Clinical Governance Framework for Chronic Diseases in Primary Care

From Evidence to Recommendations

Padova, 19 Mar 2018

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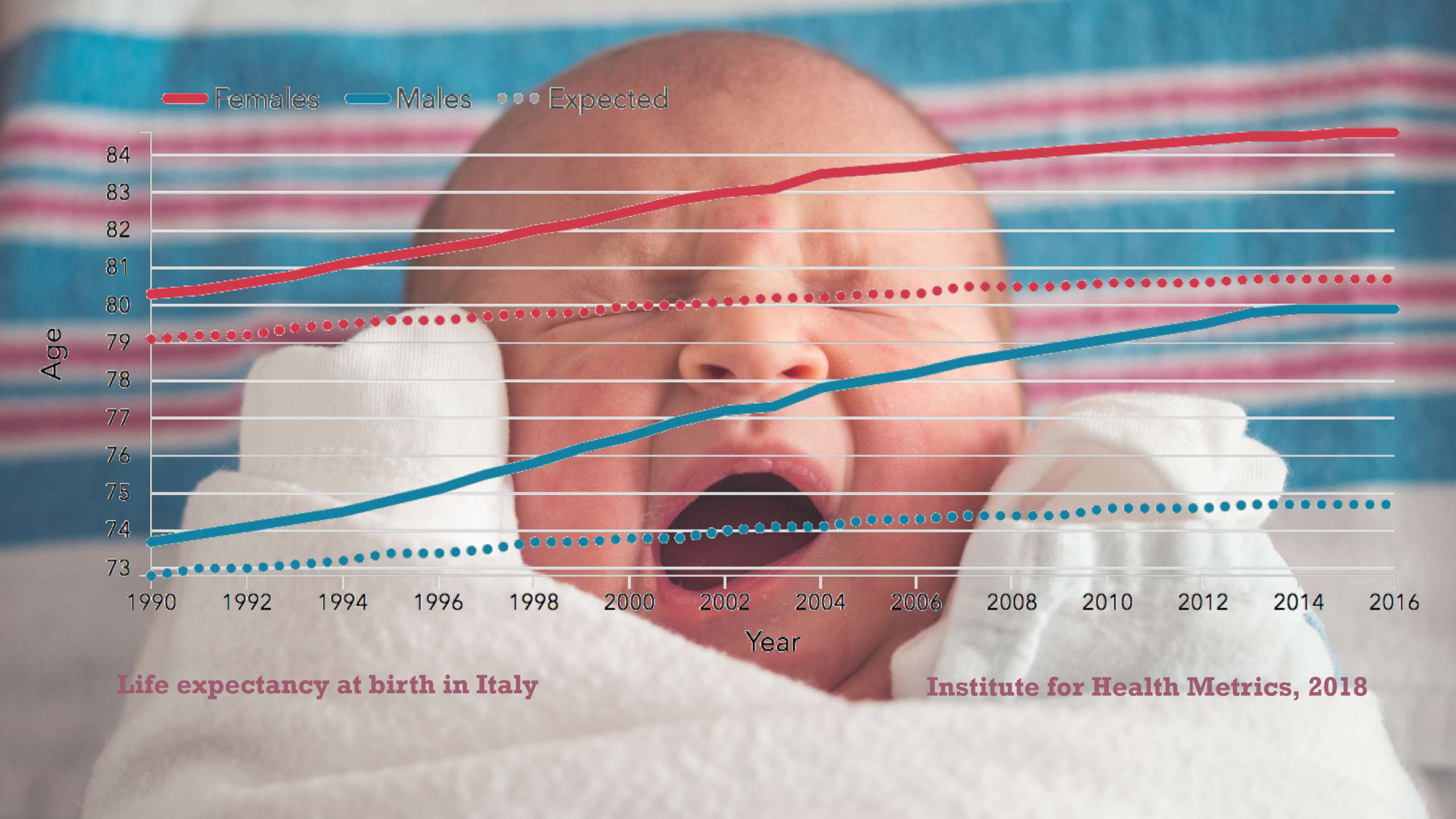
Università degli Studi di Padova

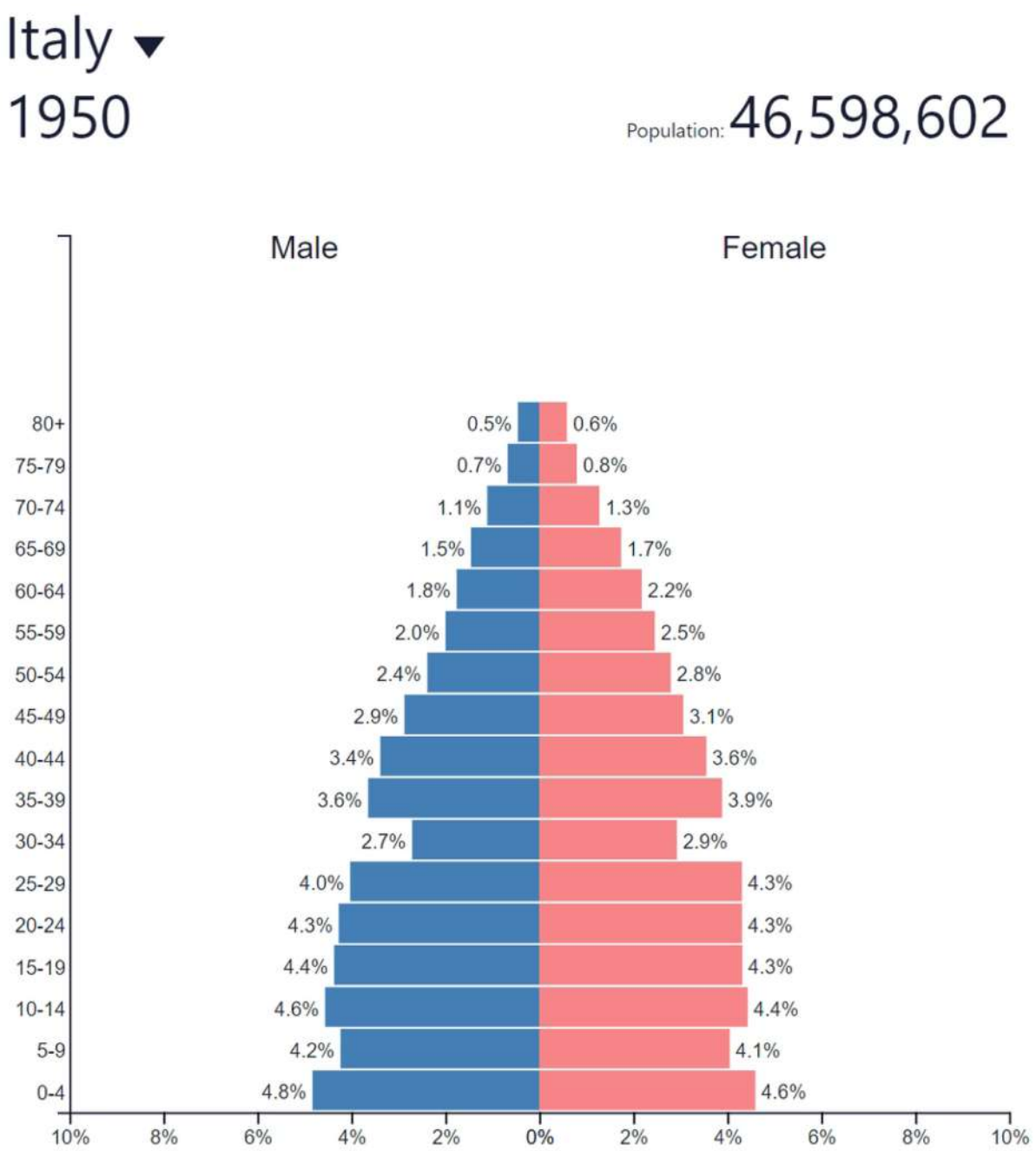
Viola

- **Female**, 90 years old
- She is recovering at home after being admitted to an acute **hospital** in Vicenza for pneumonia 40 days ago
- DM2, hypertension, heart failure, incontinence
  Femoral Neck Fracture (Jan 2017)
  - Tx: Metformin, Ramipril, Furosemide, Nifedipine, Lorazepam
- Widow and lives with a caregiver in Arzignano
  - Two sons living in other Regions



