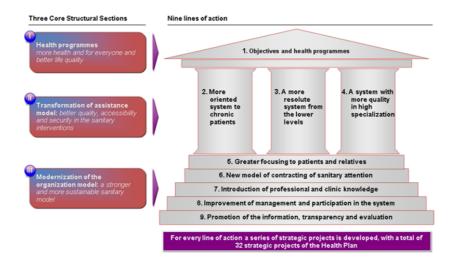
# Collective health policy making: a priority setting and policy monitoring application in the Catalan National Health System

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#### 1. BACKGROUND

Need for new healthcare policies always exceed available budgetary funds, particularly in an economic environment characterized by a shrinking budget. From 2010 to 2013, current healthcare budget in Catalonia has decreased 15% and so has done public health expenditure per capita. This situation requires policy makers to prioritize needs and actions into those that will make an impact and those that will not. Health policy challenge lies in reaching to fair decisions which adequately balance competing needs. It is key to this priority setting process to be aware of the opportunity costs of different funding options as well as to capitalize in social legitimacy by involving large stakeholders groups.

In 2012, Department of Health launched a strategic plan spanning from 2011 to 2015 which set 9 strategic lines that would define health policy under three core structural sections during the fiscal consolidation years.



Line 7 covers the introduction of professional and clinical knowledge.

As part of the strategic planning validation and monitoring, a collective priority setting and prediction was designed to increase the reach and diversity of participation through a collective intelligence methodology (Glienke, 2007; Marsh, 2010).

We applied Health Consensus, a web-based system collective intelligence tool inspired in the Delphi method previously tested in technological innovation processes (Monguet et al, 2010). Health consensus introduces a breakthrough in health policy participation allowing thousands of participants to come along regardless of geographic and professional limitations. It also allows a qualitative participation through a transparent and instant participation outcome feedback as it has been tested as effective participation design (Edelenbos, 1999; Buur et al, 2013).

A total of 3616 healthcare professionals took part in the collective health policy making. To analyze results, we applied a participation quality filter to take into account only those participants that successfully finished the process, answering to all questions (totaling 54 opinions). 1217 health professionals fulfilled the entire process.

#### 3. RESULTS

### 3.1. Collective priority setting

Our first exercise consisted of a prioritization of identified key elements for each block as it is shown in the following table.

Community health	
Health needs detection	2,05
Collaboration among health agents	2,33
Preventive programs and healthy habits promotion empowerment	2,58
Evaluation of community health policies and actions	3,04
Shared decisions	
Promote patients corresponsibility	2,05
Increase professional knowledge and skills	2,24
Availability of shared decision making tools	2,50
Importance of social networks as information source for patients	3,20
Networked health services	
Development of an integrated information system	1,98
Teamwork and networking empowerment	2,25
Adequacy of services basket among levels and providers	2,62
Deepen in health outcomes evaluation	3,15
New forms of care	
Adaptation of professional roles	2,32
Foster clinical and organizational transformation to implement new care modes	2,39
Use of new technologies to make the health system fit and close to patients	2,58
Empowerment of home versus hospital care and coordination among health and social services	2,71

If health policy making had to be made out of the collective intelligence of 1217 health professionals gathered from this prioritization process, we should:

• T prove community health: enhance health needs detection and foster collaboration among health agents

- To improve shared decisions: empower patient responsibility and deploy training programs for health professionals
- · To promote networked health services: develop more integrated information systems and promote teamwork and networking
- · To promote new forms of care: focus in professional roles development and foster clinical and organizational transformation

To have a better understanding of the collective prioritizing outcome, it is important to analyze its features: distance from maximum to minimum value, distance from first to second priority, average distance and ratio of first to second distance and average distance.

Blocks	Max to min	First to second	Avg distance	1to2/Avg Dis
Community health	0,99	0,28	0,33	84%
Shared decisions	1,16	0,20	0,39	51%
Networked health services	1,18	0,27	0,39	69%
New forms of care	0,39	0,08	0,13	59%

With these data at hand, one can state that there is stronger evidence to prioritize in the three first blocks while in new forms of care results are too compacted. With regard to first priorities clarity, community health accounts for the higher relative and absolute distance between first and second option.

#### 3.2. Collective prediction

Panelists were asked to rate from 1 to 6 all 16 items in terms of current situation ("where are we?"), actual and potential situation in 2015 ("where we will be?" and "where could we be?"). This question pattern allows studying aggregated results through an analysis of gaps. Total gap will be the distance from now to potential situation in 2015 according to the crowd. This gap has to be closed by the addition of actual realization ("to 2015 gap") and actual versus potential situation ("could be in 2015 gap").

