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CHRODIS+
IMPLEMENTING GOOD PRACTICES FOR CHRONIC DISEASES

CHRODIS PLUS Joint Action

Pre-Conference WP6 Workshop:

Outcomes assessment

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Acknowledgements

- Kevin Biek, master in Public Health, ISCIII
- Inmaculada Guerrero (IACS)
- Implementation teams
- Participant patients

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Background

Work Package 6

Task 6.4. Outcomes assessment and evaluation.

Task leader: IACS and ISCIII.

M13-M33.

Partners in this task: IACS, UCSC, VULSK, Kauno Klinikos, CSJA, ISCIII.

- Relevant outcomes identified in the preparatory phase and agreed with pilot sites in the experts meetings will be assessed to determine the success of the implementation

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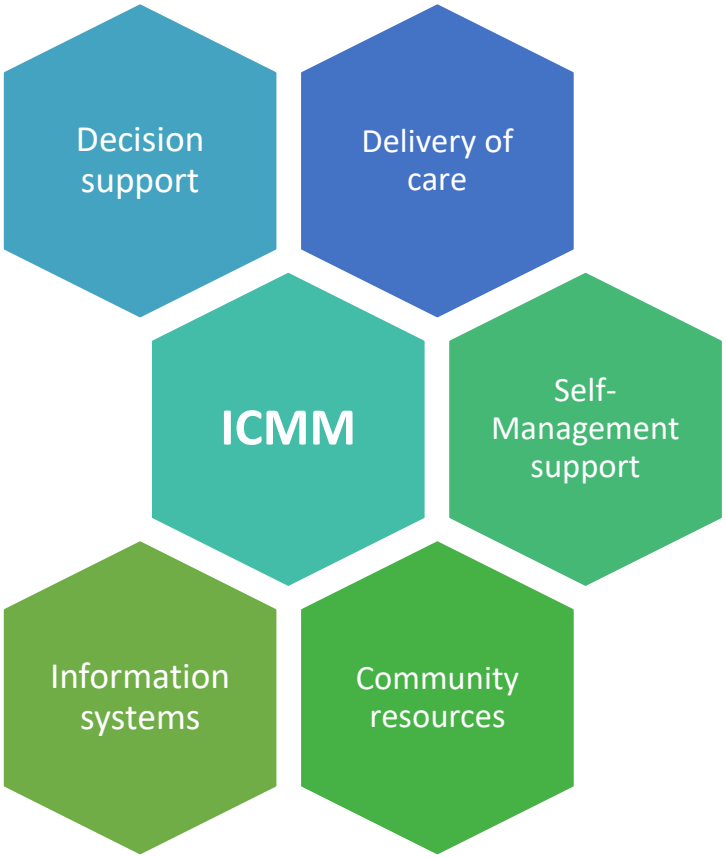
Integrated Care Model for Multimorbidity (ICMM)



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Objectives

- To evaluate the **Integrated Care Model for Multimorbidity (ICMM)** for people with multiple morbidities, the model is applied in 5 health care sites from 3 European countries:
  - ✓ Spain (CSJA-Seville and IACS-Zaragoza)
  - ✓ Lithuania (VULSK and Kauno Klinikos)
  - ✓ Italy (UCSC-Rome)

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Methods

The assessment of the pilot implementations is developed in 4 parts, following a pre-post test design:

	Pre-implementation	Post-implementation
1. Intervention key indicators	✓	
2. Applicability of the ICMM	✓	
3. ACIC	✓	✓
4. PACIC+ (optional)	✓	✓

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Ad hoc applicability questionnaire

1. **Intervention key indicators**

2. **Applicability of the ICMM:**

   a) **Perceived feasibility of the ICMM implementation:** rated from 1 (difficult to apply, unfeasible) to 5 (easy to apply, very feasible)

   b) **Identification of the ICMM components** and dimensions addressed by each implementing site (yes/no)

   c) **Target population** of the designed intervention: sample size (total number of patients that the intervention targets to) and its description in terms of age, sex and other demographic, social or clinical characteristics

   d) **Perceived feasibility to assess the results:** rated from 1 (difficult, not feasible to assess the implementation results) to 5 (easy, very feasible).

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ACIC survey (3.5 version)

Assessment of Chronic Illness Care (ACIC) questionnaire assesses the strengths and weaknesses of delivery of care for chronic illness in six areas:

- Community linkages
- Self-management support
- Decision support
- Delivery system design
- Information systems
- Organization of care.

