). Primary health care services are covered under the BBP for the whole population. Services are provided by a network of first-contact outpatient facilities involving urban polyclinics, health centers, rural ambulatory facilities and “Feldsher-Acusher Posts” (FAPs) depending on the size of population in a community. FAPs and ambulatories are subordinated units of polyclinics. Although PHC was a high priority in the Soviet healthcare system and enjoyed a large network of PHC provider organizations, its clinical capabilities and role deteriorated after the collapse of the Soviet Union, mostly due to a sharp decrease in healthcare resources. The imbalance in the amount of resources spent on hospitals and specialty care services versus PHC resulted in high inefficiencies in the healthcare system of Armenia. Thus, in the early 1990s, the PHC sector in Armenia was under-developed, under-financed and under-utilized (24).
The Government of the Republic of Armenia recognized strengthening of PHC as a priority in its Medium-Term Expenditure Framework (MTEF) for 2003-2005 planning to allocate a bigger portion of the state budget for health on PHC services to improve access to care and utilization of PHC services. This commitment has been present in all MTEF since 2003 (40). The MTEF for 2005-2007 pays attention to reforms of PHC financing mechanisms, introduction of regulations to support PHC reforms, introduction of the concept of Open Enrolment (OE) and strengthening the information-technology system at PHC level. The MTEF for 2016-2018 suggests that the average number of visits to PHC facilities per person per year increased from about 2.0 in 2000, 2.5 in 2005 to 4.0 in 2013 (40) suggesting that nationwide reforms to strengthen the PHC system reached the goal of increasing population utilization of PHC services in Armenia; RBF efforts were one of the most important components of the PHC reforms.

The reform agenda set by the government of Armenia throughout these years served as the basis for further health reforms supported by the United States Agency for International Development (USAID). USAID support to the health system of Armenia began in the 1990s with the aim to improve overall healthcare, and women’s health services; the reform process supported by USAID continued with a series of pilot activities starting 2000-2001 (30). Subsequently, USAID initiated a health strategy to improve PHC at community centers. It was launched in 2004 and continued until 2013; throughout this time-period USAID supported the implementation of three health projects: Armenian Social Transition Program (ASTP), Primary Healthcare Reform (PHCR) project, and HS-STAR (Health Systems Strengthening) project. In 2013, the World Bank joined these efforts and launched the Disease Prevention and Control Project (DPCP) with a separate component focusing on performance-based financing. Short descriptions of these projects that were critical for the introduction and scale up of P4P in Armenia are presented below:

**Armenia Social Transition Project (ASTP)/USAID – 2000 to 2005**

The new PHC model consisted of two types of components: structural and functional (See Figure 1). The structural components comprised the key interventions introduced in the PHC facilities. Those were:

1. Implementation of Family Medicine (FM) through training of practicing and newly graduated PHC providers in FM, expanding their scope of skills and knowledge, establishing FM departments in PHC facilities, and introducing an effective patient referral system.
2. Introduction of population open enrollment (OE) with PHC physicians (family physicians, therapists, and pediatricians) as opposed to the traditional catchment area assignment principle, and establishing an automated enrollment roster.
3. Introduction of a continuous quality improvement (CQI) program through establishment of the principles of evidence-based medicine and clinical protocols, peer reviews, data analyses, and a feedback cycle to improve service provision and utilization of care.
4. Implementation of incentive payments for providers through a combination of capitated payment associated with open enrollment and performance-based financing of the facility and remuneration of physicians.
Figure 1. Conceptual Framework for the New Primary Health Care Model (24)

The functional components to support the implementation of the structural components included:

- Training of Providers
- PHC Management Information System (MIS)
- Informed and Participatory Management
- Monitoring, Evaluation, and Use of Data for Decision-Making
- Provision of Equipment, Supplies and Medical Literature
- Public Education

**Primary HealthCare Reform (PHCR)/USAID – 2005 to 2010**

In 2005, the USAID launched a nationwide five-year program in support of on-going reform processes in the Armenian health sector – the Primary Healthcare Reform (PHCR) project, under a contract awarded to Cardno Emerging Markets USA, Ltd (formerly Emerging Markets Group, Ltd). The program had many local partners, including MoH, the Ministry of Finance (MoF), marz (region) health departments, SHA, and others. This project was designed to complement and continue the activities and the PHC reforms implemented during the USAID/ASTP program.

The Project’s ultimate goal was to improve population health outcomes through the improvement of the quality of care, efficiency and transparency of the health system. This goal, in turn, was expected to be met through implementation of six key interventions (30):

- Reforming healthcare systems, policies, and procedures and extending reforms nationwide
- Building a more customer-service oriented system of clinic and provider choice through open enrollment
- Increasing the equitable and efficient distribution of health resources through healthcare financing strategies and the use of National Health Accounts
• Improving the quality of care
• Building clinical service capabilities through a Family Medicine approach
• Fostering improved health-seeking behavior through public health education and health promotion activities.

These broadly defined systemic interventions were further translated into a package of five components that included: *expansion of healthcare reforms and Open Enrollment, healthcare finance, quality of care, family medicine* and *public education, health promotion and disease prevention* (30). Figure 2 presents the primary healthcare reform model that emerged at the later stage of the project and linked several initiatives; these included: a systematic quality assurance (QA) program with five dimensions and five tools, a pay for performance program, an open enrollment system, and a computerized health management information system (HMIS) that linked the databases of enrollment, patient and hospital encounter, as well as registries of chronic diseases through MIDAS-3 system (MIDAS-3 software), therefore facilitating “enrollment-based financing” and P4P implementation.

![Figure 2. The Primary Healthcare Reform Model (30)](image)

**Healthcare System Strengthening in Armenia (HS-STAR)/USAID – 2011 to 2013**

Healthcare System Strengthening (HS-STAR) was another USAID-funded three-year project that ran from 2011 through 2013 and was implemented by Abt Associates. This project built on the investments of previous USAID programs (41).

The primary goal of HS-STAR was to address issues in health financing, leadership and governance, human resources, and information systems impeding access to and delivery of quality health services in Armenia. It aimed to increase the quality of care of healthcare services, and increase population knowledge in priority areas, such as maternal and child health (MCH), reproductive health and family planning, tuberculosis (TB), non-communicable diseases (NCDs), and emergency medicine. As with the previous projects, HS-STAR was organized in four key components, which included (41):
1. Establishing a transparent and accountable health financing and governance system.
2. Institutionalizing a system of continuous improvement of quality of provided services.
3. Building the capacity of the National TB Program (NTB).
4. Enabling civil society to exercise their health rights and responsibilities.

The main objective of the first component of this Project was to support MoH and SHA to further improve financing and management of the healthcare system of Armenia. Specifically, HS-STAR aimed to strengthen the performance, reporting, and payment systems of PHC providers through further full endorsement of enrollment-based financing, refinement of PHC performance-based incentive payment, and implementation of PHC capitation rates based on real PHC service utilization rates (age-sex adjusted) (29). To this end, HS-STAR implemented a range of activities, including analysis of performance data, creation of tools to calculate bonus payments, trainings of medical and managerial staff, development of new performance indicators, and modifications to the electronic data recording and reporting system (i.e. modification of the MIDAS system).

**Disease Prevention and Control Project (DPCP)/World Bank – 2013 to date**

In 2013, World Bank approved and launched a new project in Armenia that aimed to (1) improve Maternal and Child Health (MCH) services and the prevention, early detection, and management of selected Non-Communicable Diseases (NCD) at the PHC level, as well as (2) enhance the efficiency and quality of selected hospitals in Armenia [20]. This project comprises of three main components:

- Performance-based incentives to improve MCH and NCD services in PHC facilities (Cost $5.03M)
- Hospital Modernization (Cost $38.17M)
- Project Management (Cost $1.80M)

In order to further incentivize quality of MCH services, as well as the screening and management of selected NCD risk factors such as hypertension and diabetes mellitus, the first component of the project aims to strengthen and promote the ongoing performance-based financing scheme (31). For these purposes it has initiated a number of activities, including addition of three new performance indicators (specifically quality of antenatal care visits, screening for cervical cancer, screening for hypertension and high glucose level), institutional arrangements, independent verification of results as well as monitoring and evaluation among others (31).

Performance-based incentives to improve MCH and NCD services has two sub-components: performance-based payments for MCH and NCD and performance-based financing implementation and capacity building. The first component has two aspects: (i) the screening part in which full cost reimbursement are provided for selected MCH and NCD screening tests (on a “per test” basis); and (ii) the performance-based incentives part in which performance-based incentives are provided if targets are met for a set of agreed performance indicators (42).

According to the Implementation Status and Results Report, implementation of DPCP is ongoing at a good pace. With regards to performance-based financing, the national program for screening of NCDs has been launched in 2015, and PHC providers have already been trained to implement the screening program (43). In addition, development of the main tools and design for Primary Healthcare Report-Analytical Webpage was completed in January 2015 (43). The Health Project
Implementation Unit of the Ministry of Health implements the DPCP. Up until 2013, the WB cooperated with the USAID Health project in performance based contracting area.

3.4. ACTORS

3.4.1. Main actors of the RBF in Armenia

The actors were identified through the document review and the key informant in depth interviews. The Ministry of Health with its State Health Agency and the USAID were two main actors providing the critical contribution to the RBF introduction in the country and responsible for technical implementation: “The program [scaling up] was mainly carried out by the State Health Agency (SHA) and Ministry of Health (MoH). Mainly it was implemented by the SHA... the process was mainly carried out together with the World Bank and USAID.” (Policy maker 4.3.1.2, IDI). Other MoH departments were also involved during the national scale up: “This includes the Medical Care Department, Maternal and Child Health Protection department, State Health Agency, the National Institute of Health etc.” (Policy maker 4.3.1.3, IDI)

Ministry of Finance was engaged in various stages of the program whenever there had been a financing component (including at present): “We were working very closely, (us, MoH and SHA). We were also cooperating closely with MoF, since we had to show the importance of having additional 20 percent financing for the primary health care sector. If I am not mistaken, MoF implemented a result-based budgeting mechanism like this in 2011.” (Expert 4.3.1.2, IDI)

The World Bank joined much later by supporting the introduction of the performance measurement for the screening programs: “The decisions are made... since the inclusion of these new indicators was based on the WB project, I can say it was through cooperation between the experts from the WB and the MoH specialists.” (Policy maker 4.3.1.3, IDI)

In addition to the above mentioned actors, several others were also identified by various respondents, including: The Ministry of Territorial Administration, other departments of the MoH – Medical Care Department, Primary Health Care department, Maternal and Child Health Protection department, State Health Agency, the National Institute of Health – and the marz governor offices. The key informants noted:

“...but of course there were other MoH divisions which were involved in the process. An example of such a MoH division is the Primary Health Care division”. (Policy maker 4.3.1.2, IDI)

“We have also worked with the Ministry of Territorial Administration, as they are responsible for the marz development plans, we have considered the second part of the Poverty Reduction Strategy paper... If I am not mistaken it was called Regional development plan. (Expert 4.3.1.2, IDI);

“The open enrollment databases have been their [marz governor office] responsibility and they are responsible for overlaps, duplication, and other incorrect information. They participated in special training sessions on how to deal with these patient databases. In addition, the healthcare facilities are under their jurisdiction... although there are a few healthcare facilities that are under the MoH jurisdiction, the majority of them are attached to marz governor’s offices. We managed to build a strong link between SHA and local marz healthcare departments - they did not cooperate well in the past.” (Expert 4.3.1.2, IDI)
No documental evidence of consultations or involvement of individual citizens, or the civil society organizations and the independent academia/technical experts (beyond the ones employed by USAID/the World Bank or the MoH was found by us.

The summary of the role of actors in the form of the stakeholder assessment table is provided in Table 1 below.

**Table 1: Policy actors by categories, power, nature of their interests and position regarding the RBF introduction and scale up in Armenia**

<table>
<thead>
<tr>
<th>Player name</th>
<th>Nature of the interest in MAP Expansion</th>
<th>Category</th>
<th>Position</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic/Technical experts</td>
<td>Public/Professional – addresses the public issue of professional concern</td>
<td>Interest group – civil society</td>
<td>Non-Mobilized</td>
<td>Low</td>
</tr>
<tr>
<td>Citizens/patients</td>
<td>Beneficial – access to basic health insurance, financial protection</td>
<td>Individual</td>
<td>Non-Mobilized</td>
<td>Low</td>
</tr>
<tr>
<td>Health Providers</td>
<td>Financial – both harmful and beneficial – P4P may provide additional income but may requires additional paperwork and knowledge/skills they did not possess</td>
<td>Interest group - Commercial</td>
<td>Medium Support</td>
<td>Low</td>
</tr>
<tr>
<td>International Development Partner – USAID</td>
<td>Global/Public – supporting the MDGs, new PHC Model, RBF schemes globally and in Armenia</td>
<td>Interest group - international</td>
<td>High Support</td>
<td>Medium</td>
</tr>
<tr>
<td>International Development Partner – World Bank</td>
<td>Global/Public – supporting the health reform and RBF schemes as the way improve the effectiveness of preventive/PHC services Globally and in Armenia</td>
<td>Interest group - international</td>
<td>High Support</td>
<td>Medium</td>
</tr>
<tr>
<td>Local Governments – marz health departments</td>
<td>Political/financial – will help to increase the revenues for the health facilities owned by them and may increase the satisfaction of their constituents</td>
<td>Elected/appointed</td>
<td>Medium Support</td>
<td>High</td>
</tr>
<tr>
<td>Ministry of Finance</td>
<td>Financial/both beneficial and harmful – may increase the effectiveness of the public spending on health but will require additional public outlays</td>
<td>Appointed officials</td>
<td>Medium Support</td>
<td>High</td>
</tr>
<tr>
<td>Ministry of Health/State Health Agency/Primary Health Department/Maternal and Child Health Department</td>
<td>Policy – addressing the issues of low motivation and effectiveness of PHC providers and high OOPs, improving the utilization of PHC and MCH services</td>
<td>Appointed officials</td>
<td>High Support</td>
<td>High</td>
</tr>
</tbody>
</table>

*Source: Key informant interviews, interviews with key stakeholders, focus group discussions, document review*

### 3.4.2. Ministry of Health - State Health Agency

Key informants reported that various departments of the MoH, and specifically SHA had been a major driving force throughout the project working in close collaboration with the donors and other organizations. This referred to both pilot phase and the nation-wide implementation, as the MoH/SHA had subsequently become the main body responsible for all activities related to the P4P system. Although one of the key informants explained that during the piloting phase the Ministry had not been very active and had mainly given their consent for the activities being conducted:

"During the pilot stage] I can say we operated in a participatory manner. It was team work within the project and it was a mix of international expertise and domestic knowledge and expertise, as well as consultations, firstly with the SHA. With the ministry we basically had some kind of a blessing, but I would not say that there was much of technical input from the ministry staff." (Expert 4.3.2.1, IDI).