Community health was the first block to be surveyed. According to the ranking, health needs detection was the action to prioritize. Surprisingly, detection of health needs is the item with a better starting point (3.15) and with the shortest total gap (1.69). Participants think collaboration among health agents is the item with the largest gap (1.94) and where the current policies will make a higher gap closing (29%). Unlike, evaluation of community health implementation starts from a weak 2.36 position and has a large way ahead.

Community health	NOW	IN 2015	COULD BE IN 2015	TOTAL GAP	TO 2015 GAP	COULD BE GAP	TO 2015 % GAP	COULD BE % GAP
Collaboration among health agents	2,76	3,32	4,70	1,94	0,56	1,38	29%	71%
Health needs detection	3,15	3,56	4,84	1,69	0,41	1,28	24%	76%
Preventive programs and healthy habits promotion empowerment	2,98	3,40	4,76	1,78	0,42	1,36	24%	76%
Evaluation of community health policies and actions	2,36	2,86	4,30	1,93	0,50	1,43	26%	74%

The second block of questions was the practice of shared decision making between patients and professionals. Patient responsibility was the top priority followed by professional knowledge and skills development. In terms of current situation, patient responsibility is far behind (2.11) but with a long

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improvement distance (2.20). This contrast with the advanced departing point of professional knowledge and skills (2.97) facing a shortest excellence journey (1.79). Current policies will deliver a higher closing in social networks as an information source for patients (44%) and a lower 29% for professional development.

Shared decisions	NOW	IN 2015	COULD BE IN 2015	TOTAL GAP	TO 2015	COULD BE	TO 2015 % GAP	COULD BE %
			IIN 2015		GAP	GAP	GAP	GAP
Promote patients corresponsibility	2,11	2,91	4,31	2,20	0,80	1,40	36%	64%
Increase professional knowledge and skills	2,97	3,50	4,76	1,79	0,53	1,27	29%	71%
Availability of shared decision making tools	2,26	3,02	4,40	2,13	0,75	1,38	35%	65%
Importance of social networks as information source for patients	2,34	3,21	4,32	1,99	0,88	1,11	44%	56%

Networked health services were the third block to be inquired. Respondents ranked information systems as top priority despite their best starting position (2.46). However, its total gap was the largest (2.32) and policies will deliver a 37% closing. In this topic, evaluation has a better departure (2.44) and the shortest total gap. Participants think that the weakest element is the definition of the service basket (2.31) and where we will achieve the least (33%) in 2015.

Networked health services	NOW	IN 2015	COULD BE	TOTAL GAP	TO 2015	COULD BE	TO 2015 %	COULD BE %
Networked Health Services	NOW	IN 2013	IN 2015	TOTAL GAP	GAP	GAP	GAP	GAP
Development of an integrated	2.46	2.22	4.70	2,32	0,86	1,46	37%	63%
information system	2,46	3,32	4,78					
Teamwork and networking	2 22	2 11	4.63	2,29	0.79	1 51	2.40/	66%
empowerment	2,33	3,11	4,62	2,29	0,78	1,51	34%	66%
Adequacy of services basket among levels and providers	2,31	3,02	4,47	2,16	0,71	1,45	33%	67%
Deepen in health outcomes evaluation	2,44	3,12	4,48	2,05	0,68	1,37	33%	67%

The final block focused in new forms of care delivery where on top were both the adaptation of professional roles and the transformation of clinical and organizational models of care. Again, the first priority coincides with the better departure point (2.48) and the shortest total gap as it happened with health needs detection in the block of community health. However, the weakest departure belongs to the implementation of clinical transformation. It is interesting to highlight that the use of new technologies to make a fitter and closer health system to patients has the largest total gap in all four blocks (2.35) and a reckoned 40% achievement.

New forms of care	NOW	IN 2015	COULD BE IN 2015	TOTAL GAP	TO 2015 GAP	COULD BE GAP	TO 2015 % GAP	COULD BE % GAP
Adaptation of professional roles	2,48	3,22	4,51	2,03	0,75	1,28	37%	63%
Use of new technologies to make the health system fit and close to patients	2,19	3,13	4,54	2,35	0,94	1,41	40%	60%
Foster clinical and organizational transformation to implement new care	2,16	3,02	4,35	2,19	0,86	1,33	39%	61%
Empowerment of home versus hospital care and coordination among health	2,41	3,24	4,49	2,08	0,82	1,25	40%	60%

#### 4. RESULTS

It is rare to develop and refine health policy in a bottom up approach. Catalan Department of Health have envisioned the power of massive participation as part of a strategic planning process and have succeed in involving thousands of health professionals and tapping their system knowledge. System

alignment and a public commitment with health professionals are two main consequences of such type of participation process.

Availability of collective intelligence techniques and a further developed participation culture will bring health policy making to new stages at different health decision making levels, from the ministry to hospitals and clinics.

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