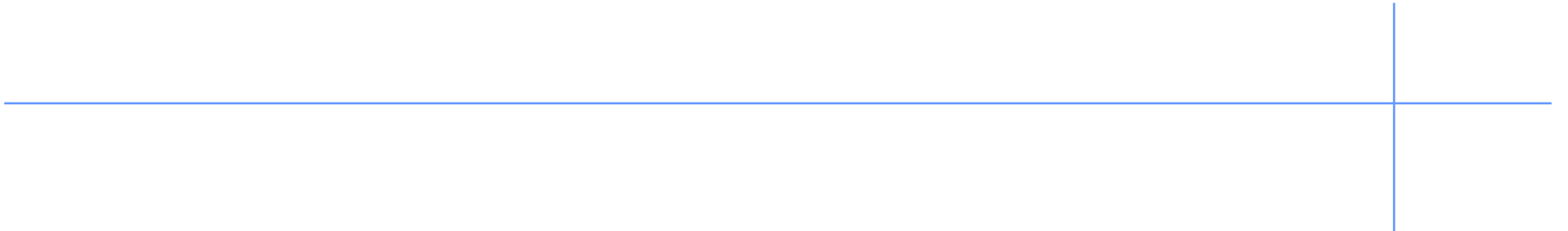
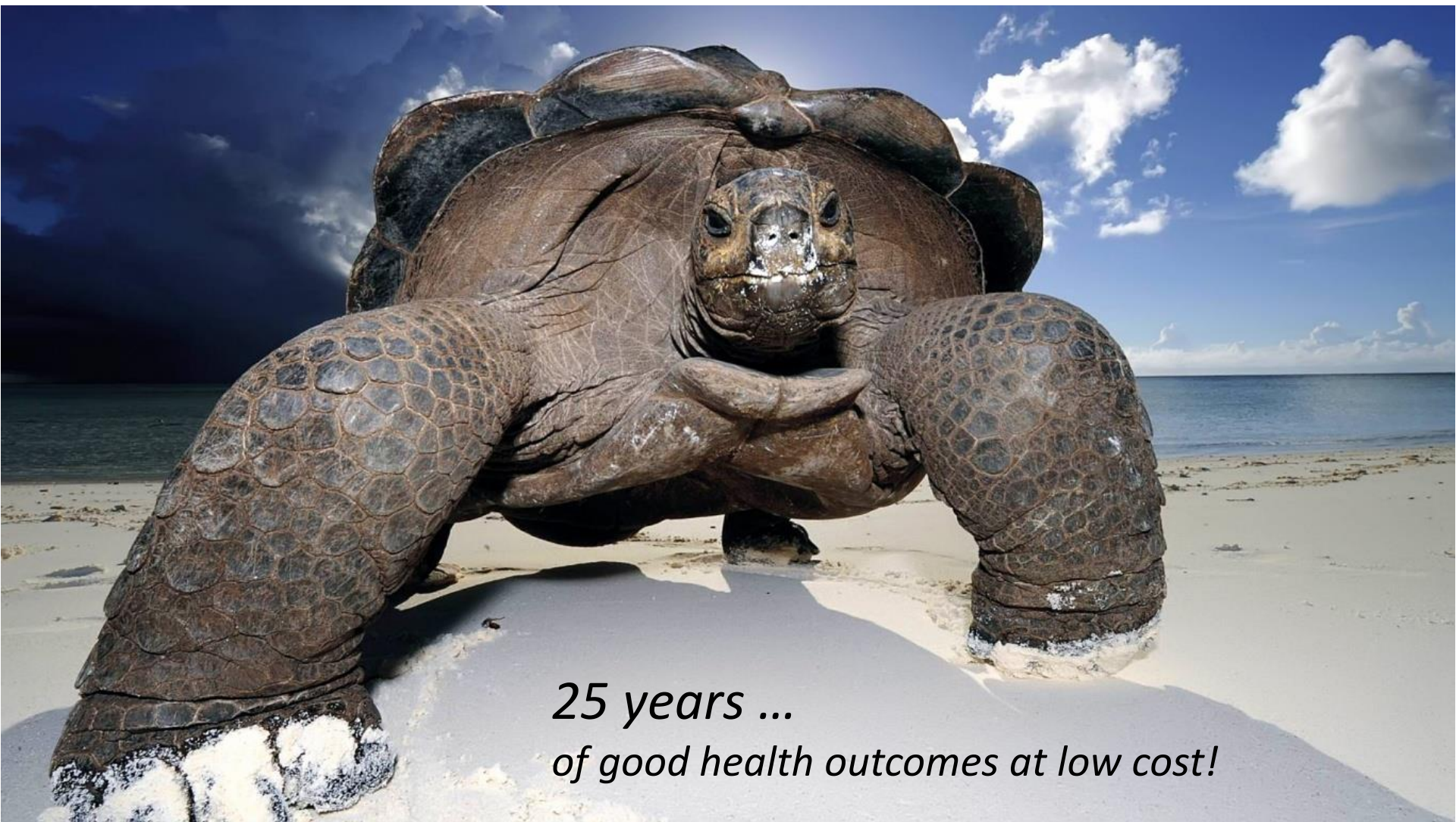


# The EHIF - World Bank Collaboration

## A Quick History

Tallinn, October 2017

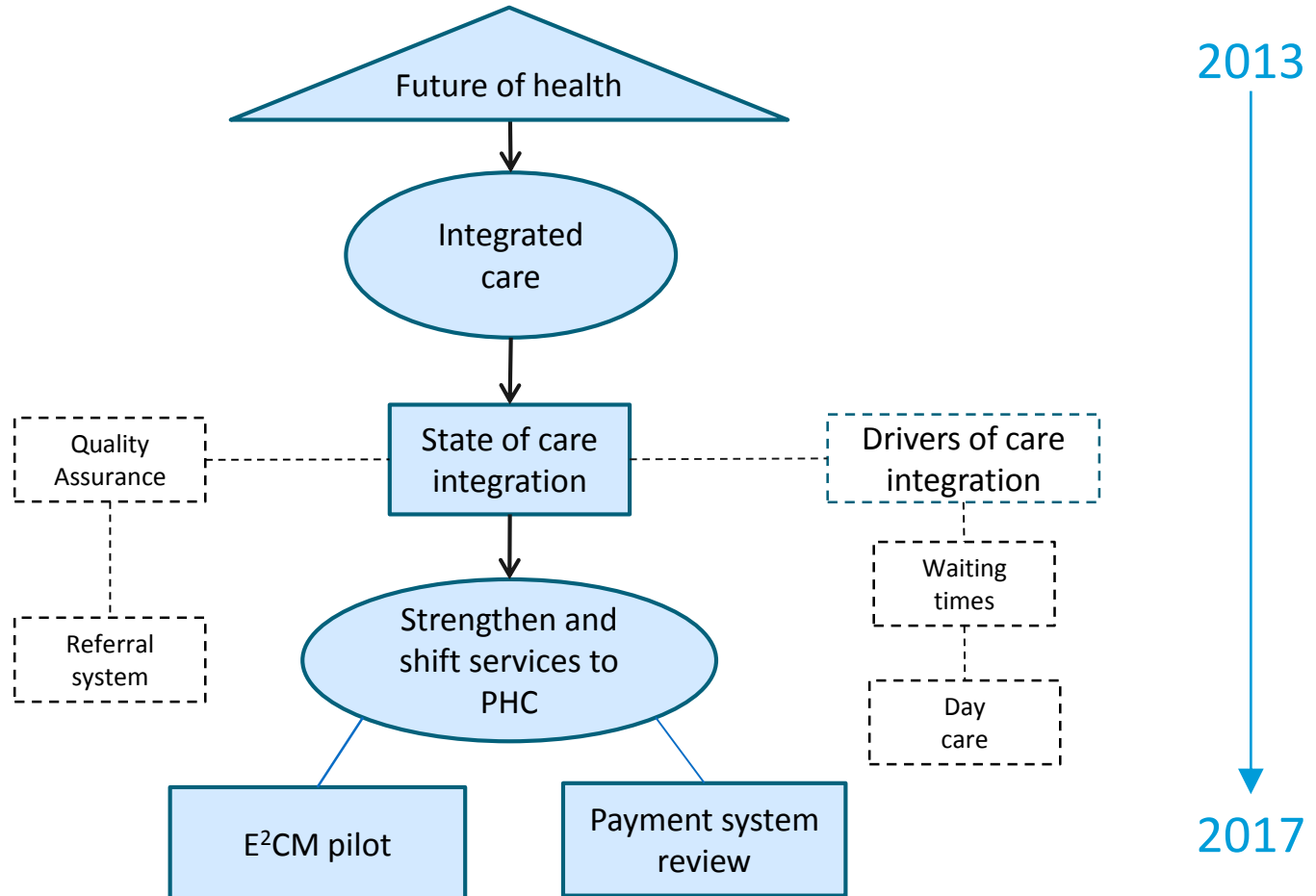




*25 years ...  
of good health outcomes at low cost!*



# History of EHIF - World Bank Collaboration





# Partners



# Enhanced Care Management: Improving Health for High Need, High Risk Patients in Estonia

EHIF-WBG Project

Tallinn, October 2017

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# Outline

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Care integration challenges in Estonia

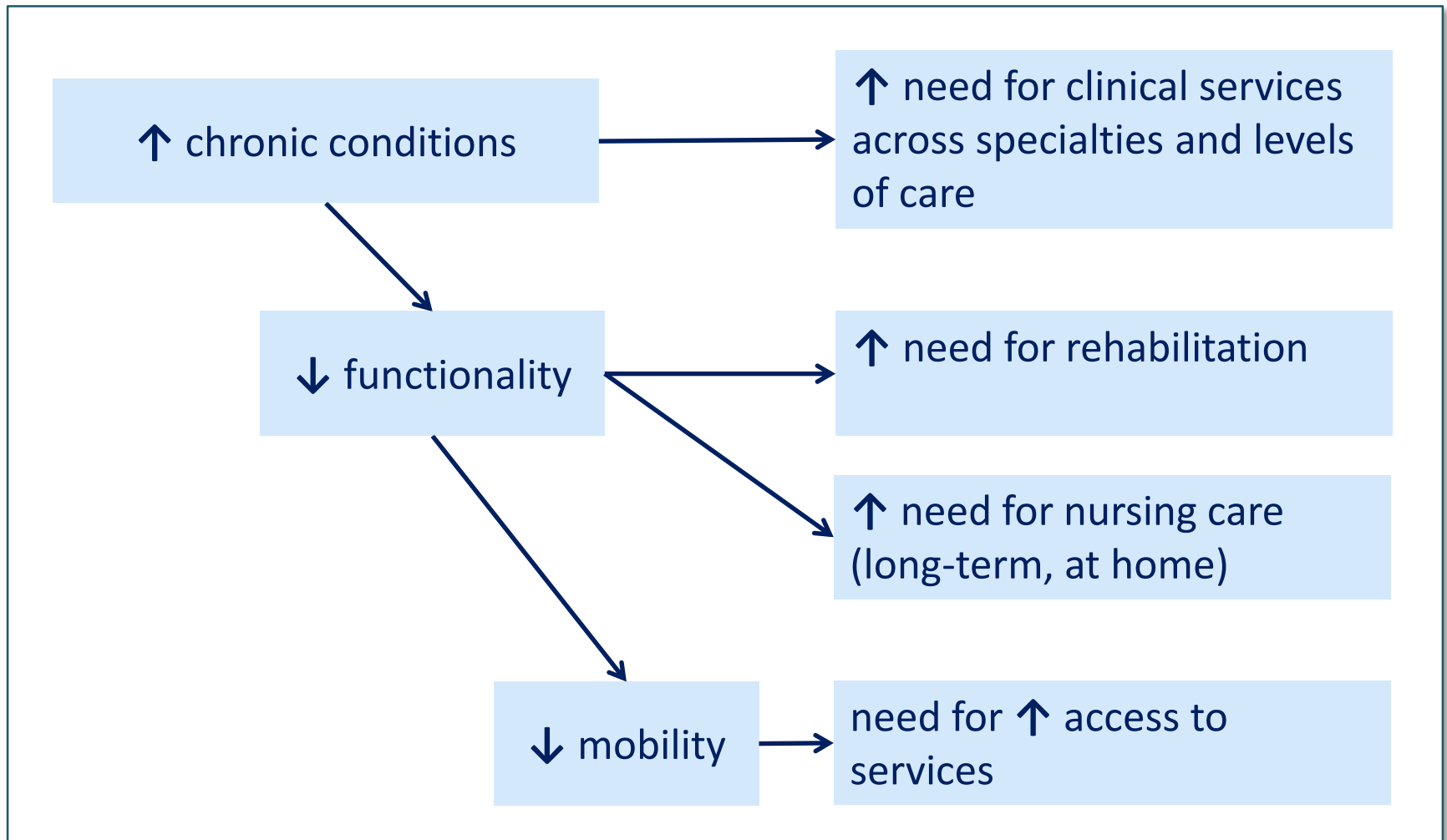
Toward enhanced care management

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Estonian enhanced care management pilot