The funding of the project, was established from the very beginning of the pilot through close collaborations and agreements with the MoH, SHA, and MOF. As one of the study participants
remarked, this may be one of the critical success factors for the Armenia RBF program: “A very important element of the Armenian project (which I think was tremendously successful) is that in our pilot we had government funding since day one, as we agreed with the ministry and the SHA that a specific fund would be established and managed by the SHA.” (Expert 4.3.2.1, IDI)

Currently the SHA is the central control panel where all the information related to patient registration lists, indicators, performances and other information is collected. All finalization of databases, removal of duplications and calculations of bonuses, as well as organization of trainings and meetings are conducted by this authority: “Databases are collected at the State Health Agency where all overlaps and duplications, if any, are identified and clarifications requested from the healthcare facilities. Then they work with the patient and clarify which facility and doctor the patient wishes to remain with.” (Expert 4.3.2.2, IDI)

3.4.3. United States Agency for International Development (USAID)

In 2000s, USAID shifted from its humanitarian emphasis to providing assistance in social, political and economic development projects. USAID had an important role in the development of the PHC sector of the country. Their activities began in early 2000s and continued until 2013. During this time period, USAID’s ASTP, PHCR, and HS-STAR projects concentrated on improving the PHC sector, introducing the RBF system, developing its methodology, the necessary infrastructure, information systems and material for implementation, conducting trainings, addressing key constraints in leadership and governance (44) (29). The active and at most times the leading role of USAID in piloting and scale up of the P4P system in Armenia is also confirmed by key informants:

“We (USAID supported ASTP project) helped to issue a governmental decree. Of course the SHA wouldn’t have financed us without that. So we had manifestation of support from the government since day one. I was also reporting to the National Assembly... the parliament, about our work, as they too were very interested in this component. Of course we were talking about new models of care - PHC reform particularly - and they were concerned on how to implement this countrywide.” (Expert 4.3.1.1, IDI)

“The pilot was implemented in a number of pilot facilities in 2003, when it was still USAID PADCO (ASTP). They did some pilot projects in a few facilities...” (Policy maker 4.3.4.1, IDI)

“PHCR mainly developed the entire methodology [of P4P]; it helped the country understand the methodology. So [ASTP conducted] the development of all the documents for the governmental decision plans - how it should be done, how it should be calculated, what informational database should be used -because if the indicators were not calculated, recorded in that format, it would be impossible to calculate and assess them... then during the second stage the next project of USAID started [HS STAR].” (Policy maker 4.3.4.2, IDI)

3.4.4. World Bank

From the year 2014, the World Bank started supporting the P4P system through the DPCP program, introducing 3 indicators in P4P targeting 3 diseases: cardio-vascular disease, diabetes and cervical cancer among women (31): “Our program “The prevention/monitoring of non-communicable diseases” with PIU started in 2013. It was based on the PBF system already in place in the RA. We are just conducting screenings for hypertension and diabetes, as well as PAP smear tests, which might be
new procedures conducted within the frames of the Polyclinic. Our financial resources are merged with the MoH financial resources, and the money is given to the physicians as a bonus for doing screenings (Pap smear test, glucometry).” (Expert 4.3.3.1, IDI).

The DPCP program supported the preparatory work for the introduction of these three additional P4P indicators (training for providers) and creation of open web-based portal that is also used to report the results for all P4P indicators. This was underscored as an important achievement by the national policy maker: “The website - the new portal - was created and introduced by the WB supported PIU. It’s a webpage where you can access any type of report. So for this you don’t need to have the software or be at your workplace. You can access it from your home to understand what’s going on around you.” (Policy maker 4.3.3.2, IDI)

Most importantly, from the year 2015 the WB project started providing the matching funding for the bonus payments that allowed to significantly increase the size of the bonus payments and have facilitated change in the frequency of performance reporting and bonus payments. According to key informants: “A few other innovations will also be implemented within this system of indicators, related to the WB supported project. The first one is that, if we were only summarizing the results of this P4P indicators to calculate the bonus payments that were being made only once annually, now we will have to increase the frequency to twice a year. So this will happen twice a year or every six months. And probably the most important thing is that we will also be able to increase the overall amount of financial motivation provided through bonuses, based on the additional funding we receive from the WB.” (Policy maker 4.3.3.1, IDI).

However, it should be noted that while the World Bank funding for noncommunicable diseases component of the P4P plays an important role, the MoH still steers the process: “It would be better to say that this is a project being implemented by the MoH with support from the World Bank and is directed at the early detection and prevention of non-communicable diseases. We have 3 target diseases included here: Cardio-vascular disease, diabetes and cervical cancer in women.” (Policy maker 4.3.3.1, IDI). Moreover: “The concept and strategy of these [new WB indicators] have been drawn up by the outpatient medical care policy division of the medical assistance policy department of the MoH staff.” (Policy maker 4.2.4.4, IDI)

### 3.4.5. PHC Providers

PHC providers is the group most influenced by RBF reforms in Armenia. The document review did not reveal any evidence of consultations conducted with health providers during the design, piloting or scale of the RBF in the country, beyond several rounds of provider trainings conducted at various stages. Any assessment of health providers’ position and/or opposition to the New PHC Model and the P4P mechanism was also not documented in the documents accessible to us. However, one key informant noted that health providers were consulted when selecting some performance indicators for P4P mechanism: “We asked them [health organizations] whether they thought it would be realistic to take one-month old children for this certain immunization, as it has been provided in this schedule. We collected all the feedback and based on that we came to the conclusion that the time could be increased by 1 month or 20 days, it depends. This work was done on a daily basis and the reason why the project had good credits from the healthcare facilities is because we had closely worked together with them.” (Expert 4.3.3.2, IDI). Yet, a health provider participating in our study stated the opposite: “They did not ask our opinion when they were making decisions to implement
this project. They met us and informed us about it only after they had already made the decision to implement this bonus system.” (Health Provider/physician 4.3.5.3, FGD, Yerevan)

It is unclear how well health providers were informed regarding the objectives and process of the P4P. As noted above, when discussing the P4P project with health providers, they would report that maybe they had not understood everything well from the start, or maybe their new tasks in relation to the P4P mechanism had not been explained to them as detailed as was necessary.

The attitude of health providers towards the new P4P system may have been negative at the start, which may have changed over the course of P4P implementation and then returned to the negative once problems with bonus payments occurred: “Actually there were issues since the very beginning of this project, as the main procedure began in a negative light. The majority of physicians were against this new system, because they were sure that it would not function properly. But then slowly they began picking up with the pace and working, because some of them refused to do the work in the beginning of the program. We have two physicians at our facility who are very much against this system to date. They refused to work until we received the first bonuses, after which they became slightly motivated and began working. But then after that, as the bonuses didn’t come, they just went back to not complying with the guidelines. (Health provider/nurse 4.3.5.1, FGD, Lori marz) Yet other health providers comment on positive side of the P4P: “In the beginning I was asked how I prescribe the number of analysis and ECGs necessary for a patient with CAD, and I responded, "by conscience". Now, I am forced to do ECG and other things, because it became a dogma to ensure the required volume. In a way this was a benefit, because there is no existing decree to conduct any of these, so you might accidentally skip one.” (Facility manager 4.3.5.4, IDI, Yerevan)

The study team observed significant difference in both the attitudes and approaches of various groups of health providers towards the P4P system throughout data collection. These were mainly noticeable in the way participants responded to the questions: their responses, their tones and attitudes. Overall, doctors and nurses who participated in the FGDs seemed more agitated and had a more negative approach to the questions and the program on a whole. While facility managers from the IDIs would discuss the issue of work overload and lack of time and then set these aside and move on to evaluate the effects of the program on provider performance regardless of these, members from the FGD seemed unable to get past these negative issues and would connect everything else to them. One facility manager noted that regardless of all the trainings and activities the introduction of the P4P system did not go smoothly and faced resistance from health providers whose workload had increased as now everything had to be documented on paper and then entered into the online system.

A few participants also referred to the issue of lack of political power among providers. Even though the majority of key informants reported constant cooperation between all stakeholders, transparency throughout the project initiation, and development of special tools to give more power to the physicians in controlling their own activities: “We developed modules in Excel... In these modules most of the things were automatized. For example, after receiving their budget, they put the amount in the Excel file and it is automatically calculated: 10%, 20%. Also, they can enter the physicians’ indicators into the module, so within the portal the information is publicly displayed that this physician has these many points, the other this many points etc. We made it maximal transparent, and easily controllable by the physicians. There is no governmental system that can help
monitor everyone, especially the primary health care system, where we have about 2000 physicians and about 356 facilities. It is pointless to control everything anyway, so we decided that it was better to give physicians our partners the ability to control. So we gave them an opportunity and a tool to follow their own performance.” (Policy maker 4.3.5. IDI). However, one expert expressed the frustration over the fact that none of their suggestion had been taken into consideration for the development of the program: “I would say that there was no adequate response to our suggestions, because whatever we suggested was not taken into consideration.” (Expert 4.3.5.1, IDI, Lori marz)

Lack of consultations and feedback was also raised during one of the FGDs with nurses: “You know, it feels like nurses have fallen on a very low level. We work a lot, but nobody appreciates the work that we do. So it is so wonderful that you have organized this meeting today giving us an opportunity to speak of our worries, to state that we work very hard... everything.” (Health Provider/Nurse 4.3.5.4.2, FGD, Ararat marz)

Moreover, it was noted on several occasions, that the introduction of the OE has demeaned the influence of the PHC provider because of the freedom it has inflicted upon the population, who as a result show disrespectful behavior towards them. On the other hand, some participants saw this as a positive point of forcing providers to improve their quality. As one participant put it, “if you are not smiling today, they give themselves the right to tell you that I don't want you and I am going to somebody else”.

3.5. CONTENT

The description of the content of the Armenia RBF scheme is focused on two key aspects that are most relevant in identifying key enablers and barriers to the RBF national scale up in Armenia and assessing the strengths, weaknesses, opportunities and threats of the existing RBF mechanism. These aspects include performance measures (performance domains and indicators) and institutional arrangements for performance reporting and frequency. This section also includes key informants’ and health providers' views and expectations regarding the results and the strengths and weaknesses of the existing P4P scheme.

3.5.1. Performance domains and indicators

According to the documents reviewed and the responses provided by the key informants during IDIs, The performance domains and indicators has expended from one domain (open enrollment) and one indicator (the share of the enrolled population) at the start of the pilot project in 2004 to the current (as of the May 2015) 27 indicators covering 6 performance domains: Maternal and Reproductive Health (3 indicators); child care (7 indicators); NCDs prevention (6 indicators); NCDs control (7 indicators), TB control (1 indicator), screening programs (3 indicators). As noted above, this expansion of performance domains/service coverage has occurred gradually and different performance indicators were tested.

For 2004 pilot, the key objective was to support the OE process through provision of a financial incentive: “In 2004 we started this pilot with only one indicator. It was additional payment for every person enrolled. Basically it was capitation but on top of capitation it was an additional bonus for
every enrollee. There was a system of 28 indicators but we had 7 indicators for which we paid the bonuses. Five of them were quarterly and 2 of them were annual indicators.” (Expert 4.3.3.1, IDI)

Six additional indicators were tested in 2005 in 12 pilot facilities. According to the key informant, in order to ensure that providers conducted all their work well and did not only work on something they knew in advance that would bring bonuses, the team came up with a “blind” rotation model; every few months (respondent could not recall if this was 3 or 6 months) the indicators would be changed without notifying the providers: “No performance based payment is good once providers get used to working only towards the set indicators, as they may neglect other duties in other scopes of the work. So this is what we decided to do: we had a very big list of 26, 28 indicators... However, we were paying bonuses only for a selected number of indicators and it was a blind method; they would not know for which indicator...So there was three dimensional coverage: for enrolment, quantity and quality.” (Expert 4.3.3.1, IDI)

During the second phase of the RBF program, which was conducted with the support from PHCR project team, 10 indicators were developed together with the government representative bodies and included in the system when P4P was implemented in all 366 PHC facilities in Armenia. According to participants from the PHCR phase of program, these initial set of indicators were mainly related to non-infectious chronic diseases (assisting in organization of early detection, prevention and decreasing the high mortality rates). Only 1 indicator developed by the ASTP team was used, which was improved to fit the needs of the program better: “PADCO [ASTP] had developed the pilot project, but we took only one indicator from that pilot; this was immunization coverage. But again, we improved it, because we did not take overall immunization coverage... we took all 3,5 month old children and checked their vaccinations according to the National Immunization Schedule to see whether they had been conducted or not. This was also discussed with the health organizations.” (Expert 4.3.3.2, IDI)

After this point, the development of an additional 20 indicators was conducted by the SHA, as the USAID project deadline had been state-wide implementation and the program had been passed on to the government. These were introduced into the system in 2013, increasing the number to 30, however since 6 of these were related to creation of patient registries and those registries were created, in 2014 the SHA decided to “retire” these 6 indicators. The resulting 24 indicators are presented in Annex 5.

The next stage of changes in indicators were related to the cooperation with World Bank, which helped to introduce 3 new indicators to the system, boosting the total number up to 27. According to one key informant, the project was not new for the WB, as they had previously introduced it in 2005, however as it had been ineffective, they had decided to include it as an indicator into the already operational government program and provide incentives to motivate the providers: “…Back when PBF had been newly introduced, this was one of the qualitative indicators [refers to the provider and patient evaluations]. (Health Provider/physician 4.3.3.1, FGD, Lori marz)

The previous indicators had only been directed towards evaluation of the performance of therapists, pediatricians and family doctors; the new component of the program was also directed towards gynecologists by providing an indicator for PAP smear test. The national policy makers note that “…the main characteristic of these indicators is that they are measurable; for example, the level of immunization, the Pap smear test for the uterus cervix, and glucometry. In other words, things which
we can oversee. (Policy maker 4.3.3.2, IDI). They hope that inclusion of these additional P4P indicators will: “allow us to organize early detection, prevention and of course lower the mortality rate, which was the highest.” (Policy maker 4.3.3.2, IDI).

