Task 1: selecting JA-CHRODIS criteria to assess good practice in interventions related to chronic conditions

INTERIM REPORT 2: Delphi Panel in the area of organizational interventions focused on dealing with chronic patients with multiple conditions.



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Intended use of this publication

The content of this publication is the result of a consensus process among experts from a variety of domains and profiles. The criteria and indicators agreed under this consensus process are meant to be used as a whole, not being recommended the selection of a subset of criteria and categories for a purpose different to which they were agreed for (ie. assessment of practices involving chronic patients under a peer review process). Be aware that other uses may compromise the reliability of the instrument and are out of the scope of the CHRODIS project.





Introduction

The Joint action on Chronic Disease and Addressing Healthy Ageing across the life cycle (JA-Chrodis) is a collaboration across the EU that brings together over 60 associated and collaborating partners from national and regional departments of health and research institutions, and other stakeholders from 26 Member States during a three-year initiative (2014-2016). This project is led by the by the Spanish Ministry of Health, Social Services and Equity with the Health Institute Carlos III, and in the coordination of JA-CHRODIS collaborates the European Innovation Partnership on Active and Healthy Aging (EIP AHA) alongside other stakeholders and European initiatives.

Its aim is to promote and facilitate a process of exchange and transfer of good practices between European countries and regions, addressing chronic conditions, with a specific focus on health promotion and primary prevention of chronic conditions, organizations dealing with multimorbid patients, patient's empowerment and diabetes.

Also, JA-CHRODIS is developing a 'Platform for Knowledge Exchange' (PKE), where decision-makers, caregivers, patients, and researchers across the EU can find and share the best knowledge and practice on chronic diseases. The platform includes a criteria agreed by experts across the EU and an online tool to allow users to evaluate practices, interventions and policies using assessment criteria established by JA-CHRODIS.

The CHRODIS Delphi consultation gathered an expert panel to decide on the suitability and priority of a series of criteria to assess whether an intervention -policy, strategy, programme/service, as well as processes and practices- can be regarded as 'good practice' in the field of good practices in organizational interventions focused on dealing with chronic patients with multiple conditions.





Methodology

A RAND modified Delphi method was used to decide on the suitability and priority of a series of criteria to assess whether an intervention can be regarded as 'good practice' focused on dealing with chronic patients with multiple conditions.

This Delphi method has combined the use of questionnaires to elicit responses in a systematic manner over two online rounds consultation using a web-based questionnaire followed by a final face to face structured meeting process to gather information from the experts. In both online rounds, experts were also invited to add any criterion or driver they thought relevant and missing. The number of participants was restricted to a maximum of 30 and a minimum of 15, allowing for eventual drop offs.

The first web-based questionnaire use for the Delphi process included the criteria identified through a search and appraisal of primary and secondary documents from different sources. It also included conceptual models, assessment tools, frameworks and procedures identified at national and international level for the evaluation of good practice related to chronic conditions, in particular -but not exclusively- those focused on organizational interventions in the area of chronic diseases and multimorbidity. In addition, a reverse search was undertaken based on the identified and reviewed sources.

The complete list of sources consulted and retained to elaborate the criteria is displayed in annex 1. In annex 2 is also included the summary of the evidence compiled. The search to determine the criteria were guided by the model depicted below, with a view to cover all those aspects of evaluation.







• Online Round 1 (R1)

The online questionnaire included all items in the exhaustive list extracted from the review. The questionnaire was organized into 16 thematic drivers including a total of 61 items clustered.

Experts were asked to judge how relevant each item was in assessing organizational interventions focused on dealing with chronic patients with multiple conditions using a scale of 1 (not relevant at all) to 9 (highly relevant). In this round they were able to suggest additional criteria. The relevance of each item was determined by the median score achieved. The scale was divided into 3 brackets for this analysis: scores 1-3 were interpreted as 'irrelevant criterion', 4-6 'not clearly relevant' and 7-9 'relevant criterion' (fig 1).

In order to establish the degree of agreement, the median and the distribution of votes for each score was examined. When the median and the votes fitted within the same bracket, it was concluded that there was an agreement among the experts about that particular item. Only those items for which agreement converged around 'relevant' were kept for priority setting in the following round; agreements on irrelevance or not clearly relevant led to dropping the item. Those items that did not reach any agreement were kept for reassessment in the second round (fig 2).

Figure1: answers range and possibilities of agreement





Figure 2: answers rate that did not reach agreement

• Online Round 2 (R2)

The items on which experts had agreed as being relevant (7-9 score) in the first round were presented for rating on a priority scale from 1=lowest priority to 9= highest priority. The higher the value the participant chose, the more priority was attaching to the item to assess interventions in the area of chronic patients with multiple conditions.

Likewise the first round, the median and interquartile range, as well as the distribution of votes per score, were examined to determine whether experts agreed on the level of priority (1-3 low priority; 4-6 moderate priority; 7-9 high priority).

For the remaining items, which the experts had not reached agreement in the first round, were presented again this time, alongside with the median and range of variation of experts' marks in the previous round. In light of this information, panellists were asked to rate again each item according to the proposed relevance scale (from 1=not relevant at all to 9=highly relevant).

To give a sense of the relative priority assigned to each item, the individual values of expert's marks were summed up to build an item score. Drivers were also ranked according to the average score across the items they gathered.

• Face to face

For the face to face meeting, a trained facilitator conducted the discussions following a structured consensus methodology. Two rapporteurs provided support in recording voting processes and modifications in phrasing and allocation accorded by experts' consensus. In addition, sessions were tape-recorded (with experts' consent) to enable an accurate account for discussions.





Each retained driver and the items clustered under it were presented following the order in the questionnaire. Reacting to a proposal by the CHRODIS Delphi Team, experts agreed to consider each driver as a criterion for intervention assessment, which was further specified into categories (the items composing each driver).

Priority-setting and weighting criteria took place in two stages: In the first step criteria and categories were presented one at a time and at this stage, merging, rephrasing and reallocating of categories across criteria were allowed.

Once consensus on the formulation of categories and criterion reached, experts proceeded to weight categories on a scale of 100. Whenever group discussions did not yield consensus about weights distribution among categories, experts individual voting was called to allocate the 100 points using ballots. The final weight for each category was calculated averaging total points by the number of voters (dividing total points by number of experts and multiplying by 100, so the sum of categories' weight within a criterion was always 100).

In the second stage panellists' discussions were steered to obtain relative weights for the criteria consolidated in the previous stage. The weight given to a particular criterion was built on the concept of how the criterion was defined throughout its categories, and irrespectively of the number of categories (*i.e.*, more categories did not mean more importance but a more nuanced definition of this criterion).

The group discussion about the relative importance of the criteria was followed by experts' individual rating using ballots. The criteria relative weight was also rated in a 100 points scale. To determine the relative weight finally allocated to each criterion, experts' votes were processed to obtain the average score per criterion (total sum of points divided by the number of voters and multiply by 100).

Results

• Online Round 1 (R1)

Round 1 was launched in May 18th 2015 and closed on June 22nd 2015. The initial number of European experts invited to join the panel was 24. **Twenty two** of them actually completed the questionnaire in the first round: men=10 (45,46%) and women=12 (54,55%), the age-range included 18,18% within 25-34 years old, 27,27 % ages 35-44, 13,06% ages 45-54, 22,72% ages 55-65 and 18,18% >65 years old.





They came from different countries in Europe (Belgium, France, Germany, Ireland, Italy, Lithuania, Netherlands, Slovakia, Spain, Sweden and United Kingdom); covering a variety of health system models as well as diverse individual expertise (academic, clinician, policy). Their common feature was holding knowledge and experience in the field of organizational interventions focused on dealing with chronic patients with multiple conditions.

In this first round, all items have passed to this 2nd round. Agreement was reached about **fifty one** items as relevant (7-9 score) for assessing practices and, thus, they passed onto the second round for priority assessment (table 1); As for the remaining **ten** questions, there was no consensus among the experts, with opinions evenly split between the "not clearly relevant" and "relevant" brackets of the scale (figure 2).

Those questions passed onto the second round for reassessment by the experts, this time in light of the median and range of the valuations assigned by their colleagues in the first round (table 2).

Driver-ID	Driver	Item- ID	Item
1 Defined		1	Key elements of the intervention were clearly defined and related to the intended effect (based on strong theoretical basis, providing a clear understanding of the chain of causation and the interactions between processes).
	intended effect	2	The intervention was based on a clear assessment of needs of the population it will serve
		4	The intervention included change management elements, identifying the necessary actions to remove legal, organisational, and financial or skill barriers.
	2 Theory grounds	5	The intervention was based on a clear understanding of the contextual factors that would affect the outcomes (i.e. characteristics of the health system, coverage, characteristics of the population, socioeconomic environment).
2		6	There had been an explicit process of public consultation and stakeholders' engagement prior to the implementation of the intervention, with clear procedures to foster collaboration.
		9	An economic evaluation comparing incremental cost-effectiveness of existing alternatives of intervention was carried out (or accounted for if already existed).
		10	The intervention's aims and objectives were clearly specified and adjusted to the SMART rule (Specific/Measurable/Acceptable/Realistic/Time framed).
3 Aims and objectives	11	The aims and objectives of the intervention were related to a situation analysis and needs assessment.	
		10	The intervention's aims and objectives were clearly specified and adjusted to the SMART rule (Specific/Measurable/Acceptable/Realistic/Time framed).
4	Target group / population	12	Target groups were risk-stratified using evidence-based sound methodology and taking into account different dimensions (quality of life, frailty, clinical

Table 1. Relevant drivers and items for interventions' assessment obtained from online round 1





Driver-ID	Driver	Item- ID	Item
addressed			susceptibility, functional autonomy, mental health).
		13	There was a detailed description of the estimated number and profile of the patients receiving the intervention.
		14	Instruments for patient needs' assessment were selected on the basis of an explicit review of the update evidence.
		16	The intervention was sensitive to cultural beliefs and socioeconomic characteristics of the individuals.

Driver-ID	Driver	ltem- ID	Item
		18	The different professional disciplines and services that were involved in the intervention are clearly identified, with appropriate mechanisms of coordination among them.
		19	The intervention defined specific care pathways for patients based on their clinical assessment.
5	Intervention	20	Patients' care plans (including goal-setting) were discussed and agreed with the patients or their representatives.
	design	design 21	There was an individual supervision of the patient across the diagnostic and therapeutic processes (including the definition of the case-manager role).
		22	Poly-pharmacy and patient adherence to treatments were specifically addressed in the design of the intervention.
		23	The intervention placed a specific role/function for caregivers, involving them in care support infrastructure for dependent patients.
			All the processes involved in the intervention were clearly defined and mapped, with explicit milestones that allow for an adequate monitoring of the intervention.
Strat 6 me	Strategies and methods of	26	There was an explicit human resources policy, with a definition of professional roles involved, criteria for professional recruitment and training plans (including a clear definition of qualifications and skills).
	implementation	27	There was a defined a strategy to align staff incentives and motivation with the intervention objectives.
		28	The intervention included a learning system to support reflective healthcare practice among professionals involved.





Driver-ID	Driver	ltem- ID	Item
7	Leadership	29	There was a clear leadership commitment, and the responsibilities of the different partners and the relationships among them were well defined.

Driver-ID	Driver	Item- ID	Item	
	Stakeholders involvement and	30	There was explicit commitment and support among stakeholders involved in the intervention (e.g providers, patients, community, governing boards of the healthcare system,).	
8		31	The professionals involved in the intervention and/or the organisation team members supported individual's self-management (e.g. through patient education, patient activation and empowerment).	
	participation	32	The intervention included a system to support patient engagement and self- management (bidirectional communication, assistance at home, counselling, integration in patient's community, monitoring, emergency care rapid response, telephone follow-up, etc.).	
Inter 9 re		33	Social care and healthcare were integrated into a functionally unified assistance network.	
	9 Interaction with regular care delivery structure and society network	34	The sharing and flow of information across all care providers (i.e. health and social services and different levels or instances within them) was shaped to facilitate transition and sufficient access to relevant information within the scope at any level.	
		35	The intervention was integrated or fully interacting with the regular healthcare delivery system to avoid creation of self-contained parallel circuits functioning in the margins of established devices of care.	
			The intervention fostered continuous engagement and coordination with different community resources (i.e. main town halls, social services, pharmacies and local associations).	
10	Capacity and	37	Investment in human capital by means of training/education activities for healthcare providers, caregivers and patients was present.	
10	resources	38	The workload (cognitive, physical, time) for the organization and the professionals involved had been previously estimated.	





Driver-ID	Driver	Item- ID	Item	
	Information	39	The intervention integrated different Information and Communication Technologies (e.g. accessible channels of communication, dedicated software,).	
11		41	There was an integrated system of patient clinical data that can be accessed and updated by professionals in real time across the various care levels.	
	systems	43	The best available evidence (guidelines, protocols, etc.) was easily available for health professionals.	
	44		There existed a defined policy to ensure acceptability of information technologies among their users (professionals and patients), including involvement of end-users in the process of change.	
	Evaluation 12 framework and regularity	45	The intervention included a monitoring & evaluation system with a defined framework for assessment and an information system feeding defined indicators and standards of care.	
		46	Evaluation activities followed clear milestones and were sustained along the intervention.	
		47	The evaluation framework included a baseline multidisciplinary assessment for all the relevant outcomes (i.e. health problem, safety, clinical effectiveness).	
12		48	Indicators took into account economic aspects (i.e. budgetary impacts, efficiency gains) as well as patient and caregivers perspectives.	
		49	The outcomes framework was shared among providers to foster collaboration and integration.	
		50	Outcomes assessment focused on health impact (i.e. mental, physical and social status or functioning, patient assessment, symptoms control and pain treatment, quality of life) and satisfaction with care experience.	