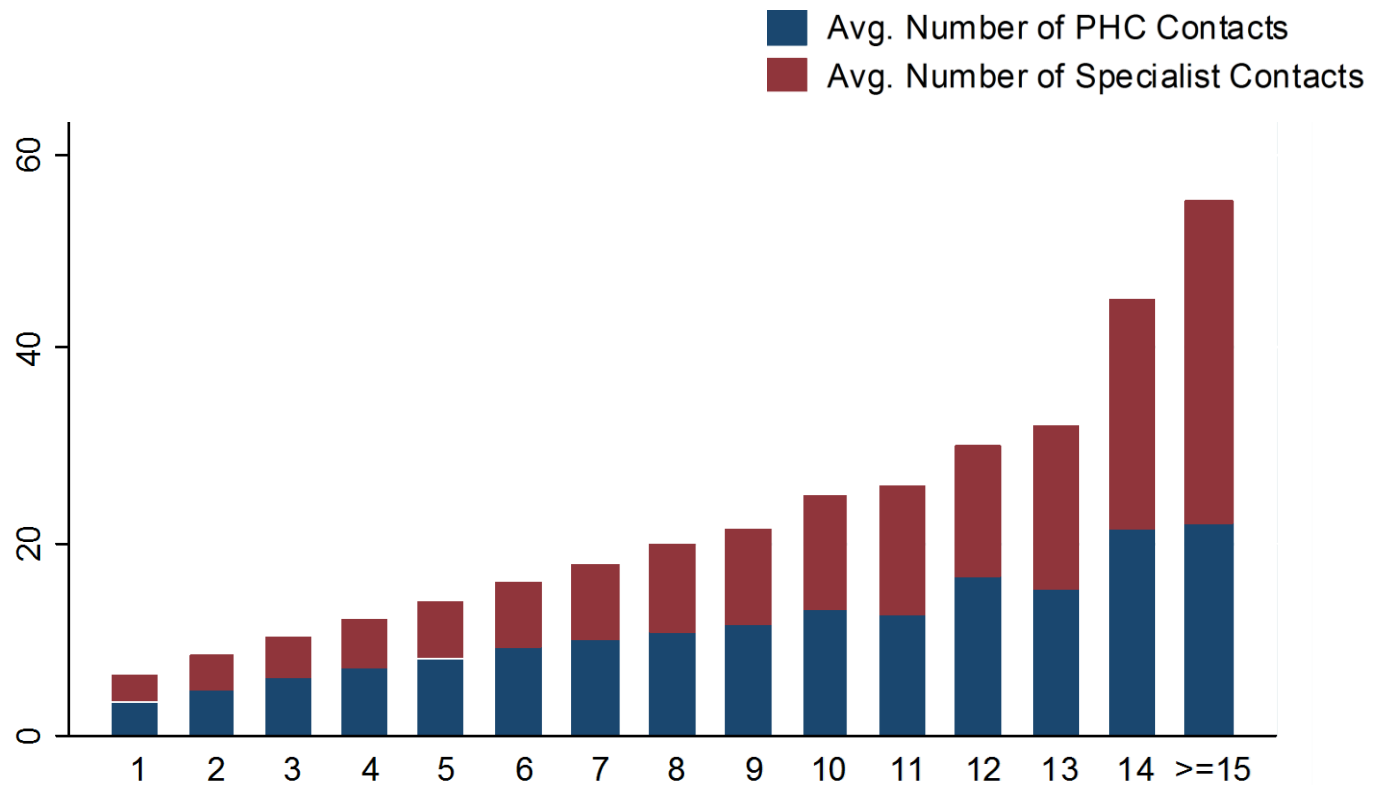
# Changes in the demand for health care due to population ageing and rise of non-communicable diseases