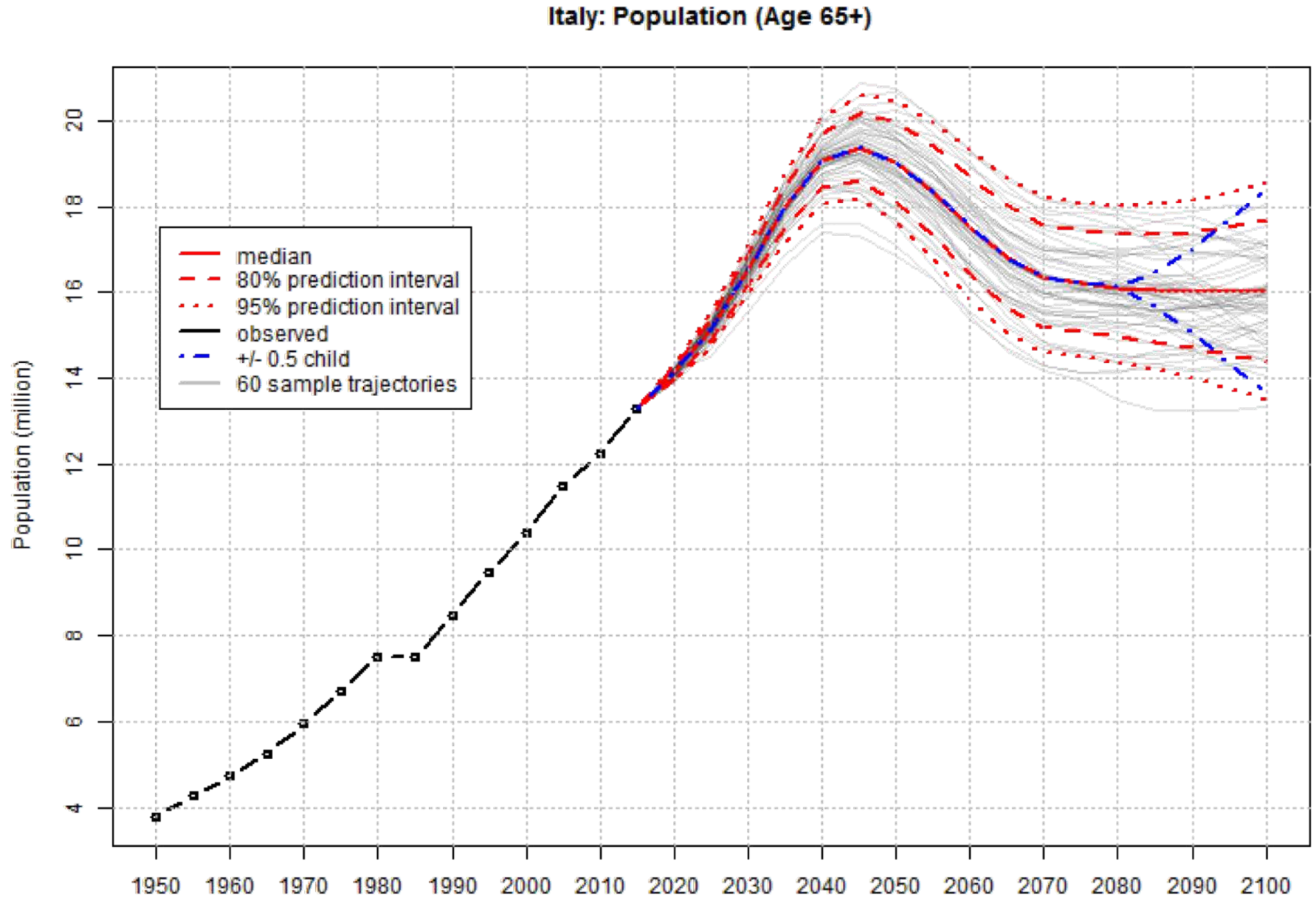
Life expectancy at birth in Italy

Institute for Health Metrics, 2018



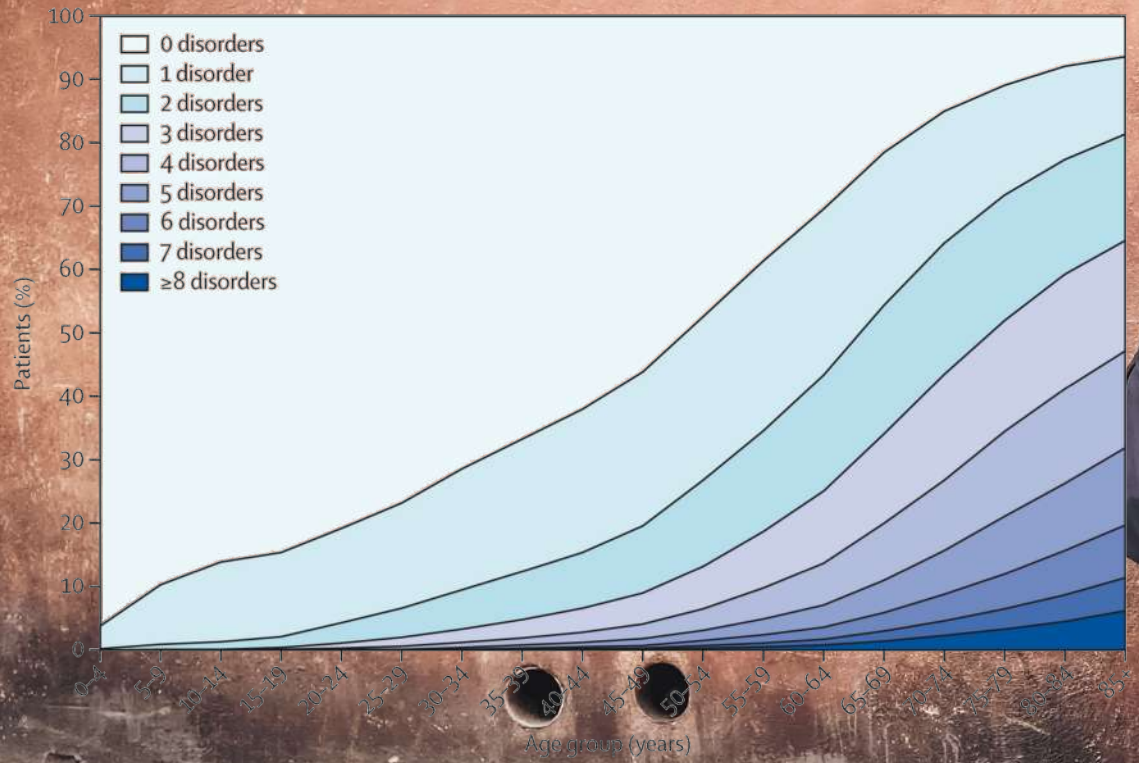
«Constrictive» shape

Source: populationpyramid.net
United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2015 Revision. (Medium variant)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2017).
World Population Prospects: The 2017 Revision. http://esa.un.org/unpd/wpp/

Number of chronic disorders by age-group



Barnett, Karen, et al. "Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study." *The Lancet* 380.9836 (2012): 37-43.