Driver-ID	Driver	ltem- ID	Item		
		51	The evaluation included healthcare utilization and quality and safety improvements in the different levels involved in the intervention (e.g. hospital care, community care, primary care, specialists' visits, pharmaceutical consumption or institutional long term care).		
		54	Evaluation results were relevant and linked to the stated goals and objectives.		
14	Relevance of assessment	55	Evaluation results were linked to actions to reshape the implementation accordingly.		
	outcomes	56	Outcomes assessment enabled outcome-based contracts (few, clear, concise and readily communicated indicators).		
			The continuation of the project was ensured through ownership and/or institutional anchoring, and there was enough support for the intervention amongst both those who implemented it and the target group.		
15 Sustainability	58	The financial viability of the intervention was guaranteed in the long term (including a risk-adjusted funding scheme, identification of necessary resources and budget impact of the implementation, including all relevant costs and its distributions among stakeholders, partners, and the organization.			
		59	The sustainability strategy considered a range of contextual factors (i.e. structural funds, resources from project partners, synergy with local industry and technology involving private and public sector and citizens).		
16	Scalability and	60	The Intervention potential for scalability was assessed in terms of prospective size of the population targeted, key factors, barriers and facilitators.		
	scalability and knowledge exchange	61	There were systematic networking efforts (i.e. knowledge exchange and learning networks, strategies of communication and dissemination, tailored diagnosis of scaling up possibilities) to foster the exchange of information, mutual support and cooperation with other community resources.		

Table 2. No consensus drivers and items for interventions' assessment obtained in round 1

Driver- ID	Driver	Code-R1	Item
2 Theory grounds		3	The intervention was aligned with the political agenda at the institutional, local, national or international level.
	Theory grounds	7	An explicit comparison to existing alternatives of intervention was carried out (or accounted for if already existed) including impact on different dimensions of health care such as quality and safety.
		8	An explicit comparison to existing alternatives of intervention was carried out (or accounted for if already existed) in terms of impact of different dimensions such as equity, solidarity and responsiveness.
4	Target group / population addressed	15	Clear protocols were developed to identify the individual patient needs and to determine eligibility for service and referral to/from other agencies.
5	Intervention design	17	There is a detailed description of the location of the intervention, including the main characteristics of the area and population in which the intervention was implemented.





Driver- ID	Driver	Code-R1	Item
		24	There was a defined plan for social marketing activities, including communication and reaching-out strategies, definition of material and messages targeting specific groups and other community and social actions (training materials, job aids).
11	Information systems	40	The intervention included prescription support tools allowing communication among the healthcare professionals.
11	information systems	42	There existed a specific funding program for the information systems (including management and clinical practice).
13	Assessment of coordination and	52	Rapid consultation and response devices were in place linked to the intervention monitoring (i.e. phone use when fast response is needed, use of a "call centre" as core enabling proactive problem solving and activation of resources.
	organizational - aspects	53	The patient and main caregiver / family roles were strengthen in the intervention incorporating specific devices for psychological /emotional support.

• Online Round 2 (R2)

Driver- ID	Driver	Code-R2	Item
Round 2	was launched in	July 10 th a	and closed on September 15 th 2015 (the period of
consultat	ion was longer du	ie to Europe	ean summer period). The initial number of European
experts i	nvited to join the	panel was	22. Twenty of them completed the questionnaire in
the seco	nd round: men=9) (45 %) an	d women=11 (55 %), the age-range included 15 %
within 25	5-34 years old, 30	% ages 35-4	44, 10 % ages 45-54, 25 % ages 55-65 and 20 % >65
vears old			

They came from different countries in Europe (Belgium, France, Germany, Ireland, Italy, Netherlands, Slovakia, Spain, Sweden and United Kingdom); covering a variety of health system models as well as diverse individual expertise (academic, clinician, policy). Their common feature was holding knowledge and experience in the field of organizational interventions focused on dealing with chronic patients with multiple conditions.

In relation to the <u>ten</u> items where the panel reached not agreement in the first round, **two** were deemed relevant and retained for discussion at the face to face meeting (table 3).

Table 3: Drivers and items assessed as relevant in round 2





4	Target group / population addressed	15	Clear protocols were developed to identify the individual patient needs and to determine eligibility for service and referral to/from other agencies
5	Intervention design	17	There is a detailed description of the location of the intervention, including the main characteristics of the area and population in which the intervention was implemented

The other **eight** items were considered unclear or no relevant; therefore they were discarded from the list (table 4). From the **fifty one** items agreed as relevant in the previous round, all rated in the area of high priority except in one item, which was assigned a low priority on the second round. They all were kept for discussion at the face to face meeting. The scores obtained for each item and the corresponding drivers are summarised in table 5.

Table 4: Drivers and items discarded in round 2

Driver- ID	Driver	Code-R2	Item
2		3	The intervention was aligned with the political agenda at the institutional, local, national or international level.
	Theory grounds	7	An explicit comparison to existing alternatives of intervention was carried out (or accounted for if already existed) including impact on different dimensions of health care such as quality and safety.
		8	An explicit comparison to existing alternatives of intervention was carried out (or accounted for if already existed) in terms of impact of different dimensions such as equity, solidarity and responsiveness.
5	Intervention design	24	There was a defined plan for social marketing activities, including communication and reaching-out strategies, definition of material and messages targeting specific groups and other community and social actions (training materials, job aids).
11	Information	40	The intervention included prescription support tools allowing communication among the healthcare professionals.
	systems	42	There existed a specific funding program for the information systems (including management and clinical practice).
13	Assessment of coordination and organizational aspects	52	Rapid consultation and response devices were in place linked to the intervention monitoring (i.e. phone use when fast response is needed, use of a "call centre" as core enabling proactive problem solving and activation of resources.





Driver- ID	Driver	Code-R2	Item
		53	The patient and main caregiver / family roles were strengthen in the intervention incorporating specific devices for psychological /emotional support.

Table 5: Relevant drivers and items for intervention's assessment ordered by their average priority scores obtained from round 2.

Note: Categories coloured in yellow correspond to no consensus items obtained in round one and subsequently selected as relevant in the second round, and category coloured in pink corresponds to the item assigned low priority in the second round ranked by priority weight.

Driver-ID	Driver	ltem- ID	ltem	Priori Weig	ty- ht		
7	Leadership	29	There was a clear leadership commitment, and the responsibilities of the different partners and the relationships among them were well defined.	162	162		
	Interaction with regular care delivery structure and society network	35	The intervention was integrated or fully interacting with the regular healthcare delivery system to avoid creation of self-contained parallel circuits functioning in the margins of established devices of care.	166			
9		regular care delivery structure and	delivery structure and	33	Social care and healthcare were integrated into a functionally unified assistance network.	164	
		36	The intervention fostered continuous engagement and coordination with different community resources (i.e. main town halls, social services, pharmacies and local associations).	160	162		





Driver-ID	Driver	Item- ID	Item	Priori Weig	ty- tt
		34	The sharing and flow of information across all care providers (i.e. health and social services and different levels or instances within them) was shaped to facilitate transition and sufficient access to relevant information within the scope at any level.	158	
		2	The intervention was based on a clear assessment of needs of the population it will serve.	164	
1	Defined intended effect	1	Key elements of the intervention were clearly defined and related to the intended effect (based on strong theoretical basis, providing a clear understanding of the chain of causation and the interactions between processes).	157	161
		31	The professionals involved in the intervention and/or the organization team members supported individual's self- management (e.g. through patient education, patient activation and empowerment).	163	
8	Stakeholder involvement and participation	32	The intervention included a system to support patient engagement and self-management (bidirectional communication, assistance at home, counselling, integration in patient's community, monitoring, emergency care rapid response, telephone follow-up, etc.).	161	
		30	There was explicit commitment and support among stakeholders involved in the intervention (e.g. providers, patients, community, governing boards of the healthcare system,).	159	161
		20	Patients' care plans (including goal-setting) were discussed and agreed with the patients or their representatives.	171	
		19	The intervention defined specific care pathways for patients based on their clinical assessment.	166	
		22	Poly-pharmacy and patient adherence to treatments were specifically addressed in the design of the intervention	163	
5	Intervention design	18	The different professional disciplines and services that were involved in the intervention are clearly identified, with appropriate mechanisms of coordination among them.	159	
		23	The intervention placed a specific role/function for caregivers, involving them in care support infrastructure for dependent patients.	156	
		17	There is a detailed description of the location of the intervention, including the main characteristics of the area and population in which the intervention was implemented.	155	
		21	There was an individual supervision of the patient across the diagnostic and therapeutic processes (including the definition of the case-manager role).	145	159





Driver-ID	Driver	ltem- ID	ltem	Priori Weig	ty- ht
10	Capacity and	37	Investment in human capital by means of training/education activities for healthcare providers, caregivers and patients was present.	166	
10	resources	38	The workload (cognitive, physical, time) for the organization and the professionals involved had been previously estimated.	150	158
		58	The financial viability of the intervention was guaranteed in the long term (including a risk-adjusted funding scheme, identification of necessary resources and budget impact of the implementation, including all relevant costs and its distributions among stakeholders, partners, and the organization.	163	
15	Sustainability	57	The continuation of the project was ensured through ownership and/or institutional anchoring, and there was enough support for the intervention amongst both those who implemented it and the target group.	158	
		59	The sustainability strategy considered a range of contextual factors (i.e. structural funds, resources from project partners, synergy with local industry and technology involving private and public sector and citizens).	152	158
	Aims and	11	The aims and objectives of the intervention were related to a situation analysis and needs assessment.	158	
3	objectives	10	The intervention's aims and objectives were clearly specified and adjusted to the SMART rule (Specific/Measurable/Acceptable/Realistic/Time framed).	154	156
		43	The best available evidence (guidelines, protocols, etc.) was easily available for health professionals.	161	
		41	There was an integrated system of patient clinical data that can be accessed un updated by professionals in real time across the various care levels.	155	
11	Information systems	44	There existed a defined policy to ensure acceptability of information technologies among their users (professionals and patients), including involvement of end-users in the process of change.	153	
		39	The intervention integrated different Information and Communication Technologies (e.g. accessible channels of communication, dedicated software,).	151	155
12	Evaluation framework and	45	The intervention included a monitoring & evaluation system with a defined framework for assessment and an information system feeding defined indicators and standards of care.	162	
	regularity	46	Evaluation activities followed clear milestones and were sustained along the intervention.	158	155





Driver-ID	Driver	Item-	ltem	Priori	ty-
		47	The evaluation framework included a baseline multidisciplinary assessment for all the relevant outcomes (i.e. health problem, safety, clinical effectiveness).	157	
		51	The evaluation included healthcare utilization and quality and safety improvements in the different levels involved in the intervention (e.g. hospital care, community care, primary care, specialists' visits, pharmaceutical consumption or institutional long term care).	155	
		48	Indicators took into account economic aspects (i.e. budgetary impacts, efficiency gains) as well as patient and caregivers perspectives.	154	
		50	Outcomes assessment focused on health impact (i.e. mental, physical and social status or functioning, patient assessment, symptoms control and pain treatment, quality of life) and satisfaction with care experience.	152	
		49	The outcomes framework was shared among providers to foster collaboration and integration.	149	
		5	The intervention was based on a clear understanding of the contextual factors that would affect the outcomes (i.e. characteristics of the health system, coverage, characteristics of the population, socioeconomic environment).	160	
2	2 Theory grounds	4	The intervention included change management elements, identifying the necessary actions to remove legal, organizational, and financial or skill barriers.	155	
		6	There had been an explicit process of public consultation and stakeholders' engagement prior to the implementation of the intervention, with clear procedures to foster collaboration.	150	
		9	An economic evaluation comparing incremental cost- effectiveness of existing alternatives of intervention was carried out (or accounted for if already existed).	149	154
		60	The Intervention potential for scalability was assessed in terms of prospective size of the population targeted, key factors, barriers and facilitators.	155	
16	Scalability and knowledge exchange	61	There were systematic networking efforts (i.e. knowledge exchange and learning networks, strategies of communication and dissemination, tailored diagnosis of scaling up possibilities) to foster the exchange of information, mutual support and cooperation with other community resources.	153	154
	Deleveració	54	Evaluation results were relevant and linked to the stated goals and objectives.	160	
14	Relevance of assessment	55	Evaluation results were linked to actions to reshape the implementation accordingly.	157	
	outcomes	56	Outcomes assessment enabled outcome-based contracts (few, clear, concise and readily communicated	135	151





Driver-ID	Driver	Item-	Item	Priority-									
		U	indicators).	weig	nτ								
		14	Instruments for patient needs' assessment were selected on the basis of an explicit review of the update evidence.	153									
		16	The intervention was sensitive to cultural beliefs and socioeconomic characteristics of the individuals.	153									
4	Target group	13	There was a detailed description of the estimated number and profile of the patients receiving the intervention.	148									
		15	Clear protocols were developed to identify the individual patient needs and to determine eligibility for service and referral to/from other agencies.	147									
												12	Target groups were risk-stratified using evidence-based sound methodology and taking into account different dimensions (quality of life, frailty, clinical susceptibility, functional autonomy, mental health).
	Strategies and methods of implementation	28	The intervention included a learning system to support reflective healthcare practice among professionals involved.	154									
Strategies and 6 methods of implementation		26	There was an explicit human resources policy, with a definition of professional roles involved, criteria for professional recruitment and training plans (including a clear definition of qualifications and skills).	152									
		25	All the processes involved in the intervention were clearly defined and mapped, with explicit milestones that allow for an adequate monitoring of the intervention.	152									
	27	There was a defined a strategy to align staff incentives and motivation with the intervention objectives.	139	149									

• Comments provided by the experts

In both first and second round, experts were invited to add any criterion or driver they thought relevant and missing. They were also encouraged to provide comments to individual items, drivers, or the general model. Though no additional items were suggested during this process, experts' comments proved very informative as to how they were facing their task and the conceptual difficulties they identified in the process.

