

## Deliverable 6.6:

# Final report on Service Selection with lesson learned

WP 6: Service Selection

ACT@Scale  
Advancing Care Coordination  
and Telehealth @ Scale



European Innovation  
Partnership on Active  
and Healthy Ageing

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## Executive Summary

The aim of ACT@Scale is to scale up integrated care good practices within a given region by implementing collaborative approaches. The methodology, based on Plan-Do-Study-Act (PDSA) cycles, adapts and applies multi-organizational structured collaborative quality improvement procedures to scale up integrated care interventions.

The specific objective of Work Package on Service Selection (WP6) is to achieve an appropriate level of distribution of health and care resources defined by the dynamic needs of the patients and populations addressed, enhancing risk prediction in the clinical scenario.

Service Selection aims to define the patients' and populations' dynamic needs and to enhance risk prediction in the clinical scenario. The central hypothesis is that health risk prediction and stratification optimizes the definition of well-structured programs and adaptive case management.

Service selection has two approaches:

- In a population approach, Service Selection drives the identification of population risk strata through risk stratification, and the allocation of structured health programs targeted to a specific population group according to their risk strata.
- At individual clinical level, Service Selection aims to an adaptive personalized case management. It defines individualized care plans for patients with different individual risks and care needs, under the umbrella of the above mentioned structured health programs.

Service Selection outcomes are organised in three dimensions: Description, identification and selection of patients. Assignment of services responding to patient's needs. On-boarding the required professionals and services for the patient needs.

Six ACT@Scale programs have participated in Service Selection distributed in two waves. All first wave programs have been able to scale up their intervention by completing the two PDSA cycles in 2017 and 2018. The second wave's program, which joined the project in 2018, has completed a full PDSA cycle and need to continue working in process of implementation.

A set of Service selection General Indicators were developed to track key elements of service selection. 21 of them were selected to monitor changes through the implementation process, the Key Progress Indicators (KPI).

Implementation has improved notably since the beginning of the project, 77% in overall. The strategy deployment, utilization and changes such us coverage, frequency of usage

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and professional numbers, the “Utilisation and Coverage” area, is the area where more improvement has been done, 121%. The “Scope and Ambition” area has improved by 32%.

Service selection quality check evaluation indicates that work done in Service selection has been very positive and has helped programs to scale up their interventions.

To conclude, a series of recommendations have been developed oriented to the improvement in Service selection:

1. Use the Service Selection Evaluation Framework in combination with the Collaborative Methodology in order to support improvement in service selection and scaling-up programs
2. Use Key Progress Indicators to monitor changes through the implementation process and scaling-up on service selection (ACT@Scale Service Selection Evaluation Framework as an example)
3. To increase quality and efficiency of patient care, enhance staff’s awareness and skills on service selection components (case identification, case evaluation, case selection and, care plan formulation and follow-up).

The work done within ACT@Scale will continue in each of the regions involved. The applied methodology has helped the programs to give structure to their implementation plan and to focus their work in key specific areas.

## Outline

The overall aim of this final report on Service Selection is to present the achievements, conclusions and lessons learned of the work done by programs that have selected the Service Selection driver. The document is structured as follows:

- Section 1 describes Service Selection aims and expected outcomes.
- Section 2 presents the programs participating in service selection, their initial information, implementation process and outcomes.
- Section 3 is focuses on the quality check evaluation.
- Section 4 summarizes the results, conclusions and lessons learned of the work done in Service Selection driver.

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# 1. Service Selection aims

During the last three years, programs have been working in the up-scaling of a Good Practices focused either on telemonitoring or integrated care. One of the drivers that were expected to facilitate the Good Practice implementation is Service Selection.

Service Selection aims to achieve an appropriate level of distribution of health and care resources defined by the dynamic needs of the patients and populations addressed, enhancing risk prediction in the clinical scenario.

The specific objective of Work Package on Service Selection (WP6) is to achieve an appropriate level of distribution of health and care resources defined by the dynamic needs of the patients and populations addressed, enhancing risk prediction in the clinical scenario.

Service selection has two approaches:

- In a population approach, Service Selection drives the identification of population risk strata through risk stratification, and the allocation of structured health programs targeted to a specific population group according to their risk strata.
- At individual clinical level, Service Selection aims to an adaptive personalized case management. It defines individualized care plans for patients with different individual risks and care needs, under the umbrella of the above mentioned structured health programs.



Image 1. Service Selection approach

Service Selection expected outcomes are organised in three dimensions:

### 1. Description, identification and selection of patients:

Identification of potential candidates (case identification); inclusion into the program (case selection) and assessment of clinical requirements (case evaluation).

Identification of patients can be done by population-based health risk assessment or by individual patient identification or by a mixed method. Selection of patients can be the result of the population based identification or be the result of a specific clinical assessment.

### 2. Services responding to patient's needs:

Services responding to patients needs is based on case evaluation, follow-up and dynamic adaptation according to the evolution of the patient. Service Selection aims to have well distributed services according to patients' needs. The perfect scenario would be to have individualized care plans that changes according to patient's evolution (aging, disease status, patient conditions etc.).

### 3. On-boarding the required professionals and services:

Collaboration among professionals of different healthcare levels and integration between healthcare and social support services. The coordination and integration of professionals and services has a high impact not only on patients' health outcomes but also on health care system's effectiveness and efficiency.

### *Analysis of Service Selection and its three main domains*

The central hypothesis is that health risk prediction and stratification optimizes the definition of well-structured programs and adaptive case management. In this scenario, WP6 has aimed to promote the implementation of both population-based and individual risk assessment in order to respond to dynamic needs of a large number of patients.

In the following section, the work performed in WP6 is presented and analysed.