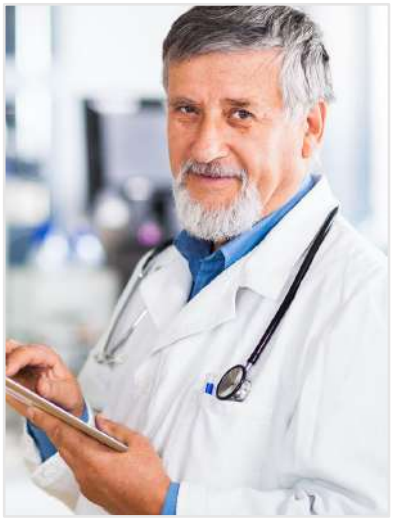
Percentage of participants in each comorbidity category taking ≥3 concomitant medications associated with specific adverse drug reactions (ADRs).

Hanlon, Peter, et al. "Examining patterns of multimorbidity, polypharmacy and risk of adverse drug reactions in chronic obstructive pulmonary disease: a cross-sectional UK Biobank study." *BMJ Open* 8.9 (2018): e018404.

Viola

- **Female**, 90 years old
- **Multimorbidity**

- How do we provide her with the best care?



«Health [...] is a **fundamental human right** and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many
other social and economic sectors in addition to the health sector»

«Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology **made universally accessible to individuals and families in the community** through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of selfreliance and self-determination.»

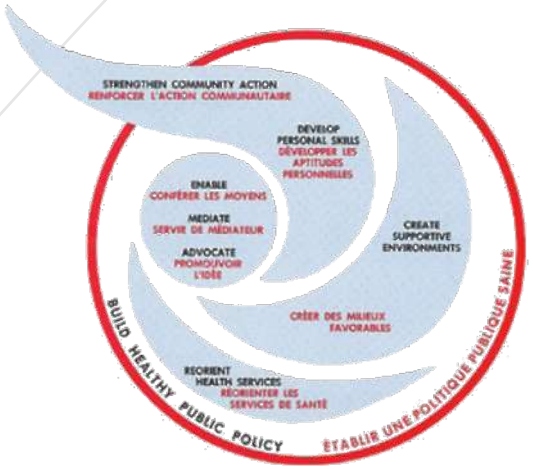
«It forms an integral part both of the **country's health system, of which it is the central function and main focus**, and of the overall social and economic development of the community.»

«**It is the first level of contact of individuals, the family and community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.**»

Alma-Ata Declaration, 1978

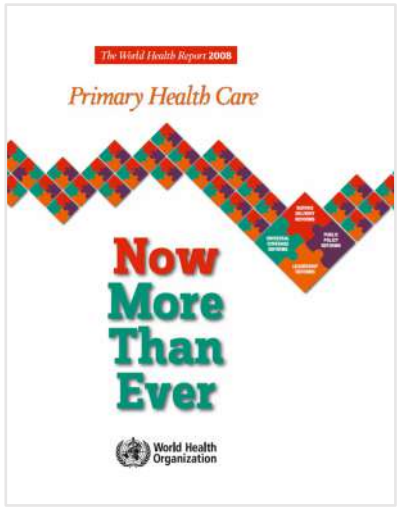
International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978 / WHO