One of the issues that can be gathered from those comments is the role of economic aspects of an intervention. In some experts' view there should be a *"macro"* approach to set the grounds that goes beyond the scope of any intervention. They seem to suggest that such framing is a pre-condition for the relevance of assessing the economic aspects of any specific intervention:





[".....if we can persuade Governments that the Cost of Health and Social Care is in fact an annual investment in the Economy of their country and will create economic activity and jobs, the Economy Department starts to invest alongside the Health department."].

Along the same lines other participants support an explicit analysis of return on investment (ROI), valuing long term-gains (patient outcomes and efficiency) and affordability as the key to sustainability of any practice:

["..... economic evaluation is vital;work being turned down because the ROI was not done. Much of today's spend, especially public money means you must convince the finance department"]

Another topic of importance for the experts is the trade-off between how well tailored a practice is to the needs of its target population and its generalisability. Some participants expressed concern about putting too much weight in valuing a practice on the basis of its specificity which may erode its potential for scalability or adoption in other settings:

["...depends on nature of intervention. (the) More specific it is in terms of addressing a certain population's needs,(it) may reduce the generalization to other populations."]

Related to both transferability and feasibility pre-conditions, some experts highlight how organizational elements key to the success of a practice might be structural rather than features of the specific intervention subject to assessment:

["...If the organization has certain aspects already in place, they do not need to be part of the integrated care approach but it is for all the health and care processes. If the organization does not have certain infrastructures in place, then they become necessary and therefore essential in the intervention. How to score those general necessary aspects? fast response access, ICT infrastructure..."]

["Much focus remains on the coordination of health services, the inclusion of social care needs to happen, but is a longer term goal in many regions"]

Regarding the evaluation of aspects of coordination with social and community services, there is general consensus about this feature being a differential element of good practice:

["The cooperation with social services is important, especially in order to provide seamless care (for instance, from hospital discharge to home care. Often social services work with vulnerable people and can direct them to certain health care facilities."]





However some experts resent the eventual effect of applying those criteria to interventions that they consider to be naturally in the exclusive realm of health care:

["Depends on aims of intervention. May not be possible or necessary to integrate a healthcare intervention (such as a medicines review) with social care in some settings"]

And some others emphasise the challenges of bridging across those, in their view, still separate "worlds":

[...However, in many joint working approaches there is a strong medical focus, characterised by the use of medical terms and clinical information and communication systems. In addition, cooperation within a team of health and social care professionals can be undermined by professional stereotypes and different work philosophies...].

All these concerns were duly addressed and dealt with during discussions at the face to face meeting.

• Face to face

The expert meeting to refine and prioritize criteria to assess practices on *organizational interventions focused on dealing with chronic patients with multiple conditions* took place on 22nd and 23rd October 2015 in Brussels.

Ten out of the 20 experts that completed the 2nd round were able to attend. They were 5 men and 5 women. The range of countries represented (France, Germany, Netherlands, Spain and United Kingdom) still showed a good sample of the variety of health systems in Europe; the range in expertise was also covered with academic, clinician, IC experts, industry and policy representatives.

In order to ease discussions at the meeting, the initial 15 criteria obtained in the second online round (table 5) were further elaborated by the CHRODIS Delphi Team to identify redundancies. Thus, a proposal for merging criteria and reallocating categories was presented to the expert panel and thoroughly discussed at the meeting. The experts finally agreed on 8 criteria made up of 50 categories and weighted categories composing each





criterion as well as the final list of criteria. Table 6 shows the final list of categories, criteria and their weights agreed by the expert panel.

The following paragraphs provide details on the decisions made by the panel to achieve this final output on the basis of the results obtained from the 2 online rounds (reflected in table 5).

Criterion 1: Defined intended effect and **criterion 2: Theory grounds** were merged into a new one renamed **"Context and needs analysis"**.

Category 1: "Key elements of the intervention were clearly defined and related to the intended effect (based on strong theoretical basis, providing a clear understanding of the chain of causation and the interactions between processes)", was considered part of intervention design.

Category 6: "There had been an explicit process of public consultation and stakeholders' engagement prior to the implementation of the intervention, with clear procedures to foster collaboration", was split as experts considered that relevant stakeholders' engagement and public consultation were different tasks, too important to go together in the same category. This new category was rephrased into "There had been an explicit process of relevant stakeholders' engagement prior to the implementation of the intervention".

The new criterion: "Context and needs analysis" resulted in 5 categories redacted as follows:

- The intervention was based on a clear assessment of needs of the population it will serve.
- The intervention was based on a clear understanding of the contextual factors that would affect the outcomes (i.e. characteristics of the health system, coverage, characteristics of the population, socioeconomic environment, legal and political environment).
- There had been an explicit process of relevant stakeholders' engagement prior to the implementation of the intervention
- There had been an explicit process of public consultation prior to the implementation of the intervention.
- Assessment of cost-effectiveness of relevant interventions was carried out (or accounted for if it already existed).





Criterion 3: Aim and Objectives and **criterion 4: Population target** were merged into a new one renamed **"Objectives and Target group"**

Categories 10 and 11 were merged into one. Category 14 and 15 were discarded as they were already included in criterion: "Context and needs Analysis".

It was also added a new category to clarify the criterion: "There was a clear description of inclusion and exclusion criteria".

The new criterion: **"objective and target group"** resulted in 5 categories redacted as follows:

- The intervention's aims and objectives were clearly specified and adjusted to the SMART rule (Specific/Measurable/Acceptable/Realistic/Time framed).
- Target groups were risk-stratified using evidence-based methodology and taking into account relevant dimensions (e.g. quality of life, clinical and functional status, frailty).
- There was a clear description of inclusion and exclusion criteria.
- There was a detailed description of the estimated number and profile of the patients targeted by the intervention.
- The intervention was sensitive to cultural beliefs and socioeconomic characteristics of the individuals including the main characteristics of the area and population in which the intervention was implemented.

Experts rejected a proposal for a new criterion "Patient centeredness" built up merging some categories from the former criterion 5 "Intervention design" and criterion 8 "Stakeholders involvement and participation". They thought that this feature (patient centeredness) must be considered crosswise rather than being a separate criterion. Otherwise, they suggested creating a new criterion **Change Management**, important in chronic conditions to ensure that changes are thoroughly and smoothly implemented to achieve their potential.

The new criterion **"Change Management"** was created from the category 4 of the former criterion 2 "*Theory grounds*", categories 27 and 28 of criterion 6 "*Strategies and methods of implementation*", criterion 7 "*Leadership*" and category 31 of criterion 8 "*Stakeholder involvement*". The new rephrased categories resulted in the following ones:





- There was a defined a strategy to align staff incentives and motivation with the intervention objectives.
- The intervention included a learning system to support reflective healthcare practice among professionals involved.
- The intervention included organisational elements, identifying the necessary actions to remove legal, managerial, financial or skill barriers.
- There was a clear leadership commitment, and the responsibilities of the different partners and the relationships among them were well defined.
- The professionals involved are trained and competent to support individual's selfmanagement (e.g. through professional development programmes to promote patient empowerment).

According to the experts, description and implementation of a practice shared common features so they decided to include both concepts in the same criterion. A new criterion **"Care Intervention Design"** was created including the former criterion 5 "*Intervention Design*", category 1 from the former "*Intended defined effect*", and category 32 from "*Stakeholders involvement and participation*".

Ten categories were agreed as follows:

- The different professional disciplines (including social sector) and services involved in the intervention are clearly identified, with appropriate mechanisms of coordination among them.
- The intervention defined specific care pathways for patients based on their clinical assessment.
- The intervention was designed to foster discussion and agreement with patients about their care plans (including goal-setting).
- Key elements of the intervention were clearly defined and related to the intended effect (based on strong theoretical basis, providing a clear understanding of the chain of causation and the interactions between processes).
- There was an individual contact point for the patient across the diagnostic and therapeutic processes, including the definition of a case manager role when needed.
- Patient adherence to medical plans was specifically addressed in the design of the intervention.
- Problems related to poly-pharmacy were taken into account.





- The intervention placed a specific role/function for caregivers, involving them in care support infrastructure for dependent patients.
- There was a detailed description of the care settings of the intervention.
- The intervention included mechanisms to support patient engagement and selfmanagement (e.g. bidirectional communication, assistance at home, counselling, integration in patient's community, monitoring, emergency care rapid response, telephone follow-up, etc.).

Experts renamed criterion 9 "Interaction with regular care delivery structure and society network" as "Interaction with relevant societal structures". Category 33 and 35 were merged and category 34 and 36 were rephrased. The new categories composing the criterion were:

- The intervention was integrated or fully interacting with the regular care delivery system.
- Communication across all care providers (i.e. health and social services and different levels or instances within them) facilitates transition and sufficient access to relevant information.
- The intervention fostered continuous engagement and coordination with different community resources (i.e. main town halls, social services, pharmacies and local associations).

From criterion 10: Capacity and resources and criterion 11: Information system and category 26 from the former criterion 6: Strategies and methods of implementation, experts created a new criterion "Resources and Infrastructure". They also considered that patient's access to data deserves specific attention, so they added a new category: "There was an integrated system of patient data that can be accessed and updated by patients in real time".

The 8 new rephrased categories resulted as follows:

- There was an integrated system of patient data that can be accessed and updated by patients in real time.
- There was an integrated system of patient data that can be accessed and updated by professionals in real time across the various care levels.
- The intervention integrated different information and communication technologies (e.g. accessible channels of communication, dedicated software,...).





- The best available evidence (guidelines, protocols, etc.) was easily available for health professionals.
- There was a defined policy to ensure acceptability of information technologies among users (professionals and patients), to enable their involvement in the process of change.
- Investment in human capital by means of training/education activities for caregivers and patients was present.
- The workload (cognitive, physical, time) for the organization and the professionals involved had been estimated as adequate.
- There was an explicit human resources policy, with a definition of professional roles involved, criteria for professional recruitment and training plans (including a clear definition of qualifications and skills).

Criterion 12: Evaluation framework and regularity and **criterion 14: Relevance and assessment outcomes** were merged into a new one renamed **"Evaluation**". Categories were rephrased, mainly editing English and deleting text between brackets.. They resulted as follows:

- The intervention included a monitoring and evaluation system with an information system feeding defined indicators and standards of care.
- Evaluation activities followed clear milestones and were sustained along the intervention.
- There was a baseline multidisciplinary assessment for all the relevant outcomes and processes.
- Evaluation took into account social economic aspects from both patient and formal and informal caregivers' perspectives.
- The evaluation included changes in healthcare organisation and utilisation across levels of care.
- The outcomes framework was shared among providers.
- Outcomes assessment included health and social impact and care experience.
- Evaluation outcomes were linked to the stated goals and objectives.
- Evaluation outcomes were shared among stakeholders and linked to actions to foster continuous learning and improvement.
- Outcomes assessment enabled performance-based contracts.





Finally, **criterion 15: Sustainability** and **criterion 16: Scalability** were merged in a single criterion renamed **"Sustainability and scalability"**. Knowledge exchange (represented by category 61) was dropped as it was considered to be already covered by the evaluation criterion. Regarding category 59, experts redefined contextual factors to completely distinguish them from financial ones.

Finally, categories composing criterion "Sustainability and Scalability" resulted as follows:

- The continuation of the project was ensured through ownership and/or institutional anchoring, and there was enough support for the intervention among stakeholders.
- The financial viability of the intervention was guaranteed in the long term.
- The sustainability strategy considered a range of contextual factors (e.g. health and social policies, innovation, cultural trends and general economy).
- The intervention potential for scalability was assessed.

Once the work on new specification was completed, and categories in each criterion were weighted, experts weighed the 8 criteria by distributing 100 points among them.

The highest weight was assigned to the criterion: "Care intervention designed" (19% of the total valuation of a practice), while the criterion: "Interaction with relevant societal structures" was rated the lowest score (3% of total). Category and criteria weights are detailed in table 6.

Table 6: Final set of weighted criteria recommended for evaluating organizational interventions focused on dealing with chronic patients with multiple conditions ranked by criteria weight.