## 2. Service Selection achievements

At overall, six ACT@Scale programs have participated in Service Selection (first wave). Five of them did it since the project started. In 2018, a new programs selected Service Selection as driver.

First wave's programs participating in Service Selection:

- Multimorbid population integrated intervention (MM) –Basque Country
- Telemonitoring services for congestive heart failure (CHF)–Basque Country
- Support of Complex case management (AISBE–CCP) –Catalonia
- Integrated care for subacute and frail older adults , Parc Sanitari Per Virgili (FOA–PSPV) –Catalonia
- Collaborative self–management services to promote healthy life style: physical activity (AISBE–PA) –Catalonia

Second wave's program participating in Service Selection:

- Diabetes telemonitoring services – foot screening –Scotland

This section presents the achievements in each of the phases of the ACT@Scale's collaborative methodology of the programs that selected service selection as a driver for scaling up.

### 2.1 Programs' initial information on service selection

Service selection programs' initial information on service selection was gathered and analysed, in order to facilitate the decision making for collaborative methodologies and the ACT@Scale learning phase. The aim was to identify programs' service selection strengths and weaknesses.

To this mean, a battery of Service selection General Indicators was developed to track all service selection elements. The aim was to identify the key elements of service selection, at population and individual levels. 31 indicators were developed, organised in the previously introduced 3 dimensions:

- Description, identification and selection of patients
- Services responding to patients needs
- On–boarding the required professionals and services

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A questionnaire was developed to gather (map) information on service selection, both at population and individual level, based on the developed Service Selection general indicators. The questionnaire was sent to Project managers of each of the ACT@Scale good practices. Indicators were based on key informants' knowledge, so most of them have a qualitative basis. They were formulated as questions with a closed range of responses. Each question is an indicator. There is one questionnaire per program. A complete map of services was obtained.

In the D.6.1 "Service Selection Methodology Report" the complete set of indicators to collect baseline information of Service Selection are described, and the mapping information of service selection is included.

First wave's project managers from each of the program involved in ACT@Scale were asked to fill proposed questionnaires per program at the beginning of the project (July 2016) and after the second PDSA cycle (September 2018). The analysis of both was used to monitor how the programs within ACT@Scale have behaved in terms of Service Selection dimensions. It is presented in D6.5 "Report on coaching cycle".

### Service selection strengths and weaknesses

In order to facilitate decision making for collaborative methodologies and ACT@Scale learning phase, guideline questions were extracted from the initial information' analysis. The aim was to help programs to identify their service selection strengths and weaknesses.

#### *Description, identification and selection of patients*

- Can a service selection population approach improve the description, identification and selection of patients on those programs with just an individual assessment?
- Would the re-stratification period have any influence on the outcomes of the program? Would it be desirable to invest on more frequent re-stratification? Is there any characteristic that would help us to do so?
- Case evaluation assesses all variables that are needed for an integrated care plan formulation?

#### *Services responding to patients needs*

- Would, a more formal method to assess patients' changing needs, facilitate service dynamic adaptation?
- To what extent a risk stratification approach will facilitate the adaptive care plans management?

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- Would programs that not consider patient involvement in the care plan benefit to do so?

### *On-boarding the required professionals and services*

- Would programs benefit of a formal strategy to involve the required professionals and services in the scaling-up scenario?
- Does the professionals' awareness (in case identification, case evaluation, and case selection, and service dynamic adaptation) facilitate program scaling-up?
- Would program benefit of involving health professionals in formal change mechanisms?

## 2.2 Collaborative methodology

ACT@Scale methodology, based on Plan-Do-Study-Act (PDSA) cycles, applies multi-organizational structured collaborative quality improvement procedures and adapts them to scale up integrated care experiences.

The different phases of the ACT@Scale are:

- Baseline phase
- Learning cycle
- Coaching cycle
- Dissemination phase

The implementation of ACT@Scale iterations (learning and coaching cycles) took place between September 2016 and October 2018.

A set of Service Selection key progress indicators (KPI) were selected from the Service Selection General Indicators, specifically to monitor changes through the implementation process and scaling-up on service selection in each program. KPIs are a subgroup of the Service Selection general indicators.

21 from the whole setting of indicators were selected to investigate two aspects of the implementation:

1. Qualitative indicators which investigate the strategy components such as approach, tools and participant's involvement, summarized as **"Scope and Ambition"**
2. Quantitative indicators which study the strategy deployment, utilization and changes such as coverage, frequency of usage and professional numbers, summarized as **"Utilization and Coverage"**.

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The data are represented as single indicator analysis, used to identify and then analyse the evolution of particular issues such as the degree of deployment that the risk stratification approach has, and as composite indicator analysis, which is a mathematical combination of a set of indicators.

Composite indicators can be used to summarize complex or multi-dimensional issues and can be easier to interpret than trying to find a trend in many separate indicators.

The formula for this is:

- Strategy components (qualitative indicators):

$$\frac{\Sigma \text{ qualitative indicators scores}}{\text{Total number of qualitative indicators}}$$

- Strategy deployment (quantitative indicators):

$$\frac{\Sigma \text{ quantitative indicators scores}}{\text{Total number of quantitative indicators}}$$

The KPIs were compiled in a survey targeting program managers, who have a comprehensive overview of the programs. First wave programs which choose Service Selection driver to work on have tracked evolution annually by gathering KPIs through an online questionnaire, in 2016, 2017 and 2018.

Health of population data including information on population size, number of stratification strata, and population size by strata, target population and coverage of the program was gathered as well, in 2016, 2017 and 2018.