1978

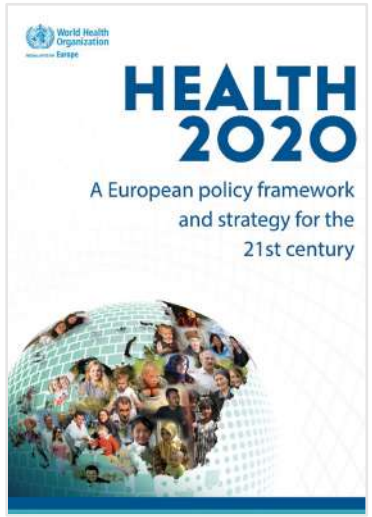


1986

2008

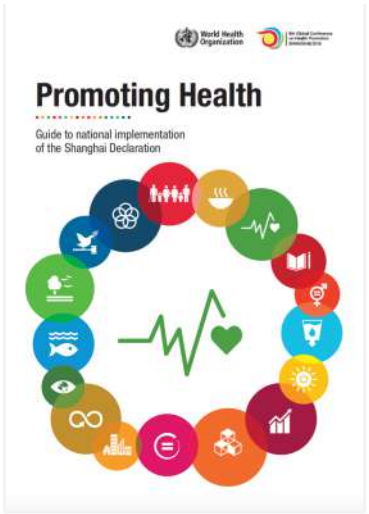


2012



2016

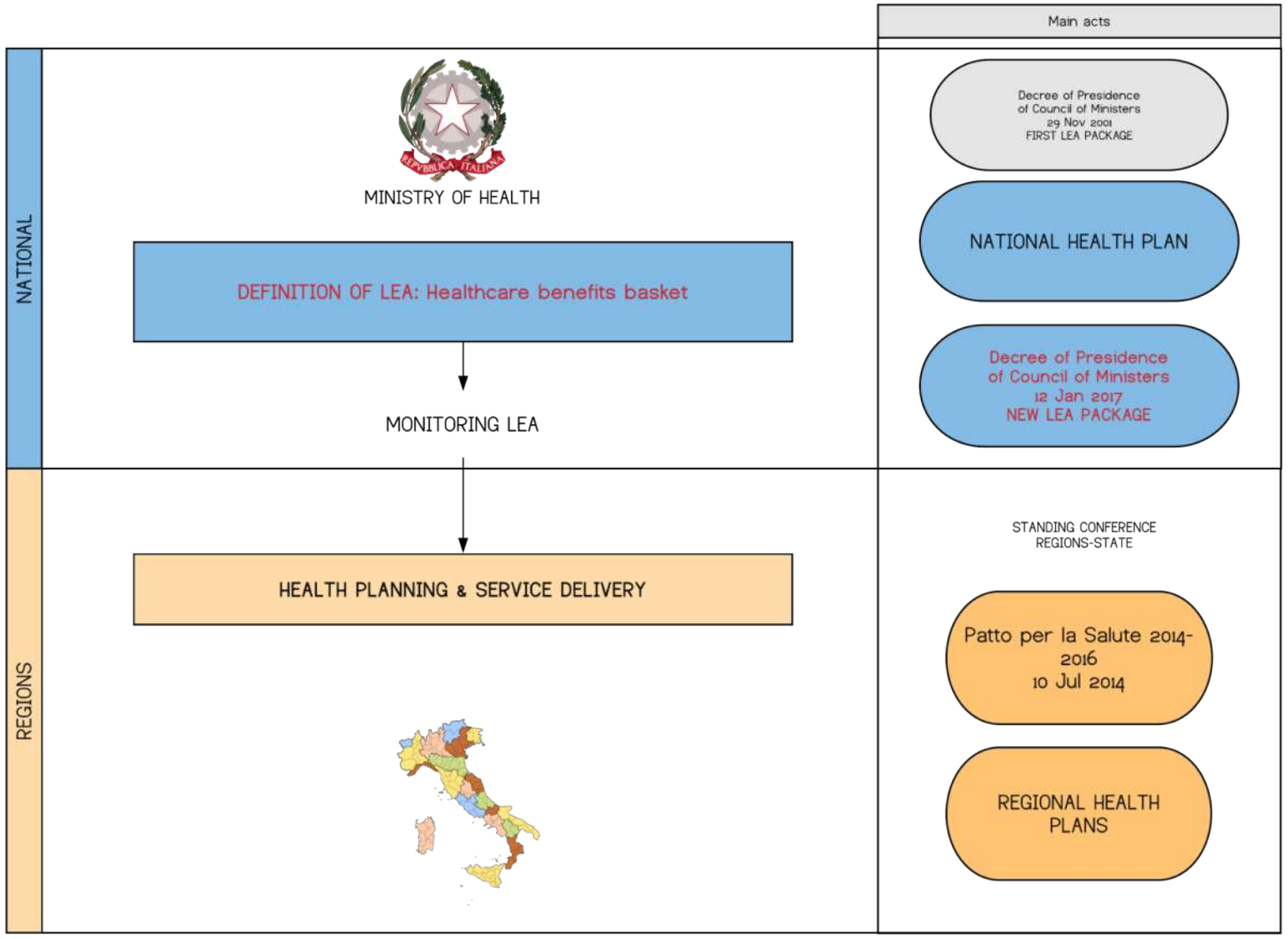
SUSTAINABLE DEVELOPMENT GOALS



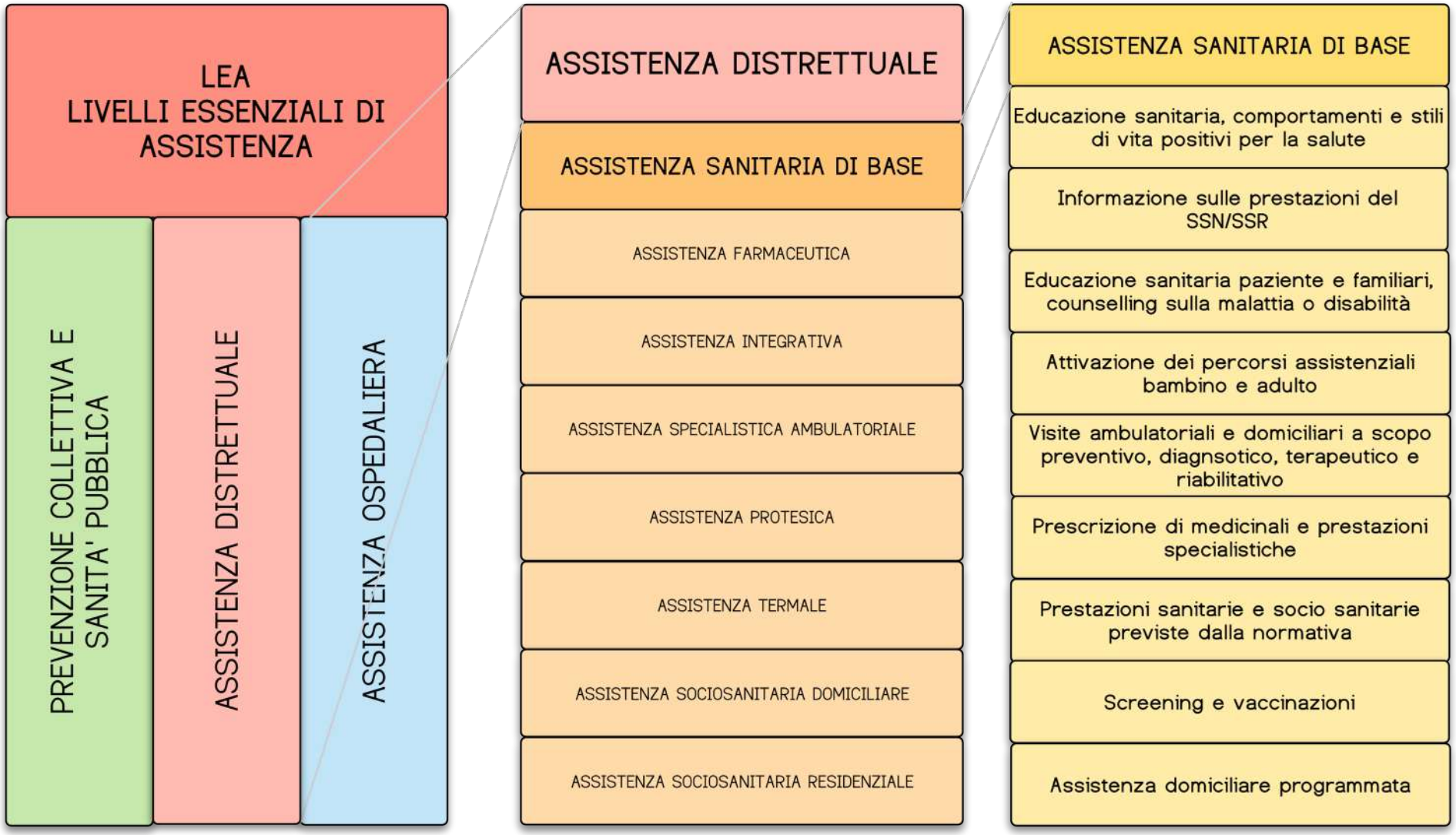
7 APR

2018

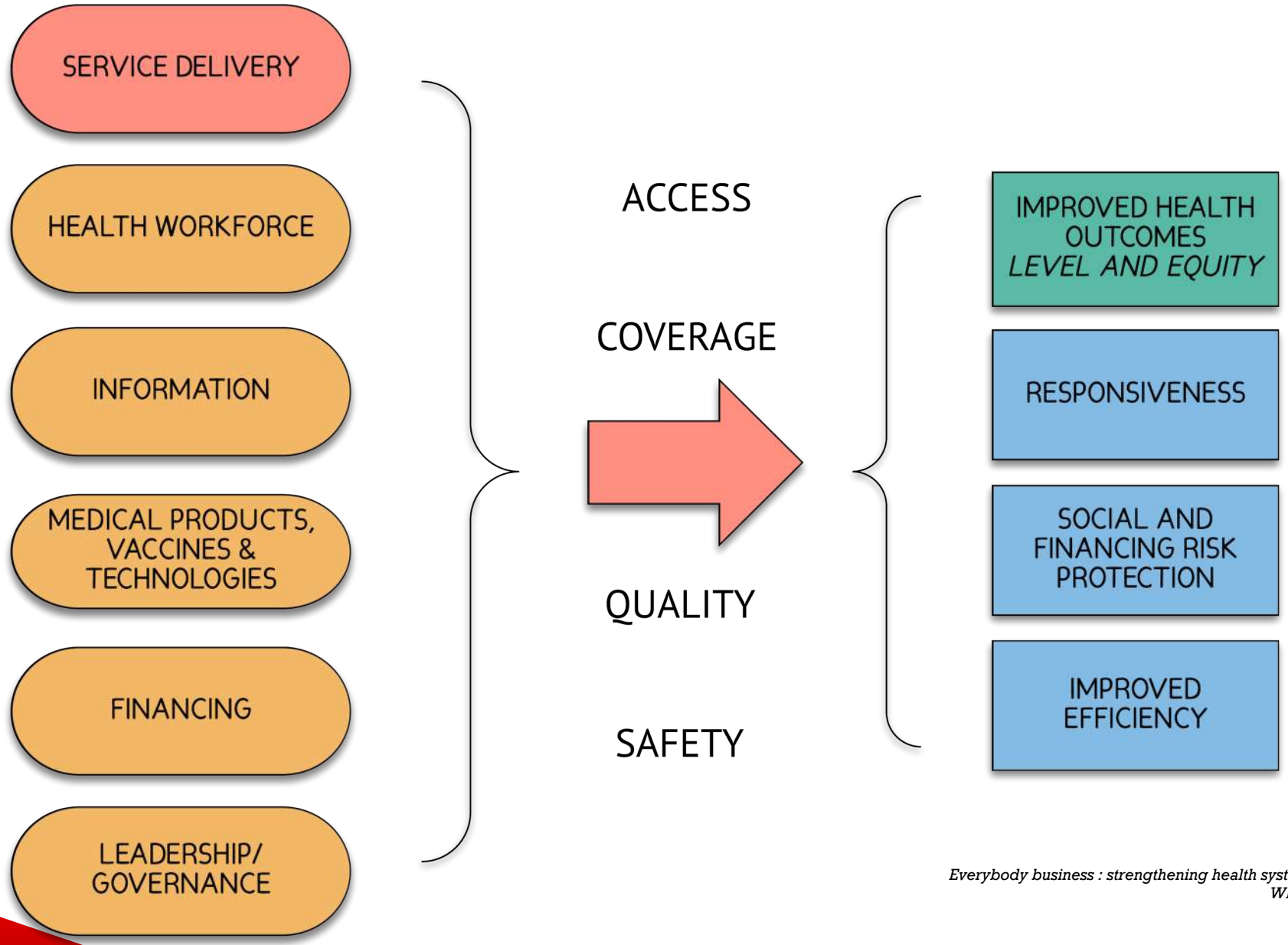
In Italy


Main acts
NATIONAL
MINISTRY OF HEALTH
DEFINITION OF LEA: Healthcare benefits basket
MONITORING LEA
Decree of Presidence of Council of Ministers 29 Nov 2001 FIRST LEA PACKAGE
NATIONAL HEALTH PLAN
Decree of Presidence of Council of Ministers 12 Jan 2017 NEW LEA PACKAGE
REGIONS
HEALTH PLANNING & SERVICE DELIVERY
STANDING CONFERENCE REGIONS-STATE
Patto per la Salute 2014-2016 10 Jul 2014
REGIONAL HEALTH PLANS