Criteria name	Criteria Weight	Category description	Category Weight
		The different professional disciplines (including social sector) and services involved in the intervention are clearly identified, with appropriate mechanisms of coordination among them.	10
		The intervention defined specific care pathways for patients based on their clinical assessment.	10
		The interventions was designed to foster discussion and agreement with patients about their care plans (including goal-setting).	10
Care Intervention Design	19	Key elements of the intervention were clearly defined and related to the intended effect (based on strong theoretical basis, providing a clear understanding of the chain of causation and the interactions between processes).	10
		There was an individual contact point for the patient across the diagnostic and therapeutic processes, including the definition of a case manager role when needed.	10
		Patient adherence to medical plans were specifically addressed in the design of the intervention.	10
		Problems related to poly-pharmacy were taken into account.	10
		The intervention placed a specific role/function for caregivers, involving them in care support infrastructure for dependent patients.	10
		There was a detailed description of the care settings of the intervention.	10
		The intervention included mechanisms to support patient engagement and self- management (e.g.bidirectional communication, assistance at home, counselling, integration in patient's community, monitoring, emergency care rapid response, telephone follow-up, etc.).	10





Criteria name	Criteria Weight	Category description	Category Weight
		The intervention included a monitoring and evaluation system with a information system feeding defined indicators and standards of care.	10
		Evaluation activities followed clear milestones and were sustained along the intervention.	10
		There was a baseline multidisciplinary assessment for all the relevant outcomes and processes.	10
		Evaluation took into account social economic aspects from both patient and formal and informal caregivers perspectives.	10
Evaluation	15	The evaluation included changes in healthcare organisation and utilisation across levels of care.	10
		The outcomes framework was shared among providers.	10
		Outcomes assessment included health and social impact and care experience.	10
		Evaluation outcomes were linked to the stated goals and objectives.	10
		Evaluation outcomes were shared among stakeholders and linked to actions to foster continous learning and improvement.	10
		Outcomes assessment enabled performance-based contracts.	10
	15	The continuation of the project was ensured through ownership and/or institutional anchoring, and there was enough support for the intervention among stakeholders.	40
Sustainability and		The financial viability of the intervention was guaranteed in the long term.	20
Scalability		The sustainability strategy considered a range of contextual factors (e.g. health and social policies, innovation, cultural trends and general economy).	20
		The intervention potential for scalability was assessed.	20
		There was a clear leadership commitment, and the responsibilities of the different partners and the relationships among them were well defined.	30
		The professionals involved are trained and competent to support individual's self- management (e.g. through professional development programmes to promote patient empowerment).	30
Management	14	There was a defined a strategy to align staff incentives and motivation with the intervention objectives.	20
		The intervention included a learning system to support reflective healthcare practice among professionals involved.	10
		The intervention included organisational elements, identifying the necessary actions to remove legal, managerial, financial or skill barriers.	10





Criteria name	Criteria Weight	Category description	Category Weight
		The intervention's aims and objectives were clearly specified and adjusted to the SMART rule (Specific/Measurable/Acceptable/Realistic/Time framed).	30
		Target groups were risk-stratified using evidence-based methodology and taking into account relevant dimensions (e.g. quality of life, clinical and functional status, frailty).	30
Objectives and Target group	10	There was a clear description of inclusion and exclusion criteria.	15
		The intervention was sensitive to cultural beliefs and socioeconomic characteristics of the individuals including the main characteristics of the area and population in which the intervention was implemented.	15
		There was a detailed description of the estimated number and profile of the patients targeted by the intervention.	10
	10	The intervention was integrated or fully interacting with the regular care delivery system.	40
Interaction with relevant societal structures		Communication across all care providers (i.e. health and social services and different levels or instances within them) facilitates transition and sufficient access to relevant information.	30
		The intervention fostered continuous engagement and coordination with different community resources (i.e. main town halls, social services, pharmacies and local associations).	30
		There was an integrated system of patient data that can be accessed and updated by professionals in real time across the various care levels.	15
	10	The best available evidence (guidelines, protocols, etc.) was easily available for health professionals.	15
		Investment in human capital by means of training/education activities for caregivers and patients was present.	15
Resources and infrastructure		There was an explicit human resources policy, with a definition of professional roles involved, criteria for professional recruitment and training plans (including a clear definition of qualifications and skills).	15
		There was a defined policy to ensure acceptability of information technologies among users (professionals and patients), to enable their involvement in the process of change.	10
		There was an integrated system of patient data that can be accessed and updated by patients in real time.	10
		The intervention integrated different information and communication technologies (e.g. accessible channels of communication, dedicated software,).	10
		The workload (cognitive, physical, time) for the organization and the professionals involved had been estimated as adequate.	10





Criteria name	Criteria Weight	Category description	Category Weight
Context and Needs Analysis		The intervention was based on a clear assessment of needs of the population it will serve.	30
	7	Assessment of cost-effectiveness of relevant interventions was carried out (or accounted for if it already existed).	25
		The intervention was based on a clear understanding of the contextual factors that would affect the outcomes (i.e. characteristics of the health system, coverage, characteristics of the population, socioeconomic environment, legal and political environment).	20
		There had been an explicit process of relevant stakeholders' engagement prior to the implementation of the intervention.	15
		There had been an explicit process of public consultation prior to the implementation of the intervention.	10
TOTAL:	100		





ANNEX 1: List of Sources

<u>1. PRACTICE APPRAISAL: FRAMEWORKS</u>

- a) EU level
- OSTEBA: Aplicación de modelos de gestión de patología crónica en atención primaria, enfocados a la integración de la asistencia. [Implementation of chronic disease management models in primary care, aimed at integrated care]. Vitoria-Gasteiz. Departamento de Salud. Gobierno Vasco. 2013. Informe Osteba D-13-05. <u>http://www.euskadi.eus/contenidos/informacion/2013 osteba publicacion/es def/ adjuntos/D 13 05 modges cron%20Batera%20zainduz.pdf</u>
- The King's fund: Commissioning and contracting for integrated care. November 2014 <u>http://www.kingsfund.org.uk/sites/files/kf/kings-fund-commissioning-contracting-integrated-care-nov14.pdf</u>
- European Scaling-up Strategy in Active and Healthy Ageing. <u>http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/scaling_up_strategy.pdf#view=fit&pagemode=none</u>
- Excellent Innovation for Ageing a European guide: the Reference sites of the European Innovation Partnership on Active and Healthy Ageing Reference sites (2013) <u>http://ec.europa.eu/digital-agenda/en/news/excellent-innovation-ageing-</u> <u>european-guide-reference-sites-european-innovation-partnership</u>

Excellent Innovation for Ageing – how to guide: the Reference sites of the European Innovation Partnership on Active and Healthy Ageing Reference sites (2014) http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/how-to.pdf#view=fit&pagemode=none

- Dorling et al. Developing a checklist for research proposals to help describe health service interventions in UK research programmes: a mixed methods study. Health Research Policy and Systems 2014, 12:12 <u>http://www.health-policysystems.com/content/12/1/12</u>
- Shepperd S, Lewin S, Straus S, Clarke M, Eccles MP, et al. (2009) Can We Systematically Review Studies that Evaluate Complex Interventions? PLoS Med 6(8): e1000086. doi:10.1371/journal.pmed.1000086 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2717209/pdf/pmed.1000086.pdf





- Kidholm K, Granstrøm Ekeland A, Kvistgaard Jensen L, Rasmussen J, Duedal Pedersen C, Bowes A et al. A Model for Assessment of Telemedicine Applications: MAST. Intl. j. of technology assessment in health care 28:1, 2012
- EXPH (Expert Panel on effective ways of investing in Health), Definition and Endorsement of Criteria to Identify Priority Areas When Assessing the Performance of Health Systems, European Union, 27 February 2014. <u>http://ec.europa.eu/health/expert panel/opinions/docs/002 criteriaperformancehe althsystems en.pdf</u>
- Spanish strategy on palliative care for the National Health System. Actualization 2010-2014.

http://www.mspsi.gob.es/organizacion/sns/planCalidadSNS/docs/paliativos/cuidado spaliativos.pdf

- Oslo Manual guidelines for collecting and interpreting innovation data. Third edition. A joint publication of OECD and Eurostat. <u>http://www.tubitak.gov.tr/tubitak content files/BTYPD/kilavuzlar/Oslo Manual Thi</u> <u>rd Edition.pdf</u>
- Action Group B3 Integrated Care. Maturity Model. B3-AA7-ICT Service. Brussels, October 2014.
- Pharmaceutical Group of European Union. Groupement Pharmaceutique de l'Union Européenne. Summary of Pharmacy Good Practices, Services and Initiatives in Europe– PGEU Member Activities

b) International experience

• Stellefson M, Dipnarine K, Stopka C. The Chronic Care Model and Diabetes Management in US Primary Care Settings: A Systematic Review. Prev Chronic Dis 2013; 10:120180. http://www.cdc.gov/pcd/issues/2013/12_0180.htm





2. PRACTICE APPRAISAL: TOOLS

c) EU level

• IEMAC/ARCHO. Assessment of readiness for chronicity in health care organizations http://www.iemac.es/data/docs/Formulario_IEMAC_english_version.pdf

d) International experience

• Patient assessment of chronic illness care (PACIC and PACIC plus)—MacColl Institute for Healthcare Innovation (USA)

PACIC (http://www.improvingchroniccare.org/downloads/pacic_copy1.pdf) and

PACIC PLUS (http://www.improvingchroniccare.org/downloads/pacicplus.pdf)

- Chronic disease management audit tools. A fact sheet for Primary Care Partnerships. Victoria Department of Health. Australia <u>http://www.health.vic.gov.au/pch/downloads/factsheet02.pdf</u>
- Organisational Skills Analysis Tool. Chronic disease Care (OSAT-CDC) by Gill & Willcox <u>www.gillandwillcox.com.au</u>
- Highly Adoptable Improvement Assessment and Discussion Guide. Canada. <u>http://www.highlyadoptableqi.com/uploads/HAI_Guide.pdf</u>
- Integrated Community Care Management Benchmarks framework (ICCM). <u>http://ccmcentral.com/wp-content/uploads/2014/01/CCM-Benchmarks-and-Indicators-chart.pdf</u>

3- MATERIALS FROM CHRODIS WP6-MULTIMORBIDITY

- de Bruin SR, et al. Comprehensive care programs for patients with multiple chronic conditions: A systematic literature review. Health Policy (2012), http://dx.doi.org/10.1016/j.healthpol.2012.06.006
- Smith SM, Soubhi H, Fortin M, Hudon C, O'Dowd T. Managing patients with multimorbidity: systematic review of interventions in primary care and community settings BMJ 2012;345:e5205 doi: 10.1136/bmj.e5205 (3 September 2012) http://www.bmj.com/content/345/bmj.e5205.full.pdf+html
- Hopman, EPC, de Bruin SR, Forjaz J, Rodriguez Blazquez C, Tonnara G, Lemmens LC, Onder G, Rijken PM. Comprehensive care programs for patients with multiple chronic conditions and/or frailty: A systematic literature review (update)





ANNEX 2: Summary of Evidence

This document is intended to provide a view of the foundations for the list of drivers and items submitted to experts in the first online round. It summarises the specific contribution of each of the sources analysed and retained as relevant during the literature review (to see a complete list of the sources consulted, please, refer to the document "list of sources"). There main bodies of information is made up of the conceptual models, assessment tools, frameworks and procedures identified at national and international level Europe focused on organizational interventions in the area of chronic diseases and multimorbidity.

DOCUMENT: Spanish strategy on palliative care for the National Health System. Actualization 2010-2014.

Summary

The Palliative Care Strategy of the National Health System in Spain was approved by unanimity by the Interterritorial Council of the NHS on march 2007, validating the consensual work between the institutional representatives and the experts from various fields related to health care provision during the last stages of life. Seven examples of Good practices related to the strategy and selected amongst those submitted by the members of the Institutional Technical Committee, were presented in the first document.

Subsequently to this first document, a new update strategy for the period 2010-2014 document was published to consolidate the improvement of care that patients in advanced stages of the illness receive and their families.

For the update, there was a Monitoring and Evaluation Committee constituted by representatives of the Autonomous Communities, the National Institute of health management (INGESA), scientific societies, patient's associations and experts in the field of this Strategy that established the methodology for the evaluation by consensus. A model questionnaire for the collection of specific information by the CCAA was developed and other information come from existing health information systems, the Institute of health information and the General direction of pharmacy.

It has also reviewed the best evidence published in national and international journals (up to May 2009). Taking into account the contributions of the evaluation and review of new evidence, the Monitoring and Evaluation Committee agreed upon the objectives for the strategy in palliative care for the National Health System 2010-2014, incorporating modifications in some of them as well as new recommendations.

In general, they considered that the vast majority of objectives were fully applicable and they need longer period to achieve. The objectives are preceded in each strategic line for a summary of the evaluation and a report of the new evidences. There are five strategy lines: integral care, Organization and Coordination, patient's autonomy, education and research.