Health providers are also reporting that these new P4P indicators are helping to improve their preventive and health communication work with the population: “Also, we conduct works within the framework of early detection of pregnancy – within 5 weeks of pregnancy. When we go on house calls, we also raise public awareness so that if women have any suspicions during their pregnancy, they can come to the facility for examinations. Although they have started using home-tests also nowadays, but we still do our job. In general, if you explain well that onco-cytology screenings can help detect issues and not attending them may lead to problems in the future, people oblige. And also checking glucose levels is mandatory for everybody now.” (Health Provider/nurse 4.3.3.1, FGD, Ararat marz)

Yet, some of the health providers point out the difficulties in achieving some of the performance targets determined by these indicators: “There are sets of tests, for example the PAP smear test for women above 35 years old, cholesterol level test, blood glucose level test... and World Bank pays bonuses based on our performance. But it is very difficult, women in villages are unwilling to take the PAP smear test. But the processes of measuring cholesterol and blood glucose levels are easy. The PAP smear test is difficult.” (Facility manager 4.3.3.2, IDI, Ararat marz):

Moreover, during FGDs and IDIs with managers, participants expressed their frustration specifically to the coding necessary for these new indicators and the fact that indicators were introduced by various projects and required different recording and reporting: “There are some indicators now, which are funded through the World Bank, some others that are funded through our government and social packages. All three of these have just become mixed up and made our work even more difficult, as we are now forced to have all three. We don’t even know which codes to write in which report anymore and where to send them.” (Health Provider/physician 4.3.3.3, FGD, Lori marz)

Moreover, during one of the FGDs with physicians, all participants in the group unanimously agreed that the number of indicators were too many and their work would be improved if only the most important indicators were left to work with: “…Our indicators are too many and in reality pointless... If they just left the most important ones, our work would also be more effective.” (Health provider/Physician 4.3.3.2, FGD, Ararat marz).

3.5.2. Institutional arrangements – design and implementation characteristics

For Open Enrollment

One of the main changes in the system has been that the previously practiced catchment area system where all residents of a particular area were attached to their local PHC facility is now completely replaced with an open-enrollment system. From July 2014, the Open Enrollment ties payment to each provider to the number of people registered with the provider. This new approach is perceived by some experts as “revolutionary”: “It really was like a revolution and I know that this pilot became very successful in the country because we established the notion of population enrolment with primary health care providers. We developed enrolment criteria and databases. There
was a huge information component to it, and we basically moved the capitation from catchment area notion to an enrolled population notion.” (Expert 4.3.5.1, IDI)

The national policy makers consider the OE and OE based financing as a major positive development in the PHC field: “[Open enrollment] gives the individual an opportunity to ensure their constitutional right. It lets them choose their doctor, the person that they trust... Open enrollment also became the basis for the introduction of free practices, because the open enrollment system is flexible and wherever the individual goes, financing follows into that facility.” (Policy maker 4.3.5.1, IDI).

However, there were mixed feelings concerning this issue among the facility managers and health providers, who raised both the negative and positive sides of the system during the discussions with us.

The main positive aspects of OE which were reported by various respondents from different groups were:

- Providing a person the right to choose the provider they see fit; It was however stated by various groups that this was overdone by some people and resulted in constant movement, which could possibly be addressed through the introduction of certain regulations or paid services limiting the number of times a person could change facilities.
- Improvement of trust between a patient and the provider they have chosen;
- Physicians knowing their patients and their families better;
- Improvement in the quality of the provider’s services, as a direct result of competition with others;

The main negative responses according to the participants were:

- Arguments and fights between health providers who try to enroll as many people as possible since their capitation based salaries depend on that number;
- People constantly changing their provider and the facility, leading to issues with duplications in online registration databases and physicians not receiving remunerations for them. It is noteworthy that this point was not just reported as being intentional at all times, but in some cases patients would end up with double registrations unwillingly, without realizing that it had happened. It was explained that in some cases people would accidentally end up enrolled elsewhere not knowing that visiting another facility for any issue could lead to this, while others would end up listed with another facility unable to explain it, denying that they had ever visited that facility;
- People enrolling in facilities far from where they live would cause transportation issues particularly in Yerevan, difficulties during house visits (this was limited during catchment area concept, as physicians and nurses knew their respective areas very well and distance or transportation was not an issue). Situation was reported to be specifically worrisome in case of emergencies or conditions that need constant monitoring. Moreover, even though the general practitioner is the one agreeing to serve a specific patient from a far location, whenever issues arise, the narrow specialists of the facility are also forced to face this distance-related challenge.
- Issues with the database when trying to register foreign nationals, people with expired passports, and making grammatical errors;
- It has decreased respect towards the health professionals, as people now have the power to decide;
- It produces an opportunity for corruption and blackmail both towards providers from the management of the facility, as well as members of the population who desire to enroll elsewhere.

However, when asked to summarize all their thoughts and respond to whether the OE was a positive or negative initiative, the PHC providers (including those participants who had listed positive aspects) almost unanimously agreed that it was a negative introduction into the system. The IDIs with facility managers, on the other hand, revealed that a majority of managers found this as both positive and negative. Sometimes being forced to choose a provider was mentioned as one of the shortcomings of this system.

One of the most important features of the OE was the development of patient registration forms in 2006, which had then been filled out on a mandatory basis by the providers and helped to create a database of people registered with specific PHC facilities. Some of the main issues during the project had been with these registries, leading to vast numbers of patients being removed from lists of PHC facilities, constant cleaning of existing lists and reduced bonuses to specific facilities due to these mistakes. The SHA has been constantly adapting and improving the system in order to address these issues, but throughout the process new difficulties have arisen, thus the process is ongoing and problematic to date: “Beginning from 2010 until implementation problems were always rising, being solved, and then others would appear... physicians are working but not getting the financing due to incorrect registration lists. Along with the work those issues have been raised and solved.” (Policy maker 4.3.4.2, IDI)

According to the study participants, the procedures of the OE includes people visiting their respective provider of choice, signing a contract with them and thus being registered in the list of that specific facility. These lists are then sent to the departments of Healthcare and Social security of their respective marz municipalities, which are then forwarded to SHA who is charge of completing the final cleanup and provision of funding. To date there are certain issues with the completion of these databases, including the duplications. One of the directions for improvement in this area, as reported by an expert key informant, is the current work being conducted to move from localized databases which are collected once a month, to a centralized national database. This new system will provide the opportunity for immediate access to the latest up-to-date database at any given time and identification of double-registrations on the spot: “Now we are thinking about creating a national database, to replace the localized databases for which we receive reports from medical settings once a month... Naturally this is not the best way to monitor the movements of such people. Thus, we are moving towards creating an online database, which would be a big jump for us and for the country in general, allowing medical facilities to quickly check the status of the patients for that very day, while applying. (Policy maker 4.3.4.4, IDI)

(see Annex 6 for detailed participant quotes on the OE topic).
For Pay for Performance

The design and implementation characteristics of the P4P mechanism in Armenia and its comparison with recommended design and implementation characteristics of the RBF schemes (45) is presented in Table 2

Table 2: The degree of adherence of Armenia P4P scheme characteristics with the advised RBF design and implementation characteristics

<table>
<thead>
<tr>
<th>Advised design and Implementation</th>
<th>Actual Design and Implementation of the Armenia P4P scheme</th>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-balanced benefit package at all levels</td>
<td></td>
<td>+</td>
<td>The BBP in Armenia includes both PHC and hospital services, however, the shift is towards the hospital services, no outpatient drugs in the benefit package</td>
</tr>
<tr>
<td>Rigorous results verification</td>
<td></td>
<td>+/-</td>
<td>Both ex-ante and ex-post verification system, however the health providers appear to have concerns regarding the transparency of the system</td>
</tr>
<tr>
<td>Separation of functions</td>
<td></td>
<td>++</td>
<td>There is a clear separation of functions between the regulator (MoH), purchaser (SHA) and provider (PHC facilities owned by local governments)</td>
</tr>
<tr>
<td>Use of user satisfaction surveys</td>
<td></td>
<td>-/+</td>
<td>The regular user satisfaction surveys are not used, however, the system for filing patient complaints exists.</td>
</tr>
<tr>
<td>Use of quantified quality checklist (balanced score card) with the results tied to payments</td>
<td></td>
<td>+/-</td>
<td>The balanced score card was developed for PHC facilities in Armenia (46), however is not universally applied in all facilities. Some measures of structures and processes are included in the P4P indicators and the regular quality control supervision is exercised by the MoH.</td>
</tr>
<tr>
<td>Use of a fee-for-service provider payment mechanism</td>
<td></td>
<td>-/+</td>
<td>Capitation payment is used to pay for PHC services. Performance bonuses are calculated as a share of annual salary fund. However, the enrolled population is clearly defined and the high achievers are not penalized.</td>
</tr>
<tr>
<td>Strategic purchasing with the focus on underprovided and underutilized health services</td>
<td></td>
<td>++</td>
<td>Strategic purchasing is used and the P4P mechanism provides incentives for underprovided and underutilized MCH, NCD management and screening services</td>
</tr>
<tr>
<td>Individual fees and total earnings that are significant and paid regularly</td>
<td></td>
<td>-/+</td>
<td>Small bonuses - at 3% of the salary fund (planned to be increased to 6%) and low salaries are insufficient to remedy staff coping mechanisms.</td>
</tr>
<tr>
<td>Most money to the most cost-effective services</td>
<td></td>
<td>++</td>
<td>The P4P mechanism is intended to provide incentives for the most cost effective services (MCH, NCD, screening)</td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td>+</td>
<td>Geographical are included in the capitation formula. No specific mechanisms for addressing access for the poor and underprivileged</td>
</tr>
<tr>
<td>Autonomy</td>
<td></td>
<td>+/-</td>
<td>Facility managers have some, though limited autonomy in management of facility finances.</td>
</tr>
<tr>
<td>Health facility management committee</td>
<td></td>
<td>+/-</td>
<td>No specific health facility management committee. However, the local (marz) governments are formally (in certain cases actually) involved in the management of PHC facilities.</td>
</tr>
<tr>
<td>Payments (quarterly) and financial management</td>
<td></td>
<td>-/+</td>
<td>Annual payment cycle is used. Six-month payment cycle is planned to use in the future. Indices determining the allocation of bonus payments to PHC personnel are pre-defined by the SHA, however, some health providers are sometimes confused regarding the system for allocation system for individual bonus payments.</td>
</tr>
</tbody>
</table>
### Performance frameworks for the regulator

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beyond the P4P measures, no consistent supervision from the regulator (MoH) and the local governments with quantified quality checklist.</td>
<td>-/+</td>
<td></td>
</tr>
</tbody>
</table>

### Quality improvement units and investment units

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No investment units, the investment decisions are taken by the local governments. Quality control groups existed during the pilot and still exist in some but not all PHC facilities</td>
<td>-/+</td>
<td></td>
</tr>
</tbody>
</table>

### Health facility management instruments

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual semi-annual performance evaluation tool and individual allocation formula for bonus payments is used. No business plan.</td>
<td>+/-</td>
<td></td>
</tr>
</tbody>
</table>

### Coaching and technical assistance

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was provided throughout the pilot and the national scale up. Some unmet coaching and technical assistance needs reported by health providers and facility managers</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

### District PBF (P4P) steering committee

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no district P4P committee and no community input. However, there are special SHA working groups for steering the P4P process and ensuring the public ownership and leveraging the health administrators’ capacity</td>
<td>+/-</td>
<td></td>
</tr>
</tbody>
</table>

### Web-enabled application with public front-end

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-enabled application for P4P is open for health providers and general public</td>
<td>++</td>
<td></td>
</tr>
</tbody>
</table>

### Coordination

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant coordination in the past (USAID) and the ongoing coordination (the World Bank) between the technical assistance providers and the government</td>
<td>++</td>
<td></td>
</tr>
</tbody>
</table>

### Capacity Building

<table>
<thead>
<tr>
<th>Framework</th>
<th>Adherence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>System strengthening occurs at health facility, district and national levels, though unmet needs remain</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

“++” well adhered; “+” adhered”, “+/-” mostly adhered with some deficiency; “-/+” mostly not adhered with the exception of some elements; “-” not adhered at all

**Source:** The advised characteristics are sourced from Fritsche, Soetens and Meessen; the Armenia P4P characteristics are compiled by the research team triangulating findings from the document review, IDIs and FGDs.

Some of the key features of the P4P scheme are described in more detail below:

#### The overall design characteristics

As of the beginning of the 2015, the key institutions involved in the P4P process are the SHA, the World Bank PIU at the MoH and PHC facilities. The MoH serves as a regulator who sets rules through ministerial decrees that create general framework for the P4P mechanism. PHC facilities sign annual purchaser-provider agreement (also known as PHC performance agreement) with the SHA, who is the purchaser. The SHA manages the (a) synthesis of data collected from the PHC facilities through the special module of the MIDAS 3 database, (b) evaluation of results reported by the PHC facilities, (c) calculation of bonus payments for PHC facilities and regularly and timely funds the P4P component since 2011 (31). Since the second half of 2014, the World Bank PIU located at the MoH became an integral part of the P4P scheme. Using the World Bank provided loan to the Government of Armenia, the WB PIU oversees the collection, calculation and evaluation of results across three new indicators added in 2014-2015 to support the improved PHC performance in population screening. According to key informants, the WB supported the development of the special web-based portal as a supplement to the existing MIDAS 3, which was routinely used by all PHC facilities from the year 2011. This special open-web based portal developed by the WB provides online access to reports and other related data to all health providers at any given time through individual
accounts. Also, since 2014 the SHA, in cooperation with the World Bank PIU (at the MoH) adopted 2 monitoring indicators to improve the enforcement mechanism for P4P. These indicators assess the practical functioning of P4P component by measuring the share of PHC facilities paid on time (within two months of semi-annual P4P report submission) and Proportion of PHC facilities undergoing enhanced verification of results by the SHA Working Group.

**Frequency of reporting and bonus payments**

Frequency of reporting and bonus payments was changing over the time. Initially monthly reporting and payments were practiced during the pilot in 2004. During the second year of the pilot, five out of seven indicators were reported quarterly, while the remaining two - annually. The payments were provided accordingly. Once the P4P was scaled nationally, the annual reporting and bonus payment cycle was adopted. Currently, with the introduction of the new World Bank supported indicators, the frequency of reporting and bonus payments was changed to bi-annual, as it was suggested by the World Bank that annual payments create a long time lag between the actual performance of health providers and receiving rewards for the performance results. The key informants also reported that there may have been delays in the

**Allocation of P4P funds within the facility and bonus amount**

After the P4P reporting is completed, the SHA transfers the pre-calculated bonus payments to all facilities where the indicator requirements have been met. The distance of the facility and climate are factored in estimating the bonus amounts to be awarded. The transferred funds from the state budget are then distributed among the staff according to a pre-calculated mechanism, which determines the percentages foreseen for the physicians, the assisting team, as well as administrative expenses. The percentages of the overall fund allocated to these various components have been recently changed. In 2014 the overall amount received by a facility was allocated in the following manner: 70% to the medical staff (60% to the physician and 40% to the middle medical staff); 20% for administrative staff (operators, data enterers, accountants, etc.); 10% for additional direct costs (printing and copying forms, etc). According to the study participants, this allocation formula was revised following complaints from the facility managers. The new allocation formula envisions: 80% to the medical staff (70% to the physician and 30% to the middle medical staff); 13% for the administrative staff, and 7% to additional costs. The new amendment is executed throughout the PHC facilities of the entire country starting from 2015.