# The impact of chronic conditions on the demand for health care

**Use of PHC / Specialist Care (2013), # of comorbidities**

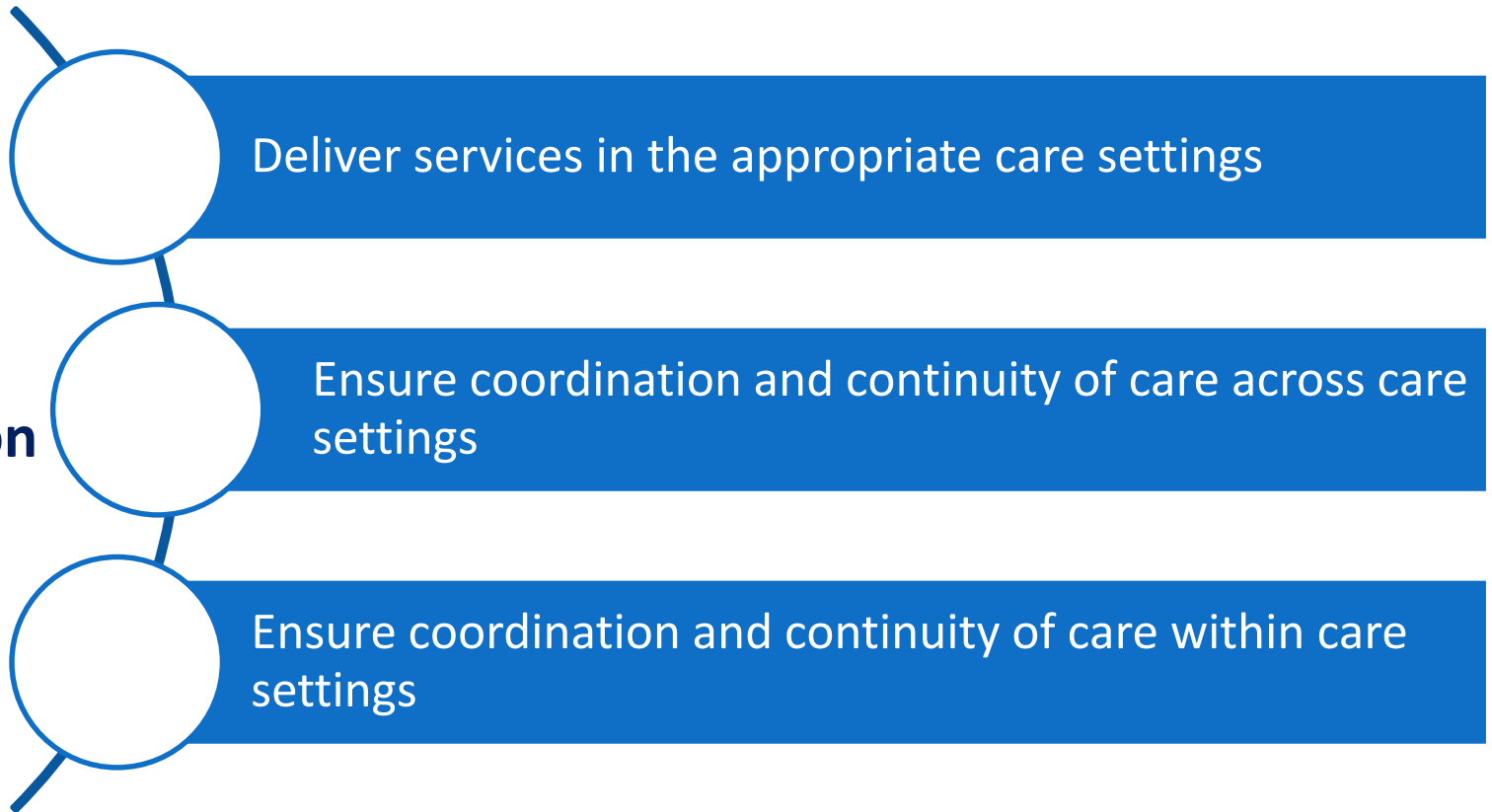






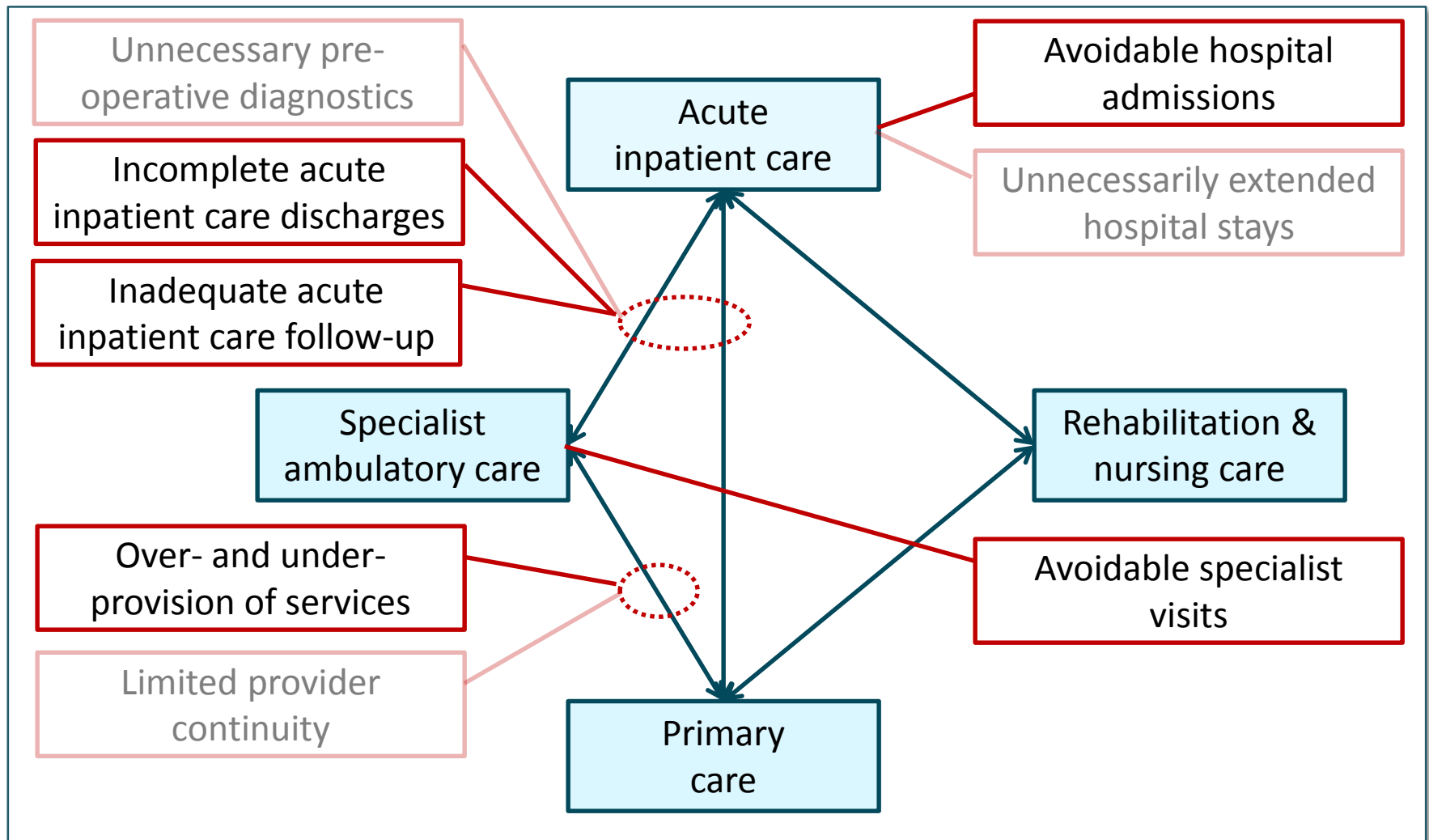
# Care integration - key challenges

## Care integration



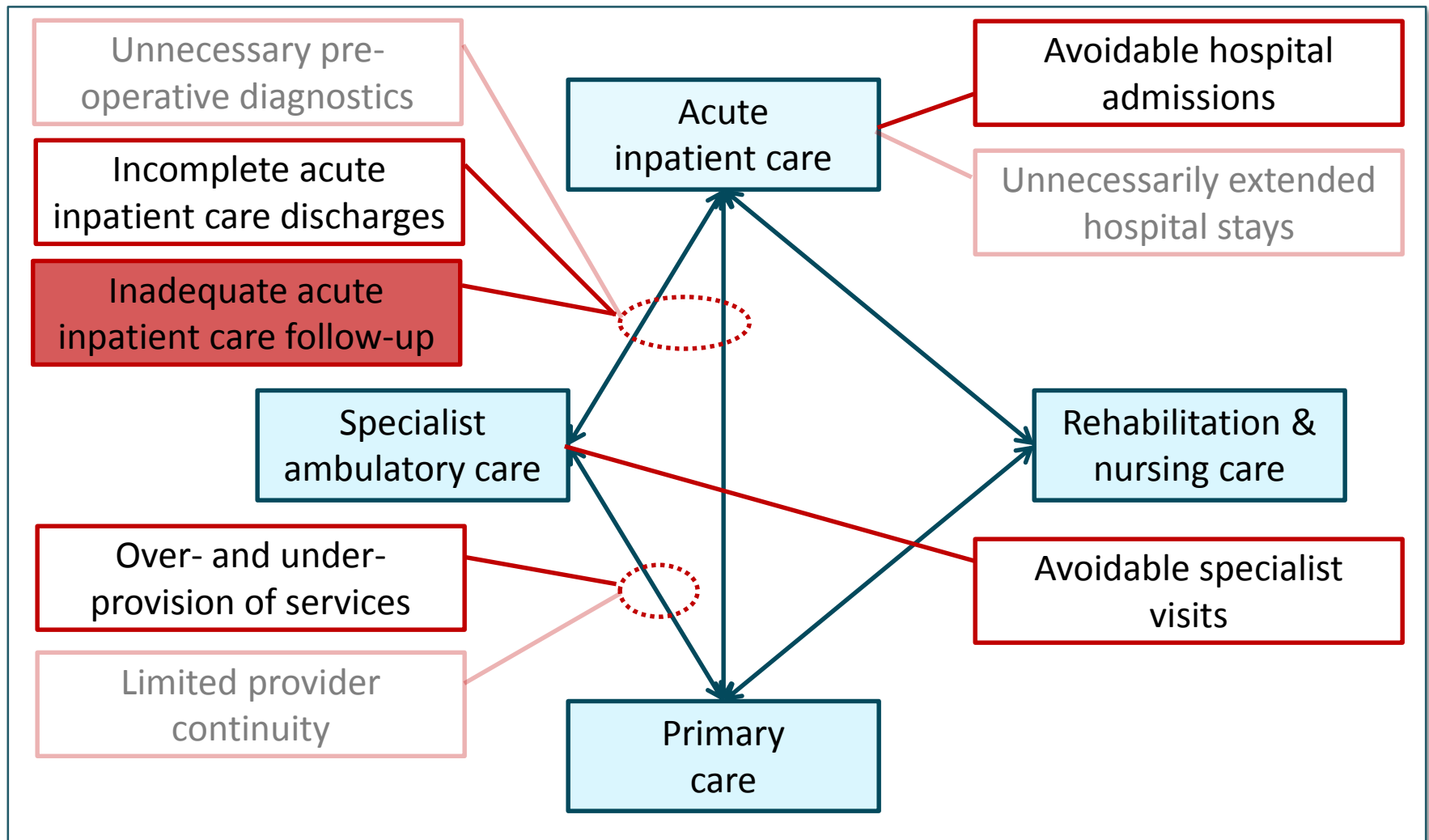


# Care integration – key performance issues in Estonia





# Care integration – key performance issues in Estonia





## Inadequate acute inpatient follow-up care

Tracer	Number of patients	Share with follow-up visit within 30 days after discharge		Share with follow-up visit within 90 days after discharge	
		FP only	FP & S	FP only	FP & S
AMI	4428	30.1%	35.6%	40.9%	49.2%
Stroke	2819	35.8%	38.8%	43.4%	47.5%
Heart Failure	1453	21.8%	25.8%	31.0%	38.1%
Cholecystectomy	2715	31.7%	48.9%	33.5%	51.0%
Hip Fracture	929	21.1%	25.7%	27.0%	36.4%



# Outline

---

Care integration challenges in Estonia

Toward enhanced care management

Estonian enhanced care management pilot



# Toward enhanced care management

## Work builds off of a large body of evidence

### ISSUE BRIEF OCTOBER 2015



The  
COMMONWEALTH  
FUND

#### Models of Care for High-Need, High-Cost Patients: An Evidence Synthesis

Douglas McCarthy, Jamie Ryan, and Sarah Klein

**Abstract** This brief analyzes experts' reviews of evidence about care models designed to improve outcomes and reduce costs for patients with complex needs. It finds that successful models have several common attributes: targeting patients likely to benefit from the intervention; comprehensively assessing patients' risks and needs; relying on evidence-based care planning and patient monitoring; promoting patient and family engagement in self-care; coordinating care and communication among patients and providers; facilitating transitions from the hospital and referrals to community resources; and providing appropriate care in accordance with patient preferences. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.



The  
COMMONWEALTH  
FUND

#### ISSUES IN INTERNATIONAL HEALTH POLICY

JANUARY 2016

#### How High-Need Patients Experience the Health Care System in Nine Countries

Dana O. Sarnak and Jamie Ryan

**Abstract** U.S. health care costs are disproportionately concentrated among older adults with multiple chronic conditions or functional limitations—a population often referred to as “high-need” patients. This analysis uses data from the Commonwealth Fund 2014 International Health Policy Survey of Older Adults to investigate health care use, quality, and experiences among high-need patients in nine countries compared with other older adults. High-need patients use a greater amount of health care services and also experience more coordination problems and financial barriers to care compared with other older adults. Disparities are particularly pronounced in the United States. The comparative success of other countries, particularly in reducing financial barriers to care, may be a product of policies that specifically target high-need patients. Similarly focusing on these populations in the U.S. and effectively managing their care may improve their health status while reducing overall costs. The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

### ISSUE BRIEF AUGUST 2014



The  
COMMONWEALTH  
FUND

#### Caring for High-Need, High-Cost Patients: What Makes for a Successful Care Management Program?

Clemens S. Hong, Allison L. Siegel, and Timothy G. Ferris

**Abstract** Provider groups taking on risk for the overall costs of care in accountable care organizations are developing care management programs to improve care and thereby control costs. Many such programs target “high-need, high-cost” patients: those with multiple or complex conditions, often combined with behavioral health problems or socioeconomic challenges. In this study we compared the operational approaches of 18 successful complex care management programs in order to offer guidance to providers, payers, and policymakers on best practices for complex care management. We found that effective programs customize their approach to their local contexts and caseloads; use a combination of qualitative and quantitative methods to identify patients; consider care coordination one of their key roles; focus on building trusting relationships with patients as well as their primary care providers; match team composition and interventions to patient needs; offer specialized training for team members; and use technology to bolster their efforts. The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

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**NHS**  
England

## Next Steps for Risk Stratification in the NHS



# The Value of Primary Health Care



Focus of following slides



## PEOPLE'S FIRST CONTACT

Serves as the entry point into the health care system, and the first source of care for most health needs



## PEOPLE-CENTERED

Organized around the health needs and expectations of people rather than diseases



## COMPREHENSIVE

Delivers a broad spectrum of preventative, promotive, curative and palliative care



## CONTINUOUS

Connects people with trusted providers who address their ongoing health needs throughout their lives



## COORDINATED

Manages care across levels of the health system, referring patients to specialists as needed and effectively following up to ensure improvement



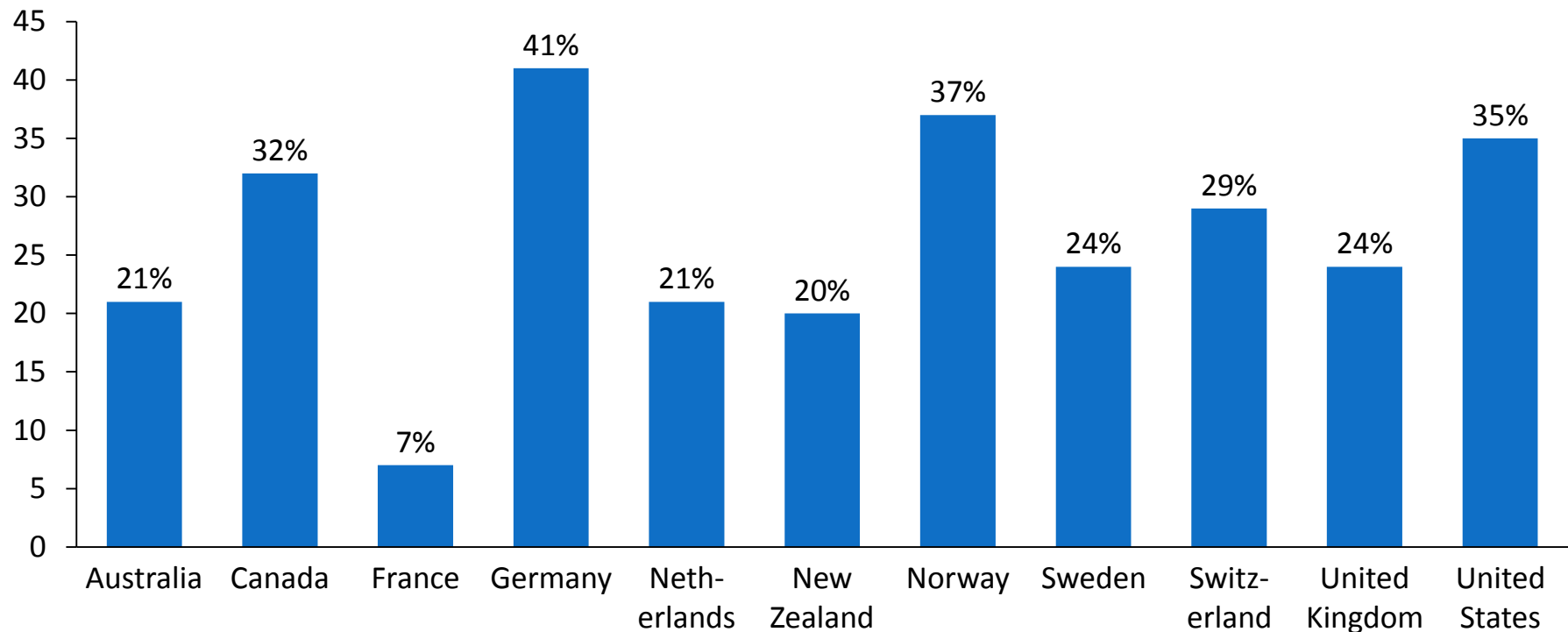
## ACCESSIBLE

Offered within people's communities, at a price they can afford



# Patients experiencing coordination problems in past 2 years

Patients experiencing  $\geq 1$  care coordination problem in past 2 years<sup>1</sup>, % of adults age 65 and over



<sup>1</sup> Answered yes to at least one: test results/records not available at time of appointment or duplicate test ordered; received conflicting information from different health professionals; or specialist lacked medical history or regular doctor not informed about specialist care