Areas are divided in components, rated from 1 to 11, with the following interpretation guidelines:

- 0 - 2 = limited support for chronic illness care
- 3 - 5 = basic support for chronic illness care
- 6 - 8 = reasonably good support for chronic illness care
- 9 - 11 = fully developed chronic illness care

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Assessment of Chronic Illness Care, Version 3.5

Part 1: Organization of the Healthcare Delivery System. Chronic illness management programs can be more effective if the overall system (organization) in which care is provided is oriented and led in a manner that allows for a focus on chronic illness care.

Components	Level D	Level C	Level B	Level A
Overall Organizational Leadership in Chronic Illness Care	…does not exist or there is a little interest.	…is reflected in vision statements and business plans, but no resources are specifically earmarked to execute the work.	…is reflected by senior leadership and specific dedicated resources (dollars and personnel).	…is part of the system's long term planning strategy, receive necessary resources, and specific people are held accountable.
Score	0 1 2	3 4 5	6 7 8	9 10 11
Organizational Goals for Chronic Care	…do not exist or are limited to one condition.	…exist but are not actively reviewed.	…are measurable and reviewed.	…are measurable, reviewed routinely, and are incorporated into plans for improvement.
Score	0 1 2	3 4 5	6 7 8	9 10 11
Improvement Strategy for Chronic Illness Care	…is ad hoc and not organized or supported consistently.	…utilizes ad hoc approaches for targeted problems as they emerge.	…utilizes a proven improvement strategy for targeted problems.	…includes a proven improvement strategy and uses it proactively in meeting organizational goals.
Score	0 1 2	3 4 5	6 7 8	9 10 11
Incentives and Regulations for Chronic Illness Care	…are not used to influence clinical performance goals.	…are used to influence utilization and costs of chronic illness care.	…are used to support patient care goals.	…are used to motivate and empower providers to support patient care goals.
Score	0 1 2	3 4 5	6 7 8	9 10 11
Senior Leaders	…discourage enrollment of the chronically ill.	…do not make improvements to chronic illness care a priority.	…encourage improvement efforts in chronic care.	…visibly participate in improvement efforts in chronic care.
Score	0 1 2	3 4 5	6 7 8	9 10 11
Benefits	…discourage patient self-management or system changes.	…neither encourage nor discourage patient self-management or system changes.	…encourage patient self-management or system changes.	…are specifically designed to promote better chronic illness care.
Score	0 1 2	3 4 5	6 7 8	9 10 11

Total Health Care Organization Score _____ Average Score (Health Care Org. Score / 6) _____

PACIC survey

The **Patient Assessment of Care for Chronic Conditions (PACIC)** measures specific actions or qualities of care that patients report they have experienced in the delivery system.

The 26 items are derived from the '5As' model (ask, advise, agree, assist, and arrange), a patient-centered model of behavioral counseling.

Respondents rated each item from 1 (almost never) to 5 (almost always).

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Staying healthy can be difficult when you have a chronic illness. We would like to learn about the type of help with your condition you get from your health care team. This might include your regular doctor, his or her nurse, or physician's assistant who treats your diabetes. Your answers will be kept confidential and will not be shared with anyone else.

Think about the health care you've received for your diabetes over the past 6 months. (If it's been more than 6 months since you've seen your doctor or nurse, think about your most recent visit.)

Over the past 6 months, when receiving medical care for my diabetes, I was:

		Almost Never	Generally Not	Sometimes	Most of the Time	Almost Always
1.	Asked for my ideas when we made a treatment plan.	☐1	☐2	☐3	☐4	☐5
2.	Given choices about treatment to think about.	☐1	☐2	☐3	☐4	☐5
3.	Asked to talk about any problems with my medicines or their effects.	☐1	☐2	☐3	☐4	☐5
4.	Given a written list of things I should do to improve my health.	☐1	☐2	☐3	☐4	☐5
5.	Satisfied that my care was well organized.	☐1	☐2	☐3	☐4	☐5
6.	Shown how what I did to take care of my illness influenced my condition.	☐1	☐2	☐3	☐4	☐5
7.	Asked to talk about my goals in caring for my illness.	☐1	☐2	☐3	☐4	☐5

Think about the health care you've received for your diabetes over the past 6 months. (If it's been more than 6 months since you've seen your doctor or nurse, think about your most recent visit.)