However, the FGD with health providers revealed that there is some absence in clarity concerning the mechanisms of bonus calculations and allocation to individual health providers. Some participants asked the study team to explain how all this was managed, some others reported that the heads of facilities were in charge of decision making regarding distribution of bonuses and a third group explained that there were clear instructions for the distribution of funds and these did not depend on the heads of the facilities. In addition, one of the nurses expressed their opinion that the amount was calculated depending on the number of patients serviced.

According to some key informants, the bonuses provided for the year 2015 would have an almost 4-fold increase, as a direct result of a recent increase in salaries (bonuses are calculated as a percentage of provider salary fund), as well as the increase in overall bonus funds thanks to the additional funding provided by the WB, which will be merged to the existing fund and distributed
equally among all 27 indicators. Therefore, if for the years of 2013-2014 physicians would be receiving at best approximately 20,000 – 25,000 AMD worth of bonuses each (1 Armenian Drum-AMD equals to app. 0.0021 USD), which comprised 3% of their overall yearly salary, in 2015 they will receive approximately 100,000 AMD worth of bonuses, comprising 5-6% of their annual salary. It was however noted, that even in case of such an increase, there was room for improvement, as medical staff should be motivated to perform well, knowing that they could receive as much as an additional 1-2 full months of salary each year.

See for more details on qualitative findings Annex 6.

3.5.3. RBF results and SWOT analysis

There were no rigorous evaluations conducted of the existing RBF scheme up to date and the documental evidence on actual functioning of the existing scheme is almost absent. The perceived results and SWOT analysis of the RBF scheme implementation are mainly based on triangulated findings from the in-depth interviews and the FGDs.

RBF results

Most of the key informants feel that while it is too early to discuss the outcomes, the RBF experience in Armenia so far was successful. As on the key informants remarked: “If it had not been a success, I don’t think that the PBP system, which was introduced in 2010-2011, would still be operating in 2015. And I don’t think that those indicators would have been reviewed, increased, some substituted, and new ones introduced. In fact, the pilot was a success because it is now operating in all PHC institutions throughout the Republic.” (Policy maker 4.5.2.3, IDI). Key informants particularly single out the success in improving the utilization of underprovide and underutilized health services, including the screening programs: “One of the achievements is that early detection of diseases has been improved in Armenia; rate of visits to PHC institutions have increased, in other words prophylactic activities have improved in that respect and the situation has improved a lot. The number of neglected, serious cases has decreased because we are encouraging doctors to perform better for prevention and early detection.” (Policy maker 4.5.2.3, IDI).

One of the national policy makers believe that the P4P indicators have made it possible to improve prevention, as some important procedures have become mandatory; measuring the functions of the specialists is also possible now. Together with the entire system which was introduced on a mandatory basis, the incentive provided – no matter how small – has greatly improved monitoring activities and prevention. On the other hand, as another key informant put it, regardless of the success in the field, there is also the negative side where providers are concentrating on the area where the financing is coming from, while quality in all other areas are “lagging behind”. Regardless of all the steps taken, the insufficient resources of the country were still impeding proper quality control, and they themselves were spending the majority of their time recording complaints from the population rather than concentrating on quality of services.

Analysis of data concerning provider motivation revealed triangulation between all sources. One of the policy makers from the key informant IDIs noted that the absence of motivation due to lack of financing has resulted in a lack of supervision over implementation of existing protocols and guidelines in the healthcare field. Two key informants recalled using an alternative means for motivation during the scale-up process when they realized that the providers were not motivated enough. A special event had been organized where the minister had personally handed out certificates to the heads of best performing facilities in the presence of all others, noting the importance of P4P for the overall health system. The direct impact of this had been better
performance from those who had not received certificates, which was mainly related to recognition and an emotional satisfaction.

A couple of FGD participants responded that regardless of how small it is; the bonus is still considerable amount of money nowadays. However, the rest of the respondents find little the financial incentive provided insufficient. They explained that in any situation, they stay true to their work as they did during the economic crisis of the late 90s when no salaries were provided for a number of years to any of them; however, this lack of sufficient funding did not motivate them and some of them would therefore prefer having the P4P system removed altogether, considering the extra paperwork it creates.

One other barrier in this area, reported by a policy maker from the IDI with key respondents was that the harsh methods of monitoring activities had also affected the motivation of providers. This was explained as funding not being provided to the physicians who had issues with incomplete 002 forms, even thought they had been very enthusiastic in both providing better quality services and documenting their activities; the comment specifically referred to specialists from marzes.

One key informant noted that the negative aspect of this system is that the idea of receiving finances for performance can be quite dangerous in creating a desire to forge the number in order to receive more payments; even though strict monitoring can control this to some extent, it is a possibility that must be taken into account and controlled at all times: “On the other hand, the pay for performance system mostly distorts the objectivity of the health statistics, because health care workers are motivated in showing certain numbers of cases, in order to receive higher remuneration. Therefore, we certainly cannot have real, clear objective figures. Naturally, stricter control makes them more alert for a while, but then they find new ways to do all this [forging numbers]. Of course this does not mean that everything is like that, but it does affect the true picture and these things should be taken into account.” (Policy maker 4.5.2.4, IDI, Yerevan)

The policy makers expressed the concern regarding the sound functioning of the quality assurance mechanism and the effectiveness of the regulators (MoH, marz governments) in enforcing these mechanism: “Even though there are approved protocols and guidelines, they are very rarely implemented. However, neither the marz governors’ offices, not the ministry manage supervising their enforcement, as there are not enough resources”. (Policy maker, 4.5.3.1, IDI, Yerevan)

Majority of participants reported that despite the lack of motivation because of small bonus payments and increased paperwork, the performance of providers significantly improved. The majority of the respondents from the IDIs with managers reported a positive change in the performances of both managers and providers, which had improved the quality of PHC services provided. Many participants from IDIs reported about increased sense of responsibility among doctors, improvements in patient-doctor relations and patient monitoring, with subsequently increased population awareness levels: “The number of visiting patients is huge and now physicians work with the healthy people more than before. And since they know that they should record, enter the information and are being monitored, they pay more attention to it all… I think that, physicians also understood that it is easy to work with healthy people than later have problems with ill people.” (Facility manager 4.5.2.1, IDI, Yerevan). While assessing the P4P experience positively overall, some facility managers expressed the concern with less community involvement: “In terms of population health, this project has been amazing. Through it we have been brought closer to the public, or maybe the public has been brought closer to us?” (Facility manager 4.5.2.5, IDI, Lori marz)

There were however a few respondents who believed that the P4P system had only resulted in negative performance among health providers through increased workload and stress. Throughout interviews, the amount of the financial incentives being provided were frequently identified by key informants as the driving force behind the majority of the issues in the P4P program, including when
speaking about the lack of changes in health provider performance: “We all know that the project itself is a very good one, it is just that there isn’t any motivation. If only we were paid accordingly, then there would be no issues at all.” (Health Provider/nurse 4.5.2.1, FGD, Lori marz)

The responses from almost all six FGDs triangulated in explaining that provider performances had suffered greatly, due to their overloaded situation, both because of increased number of patients serviced per provider and the paperwork required for each of these patients: “I would say it has changed more towards the bad side, as we now complete so many documents that we cannot even look at the patient’s face.” (Facility manager 4.4.4.6, IDI, Lori marz)

This has caused a situation, where the providers are inattentive towards the patients and concentrate more on paperwork to record the visit: “It added stress and much paperwork...The rest is practically the same. Everyone performs the same responsibilities as before. (Policy maker 4.4.4.3, IDI).

Regardless of the broad spectrum of varying issues related to the P4P program raised by almost all participants from all groups throughout the data-collection process, there was triangulation between results reported by the participants of the manager’s groups as well as FGD participants. Almost all managers agreed that the project has been successful in meeting its main goal: prevention, as well as raising public and provider awareness to some extent. These were also reported as being successes by a majority of the FGD participants, although the other half believe that other than hardship, the project has brought nothing to them. As for the IDIs with managers, only two participants were convinced that the project in its entirety is unsuccessful and only increased workload with no added benefits.

It was explained by various FGD participants that if in the beginning the providers had to convince the entire population and somehow make them come, nowadays a large section of the population was aware of the screenings, knew what they were for and would even visit the PHC facility on their own initiative to undergo the scheduled examinations (specifically the healthy population). Even provision of informative manuals and leaflets prepared by various organizations and bodies - both included in the P4P and not included - have been showing positive results, as those same patients return the very next time with visibly increased knowledge. Due to this positive reaction from the population regarding visits, the PHC level, which has always been a preventative level is now meeting its true calling, as an increased number of healthy people visit, making it possible to prevent, as well as detect certain health problems at an early stage. Not only is this change in understanding and attitude seen amongst the population, but it is also reported as evident among the PHC providers who, according to the managers, now understand clearly what their purpose is and what services are expected from them. This is also collaborated by health providers: “You can see the effects of the work you have done. It is like a monitoring tool and the physician is able to monitor everything (before this program everything was very confusing). Now once you have done your job, you enter specific codes and it becomes possible to see the amount of work you have done. (Health Provider/nurse 4.5.2.4, FGD, Yerevan). Subsequently, regardless of the workload, their work is more organized since they knew precisely what to look for in which age-group and how.

All participants in one FGD with physicians expressed their dissatisfaction with the P4P and did not consider it successful, moreover, they expressed frustration that a project that had failed as a pilot had later on been re-introduced on a country-wide scale: “Approximately 10 years ago Vanadzor was a pilot, where the experiment project was implemented... They concluded that it wasn’t correct back then and the project had some shortcomings, so they halted until they could fix it. The issue here is why they later on decided to implement it after their initial failure... that is the part I don’t understand.” (Health Provider/physician 4.5.2.3, FGD, Lori marz)
Although almost everybody from the various IDIs with managers and key informants and FGDs agreed that at the beginning of the project their expectations had been mainly financial, some also reported expecting improvements in quality of care. One participant explained that the introduction of the new project had brought hope to them that something would change for the better, but it was agreed that they were all quite disappointed by the results: “We were expecting that competition between medical workers would increase and interest would be shown; however, since the bonus amount was small, no interest was shown. (Policy maker, 4.5.4.1, IDI)”.

It was repeated by various participants throughout the FGDs and IDIs that the payments they received for their work was so insignificant that it was even offensive; some even stated that they preferred not doing the work and not being paid at all. As one participant put it while expressing their disappointment concerning the low amount received for their work: “the remuneration is not done based on our performance... this money is almost like a slap from the government” (Health Provider/nurse 4.5.4.3, FGD, Yerevan).

The study participants also reported some unexpected results of the RBF implementation in Armenia. As one policy maker explained, the establishment of the family medicine concept, open enrollment and some additional reforms in the health-care field had also been planned to encourage individual providers to leave the polyclinics and offer their services by establishing private clinics as single or group practices of family medicine. However, the polyclinics themselves had not encouraged this initiative and created barriers; thus very few family doctors had actually taken this risk. Instead it had attracted the attention of large investors, particularly private insurance companies, who had established private medical centers (generally located in Yerevan) with new equipment and good looking amenities. There were mixed views about the effects of this sudden turn of events, as the majority of the respondents expressed their opinion that this creates an un-even grounds for competition with the state-owned PHC facilities. The latter cannot match the facility, equipment and provided salaries which subsequently limits the attractiveness of facilities. At the same time, the attractiveness of these new services increases trust and comfort among the population, ensuring enrollment with them and decreasing the numbers of people registered in the state-owned facilities. One of the major issues here was that, as one policy maker put it, the new facilities “cream skim” the population and enroll the wealthiest and subsequently healthiest groups of people, while the state facilities are left with the poorer and sicker part of the society. Moreover, both the state and private facilities get the same per capita payment, however, the private clinics do not provide all the services that state polyclinics provide for the same payment. For example, for specific specialist care the private clinics would still refer their patients to state polyclinics.

However, another policy maker reported that the MoH does not see the presence of private facilities as a threat, as to them it does not matter how many facilities they are splitting the funds between and where the population chooses to go, as long as the services are provided as expected. In fact, this should be regarded as a positive development: “consider this [establishment of private sector] as one of the main positive outcomes of this system. If the government was able to motivate the private sector to enroll people, then this means that we have very good results. We should be proud of this!!! You know, the private sector is the business sector, meaning that you are at a point when you manage to attract businesses and make them deal with state-order. It increases competition, improves quality, and provides more opportunities for people, and the possibility to choose the better option. (Policy maker 4.5.7.3, IDI)”

More details on FGD and IDI findings on results and strengths, weaknesses, opportunities and threats for the existing RBF program in Armenia are presented in Annex 7.

Drawing on these findings the SWOT analysis of the RBF scheme in Armenia is summarized in Table 3.
Table 3: SWOT analysis of the RBF scheme in Armenia

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High level political commitment</td>
<td>• Lack of sufficient funding for PHC in general</td>
</tr>
<tr>
<td>• Availability of the national champion (MoH/SHA)</td>
<td>• Small and infrequent bonus payments</td>
</tr>
<tr>
<td>• Improved health provider awareness regarding their performance</td>
<td>• Overload of physicians with paperwork</td>
</tr>
<tr>
<td>• Motivating healthcare providers to provide more preventive and screening services</td>
<td>• Confusion among physicians and operators regarding correct recording of their results</td>
</tr>
<tr>
<td>• Improvements in quality of services provided</td>
<td>• Inability of PHC facility staff to operate the database and software</td>
</tr>
<tr>
<td>• Improvements in patient-physician relationships</td>
<td>• Existing flaws in patient encounter forms, recording the disease coding, etc.</td>
</tr>
<tr>
<td>• Improved utilization of more cost-effective PHC services</td>
<td>• Possibility of forging P4P results by individual health providers</td>
</tr>
<tr>
<td></td>
<td>• Lack of clarity among health providers on allocation formula for individual bonuses</td>
</tr>
<tr>
<td></td>
<td>• Lack of sound quality assurance framework</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strengthening PHC sector</td>
<td>• Ageing cadre of PHC health providers</td>
</tr>
<tr>
<td>• Improved state and donor funding for PHC infrastructure and expanded benefit package (e.g. adding drugs)</td>
<td>• Lack of monitoring and evaluation and audit</td>
</tr>
<tr>
<td>• Increasing the amount of bonuses and frequency of their payment to influence motivation</td>
<td>• Lack of satisfaction among PHC providers</td>
</tr>
<tr>
<td>• Developing mechanisms to increase salaries and positive attitude among physicians</td>
<td>• Inappropriate distribution of bonus funds to individual providers</td>
</tr>
<tr>
<td>• Increasing trust and respect towards PHC providers through improved quality of services</td>
<td>• Small and infrequent payment of bonuses</td>
</tr>
<tr>
<td>• Increased fair competition between public and private providers leading to the improved quality of services</td>
<td>• Overload with patients and paperwork preventing physicians to focus on clinical duties</td>
</tr>
<tr>
<td></td>
<td>• Lack of basic equipment to perform the tasks included in bonus indicators</td>
</tr>
<tr>
<td></td>
<td>• Lack of medical insurance for healthcare providers</td>
</tr>
</tbody>
</table>

Source: document review, IDI and FGD

3.6. Enablers and hinders for RBF national scale up

The enablers and hinders for the Armenia RBF national scale up were identified by us based on the analysis of process, context, actors and content of the RBF introduction and scale up in Armenia presented in previous sections. The perceptions and opinions of the study participants on such enablers and hinders were also considered.