ATTIVITA', SERVIZI E PRESTAZIONI ASSICURATI DAL SERVIZIO SANITARIO NAZIONALE



THE WHO HEALTH SYSTEMS FRAMEWORK



Everybody business : strengthening health systems to improve health outcomes : WHO's framework for action. (2007)

Different models

CHRONIC CARE MODEL

Figura 1

National Health Service Social Care and Chronic Disease Management Model

Figura 2

EXPANDED CHRONIC CARE MODEL

Figura 3

Kaiser Permanente's risk stratification model

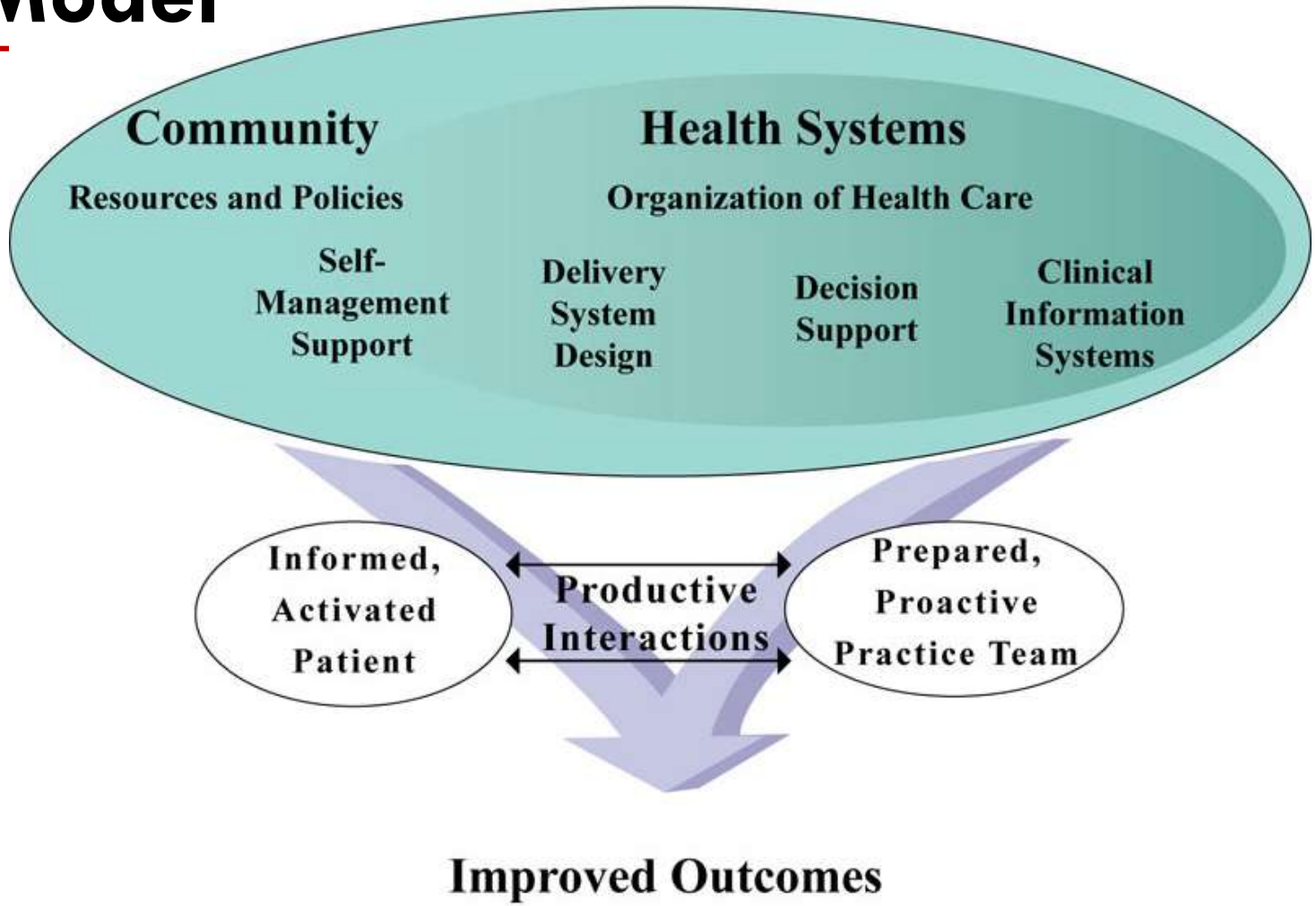
Figura 4

Patient Centered Medical Home

Figura 5

The Chronic Care Model

- Developed in 1997 by prof. Wagner et al.
- Innovative health care delivery model
- Involvement of community and health systems
- **Proactive, practice team**

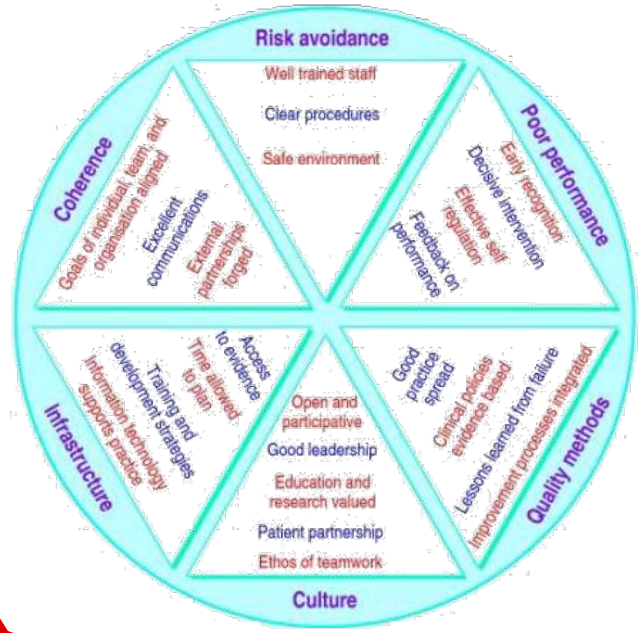


Clinical Governance

March 19 1997

Bristol Royal infirmary inquiry

Surgeon James Wisheart's open-heart surgery patients were four times more likely to die than those treated by his colleagues



- **NHS 1998**

Systematic administration and coordination of different processes

Assuring healthcare delivery, continuously improving the quality of the service, and striving towards clinical excellence for patients

Primary care:

Implementation has been slower

Network of several health professionals

The FRAMEWORK

The CENTER

the patient, her caregivers, her family

The **PETALS**

management strategies directly informing the interventions and clinical practice directly influencing or interacting with the **patients** and their **families**

