# National Program for Quality Indicators in Community Healthcare in Israel (QICH)

## Structure, Process and Outcome


## Orly Manor

## Geneva September 2014

**Directorate:** Orly Manor, Amir Shmueli, Arie Ben-Yehuda, Ora Paltiel, Ronit Calderon & Dena Jaffe

School of Public Health, Hebrew University & Hadassah Medical Organization


התכנית הלאומית למדדי איכות לרפואת הקהילה בישראל
NATIONAL PROGRAM FOR QUALITY INDICATORS IN COMMUNITY HEALTHCARE
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# Israel



**Population size =8,180,000**

| Religious/Ethnic Groups | | |
|---|---|---|
| Jews | 6.2 million | 76% |
| Muslims | 1.6 million | 20% |
| Christians/Druze/Other | 0.3 million | 4% |

| Social + Health Statistics | |
|---|---|
| Life expectancy | 81.8 yrs |
| Adult population above age 65 years | 10% |
| Obesity (adult prev 2008) | 26% |
| Health expenditures (% of GDP) | 7.8% |

Ref: Israel CBS

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# The Healthcare System in Israel



- **National Health Insurance Law** - Enacted in 1995
- **Universal coverage** for **all** citizens and permanent residents.
- **4 Health plans** – Clalit, Maccabi, Meuhedet & Leumit
- **"Health Basket"** of essential drugs, services and technologies, updated every year
- **Health Tax** (~4%) administered through National Insurance Institute, distributed to health plans according to age, gender and an index of periphery

# Background of QICH

- The National Health Insurance law (1995): "Justice, equity and solidarity…medical services will be offered based on medical considerations, **with reasonable quality**."
- Supervisory bodies were established "to follow and assess the influence of the law on health services in Israel, **their quality**, effectiveness and cost"- National Institute for Health Policy Research (NIHPR)
- QICH started as a research project (Porath & Rabinovitz, 2002) funded by the NIHPR and was adopted as a **national program** in 2004.

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# Mission

To provide consumers, health professionals and policy-makers with information on the quality of primary care provided by the four health plans in Israel.

***"THE GOAL - MEASUREMENT FOR IMPROVEMENT"***

***Mark Chassin et al, NEJM 2010***

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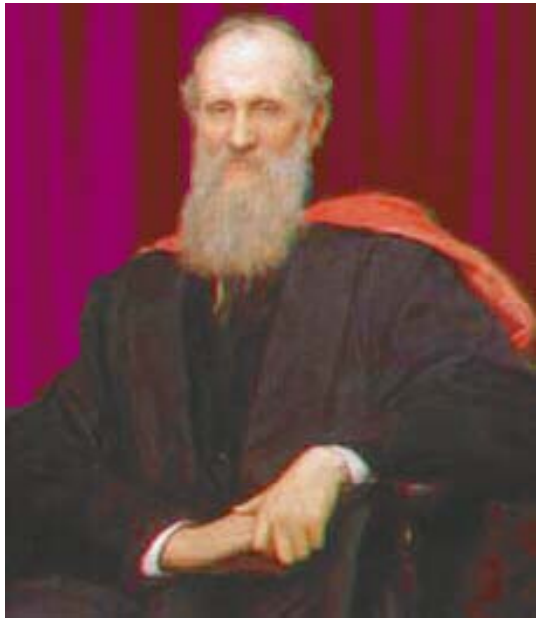
# Lord Kelvin
# 1824-1907



"When you can measure what you are speaking about and express it in numbers, you know something about it"

"If you cannot measure it, you cannot improve it"

**"Heavier-than-air flying machines are impossible"**

# Structure

- **Framework:** Partnership of all the four health plans + academic directorate
- **Population:** Population-based, near complete coverage
- **Data source:** Electronic health records – physician visits, nurse records, hospital procedures, laboratory test results and pharmacy claims.
- **Data collection**: Aggregate data per health plan are submitted annually to the program directorate to produce national-level rates stratified by age, gender and SEP (proxy).