Over the past 6 months, when receiving medical care for my diabetes, I was:

		Almost Never	Generally Not	Sometimes	Most of the Time	Almost Always
8.	Helped to set specific goals to improve my eating or exercise.	☐1	☐2	☐3	☐4	☐5
9.	Given a copy of my treatment plan.	☐1	☐2	☐3	☐4	☐5
10.	Encouraged to go to a specific group or class to help me cope with my chronic illness.	☐1	☐2	☐3	☐4	☐5
11.	Asked questions, either directly or on a survey, about my health habits.	☐1	☐2	☐3	☐4	☐5
12.	Sure that my doctor or nurse thought about my values and my traditions when they recommended treatments to me.	☐1	☐2	☐3	☐4	☐5
13.	Helped to make a treatment plan that I could do in my daily life.	☐1	☐2	☐3	☐4	☐5
14.	Helped to plan ahead so I could take care of my illness even in hard times.	☐1	☐2	☐3	☐4	☐5
15.	Asked how my chronic illness affects my life.	☐1	☐2	☐3	☐4	☐5
16.	Contacted after a visit to see how things were going.	☐1	☐2	☐3	☐4	☐5

Russell E. Glasgow et al. Dia Care 2005;28:2655-2661

Think about the health care you've received for your diabetes over the past 6 months. (If it's been more than 6 months since you've seen your doctor or nurse, think about your most recent visit.)

Over the past 6 months, when receiving medical care for my diabetes, I was:

	Almost Never	Generally Not	Sometimes	Most of the Time	Almost Always
17. Encouraged to attend programs in the community that could help me.	☐1	☐2	☐3	☐4	☐5
18. Referred to a dietitian, health educator, or counselor.	☐1	☐2	☐3	☐4	☐5
19. Told how my visits with other types of doctors, like the eye doctor or surgeon, helped my treatment.	☐1	☐2	☐3	☐4	☐5
20. Asked how my visits with other doctors were going.	☐1	☐2	☐3	☐4	☐5
21. Asked what I would like to discuss about my illness at that visit.	☐1	☐2	☐3	☐4	☐5
22. Asked how my work, family, or social situation related to taking care of my illness.	☐1	☐2	☐3	☐4	☐5
23. Helped to make plans for how to get support from my friends, family or community.	☐1	☐2	☐3	☐4	☐5
24. Told how important the things I do to take care of my illness (e.g., exercise) were for my health.	☐1	☐2	☐3	☐4	☐5
25. Set a goal together with my team for what I could do to manage my condition.	☐1	☐2	☐3	☐4	☐5
26. Given a book or monitoring log in which to record the progress I am making.	☐1	☐2	☐3	☐4	☐5

SCORING INSTRUCTIONS

For PACIC Scoring:

PACIC Summary Score =	Average of first 20 items (do not include items 21-26)
Patient Activation =	Average of Items 1-3
Delivery System/Practice Design =	Average of Items 4-6
Goal Setting/Tailoring =	Average of Items 7-11
Problem Solving/Contextual =	Average of Items 12-15
Follow-up/Coordination	Average of Items 16-20

For *5 As* Scoring

5 As Summary Score =	Average of Items 1-4 and 6-16 (exclude Item 5 and average the rest)
Assess =	Average of Items 1, 11, 15, 20, 21
Advise =	Average of Items 4, 6, 9, 19, 24
Agree =	Average of Items 2, 3, 7, 8, 25
Assist =	Average of Items 10, 12, 13,14, 26
Arrange =	Average of Items 16, 17, 18, 22, 23