Two main aspects are covered when considering health of a population; coverage and burden disease. The former provides an overview of the target individuals included in a specific program which serves as an indicator of the up-scaling process. The latter helps estimating the future up-scaling needs of the program and the corresponding planning. Burden diseases indicators (prevalence and incidence) will only be collected at the end of the project.

The D6.3 “Report on learning cycle”<sup>1</sup> presents an analysis of both KPIs and Population health analysis comparing data at the starting point (2016) and after one year of

<sup>1</sup> <https://www.act-at-scale.eu/wp-content/uploads/2014/08/Deliverable-6.3-Report-on-learning-cycle-on-service-selection.pdf>

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implementation (2017). A complete analysis of the whole implementation process of data from 2016, 2017 and 2018 was done in D6.5” Report on coaching cycle”.

To track program’s implementation progress in Service Selection, the following completion stages were defined:

- 0-25%: Planning
- 25-50%: Implementing
- 50-75%: Assessed
- 75-100%: Embedded

## 2.3 First wave programs

### Baseline phase

Information related to the baseline phase of the programs that selected service selection as a driver was gathered between March and September 2016.

Baseline reports were deployed for each of the programs and organized as a route map, following the structure below:

- Selection of the driver to work on based on scientific evidence (topic selection)
- Setting up of a multidisciplinary team
- Identification of improvement areas
- Definition of collaborative objectives
- Development of specific interventions for changes that lead to scaling-up (“change package”)
- Definition of key performance indicators

Each multidisciplinary team analysed the baseline status of each program, detected improvement areas, agreed objectives and defined specific actions to be implemented. The information gathered during this phase in those programs that have selected the service selection driver in first wave and its analysis is included in D6.2 – Report on Learning Session I<sup>2</sup>.

Based on the information gathered in the Baseline phase, each program generated a roadmap during 3rd General Assembly in Groningen. They guided the learning sessions and action periods of the PDSA cycles.

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<sup>2</sup> <https://www.act-at-scale.eu/wp-content/uploads/2014/08/D6.2-Report-on-Learning-Session-1-Baseline-phase.pdf>

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Programs selected two areas of interest to work in; care fragmentation and underuse of stratification tools and methods. All programs identified the underuse of stratification tools and methods as area of improvement. Moreover, the two programs from Basque Country described the need to work on care fragmentation detected in their system.

In following tables, the interventions planned for service selection driver are presented. Commonalities, differences and insights between programs are described.

### *Tables abbreviation list:*

**BAS:** Basque Country

**MM:** Mutimorbid integrated patients program

**CHF:** Telemonitoring of CHF patients program

**CAT:** Catalonia

**CCP:** Complex case management program

**PA:** Physical activity program

Interventions			
1: Care fragmentation			
Develop care plans and defined roles and procedures			
	description	commonalities	differences
<p><b>Multimorbid integration</b></p> 	<p>Regular review of care plan and adapt it to patient's changing needs. Plan available in Electronic Health Records for all care professionals on 24x7 basis.</p> <p>Describe the roles (social and health care) required in the integrated care pathway for multimorbid patients and define the specific actors who will perform these roles in each organization.</p>	<p><b>BAS:</b> Regular update in terms of service and resources available to personalized care plan</p>	<p><b>MM:</b> Clear structure of integrated care pathway.</p> <p><b>VS</b></p> <p><b>CHF:</b> Tools for better personalize care plans.</p>
<p><b>Telemonitoring CHF</b></p> 	<p>Resources (tools, guidelines and training) available for personalized care plans for all stakeholders.</p> <p>Agree on inclusion criteria for monitoring service that fit better with patient/caregivers disease phase and capacities.</p>		

## Interventions

### 2: Underuse of stratification tools and methods

#### Improve current stratification approach and Evaluate revised stratification

	description	commonalities	differences	insights
<b>Multimorbid Integration</b> 	<p>Prepare, plan and provide training sessions for professionals to explain the theoretical basis of the stratification, its methodology and its application in the Basque Health System.</p>	<p><b>CAT:</b> Enhanced clinical risk assessment and stratification</p>	<p><b>MM:</b> Universal training for all professionals</p> <p><b>CHF:</b> Integration patient's health info into EHR</p> <p><b>CCP:</b> Implementation of CCP protocol</p> <p><b>PA:</b> New stratification approach</p>	<p><b>MM:</b> provide training sessions on theoretical basis of the stratification</p> <p><b>CHF:</b> Telemonitoring data accessible on the EHR</p> <p><b>CCP:</b> Structured service workflow definition using a collaborative &amp; adaptive case management (ACM) approach</p> <p><b>PA:</b> Include study based evaluation to predict risk factors</p>
<b>Telemonitoring CHF</b> 	<p>Integrate patient's health info in the Electronic Health Record. Run the stratification's update in a 6-month basis.</p>			
<b>Complex case management</b> 	<p>Implement the Complex case program (CCP) protocol: Community-based management of CCP. Integrated care for patients under long-term oxygen therapy. Adoption of information and communication technologies. Adaptive case management tools.</p> <p>Evaluation: dynamic predictive risk, models for enhanced transitional &amp; long term community based management, population based health risk, assessment &amp; stratification, health care value generation services.</p>			
<b>Physical activity</b> 	<p>New stratification approach: Pre-habilitation programme for high risk candidates to major surgery. Clinically stable chronic patients in Primary Care.</p> <p>Evaluation: dynamic predictive risk, population based health risk, risk assessment &amp; stratification, supporting ICT tools, assessment strategies, healthcare value generation services</p>			

### Learning Cycle

The timeframe for this cycle was from October 2016 to October 2017. During this phase, at least one multidisciplinary team meeting per program was organized to outline the implementation of improvement changes. The learning cycle was completed and all programs, which reported rigorously the actions performed in each step. None of the programs dismissed any of the planned actions. Some programs noted the need for new interventions to be taken into account during the coaching cycle.