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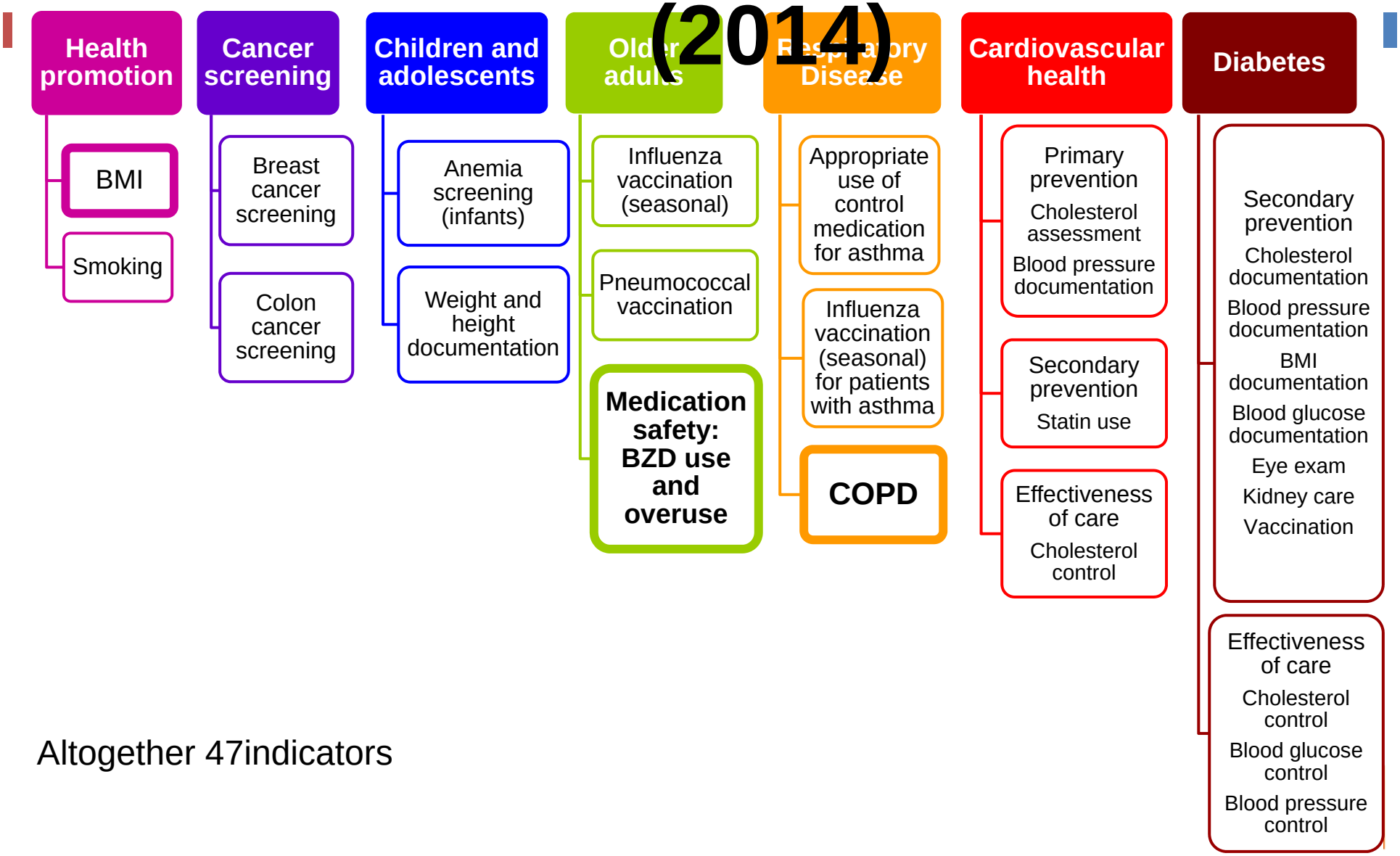
