

Integrated Care: policies, investments and skills

Changing today for tomorrow

EUREGHA HIGH-LEVEL ANNUAL CONFERENCE 2018

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The context: Italy

- ▶ 61 million people
- ▶ 20 Regions, differing in size, population and levels of economic development
- Public and universalistic Health Service largely funded through taxes, supplemented by co-payments
- healthcare expenditure in 2016 equal to 149,500 million euros, that is a 8.9% incidence on GDP (very low), 75% of which financed by the public sector, and the rest by the private sector.
- National health fund for the National Health Service (year 2018) is 110.1 billion Euros
- Since the early 1990s, considerable competences particularly in health-care organization and delivery, devolved to the regional level of government

Source: Istat and WHO



Emilia-Romagna Region





Area: 22446 Km² 7.4% of the national territory

Population: 4.461.612 (2018)

Municipalities: 340 (grouped in 38 health districts)



Health care in Emilia-Romagna: some figures

	Emilia- Romagna	Italy
Residents (x 1,000)	4.461	60,589
% > 65 yrs	23.7	22.2
GDP (000's €), per capita	33.6	27.1
Infant mortality ‰	2.37	2.90
Public health expenditure (€), per capita	1,890	1,846
Hospital beds ‰ residents	3.9	3.2

Source: Istat and WHO, year 2017 or nearest



The Regional Health Service: characteristics

- Universal and equity-oriented health system
- ▶ Health and social care integration
- Patient centred organization and delivery of services
- Comprehensive management of chronic conditions
- Pathways of Care and Personalized Integrated plans
- Proximity and proactive care
- Risk stratification of general population





- ✓ 8 Local Health Units
 - 38 Health Districts
 - 53 Hospitals
 - 105 Community Health Centers
 - 19 Community Hospitals
- ✓ 4 University Hospital
- ✓ 4 Research Hospitals (IRCCS)



Employed personnel

total: 60528

Doctors: 4494

Nurses: 26154

2.993 GPs working under agreement (not employed)



The Regional Health Service organization

- ▶ Local Health Units deliver primary care, hospital care, outpatient specialist care, public health services, and health care related to social care. They operate through health districts, where municipalities and health services determine requirements, health and social plan and assess results. Perform mostly clinical research.
- University Hospitals perform biomedical, clinical and "theory enhancing" research and provide advanced care using cutting edge technology
- Research Hospitals IRCCS (officially recognized my Italian MoH) have the specific mission of translational research



Funding

- From the national health fund Emilia-Romagna in 2018 received 8.163 billion Euros
- Region Emilia-Romagna adds an extra fund to support not selfsufficient persons with chronic conditions



Integrated care ensured through primary care services

- ► Integrated care services are organized through "Coordination Centres" located in the Community Health Centres or at Districts level, where specialists, GPs, social workers and other professionals perform the multidimensional evaluation of people with complex health and social care needs, and coordinate the assistance from and to the hospital.
- Specialist Care Centres (for diabetes, cardiovascular and respiratory problems, others) are the main structures activating and managing integrated care and activation of person centered diagnostic and care pathways.



Integrated care ensured through primary care services

- ► The nurses' managed ambulatory for integrated chronic care located in the Community Health Centre is one of the pillar for the model. It provides case detection and management (through the application of Pathways of Care and Personalized Integrated plans), under guidance of a case manager, support to self-management (also through telemedicine services for remote areas), in close collaboration with GPs, specialists, social workers and the voluntary sector.
- ► This multidisciplinary group performs also periodic **equity audits** (to identify potential inequalities) and runs several projects on lifestyles for the promotion and prevention of chronic diseases in healthy adults.



Community Health Centers

Case della Salute: DGR 291/2010, DGR 2128/2016

Key features of the services provided:

- single point of access for citizens;
- coordination of responses for citizens;
- integration among hospitals, social and health services and community care;
- provision of diagnostic pathways;
- management of chronic conditions;
- promotion of citizens and patients' empowerment;
- health prevention and promotion;
- ongoing education and training for healthcare workers;
- access to care 24 hours a day, 7 days a week