The **STEM and the LEAVES**

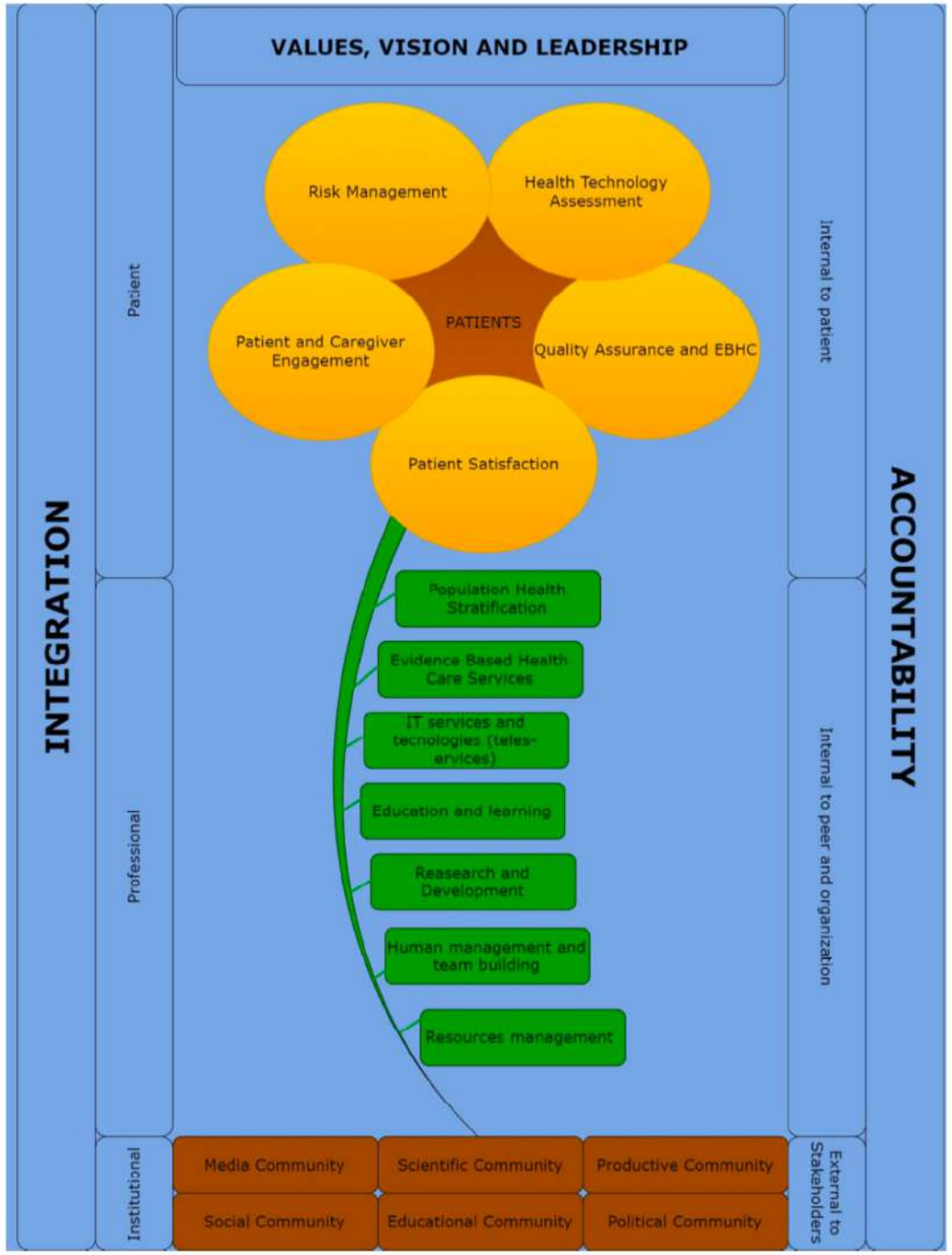
underpinning management strategies **supporting the delivery system**, which is the personnel and structures organization

The **GROUND**

the **environment** in which primary care delivery happens

The **ATMOSPHERE**

management strategies that influence the first three targets



Methods

- **Umbrella review** of relevant interventions for the *petals*
- Database: Cochrane Library
  - Cochrane Effective Practice and Organisation of Care (EPOC) Group
- From 2010 to 06/2016;
- Inclusion critieria: primary-care OR general practice setting AND
  - 1 "clinical governance";
  - 2) "quality assurance" or ""evidence-based healthcare";
  - 3) "satisfaction, patient";
  - 4) "risk management";
  - 5) "empowerment" or "health literacy" or "engagement";
  - 6) "health technology assessment" or "cost-effectiveness" or "cost-utility
- Exclusion criteria: single-disease or not chronic

Cochrane Library

Cochrane Effective Practice and Organisation of Care

The PETALS


Quality Assurance and EBHC
Patient and caregiver engagement
Patient satisfaction
Risk management
Health Technology Assessment

QUALITY IMPROVEMENT

Table 1a: Systematic reviews about quality improvement

Author, Year	Title	Objectives	Inclusion criteria	Main findings
Smith SM et al, 2016 (25)	Interventions for improving outcomes in patients with multimorbidity in primary care and community settings	To determine the effectiveness of health-service or patient-oriented interventions designed to improve outcomes in people with multimorbidity in primary care and community settings. Multimorbidity was defined as two or more chronic conditions in the same individual.	We considered randomised controlled trials (RCTs), non-randomised clinical trials (NRCTs), controlled before-after studies (CBAs), and interrupted time series analyses (ITS) evaluating interventions to improve outcomes for people with multimorbidity in primary care and community settings. This includes studies where participants can have combinations of any condition or have combinations of pre-specified common conditions. The comparison was usual care as delivered in that setting.	Overall the results regarding the effectiveness of interventions were mixed. There were no clear positive improvements in clinical outcomes, health service use, medication adherence, patient-related health behaviours, health professional behaviours or costs. There were modest improvements in mental health outcomes from seven studies that targeted people with depression, and in functional outcomes from two studies targeting functional difficulties in participants. Overall the results indicate that it is difficult to improve outcomes for people with multiple conditions. The review suggests that interventions that are designed to target specific risk factors (for example treatment for depression) or interventions that focus on difficulties that people experience with daily functioning (for example, physiotherapy treatment to improve capacity for physical activity) may be more effective. There is a need for further studies on this topic, particularly involving people with multimorbidity in general across the age ranges
Nieuwlaat R, et al 2014 (26)	Interventions for enhancing medication adherence	The primary objective of this review is to assess the effects of interventions intended to enhance patient adherence to prescribed medications for medical conditions, on both medication adherence and clinical outcomes.	We included unconfounded RCTs of interventions to improve adherence with prescribed medications, measuring both medication adherence and clinical outcome, with at least 80% follow-up of each group studied and, for long-term treatments, at least six months follow-up for studies with positive findings at earlier time points.	The present update included 109 new studies, bringing the total number to 182. In the 17 studies of the highest quality, interventions were generally complex with several different ways to try to improve medicine adherence. These frequently included enhanced support from family, peers, or allied health professionals such as pharmacists, who often delivered education, counseling, or daily treatment support. Only five of these RCTs improved both medicine adherence and clinical outcomes, and no common characteristics for their success could be identified. Overall, even the most effective interventions did not lead to large improvements.
Arditi C et al. 2012 (28)	Computer-generated reminders delivered on paper to healthcare professionals; effects on professional practice and health care outcomes	To evaluate the benefits and harms of rehabilitation interventions directed at maintaining, or improving, physical function for older people in long-term care through the review of randomized and cluster randomized controlled trials.	We included individual or cluster-randomized controlled trials (RCTs) and non-randomized controlled trials (NRCTs) that evaluated the impact of computer-generated reminders delivered on paper to healthcare professionals on processes and/or outcomes of care.	There is moderate quality evidence that computer-generated reminders delivered on paper to healthcare professionals achieve moderate improvement in process of care. Two characteristics emerged as significant predictors of improvement: providing space on the reminder for a response from the clinician and providing an explanation of the reminder's content or advice. The heterogeneity of the reminder interventions included in this review also suggests that reminders can improve care in various settings under various conditions
Thomas RE et al. 2014 (29)	Interventions to increase influenza vaccination rates of those 60 years and older in the community	To assess access, provider, system and societal interventions to increase the uptake of influenza vaccination in people aged 60 years and older in the community.	Randomised controlled trials (RCTs) of interventions to increase influenza vaccination uptake in people aged 60 and older.	There are interventions that are effective for increasing community demand for vaccination, enhancing access and improving provider/system response. In particular effective interventions in this comparison were a letter plus leaflet/postcard compared to a letter, nurses/pharmacists educating plus vaccinating patients, a phone call from a senior, a telephone invitation rather than clinic drop-in, free groceries lottery, and nurses educating and vaccinating patients. We were unable to pool trials of postcard/letter/pamphlets, communications tailored to patients, a customised letter/phone-call or client-based appraisals, but several trials of these interventions showed they were effective.