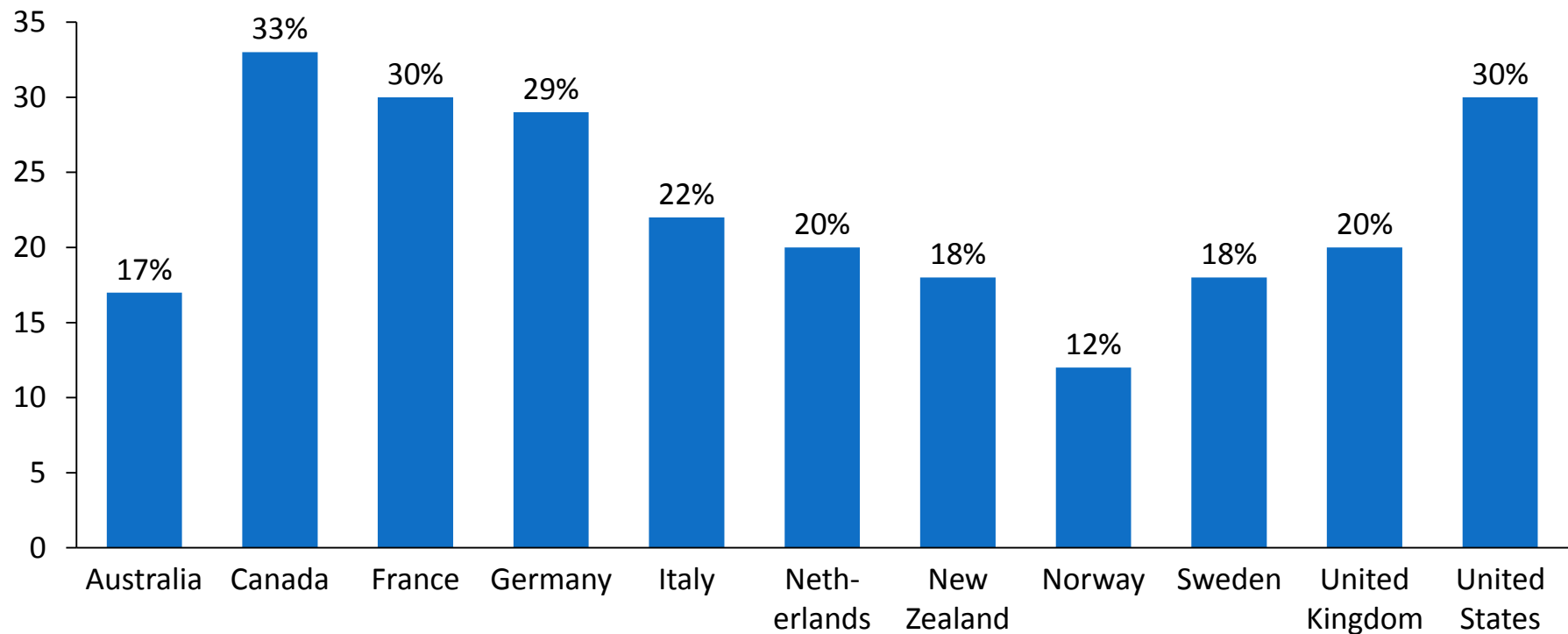
SOURCE: 2014 Commonwealth Fund International Health Policy Survey of Older Adults in 11 Countries





# Primary care doctors reporting time spent coordinating patient care is a major problem

Primary care physicians reporting time spent on coordination of patient care, %



SOURCE: The Commonwealth Fund 2009 International Health Policy Survey of Primary Care Physicians in Eleven Countries; C. Schoen et al., "A Survey of Primary Care Physicians in Eleven Countries: Perspectives on Care, Costs, and Experiences, 2009." Health Affairs Web Exclusive, Nov. 5, 2009, w1171–w1183

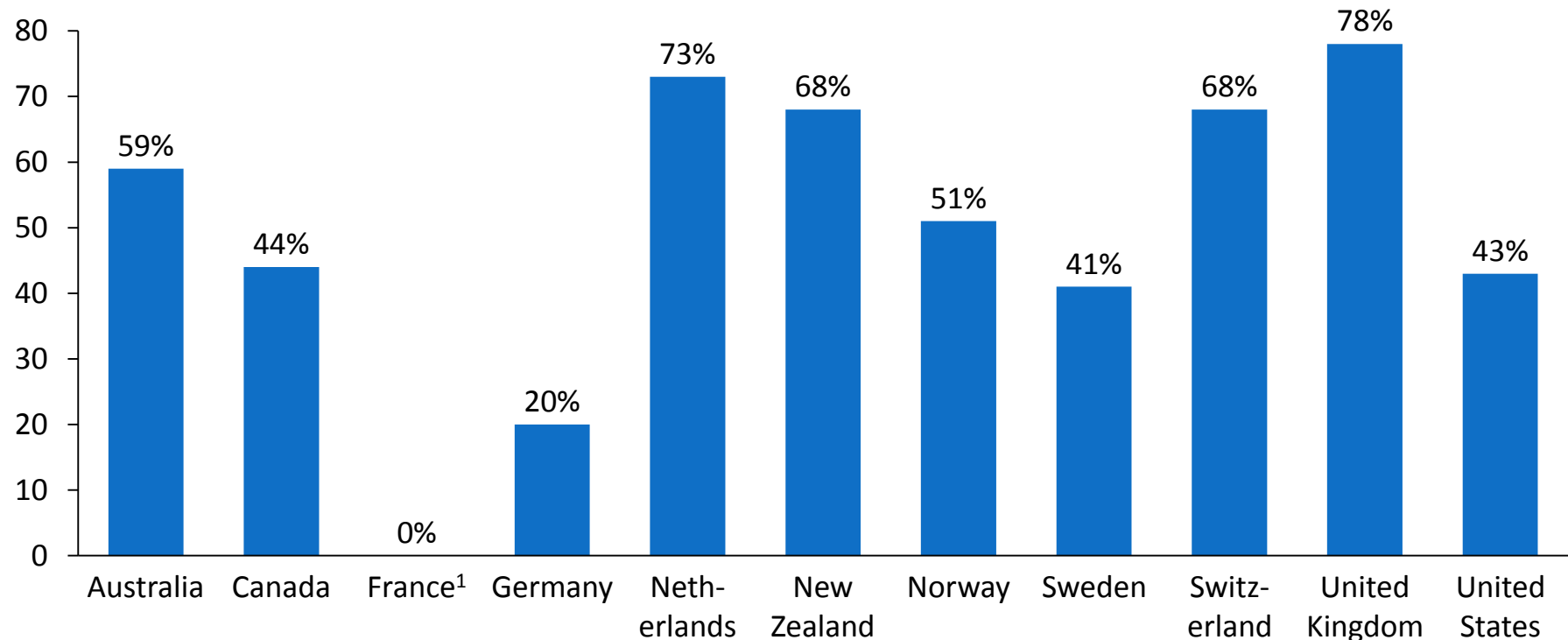


## Practice uses nurse case managers or navigators for patients with serious chronic conditions



The  
Commonwealth  
Fund

**Practices using nurse case managers or navigators for patients with serious chronic conditions,**  
*% of primary care physicians*



<sup>1</sup> Question asked differently in France



# Enhanced Care Management

## Key elements of Enhanced Care Management

**Risk Stratified  
Patient Registry**



**Care Plans**



**Proactive  
Outreach and  
Transitions  
Follow-Up**



**Team Approach  
and Resource  
Connections**

## Factors that promote a ready environment

**Patient  
Panels**

**Universal  
Health  
Coverage**

**Supportive  
Payment  
Environment**

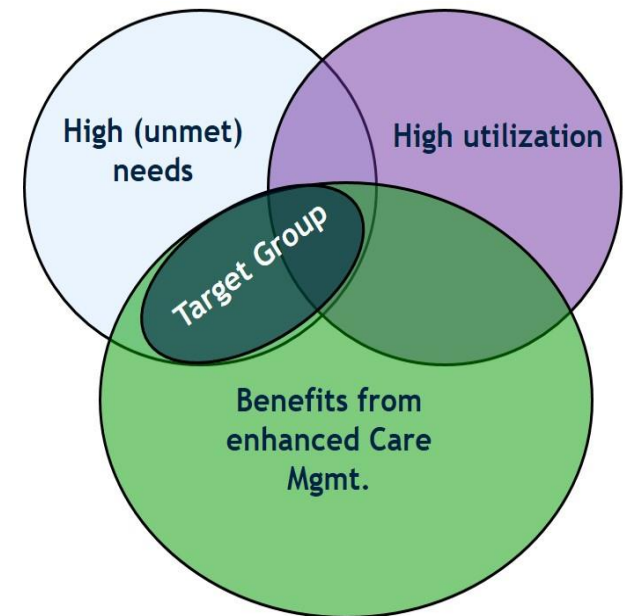
**Motivated  
Multi-  
disciplinary  
Teams**

**EHRs with  
Quality  
Reporting  
System**



# Risk Stratified Patient Registry

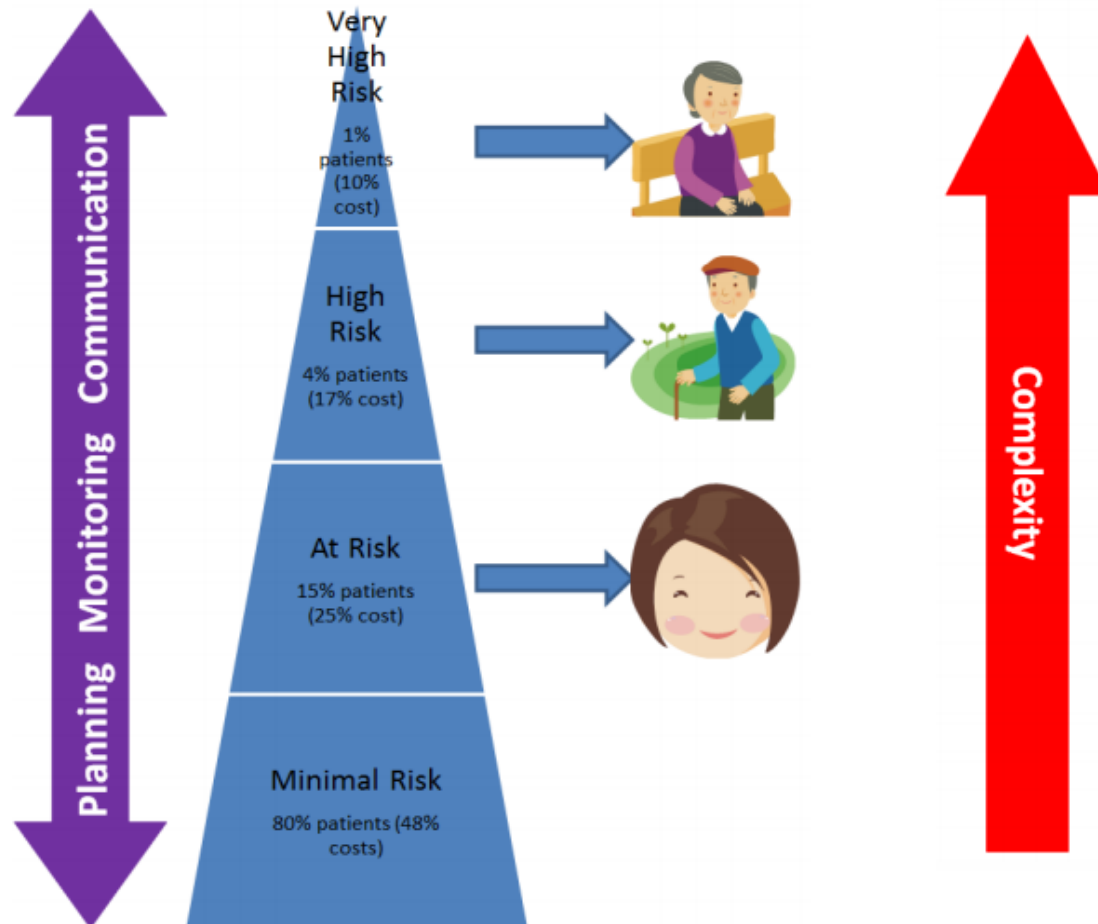
- **Targeting patients** — Who will benefit from enhanced care management?
- Start by **defining “risk”** the program intends to mitigate
  - Chronic disease management?
  - High utilization frequency/costs? Avoidable hospitalizations? Avoidable morbidity or mortality?
- Consider different **types of complexity**: disease, social, behavioral
- Different **models for risk stratification**:
- Clinical algorithm + provider intuition most effective at identifying patients likely to benefit





# Targeting Patients (Care Coordination vs. Care Management)

New South Wales, Australia (2014)





# Care Plans

- Care plans are often used to coordinate a **patient's health needs** and **treatment goals** between multiple providers
- Goal is to ***increase patient activation***
- Using care plans has been shown to improve patient **health outcomes**, increase patient **self-care**, and reduce **healthcare utilization**
- Start by completing a comprehensive evaluation to determine patient's **care needs** — medically, socially, and behaviorally



# Care Plans and Self-Management Support

## Self management support





# Proactive Outreach and Transitions Follow-Up

- **Coordinate care**, inside and outside of clinical systems
- **Primary care** as central point of integration
- **Regular updates** and transfer of information especially during **transitions**