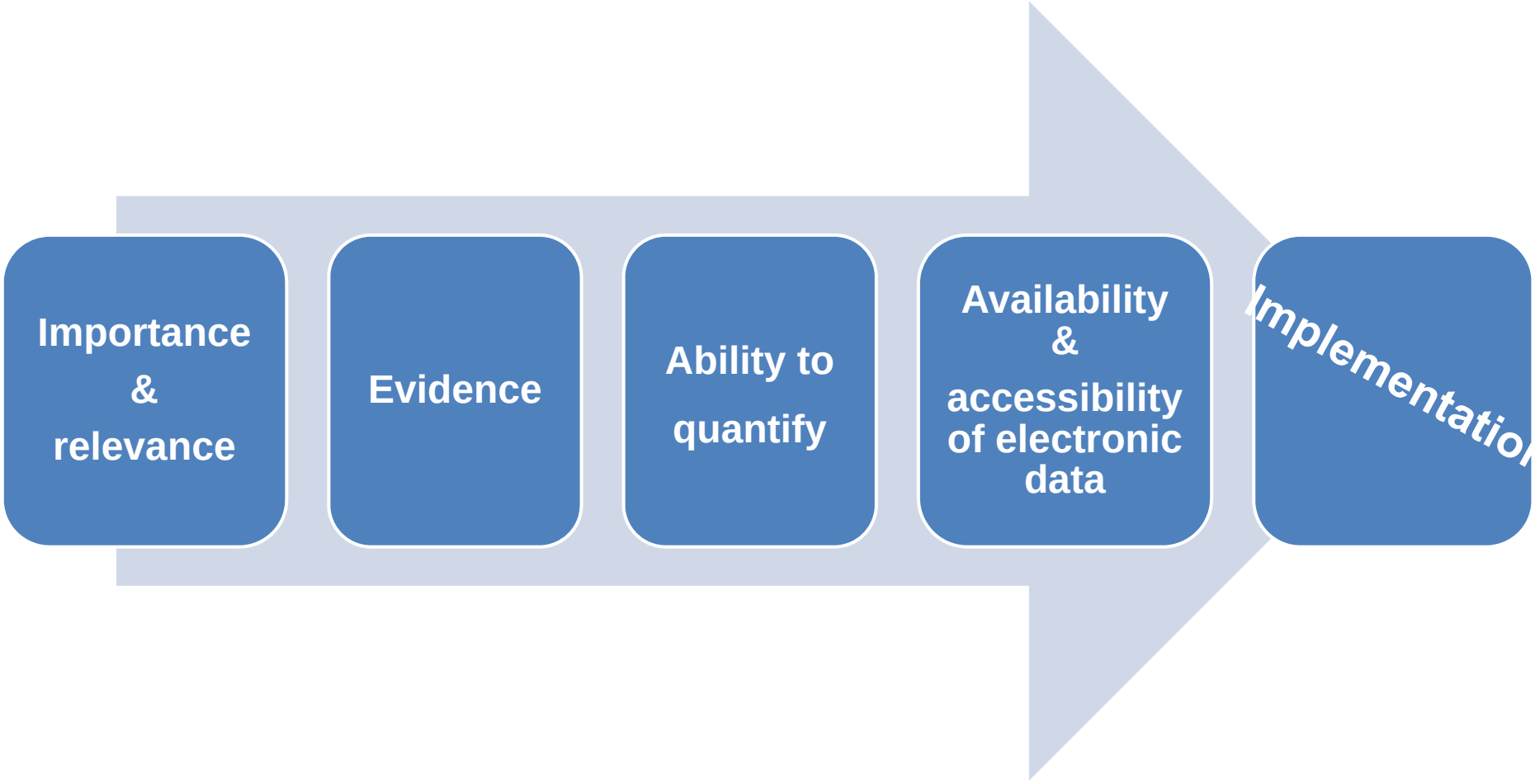
# QICH Indicator Set (2014)