Process

To identify the enablers and hinders for the RBF program scale up in Armenia, the research team conducted comparative analysis of the adherence of the RBF scale up process to good practices. The adherence to good practices was analyzed separately for I phase piloting process (2003-2005), scale up of which was discontinued in 2005 and the II phase piloting which resulted in the national scale up (2006-2015). The results of the analyses presented on Table 4 show that the discontinuation of the I phase pilot were likely related to such hindering factors, as the insufficient political and technical
leadership of the national stakeholders (the MoH/SHA), the limited capacity building, the lack of coordination and information systems/ monitoring and evaluation and the absence of broad communication strategies. Conversely, the same factors when adequately addressed may be considered as enablers that contributed to the national scale up of the II phase RBF program pilot in Armenia. Triangulated findings from the study sources indicate that the full adherence to most of the good practices in implementing the health financing reform initiative was likely the key enabler for the national scale of the OE and the P4P in the country. More specifically, the strong national ownership and MoH/SHA leadership of the process, use of contextualized scientific evidence and local knowledge, balanced coordination between external technical agencies (USAID/the World Bank) and the empowered national coordination unit (SHA), observed medium term budgetary commitment for funding P4P scheme, well sequenced reform elements, comprehensive capacity building and broad communication strategy may have been the crucial enablers that determined the successful scale up of the RBF program in Armenia (see Table 4). In addition, the IDI and FGD participants reported that embedding the P4P in the regulatory framework (the governmental order mandating the scheme implementation in all PHC facilities) and the national budget (the government funding the P4P from the very beginning in 2003 and (b) the accompanying measures to the RBF program implementation, such as renovation of facilities, provision of equipment and administrative (information) instruments and system, have also played important roles in facilitating the national scale up of the RBF program in the country.

Table 4 indicates that the remaining hinders to further national scale up include deficiency in clarity of and abiding to the rules for beneficiary enrollment and elements of the P4P scheme for health providers.

Context

As noted in the Section 3.3. Context, the supportive global context and the country’s economic, social and health system contexts have aligned to serve as an important enabler to the successful scale up process, while the deterioration of the favorable economic context in the aftermath of the global financial crisis in 2008, have likely hindered the national scale up process by affecting the adequate level funding for P4P scheme and the bonus payments. The IDI and FGD participants also confirmed that favorable health system context, more specifically, the inclusion of the P4P as part of the broader health reform initiative may have been an important enabler for the RBF program scale up in Armenia. As one of the experts noted: “I would say that the factor of success is when PBP is embedded into a multi-dimensional program to improve performance where this financial element becomes part of a bigger portfolio... of a bigger spectrum of initiatives” (Expert 4.5.6.1, IDI).

Actors

The study findings presented in Section 3.4. Actors clearly show that the external actors: USAID and the World Bank have been crucial for introduction of the RBF program in the country and have been helpful throughout the national scale up process. However, the decisive role played by the key national actors - MoH and its SHA as political and technical leaders and MoF as the funding agent – have been key enablers for the RBF program scale up in Armenia. The high expectations reported by the study participants - health providers towards the new system have likely served as an enabler and the eventual disillusion of part of the health providers with the P4P mechanism due to the low...
motivation, increased workload and paperwork may have hindered and continue to hinder the RBF scale up process in the country.
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<tbody>
<tr>
<td>1. Preliminary situation analysis (H)</td>
<td>Yes</td>
<td>USAID</td>
<td>conducted series of assessments in 2000-2003</td>
<td>Yes</td>
<td>USAID performed the situation analysis of the PHC sector and the experience of the first pilots in 2006</td>
<td></td>
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<tr>
<td>2. Vision, ownership and leadership (C)</td>
<td>+/-</td>
<td>Process was driven by external stakeholder (USAID), the national policy makers were pulled in the process</td>
<td>Yes</td>
<td>Strong national ownership, the MoH/SHA steering the process</td>
<td></td>
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<tr>
<td>3. Clear policy objectives (I)</td>
<td>Yes</td>
<td>Measuring provider performance, improving provider motivation, increased utilization of PHC, reduced OOPs</td>
<td>Yes</td>
<td>Measuring provider performance, improving provider motivation, increased utilization of PHC, reduced OOPs</td>
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<tr>
<td>Policy Formulation</td>
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<tr>
<td>4. International and national scientific evidence used (H)</td>
<td>+/-</td>
<td>Mostly international scientific evidence on RBF was used</td>
<td>Yes</td>
<td>Policy briefs on the international experience of RBF implementation were provided by USAID (2006) and the World Bank (2014-2015) and were used during the RBF design. Study tours to Estonia and UK were organized for the national policy makers</td>
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<tr>
<td>5. Contextualized scientific evidence and local knowledge used (C)</td>
<td>+/-</td>
<td>Scientific evidence and local knowledge on existing problems were used, no specific local knowledge of RBF</td>
<td>Yes</td>
<td>The design of the second phase pilots were conducted using the series of policy papers produced by USAID analyzing the national experience of the RBF piloting in 2003-2005</td>
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<tr>
<td>6. Different policy options assessed (H)</td>
<td>Yes</td>
<td>Different options for targeted services, bonus sizes and frequency of payments were considered</td>
<td>Yes</td>
<td>MoH/SHA reviewed different RBF schemes before designing the P4P for the national scale up.</td>
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<tr>
<td>7. Thorough assessment of the selected option (I)</td>
<td>+/-</td>
<td>28 P4P indicators were tested before selecting the final 7 for the pilot in 2004-2005. After testing monthly payments, quarterly P4P was introduced. Limited evaluation and assessment of the pilot</td>
<td>Yes</td>
<td>The selected RBF design for the national scale benefited from initial year of simulation exercise, testing of various P4P indicators and frequency of bonus payment (annual vs. semi-annual). The assessment conducted by USAID helped to define timing for tying the P4P with number of patients registered through the OE</td>
<td></td>
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<tr>
<td>8. Early identification of accompanying measures (I)</td>
<td>+/-</td>
<td>The key accompanying measures were identified (information system, necessary equipment, training of providers) but were not implemented at the required scale.</td>
<td>Yes</td>
<td>The key accompanying measures were identified (information system, necessary equipment, training of providers) and implemented at the required scale.</td>
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<tr>
<td>9. Key implementation stakeholders are involved in the formulation stage (C)</td>
<td>Yes</td>
<td>All key stakeholders were involved (MoH, SHA, MoF, MoT)</td>
<td>Yes</td>
<td>All key stakeholders were involved (MoH, SHA, MoF, MoT, marz governors)</td>
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<tr>
<td>10. The content of the reform meets preferences of key stakeholders (C)</td>
<td>+/-</td>
<td>Fully met the preferences of policy makers, less so for health providers</td>
<td>+/-</td>
<td>Fully meets the preferences of policy makers, less so for health providers</td>
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<td>Programming &amp; implementing</td>
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<td>11. Sequencing reform elements (H)</td>
<td>Yes</td>
<td>The expansion of the P4P pilot was gradual over a year, the number of P4P indicators was also gradually increased from one to 7 indicators in 2004-2005</td>
<td>Yes</td>
<td>The introduction of the two key components of the RBF program (the OE and the P4P) were well sequenced.</td>
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<td>12. Planning implementation steps (C)</td>
<td>Yes</td>
<td>Piloting and implementation plan existed</td>
<td>Yes</td>
<td>Piloting and implementation plan existed</td>
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<td>13. Broad communication strategies (C)</td>
<td>No</td>
<td>No evidence of broad communication strategy before or during the I phase piloting</td>
<td>+/-</td>
<td>The RBF program was reflected in 2003-2005 MTEF, however, the budget funding for P4P was discontinued after one year, (from 2005)</td>
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<tr>
<td>14. Medium-term commitment to budgetary burden (C)</td>
<td>+/-</td>
<td>While the rules were clearly defined, the providers recall problems with recruiting and enrolling patients</td>
<td>Yes</td>
<td>The RBF program is reflected in all MTEFs starting from 2003, the budget funding is steadily provided from the year 2011</td>
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<tr>
<td>15. Clear rules for contracting and beneficiary enrollment (for the OE) (C)</td>
<td>+/-</td>
<td>The rules for P4P scheme were clearly defined. The health providers did not recall any major problems in interpreting the rules</td>
<td>+/-</td>
<td>While the rules are clearly defined, health providers still have some confusion with different aspects of the OE system</td>
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<tr>
<td>16. Clear rules for interpretation of the P4P scheme (C)</td>
<td>Yes</td>
<td>The rules for P4P scheme were clearly defined. The health providers did not recall any major problems in interpreting the rules</td>
<td>+/-</td>
<td>While rules are clearly defined, health providers still have some confusion with different aspects of the P4P system</td>
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<tr>
<td>17. Technical leadership by the Ministry of Health/SHA (C)</td>
<td>No</td>
<td>The technical leadership was with USAID/ASTP team. MoH/SHA engaged at a later stage</td>
<td>Yes</td>
<td>The process was led by the MoH/SHA</td>
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<td>18. Capacity building (H)</td>
<td>-/+</td>
<td>Limited trainings of health providers were conducted</td>
<td>Yes</td>
<td>Wide scale trainings both by the USAID PHCR and the World Bank DPDC projects were conducted on different aspects of the implemented RBF program</td>
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<td>19. Empowered co-ordination unit (C)</td>
<td>+/-</td>
<td>The coordination structure was in place, however, the lack of actual coordination was reported</td>
<td>Yes</td>
<td>The coordination is well carried out by the SHA and the MoH/World Bank PIU.</td>
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<td>20. New rules are abided by different actors (C)</td>
<td>-/+</td>
<td>The new rules were abided by different actors, yet the problems were reported that also contributed to discontinuation of the pilot in 2005</td>
<td>+/-</td>
<td>While the new rules are generally abided by all relevant actors, health providers are reporting specific problems in adherence to certain rules</td>
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<tr>
<th>Monitoring &amp; evaluation</th>
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<tr>
<td>21. Monitoring &amp; evaluation of the reform (C)</td>
</tr>
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</table>

(C)- Crucial, (H) – Helpful; (I) – Important; “Yes” – Largely adhered to good practice; “+/-” partially adhered; “-/+” only few components of the best practice identified; “No” – Not adhered. Source: List of good practices adapted from Hercot at al. the evidences presented were compiled by authors
The overall adherence to the key recommended characteristics of the RBF design and implementation as presented in the Section. 3.4. Content were likely the important enabler of the RBF program scale up in Armenia. More specifically, the strategic purchasing with the focus on underprovided and underutilized services with equity focus, clear separation of functions, good coordination mechanism, adequate information system in the form of web-enabled application with public front-end are strong features of the RBF design and implementation in Armenia that served as enabling factors for the scheme scale up. The study participants also identified one additional enabling factor nesting in the design of the P4P mechanism allowing the redistribution of the incentive bonuses to motivate all personnel and also cover administrative expenses. The small size (only 3% of the salary fund) and infrequent bonus payments (annual) and overload of health providers with paperwork maybe identified as key hindering factors for further scale up of the RBF program in the country. While the MoH/SHA are attempting to address some of these issues by doubling the bonus payments and changing the payment cycle to the semi-annual, it remains to be seen how sufficient these measures will be.

4. DISCUSSION
4.1. Limitations

The number of participants was as planned in the study protocol. The interviewers were independent researchers from the American University of Armenia School of Public Health.

One MOH Policy maker gave a short in-depth interview and did not want to discuss all the details of the project and one donor project representative (expert) did not want to answer the questions about problems that their project team faced during pilot project implementation phase. The FGD participants tried to share their general observations about the P4P program and talked less about their personal experience, as sometimes they were discussing how the providers would need to find a way around the system. Moreover, there were specific issues which dominated the discussions with the health-care providers, which was further discussed in the results section of this paper. However, these minor issues should not affect the overall results of the project, as overwhelming majority of participants felt comfortable giving accurate information.

One key informant and participants of two focus group discussions did not allow audio-recording; although two note takers were included in such cases to improve the quality of the collected data, this could not exclude the possibility of omitting some of the ideas expressed by the participants. Some of the participants could not provide much information as they lacked certain knowledge concerning the P4P program.

Recall bias was another limitation of the study, particularly when trying to answer questions about the pilot project that happened more than 10 years ago. Most participants did not accurately remember details about the pilot project and provided information that was not very consistent during the in-depth interviews.
Another limitation observed by the research team was the fact that both the FGD participants, as well as IDI respondents constantly confused details of the project with the family medicine component of the PHCR project. This often resulted in confusion between specific dates, trainings, number of facilities included in the pilot project, and other details. This issue was probably both due to recall bias and some lack of clarity on the separate parts of the project, since piloting for these components was done at almost the same time.