This first cycle allowed programs to make significant progress in the interventions outlined. Most of them reported progress to be at the planning stage (25–50%). They all deeply described improvements and difficulties in the planned interventions, and none of the programs dismissed any of the planned actions.

The results obtained through the analysis of KPIs obtained after the learning cycle shown a higher degree of evolution in the “Utilisation and coverage” area.

Between 2016 and 2017 the evolution rate in “Utilisation and Coverage” area was 31.5% (average values calculated among all programs: the average from 2016 is 1.47; the average from 2017 is 1.93). In “Scope an Ambition” area, it was 3.5% (average values calculated among all programs: the average from 2016 is 2.82; the average from 2017 is 2.92).

It has to be noted though, that the scope/ambition and utilization/coverage areas have a very different starting point in 2016, being 2.82 and 1.47 out of 4, respectively.

During the Study phase of the PDSA cycle, the programs identified some of the topics in which they have encountered more difficulties, and others to which they planned to direct their efforts for the second PDSA cycle, the coaching cycle. Together with the results derived from the PM surveys, each program was able to determine which intervention needed to be sharpened.

#### *Analysis of Service Selection and its three key domains*

##### 1. Description, identification and selection of patients

Of relevance, all the programs which had population based approach in 2016, added individual approach to their stratification method, using both simultaneously. Even though the stratification method was not fully developed in all programs, when used it was accessible to health professional for suggestions or change.

Regarding the stratification, none of the programs considered changing the existing update timing. There seems to be a consensus that, at this stage, the frequency is well set in each context.

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Regarding case evaluation and patient's need, in 2017 all programs used multiple variables including diagnosis, disease severity, patient clinical level and other (family support, social surrounding, etc).

### 2. Services responding to patients needs

All programs declared to have organized care, including coordination between primary and specialist care; however the level of service adaptation to patients' condition and needs was still sufficiently evolved.

Although some of them stated that patient's self-assessment results are introduced in care plan design, the definition of the care plan was mostly based on clinical criteria.

It is worth highlighting that all programs had a wide range of interventions to be delivered depending on the patient's needs. Even though, they varied significantly among programs, according to the health area covered and context in which they operate.

### 3. On-boarding the required professionals and services

Generally, all programs agreed on the need of improving coordination and communication between care level (primary and secondary care) and between professionals (doctors, nurses, IT staff etc.).

Regarding the level of awareness about service selection components amongst the staff, there was a clear lack of specific actions in most programs. In fact, they had implemented concrete interventions to regularly evaluate staff's awareness and to act upon findings.

The professionals' training frequency varies between programs, leaving space to improvement. Assuming that the healthcare professionals can influence in the quality and effectiveness of the care provision, it was seen as essential to increase their skills to better management of patients.

D6.4 "Report on learning session II"<sup>3</sup> presents the full analysis of the results obtained during the first wave programs' learning cycle. Also similarities and diversities between programs by using the road maps generated during the General Assembly in Groningen were reported.

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<sup>3</sup> <https://www.act-at-scale.eu/wp-content/uploads/2014/08/D6.4-Report-on-Learning-Session-2-Service-Selection.pdf>

## Coaching Cycle

All first wave programs completed their second implementation cycle.

At the end of the second PDSA cycle, most of them reported successful implementation and some need to continue working in the coming years.

In the “DO” template all programs reported around the implementation of the process completed, in the assessment stage (50%). Moreover, analysing the “ACT” templates, most of the programs have accomplished with the planned implementations. Once more, at the end of this second cycle, there are no abandoned interventions, rather some to be completed in the coming year.

The strategy deployment (utilization and coverage area) is the area where more improvement has been done. Implementation improved notably during the two PDSA cycle performed by the programs, reaching an average of 121% when comparing data from 2016 and 2018.

In detail, in “Scope and ambition” area all programs scored at least 2,0 out of 4 in 2016 (average 2, 5 with a range between 2, 0 and 3, 2), which can be considered high. At the end of the second cycle the implementation results in an average of 2, 9, which gives an implementation rate of 32%.

In the area of “utilization and scope”, four out of five programs present an average score around 1 out of 4. In 2018 we have registered an implementation that varies between 8% and 170%, depending on the program analysed (average score in 2016 was 1, 5 with a range between 1 and 2, 8; in 2018 the average score was 2, 9 with a range between 2, 6 and 3, 1).

Indicators related to criteria for service dynamic adaptation is the topic where most of the Program managers have encountered difficulties, being generally a descriptive method rules based.

### *Analysis of Service Selection and its three key domains*

#### 1. Description, identification and selection of patients

Analysing the three different topics of this area, we can conclude that the approach uses by the programs have facilitated health service planning, which enables large-scale deployment of integrated care services for a target population.

Population-based risk assessment may identify patients that either are not on the radar of service providers or/and presently unmet needs. The stratification method is almost fully developed and it is largely used and accessible to health professional for suggestions or change.

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Regarding the stratification, none of the programs considered changing the existing update timing. Only one program, Frail adults, has considered changing the stratification approach. This change forced the program to slow down other implementation areas.

### 2. Services responding to patients needs

It is still needed to explore whether the use of a more structured method, like rules-based thresholds and predictive tools, would generate benefit and added value in terms of health related outcomes and, health service's planning and efficiency. In general, all programs have been underlining this necessity.

They all worked to obtain an organized care, however the level of service adaptation to patients' condition and needs to evolve more. Some of the programs state that patient's self-assessment results are introduced in care plan design and the definition of the care plan is mostly based on descriptive method. Mixed method would be preferable.