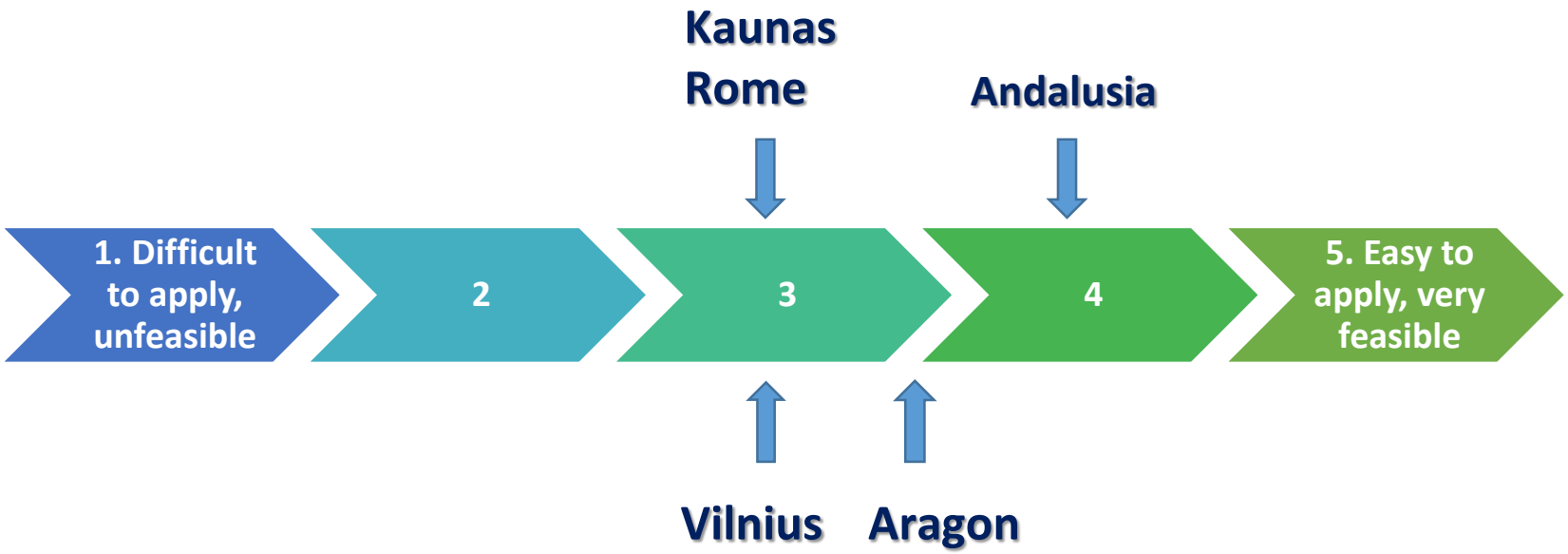
Russell E. Glasgow et al. Dia Care 2005;28:2655-2661

Results.

Summary of ICMM components targeted by each implementing site

	Target components	Andalusia	Aragon	Kaunas	Rome	Vilnius
Delivery of the care model system	**60%**					
Regular comprehensive assessment of patients			Yes	Yes	Yes	Yes
Multidisciplinary, coordinated team			Yes	Yes	Yes	Yes
Professional appointed as coordinator of the individualized care plan ("case manager")			Yes	Yes	Yes	Yes
Individualized care plans		Yes	Yes	Yes		Yes
Decision support	**60%**					
Implementation of evidence based practice				Yes	Yes	Yes
Training members of the multidisciplinary team			Yes	Yes		Yes
Developing a consultation system to consult professional experts			Yes	Yes		Yes
Self-management support	**53%**					
Training of care providers to self-management support			Yes			
Providing options for patients and families to improve their self-management				Yes	Yes	Yes
Shared decision making (care provider and patients)			Yes	Yes	Yes	Yes
Information systems and technology	**35%**					
Electronic patient records and computerized clinical charts			Yes	Yes		Yes
Exchange of information between care providers and sectors by clinical information systems			Yes	Yes		
Uniform coding of patients´ health problems where possible					Yes	
Patient-operated technology allowing patients to send information to their care providers					Yes	
Social and community resources	**40%**					
Supporting access to community- and social- resources				Yes		Yes
Involvement of social network (informal), including friends, patient associations, family, neighbours				Yes	Yes	
Target components		**1/16 (6.25%)**	**10/16 (62.50%)**	**13/16 (81.25%)**	**9/16 (56.25%)**	**11/16 (68.75%)**

Results.
Perceived feasibility of the ICMM implementation



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Results.
Facilitators and barriers for implementation

	Barriers to the assessment	Facilitators to the assessment
Andalusia	Resistance to change of health professionals	Integrated information systems Accesible electronic health records Population health database as information source
Aragon	Linking specific intervention actions to specific outcomes	Pre/post comparable implementation indicators Accesible electronic health records
Kaunas	Limited implementation time Limited number of patients Scarcity of human resources	Pre/post comparable implementation indicators
Rome	Non-integrated information systems	Strong implementation team motivation
Vilnius	Limited implementation time Limited number of patients Scarcity of human resources Lack of qualified information technology personnel Non-integrated information systems	Pre/post comparable implementation indicators Global optimization assessment possible through health resource consumption evaluation