105 Community Health Centers covering almost 50% of population











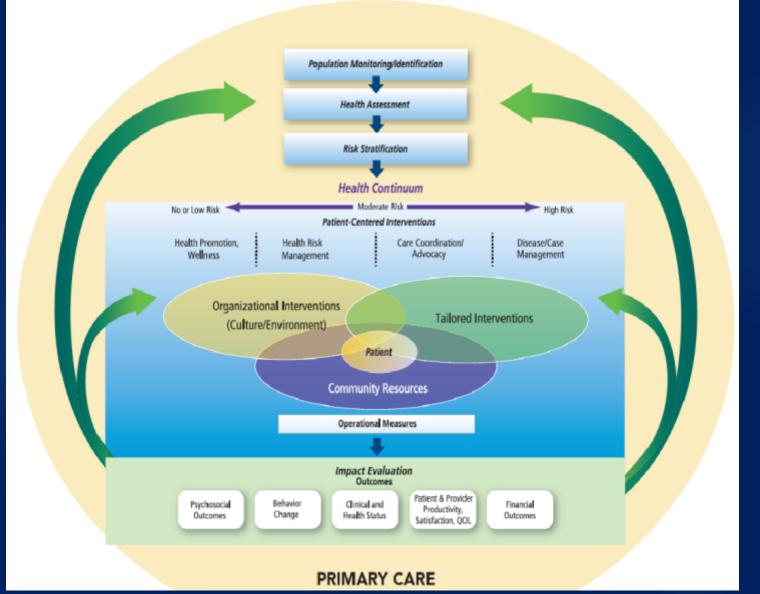
Community Hospitals

- ► Community Hospitals are territorial facilities managed by nurses (under the clinical responsibility of GPs or LHUs physicians), and with the involvement of physiotherapists and care workers. These facilities have a limited number of beds (usually less than 30), and provide mainly rehabilitation services (physical, respiratory and cognitive), patient empowerment, self-management and caregiver training.
- At present, in the Emilia-Romagna Region there are 21 Community Hospitals.

Community Health Centres and Community Hospitals are the main facilities ensuring the continuity of care, bridging the gap between primary and hospital care, avoiding inappropriate hospitalization and facilitating hospital discharge



Population Health Management





Care Continuum
Alliance:
Implementation and
Evaluation: A
Population Health
Guide for Primary
Care Models.
Washington, 2012



The Regional stratification Predictive Model - RiskER

- predictive model to identify patients at high risk of hospitalization and frailty, developed with Jefferson University (BMJ open 2014:4:e005223 Louis DZ) and adapted to regional context
- 'patient risk profiles' providing information on high-risk patients to general practitioners (GPs) and nurses in the Case della Salute (Community Health Centers)

http://assr.regione.emilia-romagna.it/it/servizi/pubblicazioni/rapporti-documenti/report-risker-2018



A Regional Predictive Model - RiskER

- risk of hospitalization for Ambulatory Care Sensitive Condition or death
- > adult population
- > Risk Score calculation
- high level of statistic performance for risk of hospitalization (C= 0.85)

use of regional health/administrative data



BMJ Open Predicting risk of hospitalisation or death: a retrospective population-based analysis

> Daniel Z Louis, 1 Mary Robeson, 1 John McAna, 2 Vittorio Maio, 2 Scott W Keth, 3 Mengdan Liu, 1 Joseph S Gonnella, 1 Roberto Grilli⁴

Te after Lauris DD, Richardo RE, Miching J, et al. Reducting mix of hospitalisation or displica antiquestine propulation-tame projects. IEEE Tigen 7014-6.

Resided T March 2016 Revised 30 August 2014 Accepted 3 Support 2014

ABSTRACT

Objectives. Develop predictive reades using an administrative healthcore disclosion that provide information for Patient Gentled Medical Wiswest to proactively identify patients at risk of hospital size to sonditions that may be impacted through improved patient care.

Designt Princepother realthcars sittation analysis with multivatile logist an opposition records. Date: A population-based terpturiesal database of recorders served by the Emilian Romagna, Tatis, health service in the years 2004–2012 including demographic information and distillation of health services by

3.726 380 people april >18 years.

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Contributions: We have developed a population handmodel using a length and administration for exhaltent that destribles the risk of hospitalization for exhaltent soft the miles-florenges upon with a lend of performance as legal as or higher than, savine models. The results of the models, along-with profiles of planticle lendthed in high thicken being provided in the physicisms and other models, along-with profiles of planticle lendthed in high thicken being provided in the physicisms and other Centred Mercel Information that may reduce their patients and other exhalts that in previous feet and patients also formed to that in particle is of the patients are formed as a provided in provided in patients.