Each of the programs analysed have a wide range of interventions to be delivered depending on the patient's needs. These interventions are different and specific for each of the programs involved.

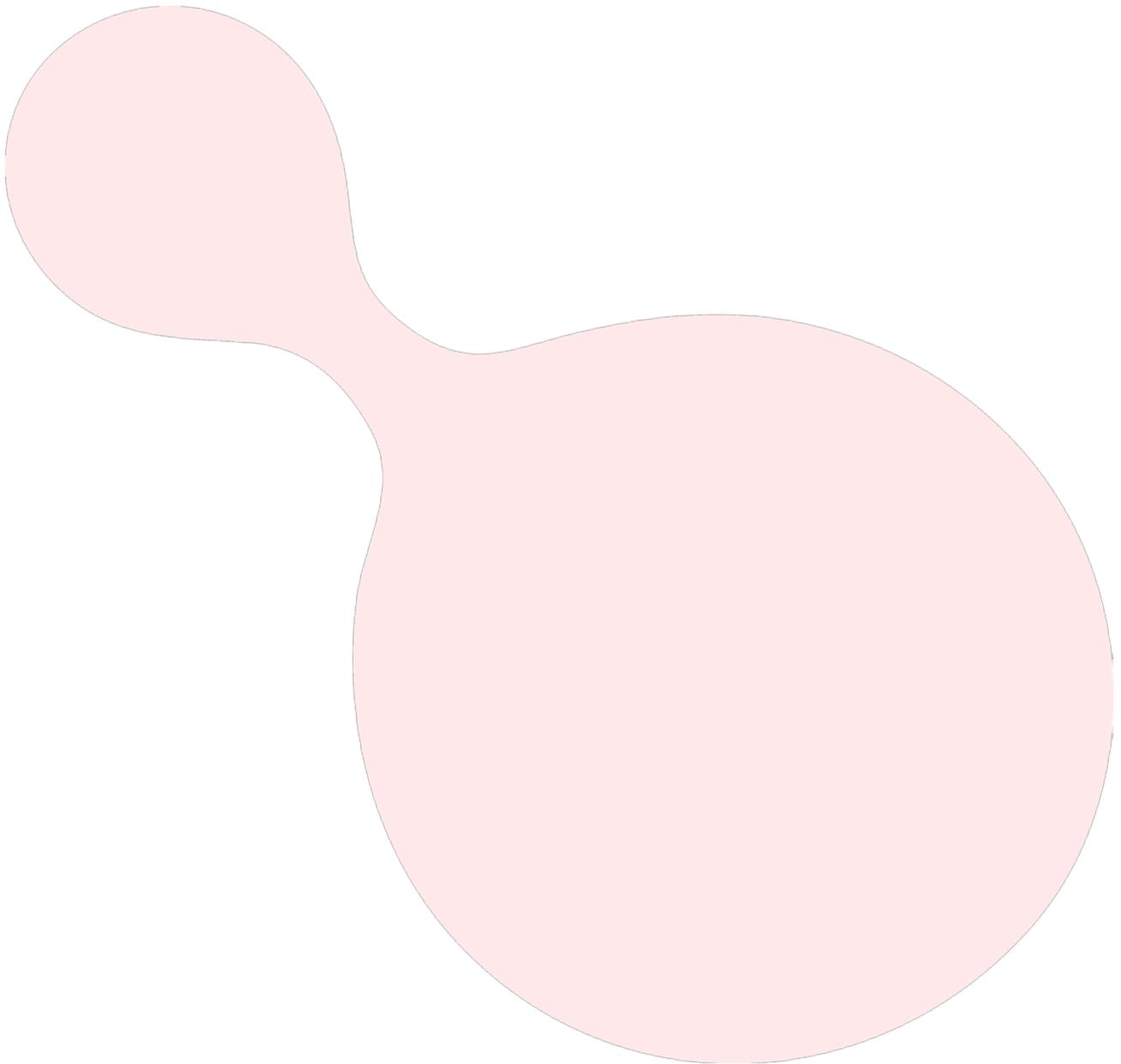
### 3. On-boarding the required professionals and services

All programs have perceived that the coordination and integration of professionals and services has a high impact not only on patients' health outcomes but also on health care system's effectiveness and efficiency.

Regarding the level of awareness about service selection components (case identification, case evaluation, case selection and, care plan formulation and follow-up) amongst the staff, there has been a clear shift from the beginning of the project till now. In 2016 there were programs that never evaluated staff awareness while in 2018 each programs has taken action to change this pattern. Assuming that the healthcare professionals can influence in the quality and effectiveness of the care provision, it is essential to increase their skills to better management of patients.

Programs described the existence of training in case identification, case evaluation, and case selection, and in care plan formulation, evaluation, follow-up and adaptation as well. The training frequency varies between programs, leaving space to improvement.

D6.5 "Report on coaching cycle" reports the information gathered during the second PDSA cycle.



## 2.4 Second wave program

As stated before, in 2018 a new program joined Service Selection workflow.

The Diabetes telemonitoring services – foot screening –Scotland program started in summer 2018. The aim of the intervention is to develop functionality within MyDiabetesMyWay, which is an effective low-cost population-based self-management intervention, to allow the collection of foot screening data using the NHS Scotland standard diabetic foot screening method: FRAME<sup>4</sup>. This will allow patients to log-in to their electronic records while attending their private podiatrist, allowing the required data collection by a qualified practitioner, before onwards transmission to NHS systems. Foot screenings conducted by private podiatrists are not shared with public healthcare.

There is an individualized care plan that dynamically changes according to the evolution of the patient. On completion of risk assessment, a series of recommended actions are presented, which are customised to the patient based on their level of risk.