4.2. Main Findings

Armenia is among many Low and Middle Income Countries (LMIC) that are experimenting the RBF during the last two decades. The RBF program in Armenia, which included two key components: the P4P mechanism and the OE, was introduced within a framework of broader health care reforms carried out by Government of Armenia to move away from inefficient health care system inherited from the Soviet Union. The initiation of the first P4P pilot in 2000-2003 coincided with the introduction of RBF in international development agenda, as a continuation of international efforts to make development aid more effective (10). The introduction of P4P scheme as one of the components of the New PHC Model was promoted by the USAID through the Armenian Social Transition Project. The national policy makers have embraced the P4P concept from the very beginning, as in their opinion it presented the opportunity to address some of the pervasive problems of the PHC system, such as the low remuneration of PHC workers and the resulting low motivation and effectiveness of the medical personnel and high level of Out of Pocket Payments (OOPs) for PHC services. This first phase piloting ended in 2005 without the decision for further scale up due to the lack of adequate preparation. The II phase of piloting started in 2006, with the support from the new donor funded project (USAID/PHCR). by the end of 2006, the Government of Armenia adopted a principal decision for the nationwide implementation of the RBF scheme. The P4P scheme in Armenia currently covers all PHC facilities throughout the country and can be considered as between the intermediary and advanced stages, as progress was achieved across the five dimensions of the national scale up:

1. population coverage (entire population is covered by 2011);
2. service coverage: from 3 pilot facilities to all 366 PHC of the country and from 3 interventions covered in the pilot to 24 interventions covered currently.
3. health system integration was achieved across all areas (governance and leadership, health financing, human resources, health information systems and health services provision). Our study also found the evidence of tangible progress in the RBF institutionalization (formal and expected states). However, problems (e.g. provider motivation) are observed in the moral state.
4. Cross sectoral diffusion – the introduction of the RBF program may have influenced the implementation of the results based budgeting practice within the national budget cycle.
5. Knowledge diffusion/transfer – While initial knowledge on RBF was externally generated, it appears that by the year 2015, both the explicit and tacit knowledge of P4P is held internally by decision makers and local experts at MoH and SHA and many of the health managers that participate in the P4P throughout the country.
As in most of the LMIC (47), the Armenia P4P scheme was initiated and supported externally by the international donor organizations (USAID and the World Bank). However, the national ownership and subsequent national scale-up was achieved in relatively short time period from 2003 through 2011 (48). Early buy-in from the national authorities demonstrated by the provision of supplemental budget funding for the P4P pilot in 2004 and the introduction of the Open Enrollment mechanism after the implementation of the country wide population registration system in 2007, were important factors in ensuring the scheme ownership and allowing the national scale-up. Overall, the favorable global and country context and the adherence to most of the good practices in implementing the health financing reform initiative (19) and the internationally recommended characteristics of design and implementation of the RBF schemes (45) were likely the key enablers for the national scale of the OE and the P4P in the country. More specifically, the strong national ownership and MoH/SHA leadership of the process, use of contextualized scientific evidence and local knowledge, balanced coordination between external technical agencies (USAID/the World Bank) and the empowered national coordination unit (SHA), observed medium term budgetary commitment for funding P4P scheme, well sequenced reform elements, comprehensive capacity building and broad communication strategy may have been the crucial enablers that determined the successful scale up of the RBF program in Armenia.

It has been generally recognized that the salaries of health workers have been very low in Armenia and the gap was often filled by informal payments (29). According to the analysis conducted in 2011 doctors working in primary care and relying solely on their salary after taxes would be living very close to the poverty line (31). Salaries for health care workers in primary care are the most strictly regulated. Salaries are based on capitation payments for the number of patients enrolled with primary care providers. Family doctors who participate in the P4P scheme are also able to supplement their capitation-based salaries with bonus payments. Thus, the P4P scheme could help to improve the motivation of the health care workers and lead to the improved quality of and access to health care services for the population. The research demonstrated that scale up of the P4P in Armenia led to improved quality and access to PHC services, however, provider overload and lack of motivation remain as significant weaknesses of the current system. The weakness of the P4P scheme identified by the research team - low motivation of the health providers and their overload with additional paperwork - is commonly found elsewhere (47); if not addressed they may nullify the anticipated positive effects of the P4P program in terms of improved utilization and quality of the primary health care.

The research findings also show that the P4P is generating spill-over effects that may be beneficial for the entire health system. The need for improved registration and reporting for the P4P program has triggered the strengthening of the country’s HMIS and the development of the patient electronic registration system that are expected to improve the overall health system performance.

Along with MCH, the Armenia P4P targets the NCD. The burden of disease from NCDs – such as cardiovascular diseases, diabetes, certain types of cancers and chronic respiratory diseases – is rising in Armenia and globally [29]. Internationally, RBF mechanisms have been traditionally applied to infectious diseases and maternal and child health, but very few have specifically focused on NCDs [30]. Thus the results of the Armenia P4P may contribute to the global learning process on effectiveness of the RBF schemes in targeting NCDs.
Overall, the P4P scheme has been working as intended and providers’ behavior is changing as expected in Armenia. However, as any other program it has strengths and weaknesses. It is important to recognize the strengths of this program, such as the high level political commitment, improved health provider awareness regarding their performance, provider incentives to focus on prevention, improved utilization of more cost-effective PHC services, and continue building on them to improve the system. These research findings also highlight the main weaknesses of the existing system and the threats to the P4P, such as inadequate amount and frequency of bonus payments, overload of providers with paperwork and the lack of the managerial capacity to operate the sophisticated software required for the P4P. These weaknesses need policy/decision makers’ attention and specific actions to address them. The future reforms to improve the existing system should also consider the opportunities identified by the stakeholders of the P4P in Armenia.

Some of the emerging recommendations to the policy makers to strengthen the primary care sector through better RBF (or P4P) include:

- Find more financial resources for the project to be able to increase the amount of bonuses in relation to their annual salaries to increase providers’ motivation
- Consider revisiting compensation levels of PHC providers
- Further develop the reporting system to decrease the amount of time spent on filing and data entry
- Implement monitoring at facilities during the year to identify human-related errors and provide detailed feedback to correct such issues
- Facilitate more positive attitude among physicians towards the system through non-financial incentives (in addition to financial)
- Continue implementing reforms that would help to improve the quality of services provided and increase trust and respect towards PHC providers
- Explore the possibility of implementing P4P mechanisms for other healthcare services particularly when Armenia implements Electronic Health Records in the country.
REFERENCES


ANNEXES

Annex 1

Guide for in-depth interviews with key informants

Design stage, Pilot

- How the P4P project initiated in the country?
- Who (donors, other institutions and organizations) participated in the design process?
- What was the design of the P4P pilot scheme (probe: how many facilities were included? What facilities? How were they selected? How many indicators were selected and how?)?
- How in your opinion the overall country context has influenced the P4P program design? (Probe for: country macroeconomic picture, donors aid conditionality, national leadership, ongoing reforms, opinion leaders, health system performance, salary levels, available evidence on P4P, expectations of the P4P, etc)
- Do you think that the pilot project was successful? If yes, what do you think are the factors that led to the success of the pilot (probe: was the amount of money allocated for motivating certain performances enough? Was motivation reaching healthcare providers as it was planned within the polyclinic)?

Scale-up decision

- How the P4P project national scale-up decision was made?
- Who (donors, institutions, organizations, etc.) participated in the decision process?
- What was the nature of the decision-making process of the national scale-up (open for all actors or close for few actors)?
- How in your opinion the overall context has influenced the P4P project scale-up? (probe for: country macroeconomic picture, donors aid conditionality, national leadership, ongoing reforms, opinion leaders, health system performance, salary levels, available evidence on P4P pilot results, general expectations of the P4P, etc)
- What changes were made to the design of the program after the pilot, before the scale-up? Were the changes justified (supported by piloting results)? How many indicators were developed? How? How did they change in the future?
- What was the nature of the scale-up design process (open for other actors or close for few actors)?

Scale-up implementation, sustainability

- To what extent where the scale-up of the P4P program being achieved? What is the level of integration? Did the scale-up process developed as planned?
- What factors contributed to the P4P scale-up implementation?
- What were the main barriers during the P4P scale-up implementation?
- How the identified barriers were addressed?
• How the changes introduced during the scale-up affected the scale-up process?
• How the P4P program sustainability is achieved? What strategies and processes play major role in the achievement?
• Which strategies failed during the scale-up? What factors determined this failure?

**Expected, Unexpected Results**

• Do the consequences of the P4P scheme meet the expectations in relation to work as intended, indicators change, providers' behavior, demand on services, any other? If not what are unexpected consequences?
• Do you think that the amount of payment to motivate a certain performance is addressing the needs of the PHC facility? The needs of healthcare providers? Do the payment reach the PHC provide as it was planned within the PHC facility? Were there any cases when the payment was allocated to the PHC facility but was not allocated among providers as it was planned? If there were such cases, what would you suggest to address this issue?
• Did the scheme result in providers behavior change? What other factors except the P4P scheme could have influenced the behavior change? Are there any official assessments regarding the performance of PHC providers or any patient satisfaction surveys?
• Do you notice any changes in the health system (financing, HR, service delivery) that were triggered by the P4P scheme implementation?

**Open Enrollment**

• What could you say about the open enrollment? Did it help to improve the performance of health providers or created more difficulties? What are the main positive consequences of open enrollment? What are the main problems created by the open enrollment?

**Future Opportunities**

• What efforts should the country take to improve the P4P system and make it more sustainable? What should be the next reform steps to improve the performance of the healthcare system? (*Probe for:* Are there any complementary reforms to P4P that are needed?)
• Do you think it is worth to implement P4P scheme in other healthcare sectors? If yes, where specifically and how?
• Is there any other information regarding this topic that you would like to share with us?

As expert in P4P scheme could you, please, advice us

• What additional specialists should be included in this study?
• Are there any relevant reports, articles or other documents that we could use for our study? How can we obtain them?

*Thank you for your participation!*
Խորացված հարցազրույցի ուղեցույց գլխավոր շահագրգիռ կողմերի հետ

Պիլոտային ծրագիրը, նախագծային փուլը

- Ինչպե՞նք նախաձեռնեցիք Կատարողական վրա հիմնված ֆինանսավորման (ԿՀՖ) ծրագիրը Հայաստանում?
- Ինչպե՞նք նախագծային փուլը (նախագծային ծրագիր) ամբողջությամբ հաստատվեց, որը ինչպե՞ս են սահմանադրված, ինչպե՞ս իրավաճառ փուլ է սահմանում, իմանալով թաղանթ դարձնելու ճանաչում և ինչպե՞ս?
- Պիլոտային ծրագիրը, նախագծային փուլը, որը մաթեմատիկական պատճառով, դոնոր-կազմակերպությունների որոշ պայմաններով, տեղի կեցիսխցումներով, ռազմական բարելարություններով, հասարակական կարծիք մասնակցության, ստորաբաժնական իրավականության գործունեության, սահմանակույց ապացուցակային շարժիչ, ԿՀՖ-ի կողմից ընդունված գործունեությունից, ԿՀՖ ծրագրից սպասվող ակտիվների և այլն:
- Ի՞նչ եք կարծում, որ պիլոտային ծրագիրը հաջողված էր: Եթե այո, ավելին պիլոտային ծրագրի խոնարհությունը ի՞նչ գումարն է թողնվել, այնպես որ անհրաժեշտ էր կրկնակի կատարակտ պատմության, բժիշկներին պահպանել, թե՞ ինչ որոշվել է համապետական ծրագրի ընդլայնման վերաբերյալ որոշումների կայացման գործընթացի ավարտը, թեև ռազմական տորոնտալը ընդհանուր իրավիճակից, կարելի են որոշումներ կազմել, ինչպե՞ս կարողանում եք անդամակյան բժիշկների հետ?

Օրոքի վերաբերյալ պետք է անդամակի ախտանշան ենթադրենք

- Ինչպե՞ս որոշեցիք ԿՀՖ ծրագիրը համապետական մասշտաբով ընդլայնել:
- Ովքե՞ր (դոնոր-կազմակերպություններ, այլ հիմնարկություններ) մասնակցեց այս որոշումից?
- Ինչպիսի՞ն էր ծրագրի համապետական մասշտաբով ընդլայնման վերաբերյալ որոշման գործընթացի բնույթը (որոշման գործընթացի բնական փուլ կայացնելու համար, դեռևս գործընթացի ավարտ կատարելու համար), որենք որոշման ժամանակ որոշվել է ինչպե՞ս ԿՀՖ-ի մասին գործունեության կարծառուցված գործունեություններ):
- Ձեր կարծիքով, ինչպե՞ս եք քսանալար իրերի կարգադրությունը (համատեքստում) ստորաբաժնական ԿՀՖ ծրագրի նախապատմության ընթացքում (նախագծային ծրագիր) թերթի վերաբերյալ պահանջների, լրացուցիչ հարցումներ, բույների կազմակերպման, հայտարարության, կազմակերպեցումների, համաքվության, սահմանության կազմակերպությունների, համաքվության համար մասնագիտությունը, առաջարկված, ապացուցված
աշխատավարձերի չափերը, ԿՀՖ-ի վերաբերյալ գիտական փաստերի հասանելիությունը, ԿՀՖ ծրագիրի պայմանագրերը և այլն;

* ԿՀՖ-ի ծրագիրի վերաբերյալ գիտական փաստերի հասանելիությունը, ԿՀՖ-ի վերաբերյալ գիտական փաստերի հասանելիությունը և այլն: Այս փաստերը հատկացվել են կից ծրագրի փոփոխությունների դեմքի պաշտոնական գրանցմամբ,

* Պիլոտային ծրագրից հետո, մինչև ծրագրի ընդլայնումը, ինչքան փոփոխություններ են իրականացվել նախագրի նախագծում: Այդ փոփոխությունները հիմնավորված են պիլոտային ծրագրի արդյունքների հաշվի էր առնում պիլոտային ծրագրի արդյունքը

* Քանի ցուցանիշն ընտրվեց, ինչպես և:

* Հետագայում դրանք ինչպես փոխվեցին:

* Ինչպիսի՞ն էր ծրագրի ընդլայնման գործընթացի բնույթը (որոշման գործընթացը բաց էր բոլոր շահառուների համար, թե՞ եղան շահառուն, ովքեր դուրս մնացին որոշումների կայացման գործընթացից):

* Ծրագիրը ընդլայնումը, շարունակականության ապահովումը

* Որքանո՞վ հաջողվեց ԿՀՖ ծրագիրն ընդլայնել:

* Ինչպե՞ս ինտեգրվեց համակարգին:

* Արդյո՞ք ծրագրի ընդլայնումը ընթացավ ըստ նախատեսված: Ի՞նչ գործոնները նպաստեցին ԿՀՖ ծրագրի ընդլայնմանը:

* Որո՞նք էին ԿՀՖ ծրագրի ընդլայնման ընթացքի հիմնական խոչընդոտները:

* Ինչպե՞ս հաղթահարեցիք առաջացած խոչընդոտները:

* Ծրագիրի ընդլայնման փուլում առաջացած փոփոխությունների ինչպե՞ս ազդեցին ծրագրի վրա:

* Ինչպե՞ս ապահովեցիք ծրագիրի շարունակականությունը:

* Ծրագիրի ձեռքբերումների ի՞նչ ռազմավարություններով ու գործընթացներով էին պայմանավորված:

* Որո՞նք են գործընթացի ձախողված ռազմավարությունները:

* Ի՞նչ գործոններով էին պայմանավորված այդ ձախողումները:

* Սպասելի և չսպասված արդյունքները

* Արդյո՞ք ԿՀՖ-ի ծրագիրի արդյունքները բավարարեցին Ձեր սպասելիքները` այսպիսի փոփոխություններից, բուժաշխատողների կատարողականից, ծառայությունների պահանջարկից և այլ գործոններից:

* Եթե ոչ, ապա թե՞ ոչ ինչ կախված էին այդ գործոններից:

* Բուժաշխատողների համար նախագրի գումարները ԱԱՊ բուժանձնակազմին հասնում են բուժանձնակազմին:

* Եղել են դեպքեր, երբ գումարը հատկացվել է ԱԱՊ համահատականներ, սակայն չի բացարձակության միջոցով կախվել որևէ արդյունք?