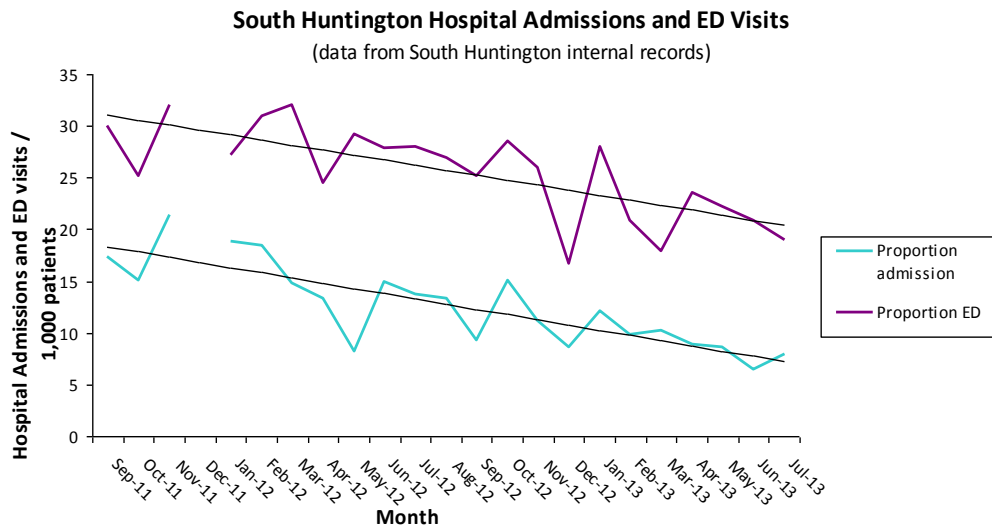




# Proactive Outreach and Transitions Follow-Up

## Care Management, *South Huntington, Boston, USA*

- Track changes in clinical status
- Updates the care team
- Proactively communicates with patient





# Team Approach and Resource Connections

## Building a care team

### Iora Health (US)



### Nuka (Alaska natives)



## Resource connections to other services

- To meet **patient needs**
- To fill gaps in **care team capacities**



# Planning the Pilot: March-December 2016

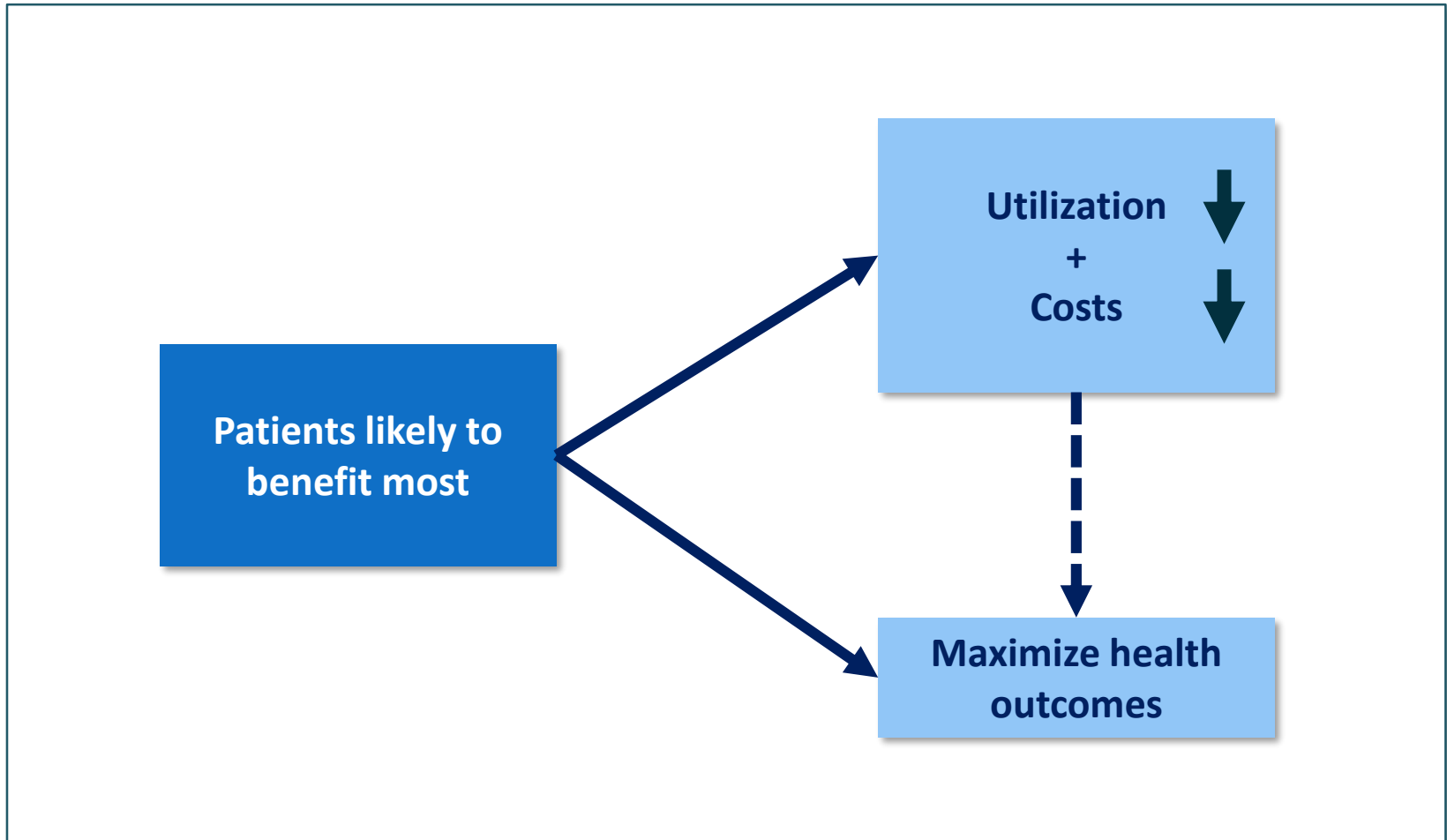




# Patient registry – paradigm shift



Directional effect





# Use of archetypes in health care is helpful to better address unmet patients needs

## Description

### What are patient archetypes?

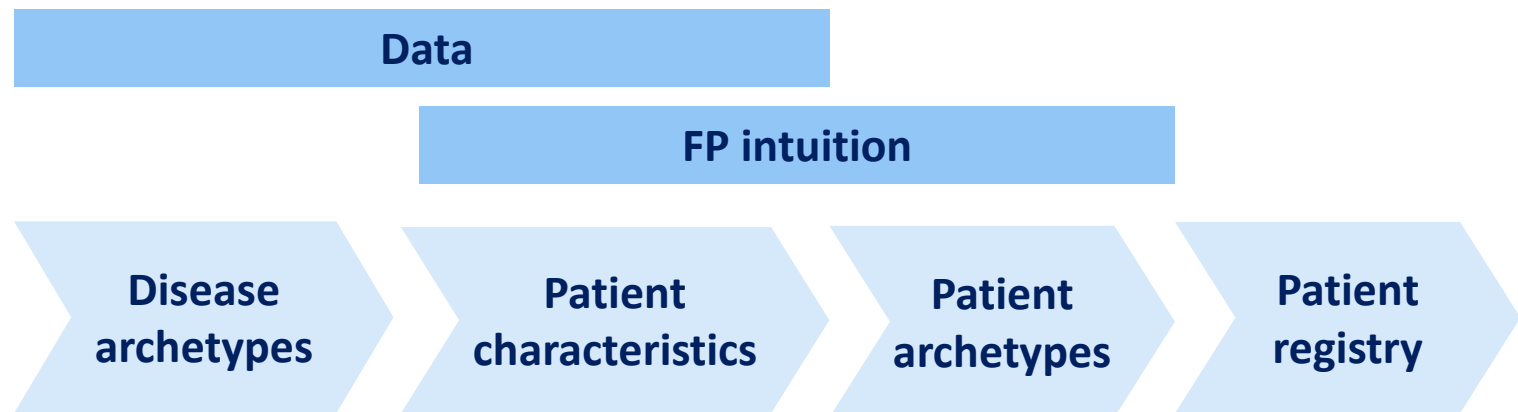
- Common classifications based on people's behaviors and needs
- Defined by a combination of disease, social and behavioral factors

### Benefits of using patient archetypes

- Improve quality of care and health outcomes
- Reduce medically futile care
- Align services with patient preference
- Improve system responsiveness to patients needs