Even though the program was relatively young, it managed to complete a full PDSA cycle within its first six months of work. The program had the opportunity to learn the methodology and the structure of each phase from the other programs involved in Service Selection (first wavers).

As the program started during summer 2018, it was not possible to detect changes made, and there was no time to assess changes through PM surveys. Even though, the results from this program are promising. It appears to be on the right track. They are now actively working on implementation on the internet-based tool, key element for this program

The information from this program's cycle are presented in D6.5 "Report on coaching cycle".

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<sup>4</sup> (<http://www.diabetesframe.org/>).

### 3. Service Selection quality check

In order to detect improvement areas, a questionnaire was distributed to all Project Managers (PM) asking to evaluate the process and the methodology used within Service Selection.

We asked to answer some questions to help us understanding (i) whether the survey completed by Program Managers is valid and (ii) whether Service Selection driver has enabled the up-scaling of the Good Practice.

#### Service Selection quality check questionnaire

The questionnaire has 6 Likert scale questions and 3 open questions.

Questions are listed below:

1. The survey had appropriate number of indicators.

1. Strongly disagree	2. Disagree	3. Neither agree or disagree	4. Agree	5. Strongly Agree
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- a. If option 1-2 or 3 are selected: free text on suggestion

2. The questions were clear.

1. Strongly disagree	2. Disagree	3. Neither agree or disagree	4. Agree	5. Strongly Agree
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- a. If option 1-2 or 3 are selected: free text on suggestion

3. The dimensions analysed (1. Description, identification and selection of patients; 2. Service responding to patient needs; 3. On-boarding the required professionals and service) captured essential aspects of Service Selection.

1. Strongly disagree	2. Disagree	3. Neither agree or disagree	4. Agree	5. Strongly Agree
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a. If option 1-2 or 3 are selected: free text on suggestion

4. Program Managers are the right target group for the survey.

1. Strongly disagree	2. Disagree	3. Neither agree or disagree	4. Agree	5. Strongly Agree
----------------------	-------------	------------------------------	----------	-------------------

a. If option 1-2 or 3 are selected: free text on suggestion

5. The aim of Service Selection was appropriate.

1. Strongly disagree	2. Disagree	3. Neither agree or disagree	4. Agree	5. Strongly Agree
----------------------	-------------	------------------------------	----------	-------------------

a. If option 1-2 or 3 are selected: free text on suggestion

6. Service Selection as a driver helped scaling up your program

1. Strongly disagree	2. Disagree	3. Neither agree or disagree	4. Agree	5. Strongly Agree
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a. If option 1-2 or 3 are selected: free text on suggestion

7. What do you consider strengths and weaknesses of Service Selection approach?

Strength	Weakness

8. Having Service Selection in mind, did you encountered difficulties in the scaling-up? What did you learn? (please, describe it briefly)

Difficulties	Lessons learned

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- 9. Do you have any suggestion for improvement? (i.e. survey, questions, dimensions etc; please, describe it briefly)

Project managers from each of the programs involved in ACT@Scale were asked to fill the survey after the second PDSA cycle. All project managers responded the survey between December 2018 and January 2019.

First six questions' responses are split into the first two sections:

- a) Programs participating to Service Selection
- b) Programs that did not select service selection as a driver

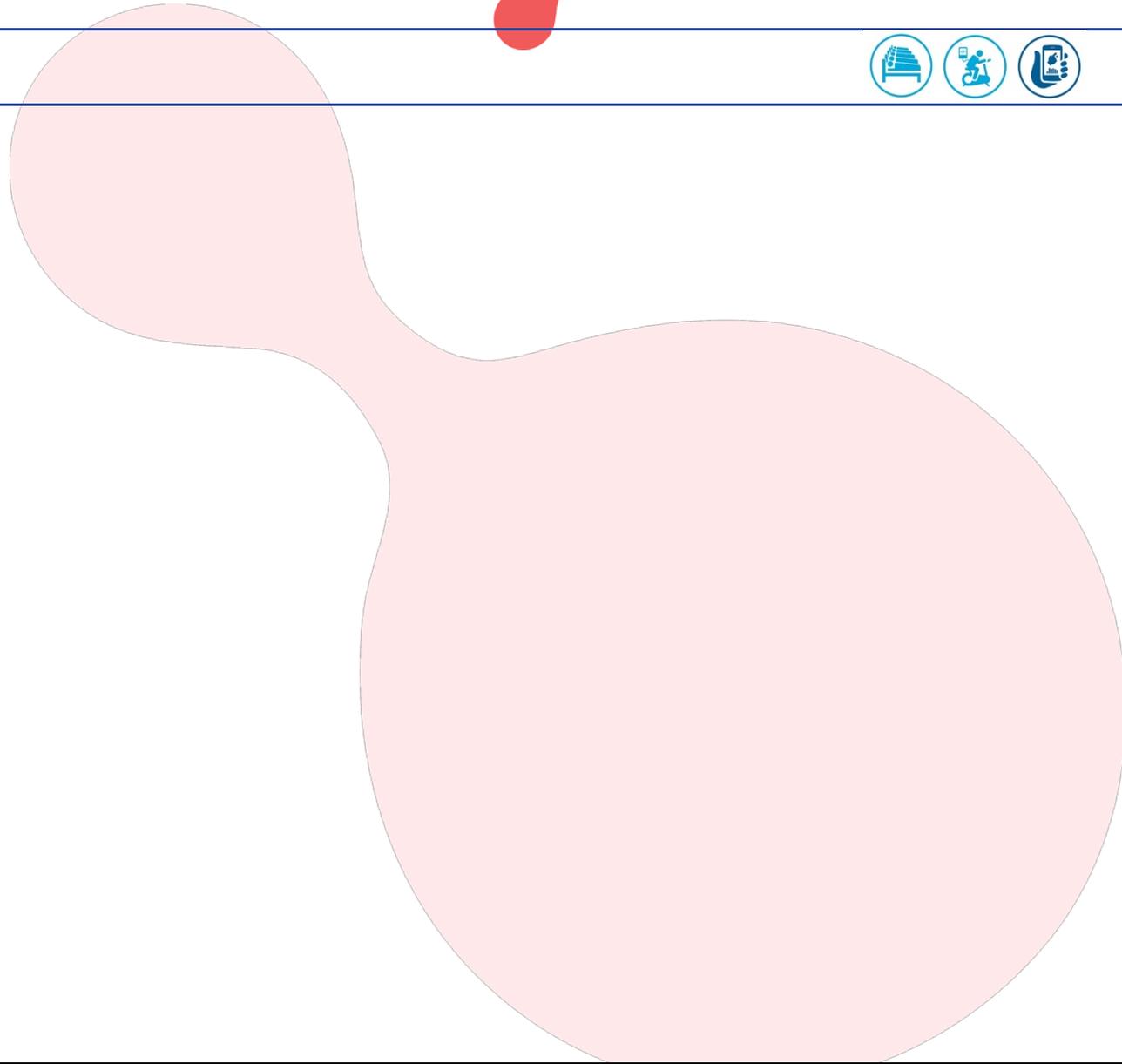
[Programs participating to Service Selection](#)