	1)Krogsbøll LT, et al 2012 (30)	General health checks in adults for reducing morbidity and mortality from disease	We aimed to quantify the benefits and harms of general health checks with an emphasis on patient-relevant outcomes such as morbidity and mortality rather than on surrogate outcomes such as blood pressure and serum cholesterol levels.	We included randomised trials comparing health checks with no health checks in adults unselected for disease or risk factors. We did not include geriatric trials. We defined health checks as screening general populations for more than one disease or risk factor in more than one organ system.	There was no effect on the risk of death, or on the risk of death due to cardiovascular diseases or cancer. We did not find an effect on the risk of illness but one trial found an increased number of people identified with high blood pressure and high cholesterol, and one trial found an increased number with chronic diseases. One trial reported the total number of new diagnoses per participant and found a 20% increase over six years compared to the control group. No trials compared the total number of new prescriptions but two out of four trials found an increased number of people using drugs for high blood pressure. Two out of four trials found that health checks made people feel somewhat healthier, but this result is not reliable. We did not find that health checks had an effect on the number of admissions to hospital, disability, worry, the number of referrals to specialists, additional visits to the physician, or absence from work, but most of these outcomes were poorly studied. None of the trials reported on the number of follow-up tests after positive screening results, or the amount of surgery used. With the large number of participants and deaths included, the long follow-up periods used in the trials, and considering that death from cardiovascular diseases and cancer were not reduced, general health checks are unlikely to be beneficial.
	Archambault PM 2017 (31)	Collaborative writing applications in healthcare: effects on professional practice and healthcare outcomes	The objectives of this review were to (1) assess the effects of the use of CWAs on process (including the behaviour of healthcare professionals) and patient outcomes, (2) critically appraise and summarise current evidence on the use of resources, costs, and cost-effectiveness associated with CWAs to improve professional practices and patient outcomes, and (3) explore the effects of different CWA features (e.g. open versus closed) and different implementation factors (e.g. the presence of a moderator) on process and patient outcomes.	We included randomised controlled trials (RCTs), non-randomised controlled trials (NRCTs), controlled before-and-after (CBA) studies, interrupted time series (ITS) studies, and repeated measures studies (RMS), in which CWAs were used as an intervention to improve the process of care, patient outcomes, or healthcare costs.	We screened 11,993 studies identified from the electronic database searches and 346 studies from grey literature sources. We analysed the full text of 99 studies. None of the studies met the eligibility criteria; two potentially relevant studies are ongoing. We did not identify any studies that measured the effect of CWAs on how healthcare professionals care for their patients.

Quality Assurance and EBHC

- Degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge

- Quality assurance and quality improvement

  Health outcomes +/- (+ daily functioning)
  Medication adherence
  Computer-based reminders +

Patient satisfaction

- Patients'expectations of ideal care and their actual experience of care
- Multi-dimensional construct including
  - accessibility,
  - organizational characteristics of the system,
  - clinical and communication skills
  - doctor-patient relationship

Discharge planning +
Home-based end-of-life care +

Risk management

- Systematic identification, assessment and integrated management of current and potential hazards relating to patient care. This is particularly relevant for the care of complex patients with "multimorbidity"

  - Audit and feedback +
  - Medicines self-monitoring and self-management programmes
    - Adherence +, adverse events +,
    - Reduced mortality in patients with antithrombotic therapy ++
  - Drug dosage with computerized advice +
    - Antithrombotic, aminoglicosides and anti-rejection drugs +

Patient and caregiver engagement

- Providing information and increasing their contribution to the planning of services can greatly influence the care management

- Decision aids (pamphlets, videos or video-based tools) may improve patient's knowledge of their care options, so they feel more informed and better able to participate in decision making

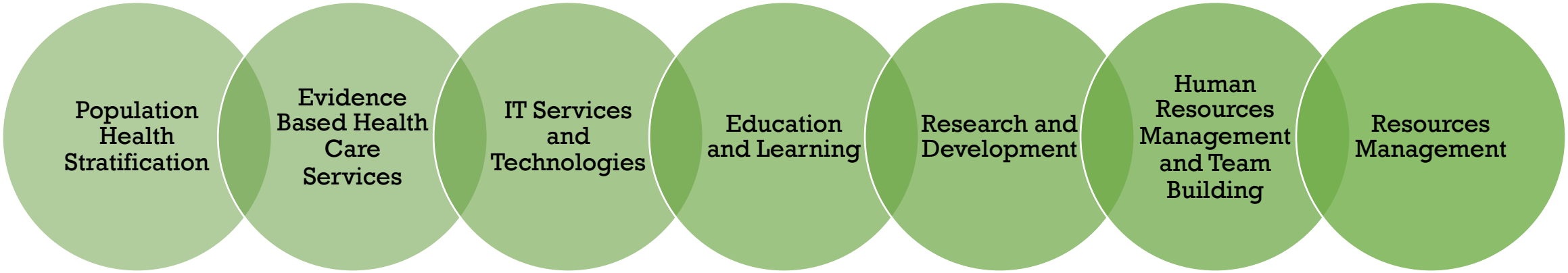
  - Decision aids for people
    - Improve value-congruent decisions +
  - Multimedia educational interventions
    - Improve skill levels +

Health Technology Assessment

- Systematic assessment of the properties and effects of a health technology, addressing the **direct and intended effects of the technology**, as well as its indirect and unintended consequences

- E-mail and telephone
  - Telephone counselling leads to greater changes in lifestyle than email +
- Telemedicine
  - HF: similar results to usual care +
  - TM can improve blood glucose control +