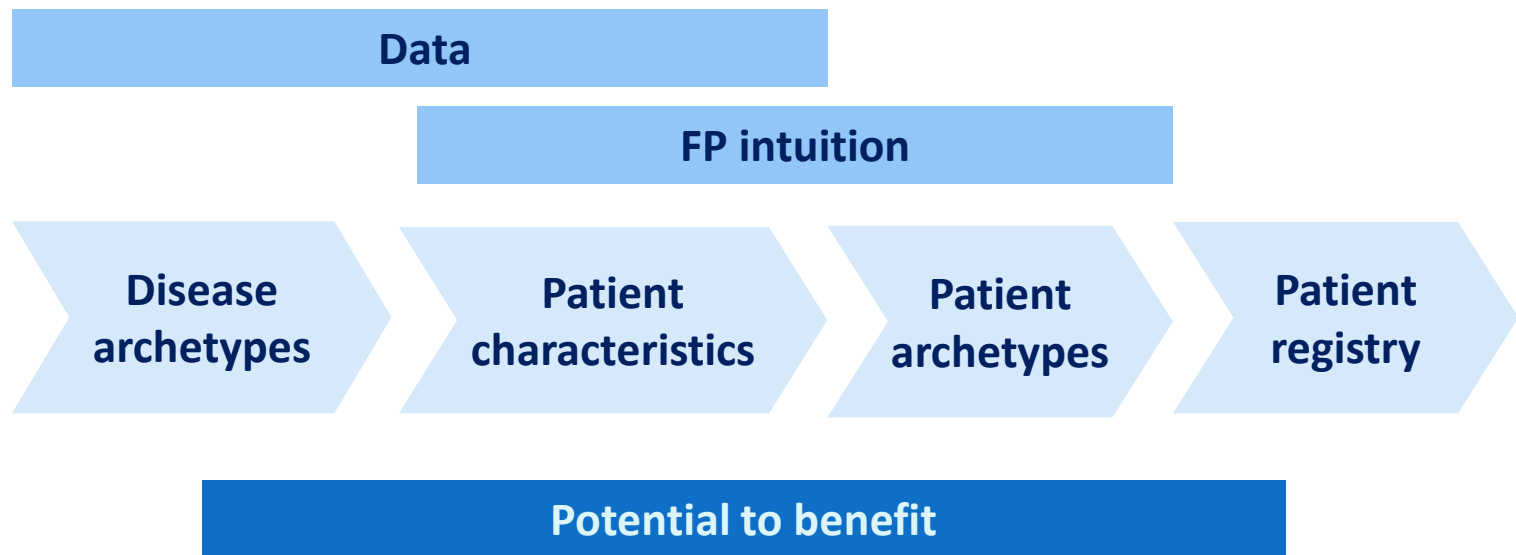


# Development of patient registry



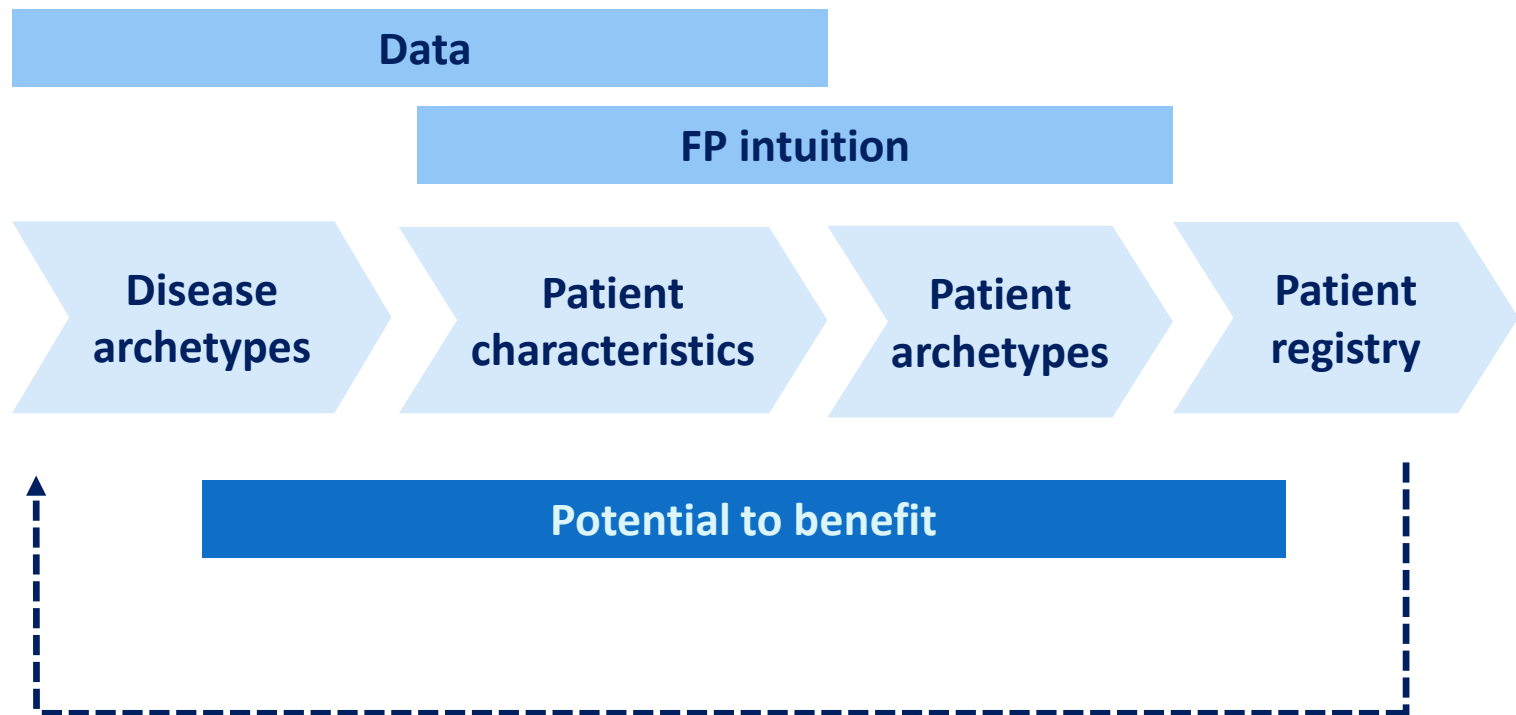


# Development of patient registry





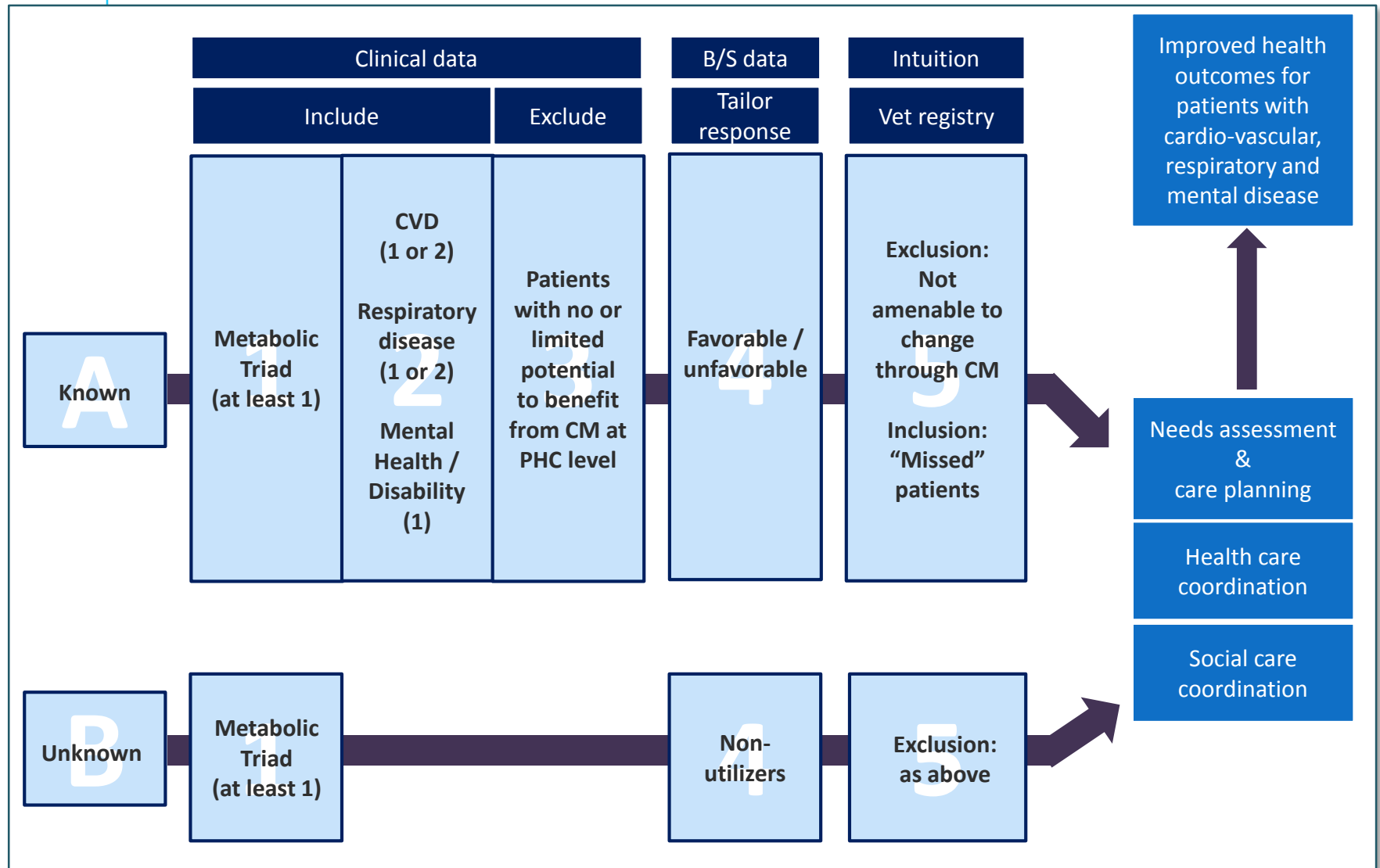
# Development of patient registry







# Risk Stratification Model for EECM





# Outline

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Care integration challenges in Estonia

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Toward enhanced care management

Estonian enhanced care management pilot



# The Estonian enhanced care management pilot

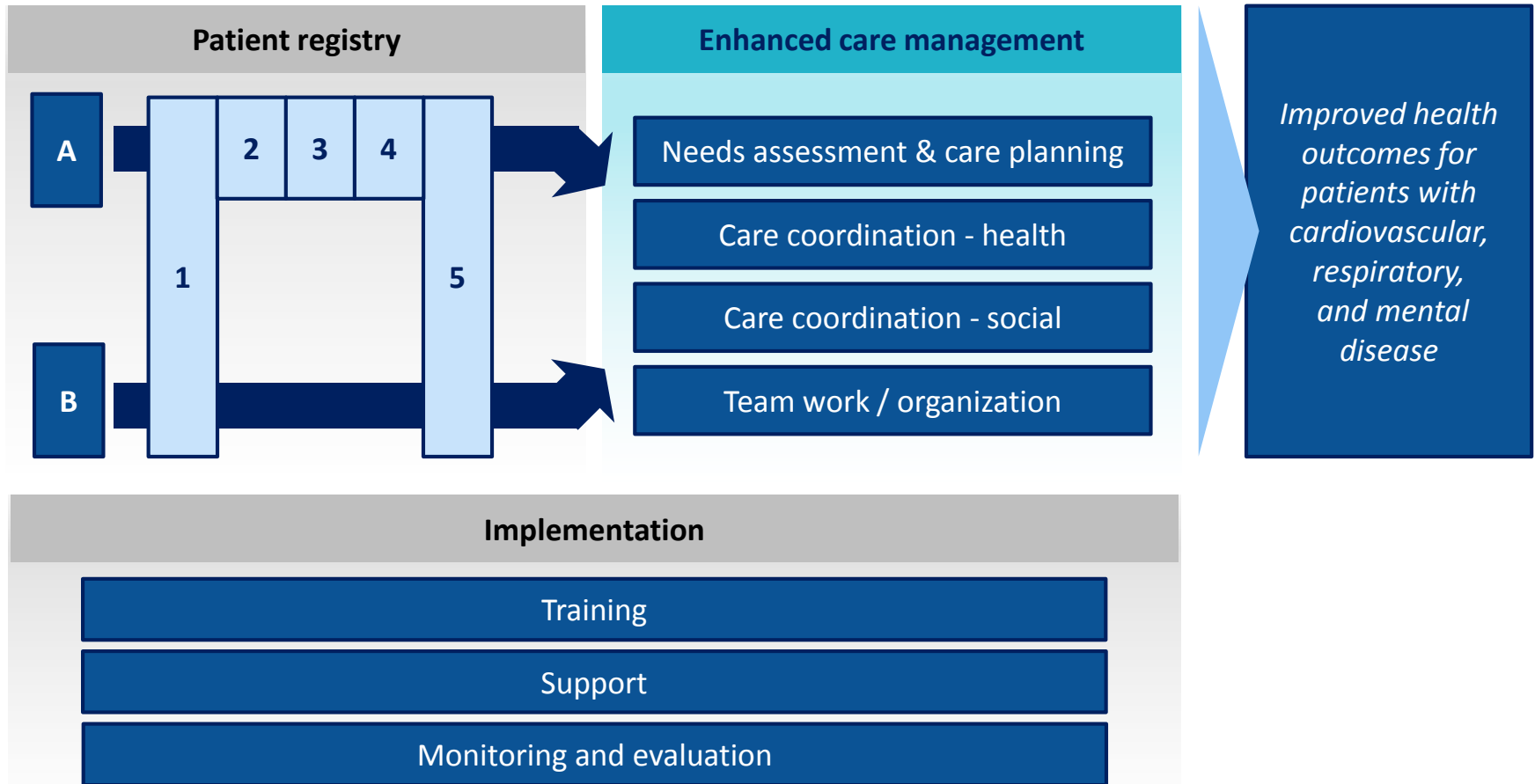
## Pilot and strategic objectives

- **Assess the feasibility and acceptability of enhanced care management**
- Understand the impact of enhanced care on selected care quality
- Identify potential constraints and opportunities for scaling-up
- *Ultimately improve health outcomes for patients with cardio-vascular, respiratory, and mental disease*



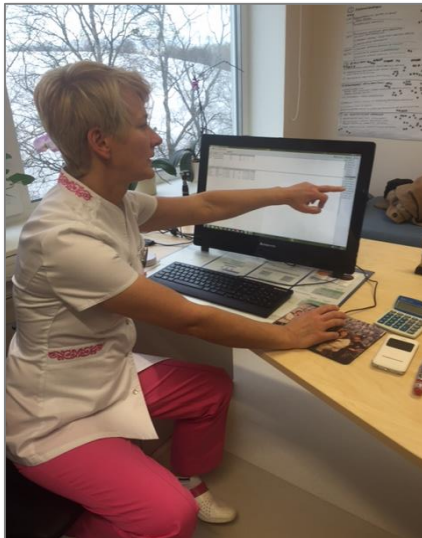
# Pilot design - Estonian enhanced care management