Contribution to CHRODIS GP assessment dimensions

According to integral care aspects:

- Patient assessment, symptoms control and pain treatment
- Interdisciplinary care plan
- Clinical approach to patient safety
- Care coordination within units and the rest of the healthcare service provider network
- Provision of care to the patient family
- Established National Indicators
- Use of clinical guidelines
- Evidence based practice

According to Coordination and organizational aspects:

- Existence of a fluid communication circuit between primary care and hospital care
- Accessibility of the patient (and caregivers) to the healthcare service provider network
- Continuity of care
- Coordination at the different healthcare levels/teams involved (social and health care)
- Use of a "call centre" as core enabling proactive monitoring, problem solving and activation of health, social and/or community resources.
- Systematic monitoring, including the use of phone when a faster response is needed
- Incorporation of psychological/emotional support (to the patient and) main family caregivers in order to strengthen their adaptation to that role.

According to <u>patient's autonomy</u> aspects:

- Apply the bioethics aspects of care according to the legislation

According to <u>education</u> aspects:

- Establish educational programs for healthcare professionals in palliative care

According to <u>research</u> aspects:

- Promote multidisciplinary research

Other comments





DOCUMENT: The Chronic Care Model and Diabetes Management in US Primary Care Settings: A Systematic Review.

Summary

The Chronic Care Model (CCM) was developed to provide patients with self-management skills and tracking systems. The model represents a well-rounded approach to restructuring medical care through partnerships between health systems and communities.

The objective of this documented was to describe how researchers (16 reported studies) had applied CCM in US primary care settings to provide care for people who have diabetes and to describe outcomes of CCM implementation. The studies focused primarily on people aged 50 to 70 years.

Contribution to CHRODIS GP assessment dimensions

Health system - organisation of healthcare

- Support from health care leaders to stimulate organisational changes
- Engage/implicate the governing boards of healthcare systems to support the institutionalisation of the CCM approach
- Redefinition of team roles (e.g. nurses, instead of PCP's conducting foot examinations on diabetic patients)
- Health system reorganisation for helping the establishment of self-management training programmes which enhance identification and intervention with patients at risk for developing complications

Self-management support:

- Provision to patients of self-management education on certain topics like medication, compliance, goal setting, self-care, interpretation of laboratory results.
- Establishment of follow-up telephone calls in order to facilitate clinicians to monitor patient progress

Decision support:

- Provision of specialized decision support services via phone or email
- Organisation of problem-based learning meetings
- Establishment of telemedicine technology
- Training PCPs on evidence-based guidelines and methods for implementing CCM

Delivery system design:

- Implementation of a specific standards of care (which it may already exist or be designed)
- Implementation of clinical guidelines
- Integrate self-management education into primary care settings through addressing patient barriers to care such as accessibility to self-management education and availability of staff to assist with chronic conditions.

Clinical information systems:

- Establishment a widespread and collaborative use of clinical information systems using disease registries and electronic clinical/medical records





 Assimilating clinical information systems into user-friendly, portable digital technologies like smartphones or iPads, may enable patients and providers to view and respond to laboratory results more regularly.

Community resources and policies:

- Stimulate collaborations between community leaders and physicians
- Stimulate collaborations between pharmaceutical industry/companies and health plans
- Stimulate the development of public-private partnerships between providers and community
 organisations to address barriers to care and explore culturally appropriate community-based
 services for underserved populations and neighbourhoods (cooking classes, exercise
 programs, nutrition counselling, self-monitoring assessment, etc.)

Other comments

Besides, they report:

- The importance to determine the combination of components that will likely produce optimal patient and provider outcomes.
- Changing staff roles and responsibilities to more efficiently treatment was the first strategy that produced clinical benefits.
- Reorganized care can also support better training programmes for patients to help them selfmanage their illness.
- Determine whether provider training delivered through telecommunication and distance learning technologies can provide ample decision-support training to specialist.
- Self-management Education improves psychosocial and clinical outcomes.





DOCUMENT: Integrated Community Case Management (iCCM), benchmarks and indicators chart.

Summary

The iCCM Benchmark Framework is meant to be a tool for program planners and managers to systematically design and implement iCCM programs from the early phases through to expansion and scale-up. Key activities or steps that should be completed are specified for each component and for each phase of implementation. The intent is that benchmarks in one phase should be addressed before progressing to the next phase, although it is recognized that such a linear progression is not always possible. By spanning components ranging from coordination and policy setting to human resources and supervision and quality assurance and covering introduction to expansion, the iCCM benchmarks help planners and implementers chart their way towards implementing a comprehensive iCCM program at scale.¹

So, the proposed benchmarks are being grouped into the three phases of program evolution: Advocacy & Planning, Pilot & Early Implementation and Expansion & Scale-up wherein eight health systems components are being identified:

- 1. Coordination and Policy Setting
- 2. Costing and Financing
- 3. Human Resources
- 4. Supply Chain Management
- 5. Service Delivery and Referral
- 6. Communication and Social Mobilization
- 7. Supervision and Performance Quality Assurance
- 8. Monitoring & Evaluation, and Health Information Systems

1-McGorman, Laura, et al. "A Health Systems Approach to Integrated Community Case Management of Childhood Illness: Methods and Tools." American Journal of Tropical Medicine and Hygiene 87.5 (2012): 69-76

Contribution to CHRODIS GP assessment dimensions

First phase (General Domain): Advocacy & Planning

- Coordination and Policy Settings:
 - mapping of partners (responsibility) and definition of the leadership of the action/practice
 - assessment and situation analysis
 - review of national policies, and international guidelines
- Costing and Financing:
 - Costs estimation undertaken based on all services, medicines, and other type of supply delivery requirements
- Human Resources:
 - Definition/redefinition of professional roles
 - Definition and establishment of the criteria for professional recruitment





Well defined plan for comprehensive training and refresher training (modules, training of trainers, monitoring and evaluation) Strategy focused to maintain community health workers incentives/motivation Supply Chain Management: Medicines and other healthcare products supply consistent with national policies Qualifications assessment for needed medicines and/or other type of healthcare products Development of an inventory control plan and resupply logistic system Service Delivery and Referral: **Development of Strategies or plans** Communication and Social Mobilization: Development of communication strategies Definition of materials and messages of iCCM targeting the community and other groups Development of community and social actions like training materials, job aids, etc. Supervision and Performance Quality Assurance: Development of appropriate supervision checklists and other tools Establishment of a supervision plan (num. of visits, supportive supervision roles, etc.) Establishment of the figure and function of "supervisor trained in supervision" Monitoring & Evaluation and Health Information System: Development of a monitoring framework for all components of iCCM Identification of sources of information Development of standardized registers and reported documents Definition of indicators and standards for health management information system (HMIS) and iCCM surveys Documentation and circulation of research agenda for iCCM Second phase (General Domain): Pilot & Early Implementation **Coordination and Policy Settings:** Establishment of Ministry of Health (MOH) leadership to manage unified iCCM Completing discussions regarding ongoing policy change, where necessary Costing and Financing: Financing gap analysis Ministry of Health invest in funding iCCM program Human Resources: Clarifying to community and referral service providers the roles and expectations for Community Health worker (CHW) Trained CHW, with community and facility participation Establishment and MOH support of strategies to retain CHW (Implementation of incentive/motivation plans) Supply Chain Management: Consistency in procuring medicines and supplies for iCCM with national policies and plans





	Implementation of a logistic system to maintain quality, and quality of products for iCCM
-	Service Delivery and Referral:
	Assessment of CHWs rationally use of medicines and diagnostics
	Revision and modification of guidelines based on pilot
	Implementation of referral and counter referral system
	Clarification of community information on location of referral facility
	Clarification of health personnel on their referral roles
-	Communication and Social Mobilization:
	Implementation of a communication and social mobilization plan
	Availability of materials and messages to aide CHWs
	Establishment of dialogue channels for CHW to dialogue with parents and community
	members about iCCM
-	Supervision and Performance Quality Assurance:
	Monitoring data and report reviewing of supervision visits (every 1-3 months)
	Supervisor visiting homes, community and providing skills coaching CHWs
	CHW supervisor's performance review (includes iCCM supervision)
-	Monitoring & Evaluation and Health Information System:
	Monitoring framework tested and modified accordingly
	Revision of registers and reporting documents
	CHWs, supervisors and M&E staff training on the new framework, its components and
	use of data
Third p	phase (General Domain): Expansion/Scale-up
-	Coordination and Policy Settings:
	Institutionalisation of MOH leadership to ensure sustainability
	Hold routine stakeholders meetings to ensure coordination of iCCM partners
-	Costing and Financing:
	Development of a long-term strategy for sustainability and financial viability
	Sustain of the MOH investment in iCCM
-	Human Resources:
	Process establishment for update and discussion of CHW role/expectations
	Provide ongoing training to update CHW on new skills and reinforce initial training
	Review of CHW retention strategies
	Facilitate advancement, promotion and/or retirement to CHWs who express desire to
-	Supply Chain Management:
	Motorisation of stocks of medicines and supplies at all levels of the system (through
	routine information system and/or supervision)
	Implementation of inventory control and resupply logistics system for iCCM and
	adaptation based on results of pilot, with no substantial stock-out periods
-	Service Delivery and Referral:
	Timely deliverable of appropriate diagnosis and treatment by the CHWs
	Regular revision and modification (when needed) of guidelines





CHWs referral and counterreferral with patient compliance as a routine

- Communication and Social Mobilization:
 - Establishment of communication and social mobilisation plans Implementation reviewed and refined based on monitoring and evalation
- Supervision and Performance Quality Assurance:
 CHW Routinely assessment/supervision for quality assurance and performance
 Use of reports' data and community feed-back for problem-solving and coaching
 Yearly evaluation of individual performance, coverage or monitoring data
 - Monitoring & Evaluation and Health Information System: Monitoring and evaluation through Health management information system (HMIS) to sustain program impact

Performance of research and external evaluation of iCCM to inform scale-up and sustainability

Other comments





DOCUMENT: PACIC-tool: Patient assessment of chronic illness care. (PACIC-tool PLUS)

Synthesis

PACIC survey is a patient-centered instrument for evaluating the quality and patientcenteredness of chronic illness care received according to the Chronic Care Model paradigm.

In defining six aims for transforming healthcare in America, the Institute of Medicine Quality Chasm Report declared "patient centeredness" a central feature of quality, along with safety, promptness, effectiveness, efficiency and equity. Patient centeredness may be a first principle that can provide a lens to focus action, and as such can be used as the guide for achieving all six aims.

Historically, patient centeredness has been regarded as the assessment of needs and preferences to consider social and cultural factors affecting the clinical encounter or compliance with treatment. There is a growing consensus that patients have a more active role to play in defining and reforming healthcare, particularly in chronic disease management, where patients provide the majority of care in day-to-day management of their illness.

The revised documents correspond to the 20- and the 26-item version of the PACIC. They measure specific actions or qualities of care, congruent with the CCM, that patient's report they have experienced in the delivery system. The survey should be sufficiently brief to use in many settings. When paired with the ACIC, these tools can provide complementary consumer and provider assessments of important aspects of care for chronic illness patients.

Available from the Improving Chronic Illness Care webpage through the following link: http://www.improvingchroniccare.org/downloads/pacic.pdf

Contribution

Patient Activation (items 1-3)

- Empowerment (governance participation, social involvement, etc.)
- Self-management
- Quality of life

Delivery System Design/Decision Support (items 4-6)

- Bidirectional Communication
- Assistance at home (primary care, palliative care)

Goal Setting (items 7-11)

- Planification of care takes patient's plans into account

Problem-solving/Contextual Counselling (items 12-15)

- Education
- Integration in the patients community (NGO, support groups)
- Counselling (decision support (tools and personal assistance)

Follow-up/Coordination (items 16-20)

- Multidisciplinary, across levels coordination
- Monitoring, emergency care rapid response





Telephone follow-up after contact with the healthcare system

Other comments

DOCUMENT: Oslo Innovation Manual (OECD publishing 3rd Edition) Guidelines for Collecting and Interpreting Innovation Data .

Synthesis

The Oslo Manual, developed jointly by Eurostat and the OECD, devoted to the measurement and interpretation of data relating to science, technology and innovation. The aim of the manual is to provide guidelines for the collection and interpretation of data on innovation. It is designed to accommodate the various uses of innovation data into a wider interpretation framework. One reason for collecting innovation data is to better understand innovation and its relation to economic growth. This requires both knowledge of innovation activities that have a direct impact on firm performance (for example through greater demand or costs reduction), and of the factors that affect their ability to innovate. Another purpose is to provide indicators for benchmarking national performance. It informs both, policy making and allows international comparison. There is a need of collecting new indicators but also a desire to maintain existing ones for comparisons over time. The Manual is designed to achieve a balance between these different needs.

Contribution

Innovation (domain):

- Research and experimental development
 - o Basic research promotion and financing
 - o Applied research promotion and financing
- Activities for product and process innovations (production, distribution, environmental/security impact)
- Activities for marketing and organisational innovations
- Acquisition of external knowledge and technology (training, ICT, management systems reorganization, software, ...)
- Design
- Public-private partnership and collaboration
- Innovation barriers





- Cost (high financial risk; high costs; lack of proper funding; lack of incentives)
- Knowledge (innovation potential; lack of qualified personnel; information gaps; cooperation/partner absence)
- Organizational (rigid organizational structures)
- Market (lack of demand; too much competence)
- Policy/Institutional (lack of infrastructure; liability of property/copy rights; excessive regulation and taxation)
- Perception (is it needed?)