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Results.
ACIC survey

	Aragon (n=3)		Andalusia (n=2)		Kaunas (n=2)		Rome (n=2)		Vilnius (n=5)	
	Mean	**Range**	**Mean**	**Range**	**Mean**	**Range**	**Mean**	**Range**	**Mean**	**Range**
1. Delivery system organization	6.39	3 – 9	10.42	10 – 11	6.58	5 – 9	8.33	6 – 10	4.98	3 – 8
2. Community linkages	5.11	2 – 9	8.17	6 – 11	5.50	2 – 9	5.33	4 – 6	3.80	2 – 6
3a. Self-management support	6.41	2 – 10	7.63	5 – 9	5.13	3 – 9	5.13	2 – 9	3.88	2 - 6
3b. Decision support	5.04	2 – 10	7.50	7 – 10	5.38	2 – 9	4.13	2 – 7	2.65	0 – 5
3c. Delivery system design	6.72	4 – 10	8.17	2 – 9	6.08	5 – 9	5.42	2 – 10	3.57	1 – 6
3d. Clinical information systems	6.20	0 – 10	7.40	2 – 9	3.50	0 – 7	4.20	2 – 6	2.60	1 – 4
4. ICMM component integration	3.94	0 – 9	6.0	2 – 8	4.08	0 – 6	2.92	0 – 6	2.43	1 – 5
Global mean	**5.69**		**7.90**		**5.18**		**5.06**		**3.42**	

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Results.
PACIC survey

	Andalusia (n=50)	Kaunas (n=67)	Rome (n=36)	Vilnius (n=39)	Total
Assess	2.98	3.32	2.44	3.80	**3.14**
Advise	3.18	3.36	2.54	4.07	**3.29**
Agree	3.02	3.08	2.77	3.82	**3.17**
Assist	2.46	3.21	2.48	3.66	**2.95**
Arrange	2.12	2.50	2.23	3.06	**2.48**
5 As Summary	**2.91**	**3.19**	**2.67**	**3.83**	**3.15**

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Conclusions

- Assessment of baseline is completed.
- ICMM is perceived as moderately feasible.
- ACIC identified organizational aspects of the health systems to be improved.
- Patients scored the system in the moderate range.

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Poster sessions

14 May, Tuesday from 16:45h to 17:45h
15 May, Wednesday from 11:00h to 11:50h

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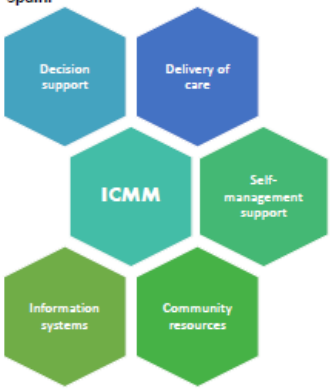
Applicability of CHRODIS Integrated Care Model for Multimorbidity in European national health systems: Baseline evaluation

*C Rodríguez-Blázquez, MJ Forjaz, K Bliek Bueno, I Guerrero Fernández de Alba, A Gimeno-Miguel, A Prados-Torres, and the WP6 team**

INTRODUCTION

The pilot implementation of the CHRODIS Integrated Care Model for Multimorbidity (ICMM) is being carried out in 5 sites from 3 European countries: Lithuania, Italy, and Spain.



OBJECTIVE

To assess the applicability and analyze the outcomes of the ICMM implementation in European national health systems.

ASSESSMENTS

1. "Ad hoc" applicability questionnaire
2. ACIC survey (3.5 Version)
3. PACIC+ survey

RESULTS

Up to 13 out of the 17 ICMM components were included in the pilot sites

	Andalusia	Aragon	Kaunas	Rome	Vilnius
Target components	1/16 (6.25%)	10/16 (62.50%)	13/16 (81.25%)	9/16 (56.25%)	11/16 (68.75%)

Perceived feasibility of ICMM in each site:

ACIC survey

	Aragon (n=3)		Andalusia (n=2)		Kaunas: (n=2)		Rome (n=2)		Vilnius (n=5)	
	Mean	(Range)	Mean	(Range)	Mean	(Range)	Mean	(Range)	Mean	(Range)
1. Delivery system organization	6.39	(3 - 9)	10.42	(10 - 11)	6.58	(5 - 9)	8.33	(6 - 10)	4.96	(3 - 8)
2. Community linkages	5.11	(2 - 9)	8.17	(6 - 11)	5.50	(2 - 9)	5.33	(4 - 6)	3.80	(2 - 6)
3a. Self-management support	6.41	(2 - 10)	7.63	(5 - 9)	5.13	(3 - 9)	5.13	(2 - 9)	3.88	(2 - 6)
3b. Decision support	5.04	(2 - 10)	7.50	(7 - 10)	5.38	(2 - 9)	4.13	(2 - 7)	2.65	(0 - 5)
3c. Delivery system design	6.72	(4 - 10)	8.17	(2 - 9)	6.08	(5 - 9)	5.42	(2 - 10)	3.57	(1 - 6)
3d. Clinical information systems	6.20	(0 - 10)	7.40	(2 - 9)	3.50	(0 - 7)	4.20	(2 - 6)	2.60	(1 - 4)
4. ICMM component integration	3.94	(0 - 9)	6.00	(2 - 8)	4.08	(0 - 6)	2.92	(0 - 6)	2.43	(1 - 5)
Global mean	5.69		7.90		5.18		5.06		3.42	