Strongths and Smitations of this study

- This study included the entire adult population of the Emile Romagna Region of Baly, over 3.7
 - The douby used an existing longitudinal administration healthcare database with both the about tage of much lower cost than new data collection and the disabsoluting of potential arrors in
- The results of the study are being used to assist in the development of nearly borned Potent-Control to development of nearly borned Potent-Control

patients' problems, is shifting to a most proactive model designed to take the initiative in problem; care for an increasingly older population that has a greater pervolence of chronic conditions, often with models ensitical and sorial needs. These changes are divining the mergarination of the primary care system, emphasining coordination and conjectation among healthcare professionals. ¹⁵ Among the approaches to addressing this need has been the establishmen of Patien-Central Medical Homes, organizations in which teams of healthcare provides are engoged in delwring conspirabensise, occordinated, patientcentred care to nation-defined possibilities.

Primary care has a central role in the balan National Hobbs Service (NSE). Prosporate regional governments are suspensible for marring the deflowy of a health boundar puckage through a network of geographically delited, population-hased Local Health Authorities, Primary care physicians used to these authorities as independent consecutor and acras 'apartnepsen' for specials and other melecular value of the process and acras 'apartnepsen' for specials and other melecular values for their patients.

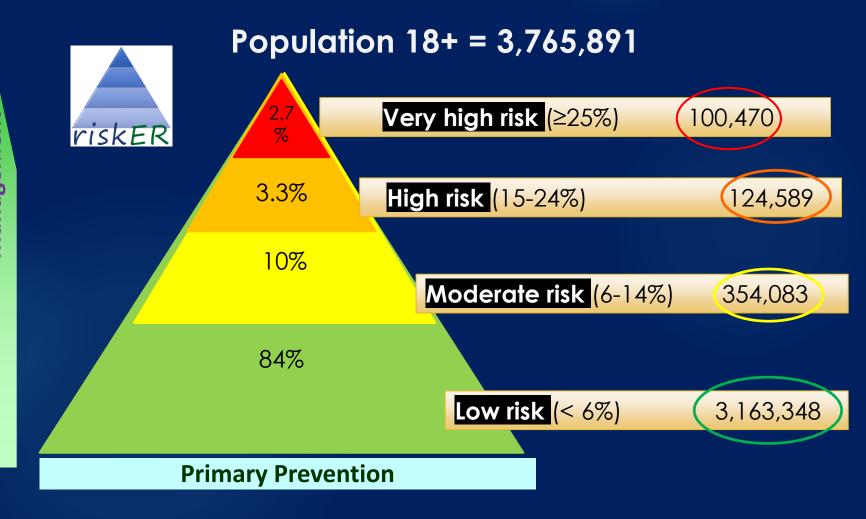
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Population risk stratification - 2016



Concentration of expenditure: 1% of patients is responsible for 13 % of expenditure

Risk-ER Actions



- ➤ Risk Profiles provided to GPs
- > Activation of Professional Teams
 - GPs, specialists, nurses, physioterapists, social workers
 - a proactive response...



- prevention, clinical appropriateness and adherence, health education...
- Participation of Community,
 - Patients, Caregivers, Associations





CHC report CHC Summary



GP report



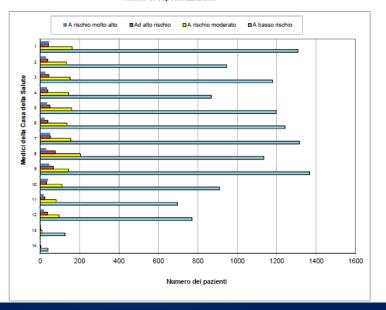
Patient level report

Casa della Salute: Crevalcore Distretto: PIANURA OVEST Sommario - Pazienti adulti (n=15337) I dati dei pazienti della Casa della Salute sono relativi ai servizi sanitari utilizzati nell'anno 2013. Tali dati sono stati quindi usati

I dati dei pazienti della Casa della Salute sono relativi ai servizi sanitari utilizzati nell'anno 2013. Tali dati sono stati quindi usat per predire nella popolazione adulta il rischio di ospedalizzazione o morte per le condizioni selezionate per il 2014.