Focus of following slides





# Pilot overview - Estonian enhanced care management




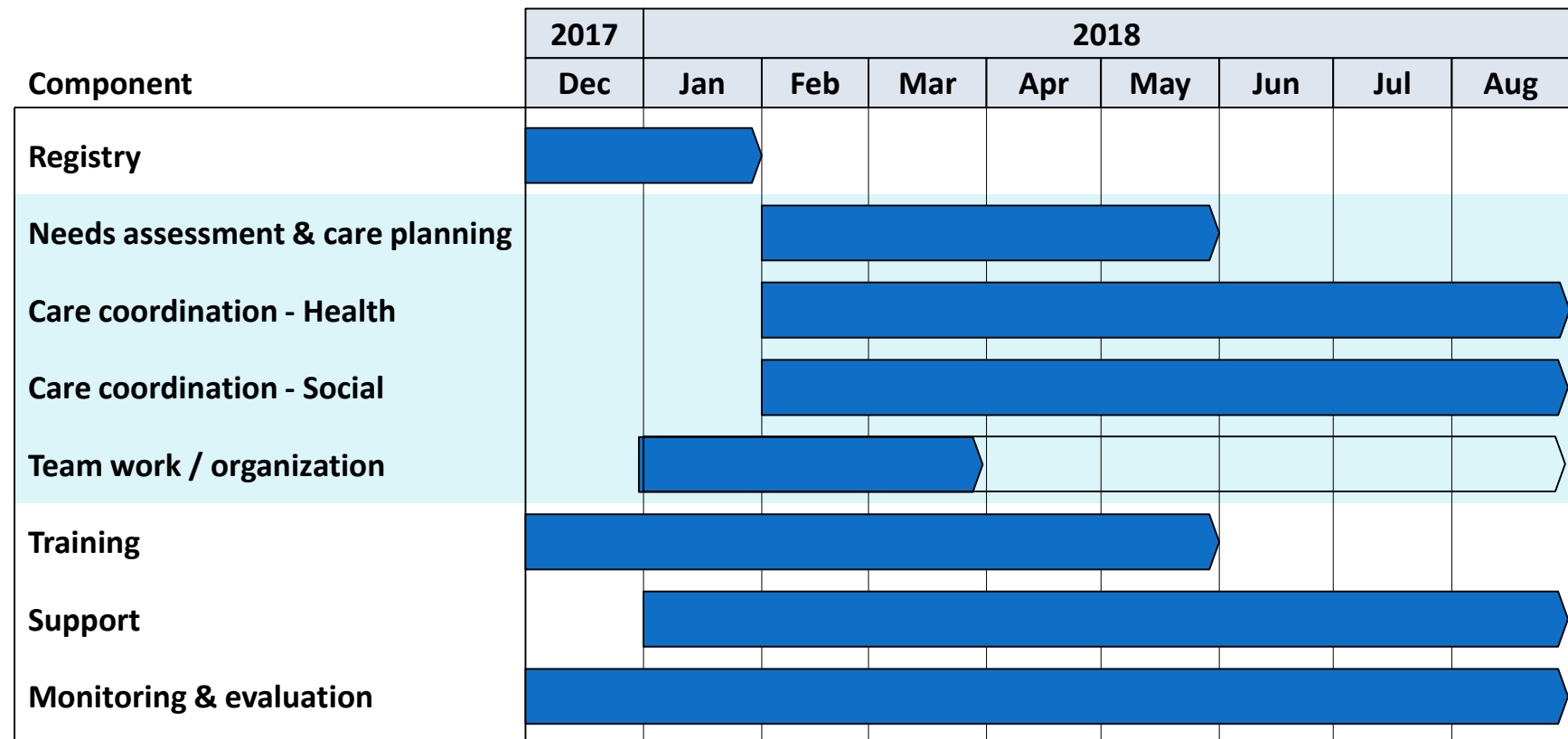
<b>Timeline</b>	Feb 2017 – Aug 2017
<b>Practices</b>	9
<b>Family Physicians</b>	10
<b>Nurses</b>	11
<b>Resident Physicians</b>	1
<b>Total Patients</b>	~500



# Pilot implementation – timeline



 Detail on next slide





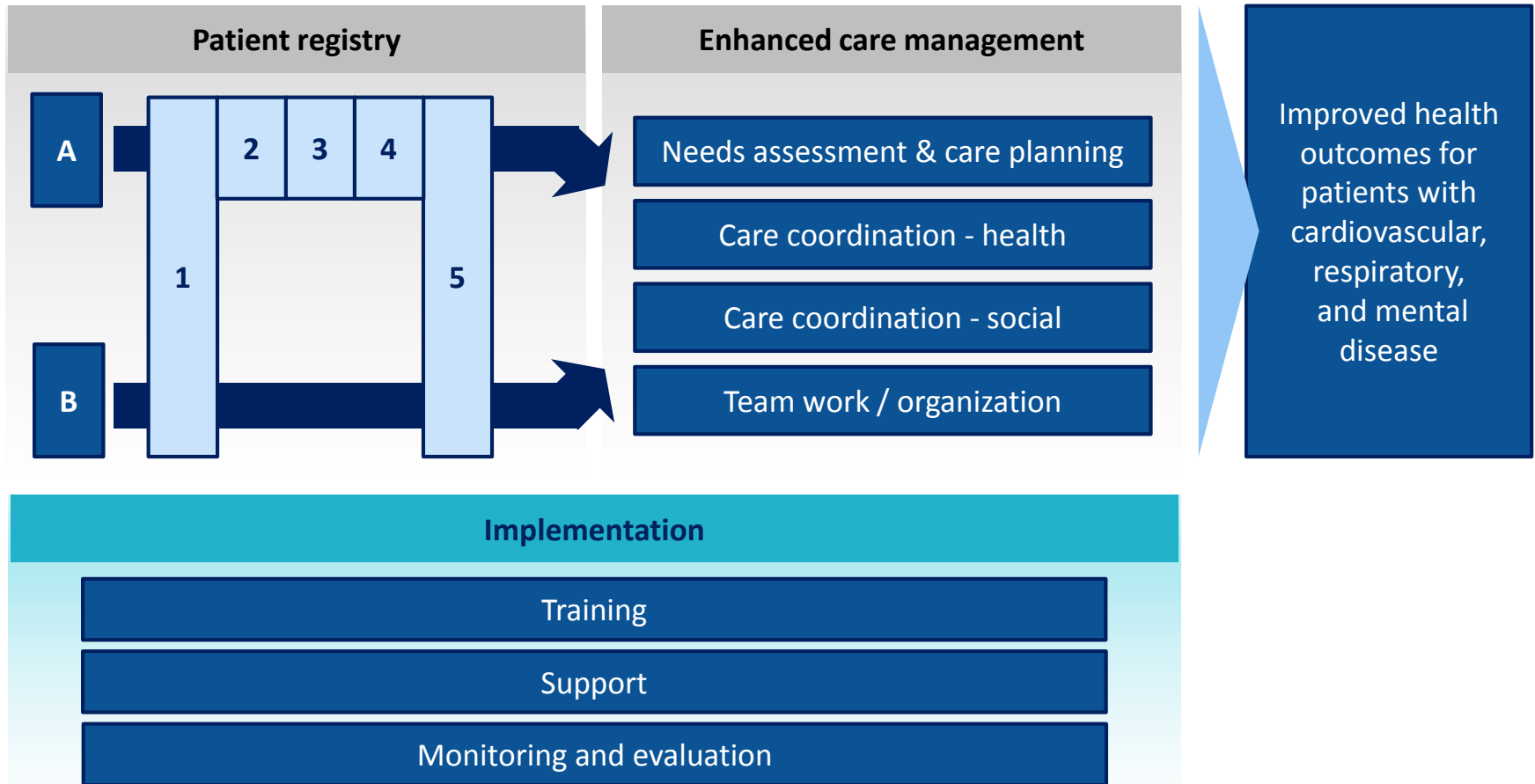
# Pilot Implementation – Components, Objectives, and Activities

Component	Activities and objectives
Needs assessment & care planning	<ul style="list-style-type: none"><li>▪ Elicit patient goals</li><li>▪ Create care plan</li></ul>
Care coordination - Health	<ul style="list-style-type: none"><li>▪ Ensure compliance with guidelines (QBS)</li><li>▪ Reconcile medication plans and improve adherence</li><li>▪ Follow-up during care transitions (e.g. follow-up calls, visits after hospital discharges etc.)</li><li>▪ Track lab tests and referrals</li><li>▪ Outreach to and monitor patients between scheduled visits</li></ul>
Care coordination - Social	<ul style="list-style-type: none"><li>▪ Improve information flows between care teams and social care</li><li>▪ Increase coordination with social workers</li></ul>
Team work / organization	<ul style="list-style-type: none"><li>▪ Promote peer learning</li><li>▪ Structure and optimize work processes</li><li>▪ Elevate the role of nurses</li></ul>



# Pilot design – Implementation

Focus of following slides







# Pilot Implementation



## Key components

- Webinars
  - Meetings with FPs to discuss challenges and share practices
  - Study materials
- 
- Monthly coaching
  - On site visits
  - Constant feedback on quality progress
- 
- Constant feedback on patients included
  - Feedback from the dashboard



# 1

# Pilot Implementation – Training

## Webinars from January to May

1. Reflections on Building Teams in Primary Care
2. Coordinating patient care after hospitalization
3. Review of provider intuition and care plans
4. Eliciting Patient Goals and Promoting Patient Activation
5. Social Needs Assessment and Resource Connections
6. Statins and Medication Reconciliation

### Putting Teams in Action

- Setting and tracking goals together as a team
- Adjusting schedules to meet and work as a team
- Letting the patients know they

### Care plan

#### Patient Goals

- 1.
- 2.
- 3.

#### Current Needs

Brief summary including current medication list

#### Action Plan

- How to address comorbidity 1
- How to address comorbidity 2
- How to address comorbidity 3
- Other necessary actions to achieve

#### Care transition plan

Outline steps the patient should take when admitted from the hospital

#### Key Contact Info

- Physician name and number

Step 1: Collect and organize SDH data

Step 2: Present and integrate SDH data into primary care workflows

Step 3: SDH data triggers automated support and action

Community vital signs data  
Imported from public data sources about community-level information (eg, US Census) matched to patient address

Patient-reported data  
Collected by asking patients direct questions about their individual circumstances (eg, employment, education, housing)

Point-of-care  
Individual patient care

Panel management  
Population of patients

Referrals to social services, medical specialists  
Clinical decision support  
Patient engagement  
Clinical and social services coordination

<http://www.annofrmed.org/content/14/2/104.full>



### Co-Development

- Co-develop with patient, care provider, and family
- Ensure patient's goals and priorities are reflected and establishes dual ownership
- Identify any additional parties with whom to

### Keep it Simple

- Focus on most important information for the patient
- Use patient-friendly language so that care plan feels accessible for patients
- Not too text heavy

### Guiding Principles:

- Develop a single medication list ("One Source of Truth")
- Clearly define roles and responsibilities for each person on the team
- Standardize and simplify the medication reconciliation process
- Educate patients and their families or caregivers on medication reconciliation and the important role they play in the process.

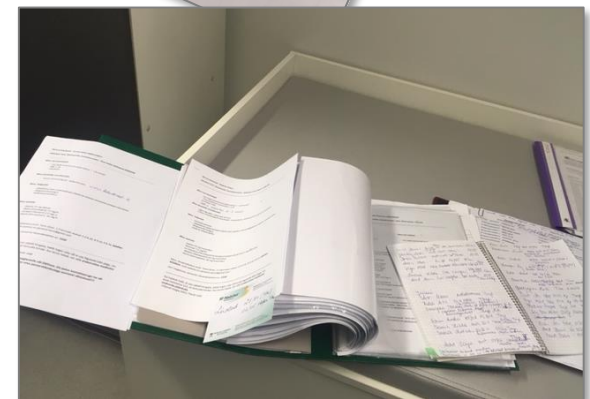
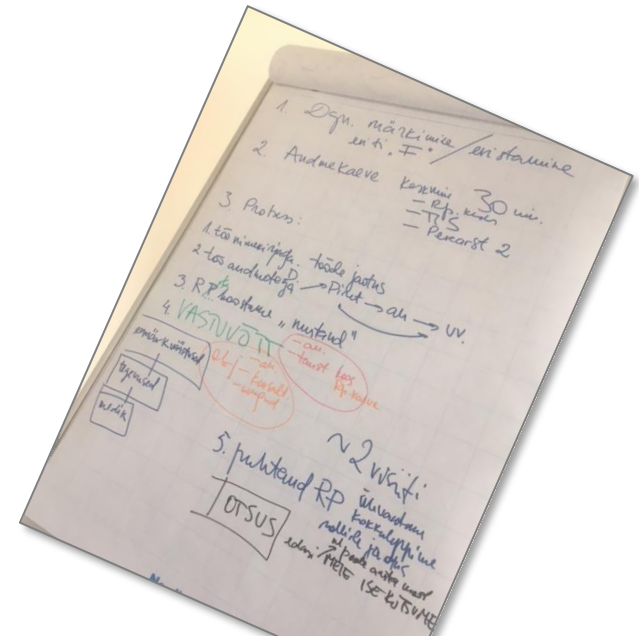


## 2

# Pilot Implementation – Support

## Monthly monitoring and support

1. Understanding the pilot
2. Creating an action plan
3. Applying intuition
4. Operating as a team
5. Enrolling patients
6. Establishing care plans, quality of care plans
7. Establishing connection and regular communication with hospitals
8. Establishing connection and regular communication with social services
9. Coordinating patient care