PACIC+ survey

	Andalusia (n=50)	Kaunas (n=67)	Rome (n=36)	Vilnius (n=39)	Total
Assess	2.98	3.32	2.44	3.80	3.14
Advise	3.18	3.36	2.54	4.07	3.29
Agree	3.02	3.08	2.77	3.82	3.17
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Arrange	2.12	2.50	2.23	3.06	2.48
5 As Summary	2.91	3.19	2.67	3.83	3.15

Main barriers to implementation

CONCLUSIONS

- ✓ ICMM is perceived as moderately feasible
- ✓ ACIC identified organizational aspects of the health systems to be improved
- ✓ Patients scored the system in the moderate range.

ACKNOWLEDGEMENTS

* G Onder, R Navickas, L Dambrauskas, A Carriazo, R Rodríguez Acuña, C Angioletti, I Liseckiene.

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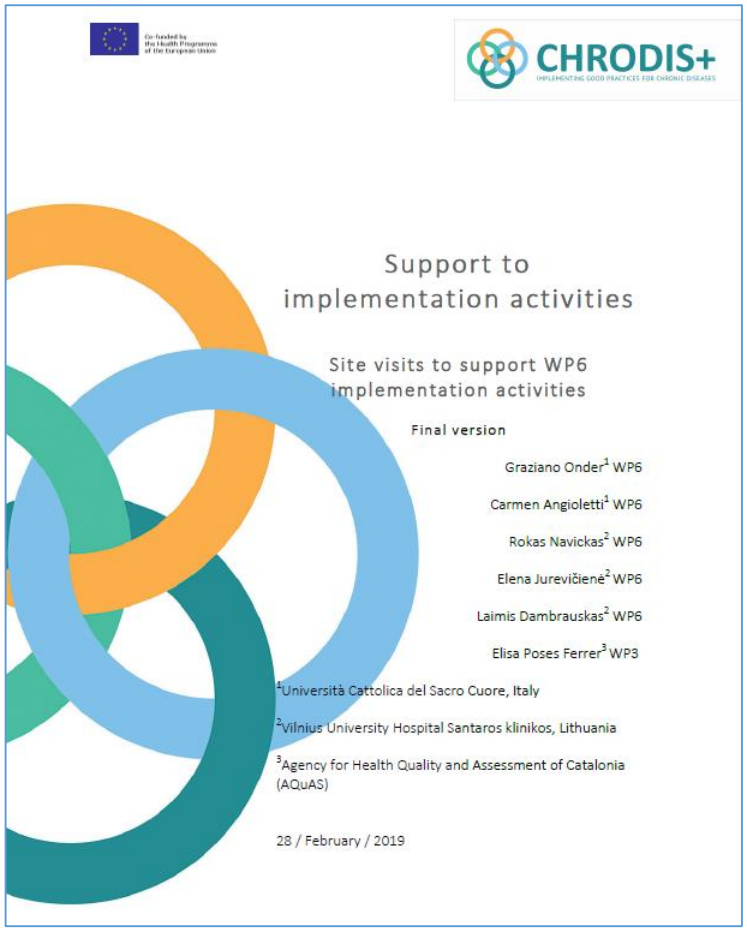
Next steps

- Site visits:
  - June 7: CSJA-Seville
  - June 21: IACS-Zaragoza

- To complete statistical analysis of PACIC+
- Post-implementation assessment



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Thank you for your attention

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The Joint Action implementing good practices for chronic diseases

This presentation is part of the CHRODIS PLUS Joint Action. This Joint Action addresses chronic diseases through cross-national initiatives identified in JA-CHRODIS, in order to reduce the burden of chronic diseases while assuring health system sustainability and responsiveness, under the framework of the Third Health Programme (2014-2020). The content of this presentation is the sole responsibility of the author. Consumers, Health, Agriculture and Food Executive Agencies cannot be held liable for any use of the information contained within this document.

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