* Եթե այն, ապա ի՞նչ կարողանանք այն հիպոթեզն ուղեկցել համար:

* Օրինակ, թե ապահովումը կանխարգելին մնացել է՞ թե ոչ նախագրի փոփոխությունների դեմքի պաշտոնական գրանցմամբ, ԿՀՖ-ի ծրագիրի դեմքի գրանցմամբ.
Դուք առողջապահական համակարգում նկատու՞մ եք որևէ փոփոխություն, որը կարող պեսի դրական հետևանք ունենա, պատմվելով իրավունք, ձգտում եք ուշադրության միջոցով ուսումնասիրել:

Ազատ հավաքագրում

Ի՞նչ կասեք ազատ հավաքագրման վերաբերյալ: Արդյոք դա բարելավել է բուժաշխատողների աշխատանքը, թե՞ խոչընդոտ է հանդիսացել: Որո՞նք են հիմնական դրական հետևանքները: Որո՞նք են հիմնական խնդիրները, որ առաջացել են ազատ հավաքագրման հետևանքով:

Հետագա հնարավորություններ

Ինչպիսի՞ք քայլեր պետք է պետության ձեռնարկի համար պահանջել ԿՀՖ-ի համար: Ի՞նչ քայլեր է պետությունս պետության համար խոսելով ԿՀՖ-ի համար: Ի՞նչ քայլեր է պետությունս զարգացնել ԿՀՖ-ի համար:

Այս թեմային առնչվող ի՞նչ զեկույցներ, հոդվածներ կամ այլ փաստաթղթեր կան, որոնք կարող ենք օգտագործել մեր հետազոտության համար:

Շնորհ ակալություն մասնակցության համար:
Annex 2

Guide for in-depth interviews with heads of health departments and facility managers

Introduction

- How the P4P scheme was introduced at your facility/or facilities in your marz?
- What expectations did you have from the P4P program at the beginning?

Scale-up implementation, sustainability

- What factors contributed to the P4P implementation at your facility/or facilities in your marz?
- What were the main barriers during the P4P implementation?
- How the identified barriers were addressed?
- Do you think that the P4P program is successful? If yes what is the main success? What factors contributed to the success of the program?
- Do you do not think that the P4P program is successful, what is the main problem? What factors contributed to the failure of the program?
- Is the bonus amount enough to meet the needs and expectations of the facility and the health providers? Did distribution of the bonus money within the polyclinic create any issues or has been implemented as planned? If yes, what would be your suggestions to address those issues?
- Can you say you (providers) have benefited from being involved in P4P program implementation? If yes, what are the main benefits? If no, why?

Expected, Unexpected Results

- Do the consequences of the P4P scheme meet the expectations in relation to work as intended, indicators change, providers’ behavior, and demand on services, any other? If not what are unexpected consequences?
- Did the scheme result in providers behavior/performance change? What other factors except the P4P scheme could have influenced the behavior change? Are there assessments about provider performance or patient satisfaction surveys?
- What would be your recommendations for further improvement of P4P program?

Open Enrollment

- What could you say about the open enrollment? Did it help to improve the performance of health providers or created more difficulties? What are the main positive consequences of open enrollment? What are the main problems created by the open enrollment?

Future Opportunities
• What efforts should the country take to improve the P4P system and make it more sustainable? What should be the next reform steps to improve the performance of the healthcare system? Please list the three most important steps.
• Is there any other information regarding this topic that you would like to share with us?

Thank you for your participation!
Խորացված հարցազրույցի ուղեցույց բուժհաստատությունների մասին վարձավորության լիակությունների գծով

Նպատակ

- Խմբագրել ու ներկայացնել խաղաղական հարցազրույցի (ՀՀ) ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժարար բուժանձև առաջատար կոմիտեներին;
- Որպես բուժանձև առաջատար կոմիտեի արդյունքների համար;

Օրական ռենցույց, զարգացման տենտներ

- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;
- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;

Առաջարկներ և վերազատումներ

- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;
- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;
- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;
- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;
- Ո՞ր զարգացման երևույթները կարելի էին կազմակերպել ՀՀ ծրագրի համար բուժհաստատություններ/կամ կամ մարզային բուժանձև առաջատար կոմիտեի համար;
Ազատ հավաքագրում

- Ի՞նչ կասեք ազատ հավաքագրման վերաբերյալ: Սրանք այլ ոչ թե պատրաստված են որոշիչ ենթակարգի առաջացման համար, թե ինչպես է այդ հավաքագրումն իրականացնել: Արդյոք դա բարելավում է բուժաշխատողների աշխատանքը, թե՞ խոչընդոտ է հանդիսացել: Որո՞նք են հիմնական դրական հետևանքները, որոնք առաջացել են ազատ հավաքագրման հետևանքով:

Հետագա հնարավորություններ

- Ի՞նչ քայլեր պետք է պետությունը ձեռնարկի, որպեսզի բարելավի ԿՀՖ համակարգը և ապահովի նրա շարունակականությունը:
- Ի՞նչ բարեփոխումներ կարելի է իրականացնել ԿՀՖ-ի առողջապահական համակարգի գործունեության բարելավման համար:

Չնայած ընդհանուր հայտնությունը

- Կարդացեք նաև, որի մասին չխոսեցինք, բայց կարող եք խոսել:

Շնորհակալություն մասնակցության համար:
Annex 3

Initial Guide for Focus Group Discussion with Health Care Providers

- How the P4P scheme was introduced at your facility? How was the process managed (probe for: introduction of changes, sufficient responses on enquires from management/project staff, clear picture of expected benefits, etc)?
- What expectations did you have from the P4P program at the beginning?
- Do you notice any change in the behavior of health providers and facility administration, usual work process after introduction of the P4P scheme? If yes, what are the changes?
- Are there assessments about provider performance or patient satisfaction surveys?
- Are the providers sufficiently motivated to provide services under the P4P scheme? If yes, what are their motivations? If no, what would be your suggestions in this regard?
- Are the providers getting reimbursement as expected under the P4P scheme? If not what might be the reason? Did distribution of the bonus money within the polyclinic create any issues or has been implemented as planned? If yes, what would be your suggestions to address those issues?
- What problems do you see in P4P successful implementation?
- What problems do you see in management of P4P program?
- What could you say about open enrollment? Did it help to improve your work, or did it create more difficulties? What are the main positive consequences of open enrollment? What are the main problems created by the open enrollment?
- What would be your recommendations for further improvement of P4P program? What should be the next reform steps to improve the performance of the healthcare system? Please list the three most important steps.
- Is there any other information regarding this topic that you would like to share with us?

Thank you for your participation!
Խմբային քննարկման ուղեցույց բուժաշխատողների հետ

- Խմբային տեղեկագրություն բուժաշխատողների համար (պահպանելու հնարավորություն); կարգախոս է։ Կարգախոսի վերաբերյալ մասին, որին կարող է ներկայացնել քանակական կամ անհատական մասին։ Հետաքրքրություններ կարող են լինել նաև հայտնի սրբավայրի մասին։

1. Ինչպե՞ս ներդրվեց Կատարողական վրա հիմնված ֆինանսական ծրագիրը (ԿՀՖ) ձեր հաստատության՝

2. Որո՞նք են ԿՀՖ ծրագրի սկզբում ձեր սպասելիքները:

3. ԿՀՖ ծրագրի ներդրումից հետո բուժաշխատողների և ձեր հաստատության ղեկավարության կատարողականության վերաբերյալ պատկերացումներ են կազմակերպված:

4. Բուժաշխատողների կատարողական վերաբերյալ պաշտոնական գնահատումներ կա՞ն, ծրագրից բնակչության գնահատումներ կա՞ն։

5. Արդյո՞ք բուժաշխատողները բավականաչափ շահագրգռված են բուժծառայություն մատուցել ԿՀՖ ծրագրի շրջանակում:

6. Ի՞նչ խոչընդոտներ եք տեսնում ԿՀՖ ծրագրի հաջող իրականացման համար:
# Annex 4

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Annex 5

A. DISEASE PREVENTION INDICATORS

1. Population screening for early detection of arterial hypertension: percent of people aged 40 and above (except for those suffering from arterial hypertension) whose BP was monitored within the reported period.

2. Screening for early detection of weight disorders among adults: percent of people aged 18 and above (except those with diabetes mellitus) having body mass indicator (BMI) calculated within the reported period.


4. Screening among adults for early detection of lipid disorders: percent of men aged 40-60 and women aged 45-55 (except for those suffering from ischemic disease and arterial hypertension) having blood test to determine general cholesterol level.

5. Screening among risk group adults for glaucoma early detection: percent of people aged 40 and above with glaucoma in their family history (parents, sister, brother) having eyesight determination test within the reported period. The test results should be recorded in the outpatient charts of the patients.

6. Healthy lifestyle counseling among adults: percent of people aged 18 and above who received counseling on healthy lifestyle – diet, physical activity, smoking (including secondhand smoke influence), alcohol use within the reported period.

B. INDICATORS RELATED TO CHRONIC DISEASES CONTROL

7. Determination of Body Mass Indicator (BMI): percent of patients diagnosed with diabetes mellitus type 2 having body mass indicator (BMI) calculated within the reported period at least once.

8. Urine test: percent of patients diagnosed with diabetes mellitus type 2 having urine test (including determination of glucose and protein) within the reported period at least once.

9. Observation of foot pulsating and counseling on foot care: percent of patients diagnosed with diabetes mellitus type 2 having records on at least one observation of foot pulsating and counseling on foot care within the reported period.

10. Regular electrocardiography (ECG) monitoring of patients with ischemic heart disease (IHD): percent of patients with IHD aged 18 and above having at least one ECG examination within the reported period. The examination results should be recorded in/attached to the outpatient charts of the patients.

11. Determination of cholesterol level in blood among patients with IHD: percent of patients with IHD aged 18 and above having at least one test for determination of cholesterol level in blood within the reported period. The test results should be recorded in/attached to the outpatient charts of the patients.

12. Regulating arterial hypertension: percent of people aged 18 and above diagnosed with arterial hypertension having arterial blood pressure results 140/190mm or lower as the latest record within the reported period. The examination results should be recorded in the outpatient charts of the patients.

13. Determination of cholesterol level in blood: percent of patients with arterial hypertension aged 18 and above having at least one test for determination of cholesterol level in blood within the reported period. The test results...
should be recorded in/attached to the outpatient charts of the patients.

C. INDICATORS RELATED TO MATERNAL/REPRODUCTIVE HEALTH

14. Early detection of pregnant women: percent of pregnant women detected and registered for antenatal care and healthcare services within 12 weeks of gestation.
15. Counseling on reproductive health and family planning: percent of women aged 18-49 having counseling on early detection of STIs, on female reproductive system cancer dangers and signs, on family planning and preconception care. The fact of providing counseling should be recorded in the outpatient charts of the patients.
16. Breast cancer prevention and early detection: percent of women aged 40 and above having clinical examination of breast for detection and treatment of neoplasms within the reported period. The results of clinical examination should be recorded in the outpatient charts of patients.

D. INDICATORS RELATED TO CHILD CARE

17. Vaccination coverage of infants aged 3.5-4.5 months (14-18 weeks) in compliance with National Immunization Schedule/Calendar within the reported period. This indicator includes mandatory vaccinations defined by National Immunization Schedule/Calendar for children from 3.5 months (14 weeks) to 4.5 months (18 weeks):
   - Pentavalent vaccine of DTP (diphtheria, tetanus, pertussis), Hepatitis B and Hib (Haemophilus Influenza B), subsequent 3rd dose
   - Polio – subsequent 3rd dose
18. Vaccination coverage of children aged 12-13 months in compliance with National Immunization Schedule/Calendar within the reported period. This indicator includes mandatory vaccinations defined by National Immunization Schedule/Calendar for children aged 12-13 months:
   - MMR (measles, mumps, rubella), first dose
19. Vaccination coverage of children aged 18-19 months in compliance with National Immunization Schedule/Calendar within the reported period.
20. Screening of healthy children for anemia: percent of children aged 13 months having hemoglobin determination examination (at the age of 9-13 months) within the reported period. The results of examination should be recorded in the outpatient charts of patients.
21. Screening for early detection of weight disorders among children aged 7-18: percent of children aged 7-18 (17 years 11 months 29 days old) having body mass index (BMI) calculated within the reported period.
22. Prevention of diseases related to eyesight: percent of children aged 12 having eyesight determination examination within the reported period. The results of examination should be recorded in the outpatient charts of patients.
23. Puberty assessment: percent of girls aged 15 having ultrasound examination of small pelvis and abdominal cavity organs. The examination results should be recorded in the outpatient chart.