A rischio molto alto	Il rischio previsto di ospedalizzazione è ≥ 25%	Rappresenta circa il 4% della popolazione
Ad alto rischio	Il rischio previsto di ospedalizzazione è fra il 15 e il 24%	Rappresenta circa il 6% della popolazione
A rischio moderato	Il rischio previsto di ospedalizzazione è fra il 6 e il 14%	Rappresenta circa il 15% della popolazione – l'intervallo di rischio è stato scelto in base al livello medio di rischio di ospedalizzazione o morte della popolazione adulta
A basso rischio	II rischio previsto di ospedalizzazione è ≤5%	Rappresenta circa il 75% della popolazione - Il rischio è inferiore al livello medio di rischio di ospedalizzazione o morte della popolazione adulta

Numero dei pazienti per tutti i medici nella Casa della Salute in base alla categoria di rischio di ospedalizzazione



ischio di ospedalizzazione previsto er il 2013: Moltos alto. grafico mostra il cambiamento nel temp I rischio di ospedalizzazione previsto pe paziente	30 Mg	in di onp edalizzazione
Questo documento è un sommario previsto a probabile 'rischio molto al del 2012.		
Patologie croniche (in base al sistema o Cardiovascolari Dermatologiche Ematologiche Endocrine Epatiche Gastrointestinali	Genitourinarie Ginecologiche Immunologiche Infestive Muscoloscheletriche Neurologiche	□ Oftalmologiche □ Otorinoralingolatriche □ Psichiatriche □ Respiratorie □ Sissema Genitale Maschii □ Tumorali
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Risk-ER clinical impact evaluation

riskER	RISK-ER incidence rate (n=488)		NO RISK-ER incidence rate (n=488)		Incidence rate ratio (exposed vs not exposed)		
	Value	95%CI	Value	95%CI	Value	95%CI	p-value
Emergency departments visits	236 (48,4)	(43,9-52,8)	299 (61,3)	(56,9-65,6)	0,79	(0,70- 0,89)	0,001
Hospital admissions	107 (21,9)	(18,3-25,6)	136 (27,9)	(23,9-31,8)	0,78	(063- 0,98)	0,033
ACSC admissions	22 (4,5)	(2,7-6,3)	36 (7,4)	(5,1-9,7)	0,61	(0,37- 1,02)	0,061
Mortality	20 (4,1)	(2,3-5,9)	27 (5,5)	(3,5-7,6)	0,75	(0,42- 1,30)	0,289



The Sunfrail Tool

- ▶ A tool aimed to detect frailty in elderly over 65 by generating alerts on functionality, especially in social-community dwelling settings
- ▶ It has been identified as part of an EU funded project coordinated by the Emilia Romagna-Region between 2015-2018. By focusing on people at low to medium risk, the tool complements the regional risk stratification model for this target population.





Sunfrail early identification of frailty tool

BIOLOGICAL	 Q1. Do you regularly take 5 or more medications per day? Q2. Have you recently lost weight such that your clothing has become looser? Q3. Your physical state made you walk less during last year? Q4. Have you been evaluated by your general practitioner during last year? Q5. Have you fallen one or more times during last year?
PSYCHOLOGICAL	Q6. Have you experienced memory decline during last year?
SOCIAL	Q7. Do you feel lonely most of the time?Q8. In case of need, can you count on someone close to you?Q9. Have you had any financial difficulties in facing dental care and health care costs during last year?



Emilia-Romagna Region ICT services

- ► The ICT regional system is based on integrated and interoperable technologies allowing sharing of health information between GPs, pediatricians and specialists of the local health authorities and hospitals and for the citizen's use.
- Mobile health and telemedicine are under implementation in selected areas

Community Health Centre Operations center – Chronic disease unit



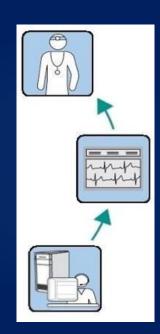


Patient:
Patient monitoring using mHealth system

Telemedicine tools







Hospital/Outpatient specialist:
Data visualisation and analysis for medical records update and consulting

Integrated Care: the future



Multidisciplinary, Integrated and Participated Pathways of Care



Ambulatory (Nurse-Based) 'Care for Chronic Diseases

All in One...

Hospitals

Integrated Home-Based Care



- ▶ Thanks for your attention
- ▶ Merci!

Emilia Romagna Region: http://salute.regione .emilia-romagna.it

Contact: Donato.Papini@regione.emiliaromagna.it