Innovation is measured using 5 criteria as indicators of validity:

- 1. Relevance
- 2. Advantage (among the alternatives)
- 3. Mobilisation of resources
- 4. Specificity (domain specific or target –user- specific)
- 5. Risk management (increased probability to reach the goals set)

Other comments

This Manual also provides a lot of definitions in the area of Innovation, included in the glossary. It is endorsed in some policy frameworks (e.g. Spain) for defining innovation or innovative developments/products.

DOCUMENT: Highly Adoptable Improvement Assessment Model (Tool and Guide).

Synthesis

The Highly Adoptable Improvement model centralizes the recipients of change and emphasizes the constructs of workload/capacity balance and perceived value. This model is based on existing theories, models and input from key informants.

The design of any organisational intervention and the mechanisms by which it is implemented directly contribute to the balance between workload/capacity and perceived value. If the balance equates to more workload/less capacity and less perceived value then the results are more likely to favour burnout, cynicism and workarounds, and less likely to produce the intended results. This will create a negative feedback on the recipients of change and result in decreased perceived value and capacity that will create resistance to ongoing change. If the balance favours less workload/more capacity and higher perceived value, then the likelihood of adoption and incorporation is greater as is also the achievement of the intended outcomes. This creates positive feedback that increases perceived value and capacity and decreases resistance to further change.





The model is intended to be used by a quality improvement team (and those commissioning that team) to help guide the development and implementation of an improvement initiative.

The model states five domains with a range of degrees of adoptability aiming to assess the "risk" of losing the momentum to adopt and improvement within an organization. It is based on the participation of different levels within the organization, it includes sections to describe the reasoning behind the assessment and to record proposed action plans.

Contribution

Implementation Strategy:

- End-user participation
 - Is end-user staff involved in the change?

Active participation of end-users in the design, testing, revising and implementation of change interventions increases the likelihood of higher perceived value and is more likely to produce a less intensive intervention workload, thus increases the chance of sustained adoption

- Alignment and planning
 - Does the change initiative align with the organizations and/or team's values and goals and has the rollout been planned effectively?

Change initiatives that are aligned with the goals, values and objectives and planned ahead of time to inform end-users and avoid project/priority conflicts are more likely to increase perceived value and sustained adoption

- Resource availability

• Are the required resources (training, equipment, time, personnel) for the implementation of the change initiative known and will they be made available?

Providing the necessary supports and resources to aid understanding and implementation of the change initiative increases the ability for end-users to adopt the changes into their existing workflow.

Intervention Design:

- Workload
 - How much estimated workload (cognitive, physical, time) is associated with the intervention?
- Complexity
 - How complex is the change intervention?
- Efficacy
 - What degree of evidence and belief is there that the proposed intervention will lead to the intended outcome?

Other comments





DOCUMENT: Pharmaceutical Group of European Union (PGEU) Summary of Pharmacy Good Practices, Services and Initiatives in Europe.

Synthesis

This document summarise and provide examples of pharmacy lead solutions to tackle the burden of chronic diseases within the EU's healthcare systems, as well as initiatives in pilot phase which are earmarked for inclusion in health systems in the future.

Pharmacies are widely dispersed, both in rural and urban areas, thus constituting a key element for accessibility to healthcare for chronic patients which usually are intensive users. It is difficult to conceive that the risk of increased medication use as mentioned above can be effectively managed without the use of pharmacists' skills and training, making them and obvious resources for assistance and advice for patients who are seeking to manage their own health and health care.

While pharmacy maintains its key role in providing advice on medication, there appears to be a growing recognition that better use of the pharmacy interface can make a significant contribution to both improving medicines use, and the detection and management of chronic disease.

Contribution

- Patient (caregiver) Education
- Counselling
- Coordination with the rest of the healthcare system (entry point/referral to other healthcare professionals)
- Enhancement and development information systems (sharing information across all levels)
 - Drugs and other pharmacy products
 - o Monitoring activities
 - \circ Adherence
 - o Adverse events
 - Patient entourage (functional patient or adequate caregiver)
- Communication channels with patients and caregivers
 - Notification, alerts, reminders or invitations to care related events
- mHealth/ICT health (telemedicine)
- Public health agent role
- Knowledge brokers role
- Adherence assessment
- Support role for patient self-management

Other comments





DOCUMENT: «BateraZainduz»: implementation of chronic disease management models in primary care, focused on the integration of assistance OSTEBA. Basque Government. November 2012

Summary

Within the strategy to address the challenge of chronicity in the Basque Country, it was proposed a research and action project that seeks to initiate chronic disease management models in a population with type 2 diabetes. The project involves professionals of Primary Care and a University Hospital.

The main objective of the project was the implementation of a management model of chronic patients oriented to care integration. It compared clinical and management outcomes of a group of patients that have been treated with chronic management models with a control group that have been treated conventionally.

The project duration was 2 years and 6 areas of the Chronic Care Model (CCM) have been implemented in two populations groups belonging to a Primary Health Centers. During the first semester, pre-intervention indicators were collected, and the target and control populations were selected. During the 2nd and 3rd semesters the interventions were carried out and during the last semester, post-intervention indicators have been collected and analysed.

To select the interventions to be implemented, a literature search was carried out to find interventions that showed evidence of efficacy. Subsequently, with the information obtained from the literature, a survey to the professionals was made to detect those interventions that they considered important to be implemented with swiftness. The interventions obtained were grouped within the CCM (Community, Self-management, Delivery system design, Decision support, Clinical Information System).

The results of this project indicated that regarding clinical outcomes, no major changes were detected between both groups as expected. However, in terms of the use of the health resources, there were significant differences about the use of Hospital Care resources. The intervened population group reduced the number of visits to Outpatient Department and the Accident and Emergency department while the control group increased them.

Contribution to CHRODIS GP assessment dimensions

- 1- <u>Community</u>
 - Agreements and coordination with different resources (main town halls, social services, pharmacies and local diabetics associations)
- 2- Health system organization
 - Leadership of the project by directive staff of the region,
 - Collaboration between Primary and Hospital Care
- 3- <u>Self-management support</u>





- Design and execution of a structured education plan for patients and professionals
- Creation of a share care plan
- 4- Delivery system design
 - Primary and Hospital Care integration,
 - Continuity of care
 - Risk stratification of complex patient cases
- 5- Decision support
 - Adoption of Guidelines
- 6- <u>Clinical information system</u>
 - Shared Electronic Health Record
 - Call Centre service to remind and reinforce treatment

Other comments

DOCUMENT: Shepperd S, Lewin S, Straus S, Clarke M, Eccles MP, et al. (2009) Can We Systematically Review Studies That Evaluate Complex Interventions? PLoS Med 6(8): e1000086. doi:10.1371/journal.pmed.1000086

Summary

This article displays that it is challenging for researchers to systematically review complex interventions and, synthesize data from separate studies due to the difficulties in defining, developing, documenting, and reproducing complex interventions. The lack of consistent terminology and the inconsistent use of existing terminology to describe complex interventions mean that identifying potentially eligible studies can be difficult. Also, there are usually few data reporting the characteristics of complex interventions, and what data there are tend to be of poor quality.

Thus, in the article considers the challenges facing systematic reviewer and suggests several ways of addressing them:

- Solutions to improve the description and conceptual understanding of the content of a complex intervention include typologies to guide the classification of interventions and supplementary evidence, such as qualitative or descriptive data.
- Complex health interventions (CHIs) can be systematically reviewed, but only if a paradigm shift occurs in the way that these interventions are conceptualised. CHIs muss focus on the interactions between components of a CHI and the impact of human behaviour on the outcome of the intervention. In CHIs, the action of individuals under specific contexts results in outcomes, which are neither deterministic nor regular but can be explained and predicted. Systematically reviewing CHIs is only feasible when the review method takes into account these





properties.

 The systematic reviewers should search for and include relevant theoretical and qualitative work, and they should also include data from a broader range of experimental study designs than is currently normally the case in most Cochrane systematic reviews. Theory-driven analysis, wherever possible, should also accompany the more conventional quantitative syntheses, the emphasis on the latter being downplayed.

Contribution to CHRODIS GP assessment dimensions

Case management:

- Integrated care pathway
- Liaison service
- Self-management care

Scaling-up of the interventions:

- Accessibility
- Risk of adverse events
- Cost-effectiveness
- Budget impact of interventions

Other comments





DOCUMENT: Developing a checklist for research proposals to helps describe health service interventions in UK research programmes: a mixed methods study. Dorling, H. et al. *Health Research Policy and Systems*. 2014. 12:12

Summary

One of the most common reasons for rejecting research proposals in the National Institute for Health Research (NIHR) Health Services and Delivery Research (HS&DR) Programme is the failure to adequately specify the intervention or context in research proposals.

There is a body of literature which discusses intervention, context, and the use of checklists. However, existing checklists do not have enough focus on areas relevant to complex health service interventions or consider research applications. Authors developed a checklist focusing on complex health services and delivery interventions and context. They used an iterative method, first assessing existing checklists in peer reviewed literature, which was the base to build another checklist. This list after being evaluated by two reviewers was again externally validated by eight researchers.

Small-scale iterative testing suggested it was acceptable and useful for researchers. Nevertheless, further validation is needed to demonstrate relevance to a wider range of researchers and funding bodies.

The final checklist includes six constructs:

- Organisation
- Location
- Patient group
- Workforce and Staff
- Intervention

Other important contextual information (leadership, cultures, costing).

Contribution to CHRODIS GP assessment dimensions

Organisation and location constructs are included in Practice's design

Patient group construct is included within target group assessed

Workforce and staffing construct is included in the subdomain Stakeholders within Implementation domain and also in Capacity and resources (Implementation)

Intervention construct is included in the subdomains Aims and Objectives of the practice, and Practice's design (Concept and Design) and Capacity and Resources (Implementation).

Other important contextual information construct takes into account concepts included in theory grounds of the practice, leadership, sustainability and scalability in terms of political endorsement and contextual aspects which may affect outcomes and scalability to other sites.

Other comments





DOCUMENT:

Organisational Skills Analysis Tool. Chronic disease Care (OSAT-CDC) by Gill + Willcox

Summary

The OSAT-CDC (2002) is an adaptation of the Department of Human Services (Public Health) *Health Promotion Skill Assessment Tool* for Organisations by Gill and Willcox. The chronic disease care adaptation was initially developed for type 2 diabetes and used the Australian Diabetes Educators Association *Best practice guidelines* as a key reference. It combines best practice in chronic disease care with indicators from department service coordination and health promotion policy. Feedback from agencies that have utilised the tool has also contributed to its development.

Organisations that have committed to improving their systems for chronic illness care often find an organisational audit of current practice to be a valuable process. Establishing a baseline helps develop an action plan to improve chronic care and also allows the effectiveness of the strategies implemented to be measured. The OSAT-CDC Tool is designed to assist agencies to recognise the skills they have in chronic disease care and identify opportunities and scope for further system and workforce development.

This tool is more specific in terms of skills and practices that are audited compared with the ACIC which is broader in its statements. It is designed to be implemented at an agency and direct client service level. It was designed for use in a multidisciplinary or cross sectorial groups to assess the workforce as a whole, not just skill or practice deficits of individual, practitioners or teams.

In addition to that, it outlines a number of indicators for best practice in chronic disease care and steps through a process that will assist the agency to reflect on the role it can play in promoting best practice within a community setting, the corresponding skills and infrastructure required for best practice. The agency's current skills and practices in chronic disease care and establish priorities for service and skill development is also reviewed.

The Tool has three sections with 16 overall questions: Agency capacity and resources (capacity to provide chronic care according to best practice recommendations), provision of planned care based on best practice guidelines (process of care delivery: how are planed, delivered and evaluated), and Planning and provision of chronic disease services including health promotion and early intervention programs (capacity to assess, plan and implement chronic disease services, health promotion and early intervention programs for people with, or at risk of developing a chronic disease).

Specific examples of good practice are provided under each component and these are relevant to a Victorian context, and subsequently assist in developing awareness of best practice in chronic illness care as well as improving the reliability of self-rating.

Contribution to CHRODIS GP assessment dimensions

Organisation capacity an resources

- The management team members responsible for planning, implementation and evaluation of chronic disease services is suitably qualified (team member roles are defined and clearly





articulated and there is a clear leadership)

- The organisation develops co-operative working relationships with other organisations (the
 organisation involves key partners in the development of new services and/ or products)
- Chronic disease care services are provided by suitably qualified team members (provided by a multidisciplinary team, with appropriate qualifications, access to relevant professional development activities/resources)

Provision of planned care based on best practice guidelines

- Chronic care is provided according to the best practice standards incorporating current knowledge and research findings.
- The organisation has clear protocols for initial contact/needs identification (identify individuals at risk, eligibility for the service, referrals from other agencies)
- Comprehensive assessment of all individuals with chronic disease (medical, physical, social and psychological needs history) from an interdisciplinary team. It is also included risk assessment for complications and other co-morbidities associates
- The organisation provides information/education for all people with a chronic disease (factors involved in the development of the disease, treatment, prevention and services) in variety of formats, languages, learning styles etc.
- Team members support individuals self-management of the illness
- Clients are refer to other programmes to support maintained of lifestyles changes
- The organisation evaluates the effectiveness of its chronic disease service.
- The organisation collects and documents appropriate client data
- Team members are sensitive to cultural beliefs and the social economic of the individuals

Planning and provision of chronic disease services including health promotion and early intervention programs

- The organisation establish a relationship with key community networks and members/groups
- Community members are involved in identifying needs and setting priorities
- The organisation have planned social marketing activities (health message for effective audience reach)
- The organisation implements and monitored risk factor screening programs

Other comments





DOCUMENT:

1º European innovation Partnership on Active and Healthy Ageing (EIP-AHA). Reference Sites. Excellent innovation for ageing. A European Guide (2013)

2º- European innovation Partnership on Active and Healthy Ageing (EIP-AHA). Reference Sites. Excellent innovation for ageing. How to Guide (2014)

Summary

The European Innovation Partnership on Active and Healthy Ageing (the Partnership) was initiated in October 2010 to tackle the common challenge of an ageing population in Europe. It brings together key stakeholders to develop new innovations, which can improve the quality of life of older people, whilst simultaneously creating market opportunities for businesses in this policy area. The focus of this Partnership is on linking together organisations, resources and expertise to produce short-term, demonstrable results which can encourage the uptake of innovation to improve older people's health and quality life in addition to enhance the sustainability and efficiency of care systems.