E. INDICATOR FOR TB PATIENTS DETECTION

24. Percent of people, whose TB diagnosis was later confirmed, referred to TB specialist by the PHC doctor.
Annex 6. The participants quotes on open enrollment

**General**

Open enrollment was problematic... It had multiple problems, because calculating the actual number of people for us was a very difficult issue... The state statistical service and the marzes were providing the numbers to us. There were discrepancies between these numbers, so calculating the budget was difficult. They were providing higher numbers, so they would get paid more. (Policy maker 4.3.5.2, IDI)

This is also very important and to be honest I have spoken about that. It also has a good impact on physician-patient relationship, physician-health facility relationship. It is not only about financing, rather it is a tool to reach the goal, which is: increase in quality of provided healthcare, change in physicians' behavior, facilities' behavior, etc. And it works... it also increases the system’s role, its quality and abilities. IDI 003 (Policy maker 4.3.5. IDI)

The positive sides are that in cases where people change their place of residence often a mandatory system would mean that they would have to use their area polyclinic, therefore having to change every year. So I think that the opportunity of free choice is a good thing. Moreover, it also creates competition between the polyclinics so that each polyclinic tries to improve their services and conditions, because if a person does not come to you and goes from your area to another then you have a problem. So I look at it positively. (Facility manager 4.3.5.1, IDI, Yerevan)

So like everywhere, it increased the competition. For example, people prefer physicians who are friendlier, etc... So it pushes other physicians to be like that to attract patients. (Policy maker 4.3.5.3, IDI, Ararat marz)

Well... the increased number and the bonuses received [are the main positive sides of open enrollment]. (Facility manager 4.3.5.2, IDI, Lori marz)

Everything has two sides. On one hand [open enrollment] is good, on the other, bad. Catchment area is good in-as-much as you know everything; this is your information, there is infection, a patient is unwell, a neighbor comes and informs you. You get information quickly. (Facility manager 4.3.5.3, IDI, Yerevan)

There are difficulties in open enrollment as well. For example, if the passport expires even by one day, the person is not our beneficiary anymore. But if a person comes for healthcare services, how can I deny them? We have tried explaining to such people that their passport has expired and the computer no longer recognizes the data. But they have just asked us, “why do I need to change the passport, I just need a doctor”. (Policy maker 4.3.5.4, IDI)

During the first phase the principle of open enrolment was present. Our population was aware that they could select their doctors. Those doctors who registered more patients received more bonuses (in 2004). However, at one point we noticed that there wasn’t much difference in the amount of salaries between doctors who registered more patients and those who registered relatively less patients. This made us avoid registering more patients. For example, one doctor has 3,000, another 2,500 and the other one 1,500 patients. The difference in the amount of salaries is pennies, which is why we do not have so many patients. (Facility manager 4.3.5.2, IDI, Lori marz)

This enrolment does not have a permanent systematic nature, it is just that a polyclinic may advertise specific services and have a large inflow of people. But now if they go from me... if my 1000 children reduce to 500, I receive far less money. So this is what causes the fights. It would be
far better if we did not have this open enrolment, but our previous local catchment system. (Health provider/nurse 4.3.5.1, FGD, Lori marz)

In the last 2-3 years I have had an outflow of about 500 patients. It is a huge number - 500 people from a population of 4000 have moved elsewhere. Even the birth rate is affected. I came here in 2011 where I had about 10-12 pregnant women monthly, while now I only have 3-4. And it is not that the number of pregnant women has decreased, but rather they have registered with other facilities. It is all because of our building conditions, not because of the professional quality of physician... That is how things are, we are all striving towards better quality. (Facility manager 4.3.5.5, IDI, Ararat marz)

It is good that the patient has a choice, as maybe he/she does not want that certain physician. (Health provider/nurse 4.3.5.2, FGD, Yerevan)

If anybody is willing to change their physician, they should go pay... (Health provider/nurse 4.3.5.3, FGD, Lori marz)

The good thing is that it's easy when they trust and choose you. But the bad thing is that the patient may change his/her physician once every three months. (Health provider/nurse 4.3.5.4, FGD, Yerevan)

The part where they allow a person to decide on their own how and when they want to do things is very wrong. That can be allowed in cases when some mistake has been made, or there has been a conflict with the doctor. (Health Provider/physician 4.3.5.1, FGD, Ararat marz)

I get the opportunity to choose the doctor I feel comfortable with. If I know that the local doctor is a bad one, why should I have to go to them all the time? That is why I should have the right to choose.... a person's rights mustn't be violated. If I see that this doctor isn't good, then I must have the choice to a better one for my child. But then once I choose the one I trust, I have to come to an agreement with them on receiving their services: how I will transport them when necessary, etc. (Health Provider/physician 4.3.5.3, FGD, Lori marz)

[An elderly patient and his wife, who both had diabetes] transferred to the Masis polyclinic. When he came to pick up the papers he thought that I would be angry. But I asked him to sit down and said, "take your papers. But why are you transferring?", "Well," he said, "It's (X)." ((X) is one of my colleagues). "(X) is my brother's daughter-in-law. She asked me. She doesn't have any patients and so we must go." (Facility manager 4.3.5.6, IDI, Ararat marz)

Colleagues, we have the same problem, don't we? We were asked to enroll all our relatives, friends, neighbors. (Health Provider/physician 4.3.5.4, FGD, Yerevan)

Physician cannot choose patients. There are many patients that are inadequate people, but the provider has to serve them anyway. The physicians are not protected. (Facility manager 4.3.5.5, IDI, Ararat marz)

The physician can refuse [enrolling patients]... (Facility manager 4.3.5.6, IDI, Ararat marz)

We were told that, “the patient may refuse the physician, however; the physician may not refuse the patient”. Do you find that fair? (Health Provider/physician 4.3.5.5, FGD, Yerevan)

In the past they used to come to the facility and if one doctor wasn't there, the other would check that person. Of course that still happens now very rarely, but open enrollment is better. You know your population, the number of visits increased, you become more connected to each other, etc.
Well that is the positive aspect for patients, while for physicians it is that if you are a good specialist more people will come to you and you will receive more money. Although this is somewhat relative, as there are some very good physicians who do not have very good social skills and people might avoid them. (Health Provider/physician 4.3.5.7, FGD, Lori marz)

You know, the issue is more of difficulty in monitoring patients. (Health Provider/physician 4.3.5.3, FGD, Lori marz)

They can have open enrolment for the physicians of the polyclinic in the area or within the given facility. (Health provider/nurse 4.3.5.6, FGD, Lori marz)

For the regions it is good when the physicians know their patients, their relatives and the history of their disease. A patient may have serious health problems, which the new physician will not know of. So that certain person goes to the new polyclinic as a new patient. So open enrollment has both positive and negative sides. From the point of view of the person’s right to choose, it is good, but for the physician it is not good. (Health provider/nurse 4.3.5.8, FGD, Yerevan)

Yes it is not nice at all. A person who knows nothing and is completely illiterate comes and decides that they don’t want you but the other person. This is not a market... who are they to come and choose us? You respond to them, they get upset and go to somebody else. (Health Provider/physician 4.3.5.1, FGD, Ararat marz)

4.3.5.A. Multiple entries:

[Financial department worker] There were some issues with population enrollment, because it was possible for the same person to be registered in more than one facility, causing problems. So there was a problem with the place of registration of the patient. (Policy maker 4.3.5.A.1, Ararat marz)

A list of twenty enrolled people from this community are presented to us as duplication. I call the agency and ask them why is it duplication? We call those people and they do not know anything... they respond, "But I have not even applied there." (Facility manager 4.3.5.A.1, Ararat marz)

Although in the last few years we have not had much of this, because of the recent changes and increased SHA monitoring of patient registration. Previously we had this issue where the patient would be registered with our facility and then suddenly we would heard that they were also using services from another facility, or that the financing was already going to another facility even though we were still providing services to that individual. (Facility manager 4.3.5.A.2, Ararat marz)

Free choice should not be included. It should be specifically by area of residence and not area of registration; where the individual lives. This population should be served in the polyclinic in its area of residence, on state order. But if you want to go to this doctor or other, separately, go for paid-for service. (Facility manager 4.3.5.A.1, Ararat marz)

There should be a law that, for example, after a person changes their polyclinic they should pay for the services received from the new polyclinic for a month or something like that. This would eliminate such unnecessary shifts from one polyclinic to another. (Health Provider/physician 4.3.5.A.1, FGD, Yerevan)

The issue with repetitions has always existed, it is not new. It is just that now it is being monitored...
and our salaries depend on it. (Health Provider/physician 4.3.5.A.2, FGD, Lori marz)

I think that open enrollment is bad, as people may come to one facility for a few days and then move to another one. So you take all the data, enter it into the system and then after a week they just tell you that they are moving to the other doctor; now the other nurse has to do everything again. We have one person who has changed 5 physicians. We have been informed that a person is considered enrolled with the facility that they have visited last. So we end up registering people and then deleting it, which is making things difficult for us too. Maybe they can set a mandatory point to it making it mandatory to stay in one place for a year or 6 months or something. (Health Provider/nurse 4.3.5.A.1, FGD, Ararat marz)

And then many people end up in other facilities automatically. For example, they unintentionally go to a physician in Erebuni without realizing that it means they are changing their facility. (Health Provider/nurse 4.3.5.A.2, FGD, Ararat marz)

No it says [the criteria] that if they [patients] come, you must accept. (Health Provider/physician 4.3.5.A.3, FGD, Lori marz)

It has made our work difficult. In the beginning they told us that we could enroll from wherever we want. Now they have put a barrier... we cannot enroll from Yerevan; only from our marz. Yerevan enrolls the population from our marz, and then the patient ends up registered in 2 places. So as a result neither we, nor they receive funds for this patient. (Health Provider/physician 4.3.5.A.4, FGD, Ararat marz)

### 4.3.5.B. Relationship between doctors and their supervisors:

I even know a facility, where the director has forced the staff to go and bring people; otherwise they would lose their job; they blackmail their staff... It has created an opportunity to blackmail the physicians and put them under pressure. (Health Provider/nurse 4.3.5.B.1, FGD, Lori marz)

There are cases when the physician is kind hearted and the head of the Polyclinic sends all serious problematic patients to that physician. (Health Provider/nurse 4.3.5.B.2, FGD, Yerevan)

When they say open enrolment, how difficult is it then to let that person go peacefully. That same polyclinic then won’t let that person go... you should see the commotion that arises. They just frustrate people so badly before they let them move to another facility. I mean, if it is free, then just let a person do what they want. (Health Provider/nurse 4.3.5.B.3, FGD, Lori marz)

There may be three physicians, of which people are pleased with one, don’t like the other, etc. So basically the physicians start having arguments with each other. (Health Provider/nurse 4.3.5.B.4, FGD, Lori marz)

The negative aspect is that a lot of conflict rises between physicians, because they “steal” patients from each other. (Health Provider/nurse 4.3.5.B.5, FGD, Yerevan)

In the beginning the physician of our area was a different person and I said let the residents stay there. But when I saw that payment is based on the number of resident, I thought, “Why shouldn’t a family of 18 be registered with my physician?” (Health Provider/nurse 4.3.5.B.2, FGD, Yerevan)
4.3.5.C. Distance from residency area:

I agree with my colleagues... it is wrong that polyclinics serve patients who reside far away. The other problem is that the therapist are the ones who sign the contract with the patient, but then all other specialist suffer from this as they too have to make house calls in case of necessity. So as you can see, we do not benefit from this at all, as in any case we keep the balance by enrolling our relatives and friends. (Health Provider/physician 4.3.5.C.1, FGD, Yerevan)

In my opinion open enrollment is a good thing. The physician signs a contract with the parent which notes how they will provide the services. If the contract states that the parent has to pick up the specialist by car, then they have to do that. I mean I can decide whether or not to accept a patient. If the parent tells me that they will transport me to and from the house... Let's be honest that we don't exactly have that many children from far places, to cause us this much unrest. (Health Provider/physician 4.3.5.C.2, FGD, Lori marz)

Wherever you live, you should be enrolled there because they enroll in one place but then say "without providing certain services". So no house calls, no out-patients. How can you do that? (Facility manager, 4.3.5.C.1, IDI, Ararat marz)

PFirstly, when the patient is from a farther area, physicians do not go for calls. For example, if the physician is in the city centre and then somebody from a far-off village makes a house call, they have the right to not go for that call; this is actually supported by the contract. So then the parent has to come, pick up the doctor and take them there. But when the patient is from the same area, such issues do not arise with house calls... I mean if there is an infection in the "Lager" area [name of a far-located neighbourhood], then that has to be closely monitored, but how is the physician supposed to go back and forth to monitor the patient’s condition? What payment do they receive to then spend some on transportation? (Health Provider/nurse 4.3.5.C.1, FGD, Lori marz)

These things [terms and agreements] should be written down in the contract as provided by law; that is the thing. Usually people settle on an oral agreement and then that causes problems when difficulties arise. (Health Provider/physician 4.3.5.C.2, FGD, Lori marz)

In some ways this was a wrong approach, because in case of a catchment area, you go to a neighborhood and visit every house. Now there may be 50 children in one area that are not registered with you, so you waste a lot of time going to that neighborhood and don't get paid for that. And then in some cases people are registered with another doctor from a far-off polyclinic who won't come to check on them because of the distance, so we end up having to go see them instead, while they get paid. (Health Provider/nurse 4.3.5.C.2, FGD, Ararat marz)

I would also like to add that previously the physicians knew their areas like the back of their hands. But now, you go to an area and you have no idea how to work your way through it. (Health Provider/nurse 4.3.5.C.1, FGD, Lori marz)

Moreover, one nurse works with many physicians. And then multiple physicians end up visiting the same building. (Health Provider/nurse 4.3.5.C.3, FGD, Ararat marz)

4.3.5.D. Recruiting patients:

To meet the requirements of bonus indicators health providers must do additional work; starting with
more active work with the population to bring them to the medical center (convince people through contacting them, speaking to them to come to see the physician), complete the main activities they have to do, and of course filling up some additional paperwork that is necessary. (Policy maker 4.3.5.D.1, IDI)

It is necessary to avoid complications of diseases, when patient reach critical conditions and ultimately become in-patients only when, as we say, “the knife reaches the bone”. Diseases should be prevented through preventative screenings at least once a year. We are working to create mechanisms, so that residents would not refuse to attend, because doctors also face certain barriers as patients refused to go for these services. (Policy maker 4.3.5.D.2, IDI)

Patients come and request bulletins. Whenever they do this I warn them that this is not a market where you can buy anything you require. If they refuse to be examined, I complete in their medical reports that they have refused to be diagnosed. However, when I do not provide them with what they want, they just tell me that they will go get these from another facility. (Facility manager 4.3.5.D.1, IDI, Lori marz)

I did not register my children in this establishment because I explained to my wife that, "if I enroll them here, you must bring them here. I will not check them at home. If you agree, I will enroll them."
Because I cannot leave my work and run. Although, yes it’s my child... but let’s approach issues properly shall we? (Facility manager 4.3.5.D.2, IDI, Ararat marz)

The physician says that you should go and do that job, and you cannot say, "It is not my job... It is your job, but I am ready to come with you”. They humiliate the physicians. Physicians should stay in their place while patients come and choose them. (Health Provider/nurse 4.3.5.D.1, FGD, Yerevan)

It is such a bad thing [going to houses to enroll people]. My physician and I were bitten by a dog. (Health Provider/nurse 4.3.5.D.3, FGD, Yerevan)

Now there is a new requirement to attach the copy of the passports to people's papers. But sometimes we visit a house 10 times and they still don’t provide us with one, or they just aren’t at home. (Health Provider/nurse 4.3.5.D.4, FGD, Ararat marz)

In my community everyone knows me. I went and enrolled all our residents. Why should my physician come with me? (Health Provider/nurse 4.3.5.D.5, FGD, Yerevan)

P4: In some cases they don’t want to give us a copy [of their passport]. They ask, "why should I give you my passport?". People who know us well may provide it without any issues, but not everybody is like that. (Health Provider/nurse 4.3.5.D.6, FGD, Ararat marz)

Even the difference of a single letter in a person’s name causes problems. The system does not recognize the entered data decreasing the number of population registered with us... Or, for example, those that came from Russia... They have different passports, so the system does not recognize them either. (Policy maker 4.3.5.D.2, IDI)

Currently I provide service to around 150 people from Syria and Iraq. These are free of charge services, within the basic benefit package. The current system does not recognize their passport numbers and automatically dismisses them. But I am providing those services... why should I not get payment for them? I discussed this with the head of the SHA and he told me he would raise the issue in the MoH. So it should receive a solution. The number of population and salaries are decreasing, but the amount of work is increasing. (Facility manager 4.3.5.D.3, IDI, Ararat marz)