The programs participating gin Service selection are represented by the following icons:

Service Selection programs	Icon
Telemonitoring of CHF	
Multimorbid integrated care	
Frail Older Adults	
Complex case Management	
Physical Activity	
My Diabetes my Way: foot screening	

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Service selection programs	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree
The survey had appropriate number of indicators				    	
The questions were clear				    	
The dimensions analysed (Description, identification and selection of patients;Service responding to patient needs;On-boarding the required professionals and service) captured essential aspects of Service Selection.				    	
Program Managers are the right target group for the survey				     	
The aim of Service Selection was appropriate				   	 
Service Selection as a driver helped scaling up your program				 	



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At overall, the responses have been very positive. 83% of the responses agree with the statements made in the survey; 6% neither agree nor disagree, and 11% strongly agree.

The most favourable statement was "The aim of Service Selection was appropriate", with 4 responses agreeing and 2 strongly agreeing. The statements that obtained the least favourable responses were "The questions were clear" and "Service Selection as a driver helped scaling up your program", both with one answer neither in agreement nor in disagreement and 5 answers in agreement.

### Programs that did not select service selection as a driver

The programs are represented by the following icons:

Program	Icon
Asthma/ COPD	
Effective Cardio	
Embrace	
Chronic care	
Nursing Homes	
Word of training	
My health	
VC for relatives	
My Diabetes My Way (MDMW)	

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Other programs	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree
The survey had appropriate number of indicators					
The questions were clear					
The dimensions analysed (Description, identification and selection of patients; Service responding to patient needs; On-boarding the required professionals and service) captured essential aspects of Service Selection.					
Program Managers are the right target group for the survey					
The aim of Service Selection was appropriate					
Service Selection as a driver helped scaling up your program					

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In the case of programs that are not directly involved in Service Selection, the responses have also been very positive. In general, 54% of the answers indicate that they agree with the statements made in the survey; 2% do not agree, 19% do not agree or disagree, and 25% strongly agree.

The statement that has gotten the most favourable answers has been "The dimensions analysed captured essential aspects of Service Selection," with four answers agreeing and four others strongly agreeing. The statement that has obtained less favourable answers has been "Service Selection as a driver helped scaling up your program" both with one answer in disagreement, four neither in agreement nor in disagreement and three answers in agreement.

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### Open questions' responses:

	Strenght	Weakness
<b>What do you consider strengths and weaknesses of Service Selection approach?</b>	 <p>The approach was very comprehensive and touches upon relevant aspects of service selection</p>	NONE
	 <p>Professional profile who have answered</p>	Systematic approach
	 <p>It help to standardize processes</p>	Difficult to apply in complex situations
	 <p>Improved data capture Patient choice for healthcare delivery</p>	Raising awareness of service options Training options for busy professionals
	 <p>High variability and programs' diversity</p>	The theoretical and systematic approach
	 <p>The network and our offers are more transparent/clear</p>	The questions sometimes didn't fit to our specific program à difficult to transfer the questions to our program.Sometimes the question seemed to be quite similar
	 <p>Provides overview of processes in the regions. Used at the right level in the organisation (program managers)</p>	Sometimes a bit narrow focus. Not adjusted to the specific context

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	Difficulties	Lessons learned
<p>Having Service Selection in mind, did you encountered difficulties in the scaling-up? What did you learn? (please, describe it briefly)</p>	 <p>This driver was not one of the key drivers for the programs in Northern Netherlands. Not saying that service selection could not be improved, but the scope of the project led us to focus on two other drivers even more relevant for local scaling up; stakeholder management and sustainability and business models.</p>	
	 <p>How to transfer results of service selection to decision makers</p>	<p>Institutional support and the staff are key elements in Service selection</p>
	 <p>Usual care is disease/episode-oriented whereas patient-centered care paths involve higher levels of complexity</p>	<p>Cultural change of health professionals is a major aspect to be taken into account</p>
	 <p>Raising awareness of service options. Training options for busy professionals.</p>	<p>Requirement for marketing approaches to improve awareness. Dedicated seminars and conferences allowed training to be delivered effectively.</p>