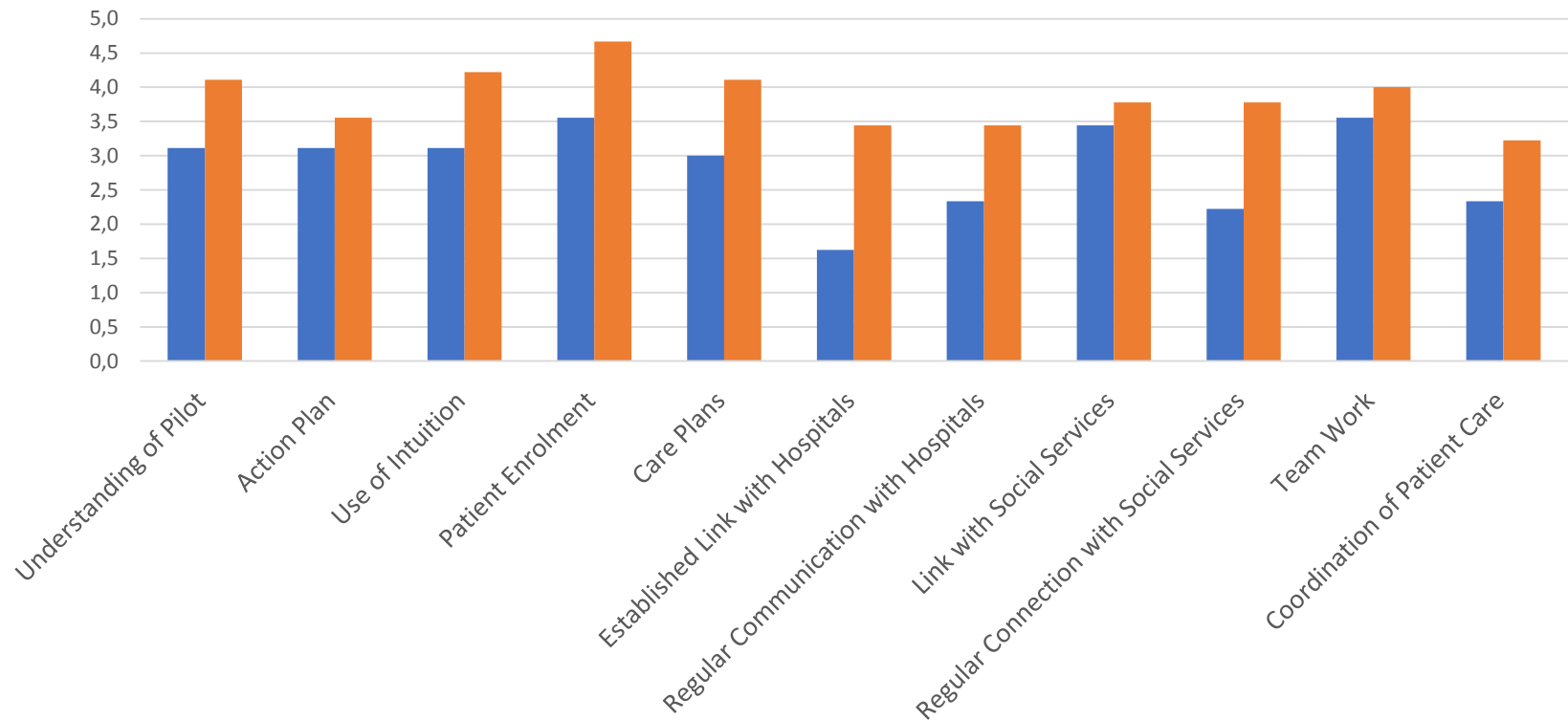


2

## Pilot Implementation – Support

Adherence to pilot implementation plan, *average score*

March August





3

## Pilot Implementation – Monitoring

https://testdmisp2.digihugu.ee/misp2/dforma-query.action?dv=1334

Eesti keeles Abi Välja

Test - TTO portaali

Roll Tavakasutaja (Haigekassa)

Teenused Teenuste ajalugu Minu seaded

### Riskipatsientide mudel

Nimistu N0591

[Kuva välistatud](#)

Isiku andmed	Triaad	Arhetüüp	Kaasuvad	Haiglaravi	PA visiit	Nõustus	Järgm. PA visiit	Tel kontakt	
	hüpertensioon diabeet hüperlipideemia								<a href="#">Detailandmed</a> <a href="#">Kuva raviplaani</a>
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	hüpertensioon								<a href="#">Detailandmed</a>

15:24 10.02.2017



### 3

## Pilot Implementation – Monitoring

	Patients in registry	Patients excluded	Remaining patients	Patients included	Total patients final	Enrolled + care plan	% patients enrolled + care plan
FP 1	134	85	49	2	51	47	92%
FP 2	70	12	58	0	58	52	90%
FP 3	100	57	43	5	48	48	100%
FP 4	57	15	42	7	49	49	100%
FP 5	39	9	30	20	50	50	100%
FP 6	184	125	59	0	59	59	100%
FP 7	246	194	52	1	53	50	94%
FP 8	64	31	33	17	50	49	98%
FP 9	110	50	60	1	61	54	89%
Total	1.004	578	426	53	479	458	96%

SOURCE: MISP dashboard.



### 3

## Pilot Implementation – Monitoring

### Facilitators and Barriers

- Participatory design of the pilot (+)
- Elevation of family nurses (+)
- Ongoing implementation support (+)
- Inclusion of entire teams (-/+)
- Dashboard readiness and technical difficulties (-)
- Language barriers (-)
- Time burden (-)



3

## Pilot Implementation – Evaluation

### Dimensions of Evaluation

- Feasibility
- Acceptability
- Process
- Outcomes





### 3

## Pilot Implementation – Evaluation

### Feasibility

- Met all of its implementation targets.

	Patients in registry	Patients excluded	Remaining patients	Patients included	Total patients final	Enrolled + care plan	% patients enrolled + care plan
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### 3

## Pilot Implementation – Evaluation

### Feasibility

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FP 9	110	50	60	1	61	54	89%
Total	1.004	578	426	53	479	458	96%



### 3

## Pilot Implementation – Evaluation

### Acceptability

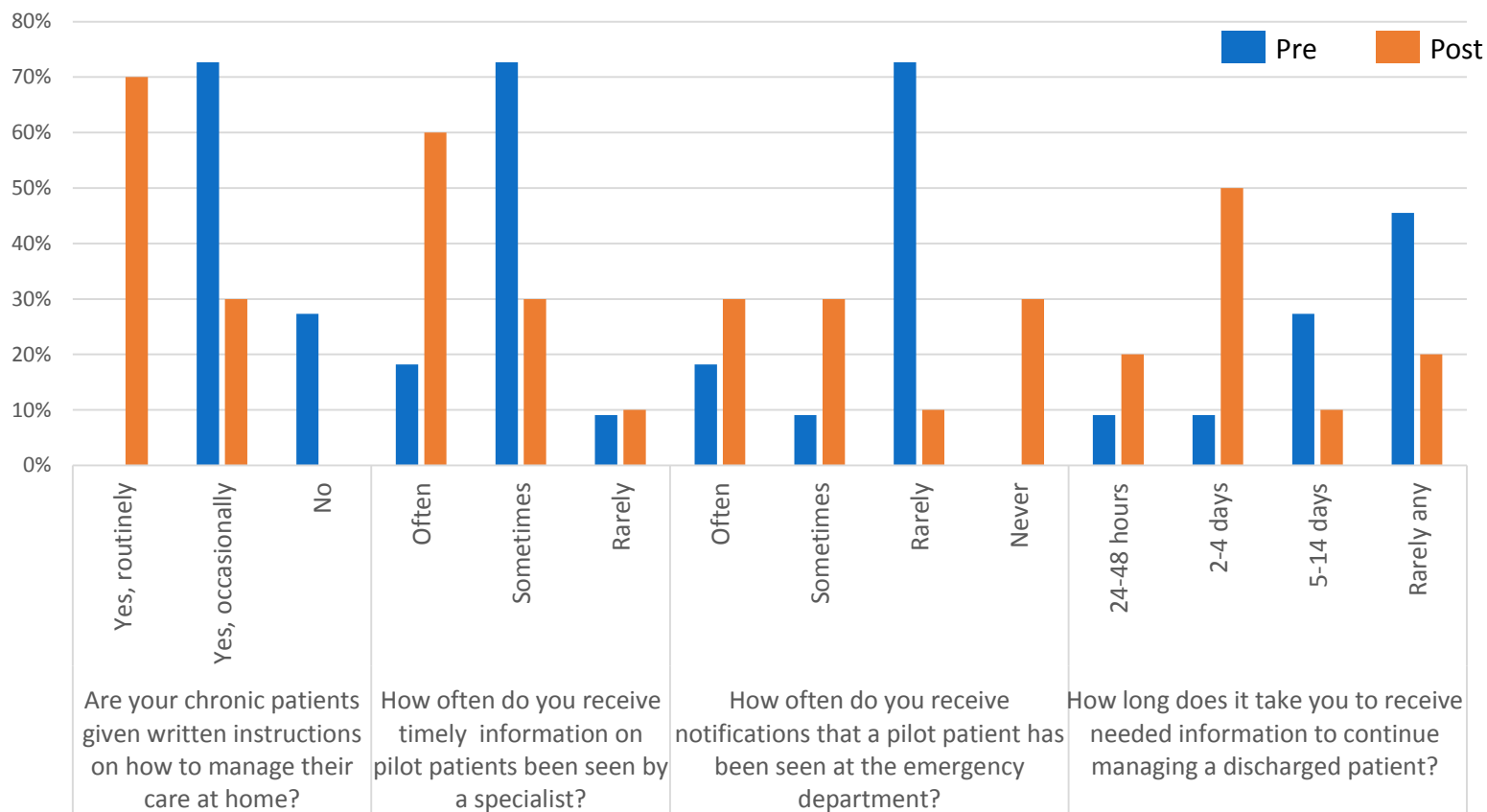
- EECM has not made the job of family physicians more stressful
- High patient acceptance rates
- Unanimous stakeholder acceptance of EECM
- Willingness of most providers to continue with EECM and to invite colleagues to join



### 3

## Pilot Implementation – Evaluation

### Process





### 3

## Pilot Implementation – Evaluation

### Process

PHC services % Change 2017 vs. 2016	Pilot	Comparison Group	Difference
Visit with FP	<b>-20%</b>	<b>-29%</b>	<b>10%</b>
Preventive visit with FP	67%	14%	53%
Home visit by FP	50%	-2%	52%
Phone call with FP	<b>258%</b>	<b>139%</b>	<b>118%</b>
Consultation with nurse	<b>14%</b>	<b>-2%</b>	<b>16%</b>
Home visit by nurse	300%	4%	296%
Phone call with nurse	<b>256%</b>	<b>20%</b>	<b>237%</b>



### 3

## Pilot Implementation – Evaluation

### Process

<b>% of Patients with Post-Acute Care Follow up Call/Visit</b>	<b>Pilot</b>	<b>Comparison Group</b>	<b>Difference</b>
<b>2016</b>	52.4%	57.7%	5.3%
<b>2017</b>	71.7%	56.4%	-15.3%
<b>Change</b>	<b>19.3%</b>	<b>-1.3%</b>	<b>20.6%</b>
<b>Average Time (in Days) between Discharge and Follow up Call/Visit</b>	<b>Pilot</b>	<b>Comparison Group</b>	<b>Difference</b>
<b>2016</b>	8.77	10.90	2.13
<b>2017</b>	8.32	10.46	2.14
<b>Change</b>	-0.45	-0.44	-0.01



### 3

## Pilot Implementation – Evaluation

### Process

Diagnostic Lab Tests/Procedures % Change 2017 vs. 2016	Pilot	Comparison Group	Difference
Albuminuria***	-77.4%	-88.1%	10.7%
Cholesterol	38.5%	-6.1%	44.7%
Cholesterol fractions	42.9%	-6.0%	48.9%
Creatinine	32.5%	-10.3%	42.9%
EKG	80.4%	-4.5%	84.9%
Glucose	44.4%	-4.3%	48.7%
Glycated Hemoglobin	33.1%	-2.2%	35.3%
Potassium	25.0%	-6.6%	31.6%

\*\*\*The microalbuminuria test was part of the QBS in 2016, but not in 2017



### 3

## Pilot Implementation – Evaluation

### Outcomes

% of Patients with Statin Prescriptions	Pilot	Comparison Group	Difference
<b>2016</b>	38.6%	31.5%	-7.1%
<b>2017</b>	50.6%	31.8%	-18.8%
<b>Change</b>	<b>12.0%</b>	<b>0.3%</b>	<b>11.7%</b>





### 3

## Pilot Implementation – Evaluation

### Outcomes

<b>Avoidable Specialist Visits (DM/HTN)</b>	<b>Pilot</b>	<b>Comparison Group</b>	<b>Difference**</b>
<b>% Change 2017 vs. 2016**</b>	<b>-39.6%</b>	<b>-12.6%</b>	<b>-27.0%</b>
<b>Acute Hospital Admissions Endocrine/Mental/ Circulatory./Resp.</b>	<b>Pilot</b>	<b>Comparison Group</b>	<b>Difference**</b>
<b>% Change 2017 vs. 2016**</b>	<b>-16.7%</b>	<b>-2.9%</b>	<b>-13.8%</b>

\*\*Not statistically different due to pilot size.