References Sites are regions, cities or integrated hospitals/care organisations, established in a geographical location in Europe that provide a comprehensive examples of innovation-based services with proved value to citizens and care system in EU regions. They provide concrete examples of existing and successful integrated solutions, based on evidence of their impact in practice.

The European innovation Partnerships on Active and Healthy Ageing. Reference Sites. Excellent innovation for ageing. A European Guide (2013) provides a snapshot of on-going developments. The aim is to take a tour of regions, cities and communities through Europe where there is innovation projects for active and healthy ageing in real life. The selection of the reference sites for this guide was based on key criteria such as EIP-AHA relevance, scale, and number of specific EIP actions to which they are committed, evidence and replication potential. They filled out questionnaires on their contribution to the different action areas of the European Innovation Partnership on Active and Healthy Ageing and on their overall strategy to tackle the demographic challenge in Europe. Then they were scored with a ranking from 1 to 3 stars and the results of the process were 32 Reference Sites from 12 Member States.

The 32 award-winners have implemented innovative technological, social or organisational solutions to enhance the efficiency of health and social care system and foster innovation and economic growth. All Reference Sites have committed to sharing their achievements with others and transferring knowledge across Europe.

The second edition of the Reference Sites. *European innovation Partnerships on Active and Healthy Ageing. Reference Sites. Excellent innovation for ageing. How to Guide (2014)* provides practical indications on how to scale up and transfer best elements of the





Reference Sites experiences to other European contexts. This Guide is a follow-up to the first edition published in July 2013.

Contribution to CHRODIS GP assessment dimensions

- Political support on several levels: Including regional government, national healthcare management authorities and scientific societies
- Funding: structural funds from resources of project partners
- The organizational changes comply with the national healthcare system strategy

- Innovation in IT Tools: use of technological products, devices and services e-tools. infrastructures are being modified and rebuilt

- The synergy of local industry and technology
- Cross-agency approaches
- Community linkage
- A multi-stakeholder collaborative alliance of partners
- Involved all the actors in the innovation cycle (private and public sector and citizens)
- Robust performance monitoring and evaluation system
- Professional qualification and training
- Principles: interdisciplinary approach, professionalism, subsidiarity and regionalism
- Leadership

Other comments

These two documents describe the programme implemented in their own country but it does not provide, which criteria or standard have been used to determine the quality of the programmes.





DOCUMENT: Expert panel on effective ways of investing in health (EXPH). Definition and Endorsement of Criteria to Identify Priority Areas. When Assessing the Performance of Health Systems. The EXPH adopted this opinion at its 4th plenary of 27 February 2014

Summary

Scientific advice is an essential requirement for the Commission to pursue modern, responsive and sustainable health systems. With this aim, the European Commission has set up a multidisciplinary and independent Expert Panel which provides advice on effective ways of investing in health (Commission Decision 2012/C 198/06).

The core element of the Expert Panel's mission is to provide the Commission with an independence advice in response to questions submitted by the Commission on matters related to health care modernisation, responsiveness, and sustainability.

The areas of competence of the Expert Panel include different settings such as primary care, hospital care, pharmaceuticals, research and development, prevention and promotion, links with the social protection sector, cross-border issues, system financing, information systems and patient registers, health inequalities among others.

As part of this process and by mandate of the Council Working Party on Public Health at senior level, Sweden is co-ordinating a sub-group on measuring and monitoring the effectiveness of health investments.

The Sub-group of the Working Party on Public Health has developed a framework and set of criteria to identify priority areas when assessing the performance of health systems in Europe.

The Expert Panel provided its views on the framework prepared by the Working Party Sub-group (review the criteria used, identify weaknesses and make recommendations on ways to address them, identify additional elements which have not been taken into account or are not properly represented and make recommendations for their inclusion), and test the framework in real life situations at Member State and at EU level. In doing so, the Expert Panel should provide guidance on the methodologies and approaches which will need to be taken in order to test the framework.

Contribution to CHRODIS GP assessment dimensions

Criteria:

Impact:

- Which impact can it be expected from the implementation of the policies considering the context?
- Universality (coverage, "access to good quality care" dimension)
- Health equity (health recovery, maintenance and improvement)
- Solidarity (expenditure, financial protection, fair financing and distribution)
- Responsiveness (self-perceived acceptability of health system)
- Economic impact (economy, employability, productivity, social cohesion etc)
- High quality and safety services (services, safety, effectiveness...)

Feasibility

- Is the organisation feasible?
- Knowledge (evidence based interventions and policymaking)
- Reaction Time (effects/visibility: time needed to asses impact)
- Political Agenda (government program, European agenda...)
- Stewardship (leadership)





Acceptability (public, professionals, industries, political parties, patient's associations)
 Costs (affordability)

- Monitoring (measure and monitor achievements)

Prioritization:

Prioritization of areas or policies after comparing the cost and the effectiveness of different options

Evaluation:

National or regional indicators

Other comments

DOCUMENT: Commissioning and contracting for integrated care. The King's Fund 2014

Summary

Many clinical commissioning groups (CCGs) in England have started to develop novel contracting and commissioning tools to drive more transformational and sustainable service integration. Contracts are merely the 'scaffolding' for the integrated model and it is the terms of the contract that will act as a lever for collaboration*.

This report describes two contractual models (frameworks) that are currently being developed in five areas of England: prime contract and alliance contract.

In a prime contractor model, the CCG contracts with a single organisation (or consortium) which then takes responsibility for the day-to-day management of other providers that deliver care within the contracted scope or pathway. There is a variation on this model - the prime provider model - that stipulates that the contracted organisation also provides services directly. On the other hand, an alliance contract sees a set of separate providers enter into a single agreement with a CCG to deliver services, where the commissioner(s) and all providers within the alliance share risk and responsibility for meeting the terms of a single contract.

Across both models, there are three underpinning principles: outcomes, service integration and shifting costs.

Outcomes: Hold providers to account for outcomes (accountability). Outcomes should be few, clear, concise and readily communicated. Outcome-based contracting, shifts greater responsibility onto providers to design suitable care pathways to achieve these outcomes. Some outcome measures might relate directly to **clinical outcomes**, while others could focus specifically on **incentivising collaboration**. Making contract-holders accountable for achieving and improving outcomes seeks to mitigate concerns around 'cream-skimming' – where a contract-holder will do the bare minimum within the budget in order to





maximise profit above all other considerations.

Integration of services: Hold providers to account for streamlining the delivery of patient care across the gaps between service providers to stimulate greater collaboration and integration of services. Providers can be incentivised to collectively develop innovative solutions **through a shared outcomes framework** that includes a combination of: 1) direct measures of organisational integration; 2) measures that focus specifically on the gaps between services; and 3) clinical measures that are most efficiently achieved in partnership.

Shift the flow of money between providers. Activity cannot be reallocated from acute providers until adequate provision is available within other (community) settings. Patients and providers will continue to use traditional referral routes and treatment options until viable alternatives are available. Payment mechanisms and incentives will need to be aligned across providers to avoid fragmentation in the delivery of care. Pooling budgets will allow for more efficient reallocation of funding across the system and also provide the opportunity to consider streamlining these currencies through a programme or capitated budget.

Authors suggest a cautious approach to implementing new contractual models. CCGs and other commissioners need to carefully consider whether a contractual solution is appropriate and proportionate for addressing the particular problem they want to solve. The costs associated with developing new contractual approaches are high and the process is difficult, time-consuming and resource-intensive, and likely to require dedicated teams or programmes to drive significant improvement. The cases explored in this paper demonstrate very early experiments to drive innovation through contracting, and it is unlikely that this approach will be sustainable or replicable across the country, despite the best intentions of commissioners. Nevertheless, change on this scale is vital to develop a service that meets the financial challenges and the needs of the population into the future.

Contribution to CHRODIS GP assessment dimensions

Account for outcomes: Outcomes should be few, clear, concise and readily communicated. Outcome-based contracting, shifts greater responsibility onto providers to design suitable care pathways to achieve these outcomes.

Shared outcomes framework among providers to stimulate greater collaboration and integration.

Adequate funding of new settings or programmes. Payment mechanisms and incentives will need to be aligned across providers to avoid fragmentation in the delivery of care. Pooling budgets will allow for more efficient reallocation of funding across the system

Engagement and communication: It is essential to continually engage and communicate with providers, patients and the wider community to define the problem and identify appropriate solutions.





Other comments

DOCUMENT: Chronic disease management audit tools. Victoria Department of Health

Summary

Organisations that have committed to improve their systems for chronic illness care often, find an organisational audit of current practice to be a valuable process. This fact sheet has been developed by Victoria Department of Health to provide Primary Care Partnerships (PCPs) with a briefing on audit and assessment tools for chronic disease care to assist in guiding choice and implementation. An overview of a selection of audit tools is provided.

The tools reviewed fall into four broad categories.

- Tools that assess organisational systems
- Tools that assess consumer experience of chronic disease care
- Tools that assess specific components of chronic disease care
- Tools that assess general practice provision of chronic disease care

Three of the tools reviewed: Assessment of chronic illness care (ACIC), Organisational skills analysis tool-chronic disease care (OSAT-CDC) and Patient assessment of chronic illness care (PACIC), are described more in detail under separate documents.

In general, tools to assess organisational systems are recommended to be used with external facilitators and can be used periodically to monitor improvements in the organisations. The tools themselves encourage or facilitate creation of action plans for improving care delivery processes.

Authors emphasise that an audit tool will not be effective in creating improvements in chronic illness care unless the organisation commits to supporting the changes needed and provides the necessary resources (staff and time) to implement the changes.

Contribution to CHRODIS GP assessment dimensions

Link of evaluation results to actions to reshape the implementation accordingly

Other comments

Many of these tools facilitate creation of an action plan for improving care delivery processes since change will only happen if an auditing or organisational evaluation process is part of a planned, continuous improvement process.





DOCUMENT: European Scaling-up Strategy in Active and Healthy Ageing EIP on AHA (November 2014)

Summary

Health and care services in Europe are undergoing changes to adapt systems to a growing demand caused by ageing and the expansion of chronic diseases. The multitude of good examples developed throughout the EU has led to a realisation that a comprehensive scaling-up strategy is needed at European level. For that reason, the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) which brings together key stakeholders in this policy area, and supports the good practices and References Sites developed by its partners, can act as a catalyst to foster scaling-up across regions and countries.

The several good examples developed throughout the EU has led to a realisation that a comprehensive scaling-up strategy is needed at European level. This paper presents five steps for setting up an effective European scaling up strategy. The first three constitute a "what to scale up" element, while the remaining two "how to scale up" part:

STEP 1 - BUILDING A DATABASE OF GOOD PRACTICES

The Partnership, through the work of the Action Groups and Reference Sites, developed a collection of examples of what needs to be done for ageing people to stay active, independent and healthy for as long as possible

STEP 2 - ASSESSMENT OF VIABILITY OF GOOD PRACTICES FOR SCALING UP

This strategy proposes to assess the viability for scaling up by using comparability frameworks rather than "classic" evidence, This approach helps not only to relate practices to each other, but also to identify the characteristics of each practice and system. Two examples of assessment frameworks, Definition and Endorsement of Criteria to Identify Priority Areas When Assessing the Performance of Health Systems, Opinion of the Expert Panel on Effective Ways of Investing in Health, February 2014 and MAST (MODEL FOR ASSESSMENT OF TELEMEDICINE APPLICATIONS) are stated in this report and thoroughly described in following documents

STEP 3 - CLASSIFICATION OF GOOD PRACTICES FOR REPLICATION

To enhance the potential for scaling up across borders and regions, the identified good practices need to contain elements that can be sufficiently generic to allow their transferability and adaptation to varying local circumstances and conditions. Therefore, good practices should be classified according to feasibility and contextual factors, as well as the characteristics of the system in which are they implemented. Both concepts, feasibility and contextual factors, are described in the Opinion of the Expert Panel on Effective Ways of Investing in Health.

STEP 4 - FACILITATING PARTNERSHIPS FOR SCALING UP

There are several proven ways of diffusing good practices, facilitating exchange and scaling up. INTERREG IVC has developed a reference model for exchange of good practices on inter-regional level20. According to their model these exchanges of





experiences are in fact multidimensional and dynamic learning processes, geared towards achieving various forms of policy changes within the partner areas and beyond.