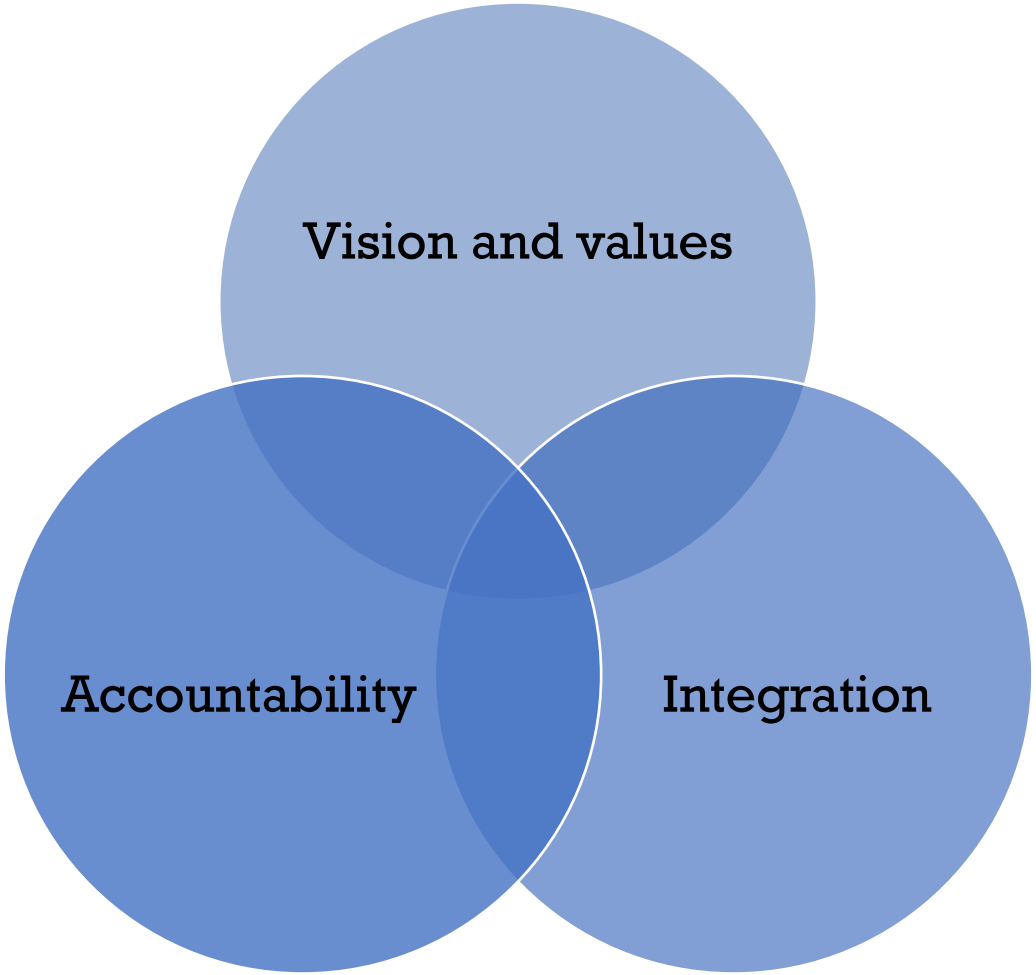
The STEM


Population Health Stratification
Evidence Based Health Care Services
IT Services and Technologies
Education and Learning
Research and Development
Human Resources Management and Team Building
Resources Management

The GROUND

Community participation should be part of healthcare service planning and evaluation

The ATMOSPHERE



Vision and values

- Clear vision ensures that both the ethos and the day-to-day delivery of clinical governance remain an integral part of every clinical service.

- Local opinion leaders may promote evidence-based practice +

Integration

- Patient-centeredness
- Both at clinical, professional and institutional level

- Integration should operate not only within a primary care system, but also through effective communications between specialist and primary care providers, to guarantee better **transitions of care** for patients with chronic disease.
- Significant positive effects in reducing hospital readmissions and mortality

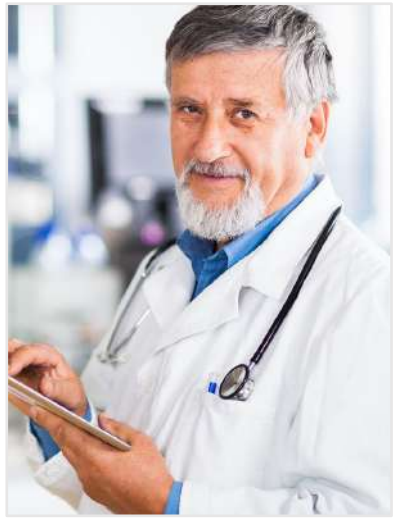
    - Shared care for depression +

Accountability

- Health organizations and providers are accountable for the care outcomes and values relevant to patients and the population

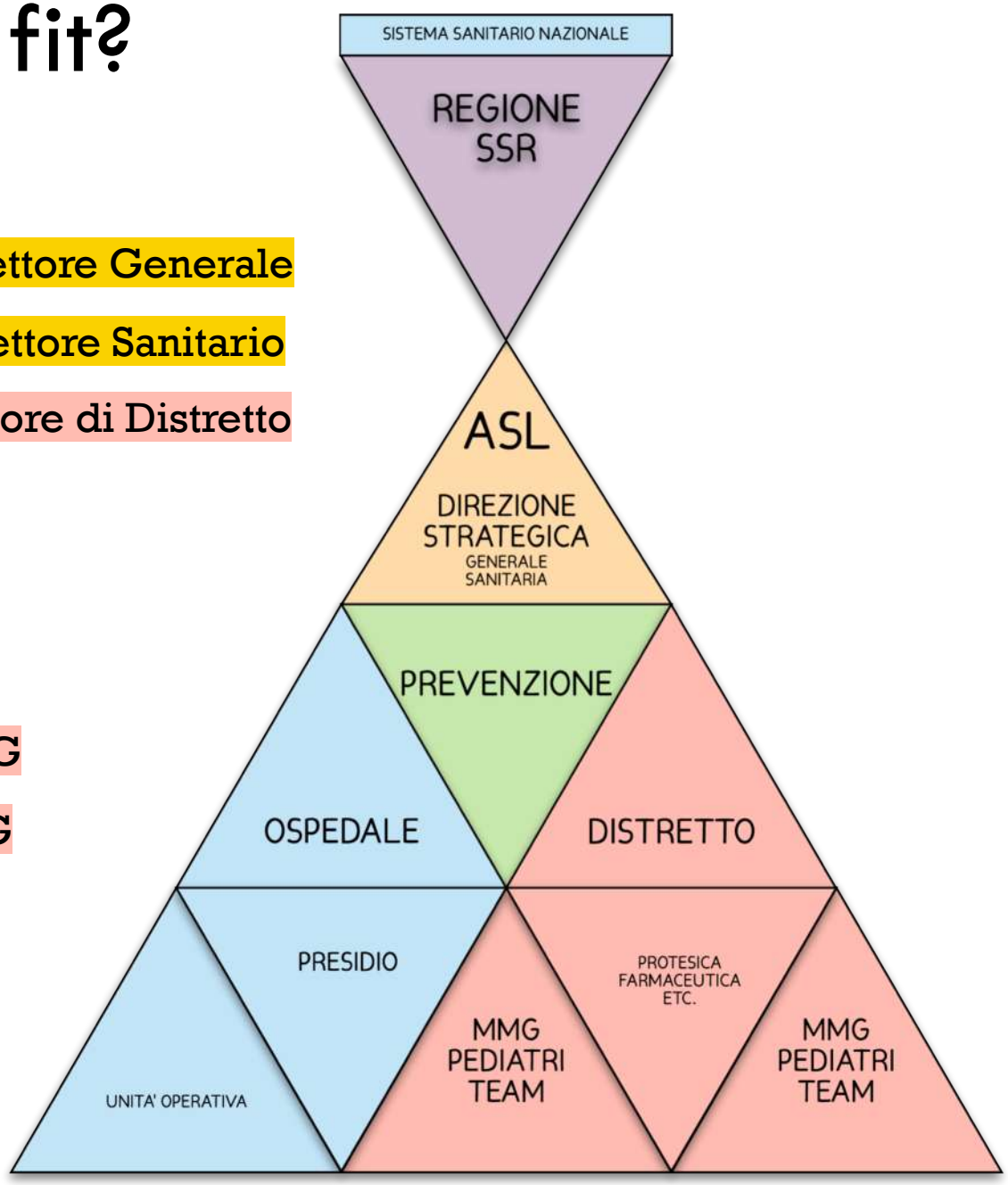
- It encourages **innovation along entire care pathways**, to raise quality and reduce cost
- It incentivizes collaboration between providers to co-ordinate care **to achieve impactful health outcomes**

Where does our framework fit?



- Giulia, Direttore Generale
- Marco, Direttore Sanitario
- Sara, Direttore di Distretto

- Carla, MMG
- Luigi, MMG



Key messages

- Health systems will face an increasing burden of disease and require a more robust **paradigm-shift towards primary health care** (implementation gap)
- **Proactive PHC approaches** can offer an alternative for sustaining population ageing
- Clinical governance plays a relevant role in **ensuring and improving quality of healthcare services** in all settings
- Our sunflower devises a conceptual framework for integrating the healthcare delivery model for chronic patients and clinical governance
- The interventions we found **may inform evidence-based management of healthcare services**

Thanks for your attention!

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twitter @mirkoclaus

Buja A., Toffanin R., Claus M., Ricciardi W., Damiani G., Baldo V., Ebell M.H. (2017). Clinical Governance Framework for Chronic Diseases in Primary Care. BMJ Open


General socio-economic, cultural and environmental conditions
Living and working conditions
Social and community networks
Individual lifestyle factors
Work environment
Unemployment
Education
Water and sanitation
Agriculture and food production
Health care services
Housing
Age, sex and constitutional factors