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	To adapt this methods to the real day by day health professional assistance	The theoretical and systematic approach
	For My Health it was difficult to scale up the program, because the effort was more complex than expected	The criteria for identifying and selecting patients should be updated. – The collaboration with the cooperation partners has to be improved. – Based on the survey the program managers overthink the inclusion and exclusion criterias for the programs
	N/A	
Suggestion		
	Recommendations to include this driver for telehealth and integrated care program just starting seems important.	
DIMENSIONS: OK		
	Too long survey	
How the questions were formulated, some examples were welcomed		
	We came late to the project, so having the full three years to complete the PDSA cycles would have resulted in improved levels of rollout	
	The phases of the service selection driver it will be better to develop it detecting the real needs of the programs	
	Sometimes it was only allowed to tick one answer, but several answers were suitable/appropriate à more open-ended questions.	
	A free text option to make the survey more context specific	

## 4. Final Conclusions and lessons learned

Service Selection aims to define the patients' and populations' dynamic needs and to enhance risk prediction in the clinical scenario. The central hypothesis is that health risk prediction and stratification optimizes the definition of well-structured programs and adaptive case management.

In this three years process, in the work performed within WP6, Service selection has monitored programs in their implementation of risk assessment, service distribution and on board requirement (among others). All areas of implementation in which each program has devoted its time and effort have been detailed.

The maturity level of the programs is very heterogeneous when comparing program to program and also when comparing intervention areas. There have been programs mainly focused on multidisciplinary integration of the health care provision (i.e. Complex Case Management program) and others especially concentrated on improving the electronic tool for care plan adaptation (i.e. Telemonitoring of CHF). All similarities and differences of the first wave's programs that selected Service selection as driver have been described.

It has to be noted that, at the program level, each implementation depends on both, the level of maturity of each single program at baseline and the context in which each program planned to target its implementation. For example, each program has different population size, different stratification approaches, different target population and different inclusion criteria.

Additionally, implementation area and scope differ significantly among programs. Each program targeted and selected a specific aspect of service selection to work on, so the expected impact affected very diverse aspect of the stratification approach. Some of them show implementation in both "scope and ambition" and "utilization and coverage" area, and some only in one area. The maturity level of the programs is very heterogeneous when comparing program to program, and also when comparing intervention area. All these factors need to be taken into account when interpreting the results.

In summary, the implementation level of each action depends on both, the level of maturity of each single program at baseline and the context in which each program planned to target its implementation.

During these two PDSA cycles each programs have developed and implemented the planned changes. All first wave programs have reported full implementation process. Some of them are also assessed and the Multimorbid Population Integrated intervention

## D 6.6: Final report on Service Selection with lesson learned

Program is also embedded in the system. The Scottish My Diabetes my Way: foot screening (2nd wave) has completed a full PDSA cycle.

Data related to 21 key progress indicators (KPIs) have been presented and analysed in previous WP6 deliverables, at baseline, at the end of the learning cycle and after the coaching cycle.

The process from baseline till now has produced an increase of 77% in first wave's KPIs' scores; an average of 32% in "Scope and Ambition" indicators, such as approach, tools and participant involvement, and an average of 121% in "Utilisation and Coverage" indicators, such as coverage, frequency of usage and professional number.

These results indicates that the programs have been able to scale up their intervention by mean of increasing professionals involved, population covered and making the tools more accessible.

On the other hand, the changes related to strategy and workflow distribution bearded more difficulties. It can also be seen that indicators related to the degree of healthcare tiers accessibility to patients care plan and the level of patients/caregivers involvement in care plan definition are the topics where most of the Program managers have encountered difficulties.

Service selection General Indicators results on all programs participating in ACT@Scale have also reported. It is evident that the results obtained by programs directly working with Service Selection were more pronounced that in the other programs.

It is very valuable to understand that the work done within ACT@Scale will continue in each of the regions involved. The application of the methodology had helped the programs to give structure to their implementation plan. They have been able to focus their work in specific areas and, through the evaluation process performed in Service Selection, they managed to verify their process and acting upon it.

Many programs have reached a high level of implementation and some needs to explore specific aspect of the targeted change. For instance, the Catalan program Support of case management has taken action on analysis and evaluation of health risk assessment and risk stratification process. They declare that the work done during the project clearly demonstrate the potential of multilevel predictive modelling and they underline that will continue working in this aspect during 2019.

In this prospective, the second wave's Diabetes telemonitoring services – foot screening program will use the experience gained in this project to achieve its objectives. They will continue improve the foot screening tool and scaling-up the program by recruiting more podiatrists.

## D 6.6: Final report on Service Selection with lesson learned

It has been proved that the Service Selection Evaluation Framework together with the collaborative methodology have been useful in a three year short period to achieve improvement and scaling up programs. It has guided the change management process.

In addition, more than half of the programs that participate in ACT@Scale believe that service selection has helped scaling up their program.

For instance, Service selection quality check surveys' overall responses indicate that the work done in Service selection has been very positive. 83% of the service selection programs' responses agree with the statements made in the survey; 6% neither agree nor disagree, and 11% strongly agree. In the case of programs that are not directly involved in Service Selection, the responses have also been very positive. In general, 54% of the answers indicate that they agree with the statements made in the survey; 2% do not agree, 19% do not agree or disagree, and 25% strongly agree.

To conclude, a series of recommendations have been developed oriented to the improvement in Service selection:

4. Use the Service Selection Evaluation Framework in combination with the Collaborative Methodology in order to support improvement in service selection and scaling-up programs
5. Use Key Progress Indicators to monitor changes through the implementation process and scaling-up on service selection (ACT@Scale Service Selection Evaluation Framework as an example)
6. To increase quality and efficiency of patient care, enhance staff's awareness and skills on service selection components (case identification, case evaluation, case selection and, care plan formulation and follow-up).