STEP 5 - IMPLEMENTATION - KEY SUCCESS FACTORS AND LESSONS LEARNT

Based on WHO / ExpandNet work and the Partnership's work on the good practices catalogue and Reference Sites' 'How to guide', the following framework for implementation of scaling up is proposed:

- 1. Planning the innovative service and setting up a system for change
- 2. Organisational process and design choices
- 3. Monitoring, evaluation and dissemination

Key elements of this framework are considered contributions to CHRODIS GP assessment dimensions and listed below

Contribution to CHRODIS GP assessment dimensions

1. Planning the innovative service and setting up a system for change

- Good understanding of the context
- Needs' evaluation
- Political endorsement
- Engagement of relevant stakeholders
- Strategy and roadmap
- Cost assessment
- Financial viability and business model
- 2. Organisational process and design choices
 - -Investing in human capital: training and re-skilling the workforce
 - -Integrating ICT solutions.
 - -Service re-design and organisational changes
- 3. Monitoring, evaluation and dissemination
 - Assessment indicators: economic aspects and patient and caregiver perspective
 - Knowledge exchange and learning
 - Communicating to raise awareness and acceptance
 - "Different context at" scaling up at different levels

Other comments





DOCUMENT: Action Group B3 Integrated care. Maturity Model. B3-AA7-ICT Service (October 2014)

Summary

The European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) was established in 2012, with the objective to add, by 2020, two healthy life years (HLY)* to the average healthy life span of European citizens.

Six Action Groups work towards the clear deployment targets in each of the six Specific Actions of the Partnership's Strategic Implementation Plan.

Among them, B3 Action group objectives are replicating and tutoring integrated care for chronic diseases, including remote monitoring at regional level. The main targets of the group are: To get their aim they are developing different tools, among them a Maturity matrix to assess the degree of maturity of chronic diseases care programmes. There is an agreement on the main dimensions for the Maturity Matrix:

- System integration
- Territorial integration
- Organisational integration
- Financial integration
- Service integration
- Personnel or professional integration
- ICT integration

These main dimensions have correlation with dimensions specific for organisational models, which have linked some maturity indicators that are detailed below

Contribution to CHRODIS GP assessment dimensions

Dimensions and linked maturity indicators in organisational models

- Readiness to Change: Public consultation, clear strategic goals and milestones, stakeholder engagement
- Structure & Governance (effective change management): Funded programmes, ICT competence centres, distributed leadership, communications
- eHealth/eServices (ICT integration): Unique citizen ID, linked records, scale teleservices
- Standardisation (simplification of infrastructure): Use of international standards, reduction in number applications, regional procurements, mandates
- Challenges (actions to remove legal, organisational, financial or skill barriers): Laws to enable data sharing, financial incentives, training
- Population approach: Risk stratification, range of care pathways, prevention,





feedback

- Evaluation/Monitoring: Agencies HTA, health impact, care cost/quality improvements
- Breadth of Ambition: fully integrated care services (health and social), citizen engagement
- Innovation management to get faster adoption of proven ideas: Outreach to regions, academic and industry relations, procurement
- Capacity Building (increasing technology skills, continuous improvement): Capturing bottom-up innovation, deployment skills

Other comments

DOCUMENT:

IEMAC-ARCHO. Assessment of Readiness for Chronicity in Health Care Organisations.

Summary

The management of chronic conditions is one of the greatest challenges faced by healthcare services worldwide. There is also a broad agreement on the need for new models to better manage chronic conditions due to there is not a universal model available in this field.

In recent years, new conceptual frameworks have been developed, based on procedures showing better outcomes in the management of chronic patients across a variety of settings. One of the models that has been most widely acknowledged and discussed is the Chronic Care Model (CCM), developed at the MacColl Institute for Healthcare Innovation.

Based on the Chronic Care Model, ARCHO is a Spanish instrument that enables healthcare organisations to self-assess their implementation of models for the management of chronic conditions. The instrument can help ascertain how well geared your organisation is towards prevention and the management of chronic patients and measure its performance with respect to certain dimensions, making this a valuable tool for identifying weak areas and, in turn, for improving the organisation.

The ARCHO instrument can also be used in a variety of contexts and across a range of organisational levels. It allows assessment across a variety of organisational settings and levels: macro (decisions on healthcare policies and resource allocation), meso (management of health organizations, large centres and programmes) and micro (practices of healthcare professionals, e.g., in health centres or multidisciplinary projects).

The principles inspiring the ARCHO model were:

- A systemic approach to chronic conditions that considers the organisation holistically and underscores the synergistic value of interventions.
- The use of evidence-based interventions, whenever possible
- •A drive for continuous improvement and innovation to ensure progress in the





management of chronic conditions.

The self-assessment process provides awareness of strengths in the management of chronic patients within your organisation, the Identification of areas for improvement, a rating of your organisation with respect to its approach to chronic conditions, and a basis on which to draw up action plans.

Contribution to CHRODIS GP assessment dimensions

Organisation of the health system

- Leadership commitment
- Strategic framework:
 - It is in place and based on a systemic vision developed with the collaboration of stakeholders, bringing together values, quality and responsible use of resources
 - There is a system for monitoring strategic planning (process and outcomes) in chronic care
- Population-based approach
 - Population stratification systems (classification of the population into groups that require different interventions or programmes depending on their health status, risk, complexity or needs)
 - Information system (the structure of the information system for evaluation improvement and innovation has been defined and there is awareness of it).
 - Funding scheme (a risk-adjusted per capita funding scheme has been rolled out)
 - Social and healthcare policies (policies to promote coordination and/or integration of social and healthcare have been defined and implemented, especially in case of frailty and dependence)
 - Communication

Community linkage

- Alliance with stakeholders (partnership and cooperation agreements are in place between healthcare providers and the management of community resources)
- Linking patients to community resources

Healthcare model

- Patient's centre care
- Professional competences related to chronic care (professionalism)
- Multidisciplinary work
- Continuity of care (pathways between primary and hospital care have been designed and put into place for the most common chronic conditions)
- Communication among different levels and services
- Active patient's follow up
- Innovation in interactions between patients and healthcare professionals (technology is used to allow remote interaction between patients and professionals: websites, social networks, telemonitoring....)

Self-management

- Patient assessment for self-management to identify the patient's needs, attitudes





and skills for self-management (environment, social and family networks, workplace etc)

- Patient's education
- Share decision-making

Clinical decision support

- Protocols and clinical guidelines
- Liaison and consultation to exchange of knowledge and expertise among professionals

Information systems

- Information for management and clinical practice (health records, clinical indicators)
- Integration of patient clinical data (the electronic health record can be accessed and updated by all care areas)
- Communication of clinical information between professionals (a channel is in place for consultations between professionals in real time across the various levels of care.)

Other comments





DOCUMENT:

Kidholm K et al. A model for assessment of telemedicine applications (MAST). International Journal of Technology Assessment in Health Care, 28:1 (January 2012), 44-51

Summary

The European Commission (EC) has expressed strong support for telemedicine as a solution to the challenges faced by healthcare systems with aging populations, increasing numbers of patients with chronic conditions and decreasing supply of human resources.

For that reason, in 2009, the EC initiated the MethoTelemed project (2009-2010), aiming to provide a structures framework for assessing the effectiveness and contribution to quality of care provided by telemedicine applications. The framework was to be based on the user's need for information for decision making on whether or not to use new telemedicine applications.

The basis for the development of the model was a literature reviews, a workshop 1 on Assessing users' needs (stakeholders in telemedicine), a workshop 2 to validate the framework and finally a review process.

The MAST model provides a structured framework for assessing the effectiveness and contribution to quality of care of telemedicine applications and covers three parts: preceding considerations before an assessment, a multidisciplinary assessment of the outcomes and an assessment of the transferability of results.

The purpose of the article is to present the MAST Model developed in the *MethoTelemed study* through user and stakeholder workshops and on the basis of a systematic literature review.

Contribution to CHRODIS GP assessment dimensions

Preceding considerations

- Purpose of the programme
- Its implementation accords with national and regional legislation
- Maturity or degree of development over time

Multidisciplinary assessment

- Health problem
- Safety (patient's and staff)
- Clinical effectiveness (effect on patients health: mortality, morbidity, QL)
- Patient's perspectives (issues related to perception of the patient about the programme)
- Economic evaluation
- Organizational aspects (resources that have to be mobilized and organized when

implementing a new programme, and what kind of changes or consequences can

produce in the organisation





- Socio-cultural, ethical and legal aspects

Transferability

- Cross-border /interoperability (degree of integration with other clinical or administrative

systems)

Other comments





DOCUMENT:

de Bruin SR, et al. Comprehensive care programs for patients with multiple chronic conditions: A systematic literature review. Health Policy (2012)

Hopman, EPC, de Bruin SR, Forjaz J, Rodriguez Blazquez C, Tonnara G, Lemmens LC, Onder G, Rijken PM. Comprehensive care programs for patients with multiple chronic conditions and/or frailty: A systematic literature review (update of the article de Bruin SR et al. 2012).

Summary

The first article (de Bruin et al.) provides insight into the characteristics of comprehensive care programs for patients with multiple chronic conditions and their impact on patient's informal caregivers, and professional caregivers. They conducted a systematic review of the literature published between January 1995 and January 2011 and a manual search on the internet using the chronic care model (CCM) to define comprehensive care. After inclusion, the methodological quality of each study was assessed and a best-evidence synthesis was applied to draw conclusions. Forty-two publications were selected describing thirty-three studies evaluating twenty-eight comprehensive care programs for multimorbid patients.

The authors conclude that the most of the literature focuses on comprehensive care programs for people with a single disease and its effectiveness remains inconsistent. The majority of comprehensive care programs incorporated interventions related to three or more CCM components. They also conclude that the diversity in the effects of comprehensive care programs may also be related to whether the programs were correctly implemented, whether the program components were integrated, and whether they were fully adopted by the patients and the caregivers involved.

The second article (Hopman et al.) is an updated of de Bruin et al. (2012), which overview of existing comprehensive care programs for multimorbid and/or frail patients and gain insight into their characteristics and effectiveness. They performed a systematic literature search in multiple electronic databases published between January 2011 and March 2014. Twenty publications/studies were selected evaluating nineteen comprehensive care programs for multimorbid patients.

They concluded that again, there is a broad array of comprehensive care programs available to multimorbid patients, but because of the heterogeneity of the programs, it is as yet too early to draw firm conclusions regarding their effectiveness. In line with the former literature review [de Bruin et al., 2012], the majority of comprehensive care programs reviewed incorporated interventions related to three or more CCM components.

Contribution to CHRODIS GP assessment dimensions

- Multidisciplinary team work
- Individualized care plans
- implementing evidence-based guidelines
- self-management
- Establishing access to community resources and partnerships with local community service centres





- Involvement and coordination of different disciplines and levels of care (primary and hospitalisation)
- Electronic patients records
- Risk stratification patients to enhance who will benefit most from integrated care programmes
- Integrated care programmes should be patient centred
- Importance of caregivers and/or case managers
- Include care pathways
- Programmes should address poly-pharmacy and patient adherence
- Evaluation of programmes:
- Patient outcomes: Mental, physical and social status or functioning Quality of life
 - Satisfaction with received care
- Healthcare utilisation
 - Hospital care
 - Community care
 - Primary care
 - Institutional log-term care
- Healthcare Costs

Other comments

All comprehensive care programs in both studies included interventions related to the CCM component





DOCUMENT:

Smith SM, Soubhi H, Fortin M, Hudon C, O'Dowd T. Managing patients with multimorbidity: systematic review of interventions in primary care and community settings BMJ 2012;345:e5205 doi: 10.1136/bmj.e5205 (3 September 2012)

Summary

This article tries to determine the effectiveness of interventions designed to improve outcomes in patients with multimorbidity in primary care and community settings. The authors conducted a systematic review of the literature published in different database from 1990 till April 2011. The types of studies considered eligible for inclusion were randomised controlled trials, controlled clinical trials, controlled before and after studies and interrupted time series analyses and in all languages.

Overall, this study suggests that although the interventions identified all multiple components, they are divided into two mains groups: organisational interventions and predominantly patient oriented.

Organisational interventions targeted at the management of specific risk factors or focused on areas where patients have difficulties, such as with functional ability or the management of medicines; appear more likely to be effective. On the other hand, organisational interventions that have a broader focus, such as case management or changes in delivery of care, seem less effective.

The patient oriented interventions that were not linked to healthcare delivery or specific functional difficulties were also less effective.

The evidence on the care of patients with multimorbidity is limited, despite the prevalence and its impact on patients and healthcare systems. In general the results of this study were mixed and inconclusive. However, the review also indicates that interventions targeted either at specific combinations of common conditions or at specific problems for patients with multiple conditions, may be more effective.

Contribution to CHRODIS GP assessment dimensions

- * Two main interventions:
 - Patient oriented interventions
 - Organisational interventions
 - Case management
 - Coordination of Care
 - Enhancement of skill mix in multidisciplinary teams
 - focusing on specific risk factor management

* Costs

- * Acceptability of services
- * Drug adherence
- * Functional health outcomes
- * Utilisation of health services