Altogether 47indicators

# **Process:** Updating and Developing Quality Indicators

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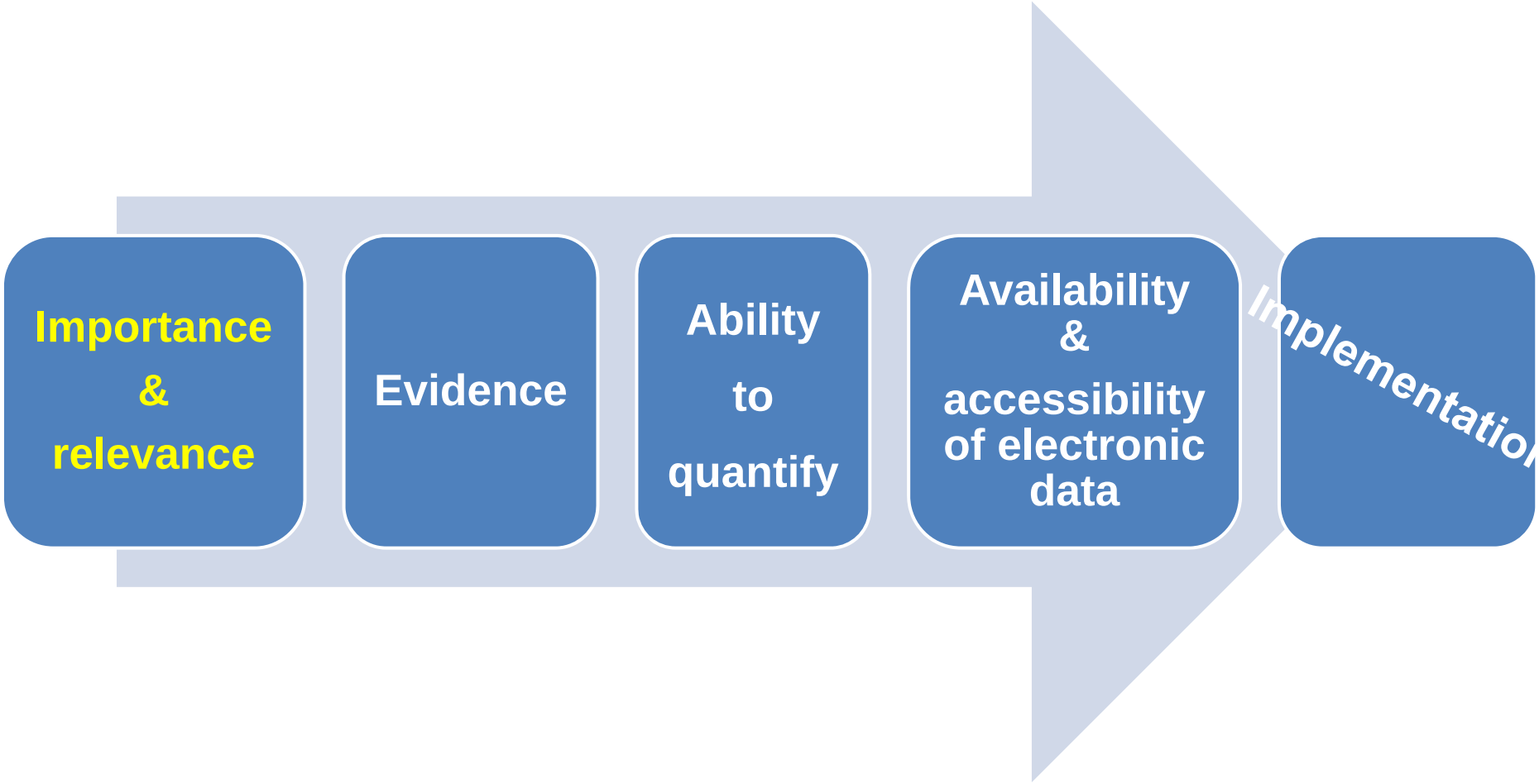
# **Process:** Updating quality indicators

# Case 1:

# Diabetes

# **Process:** Updating quality indicators

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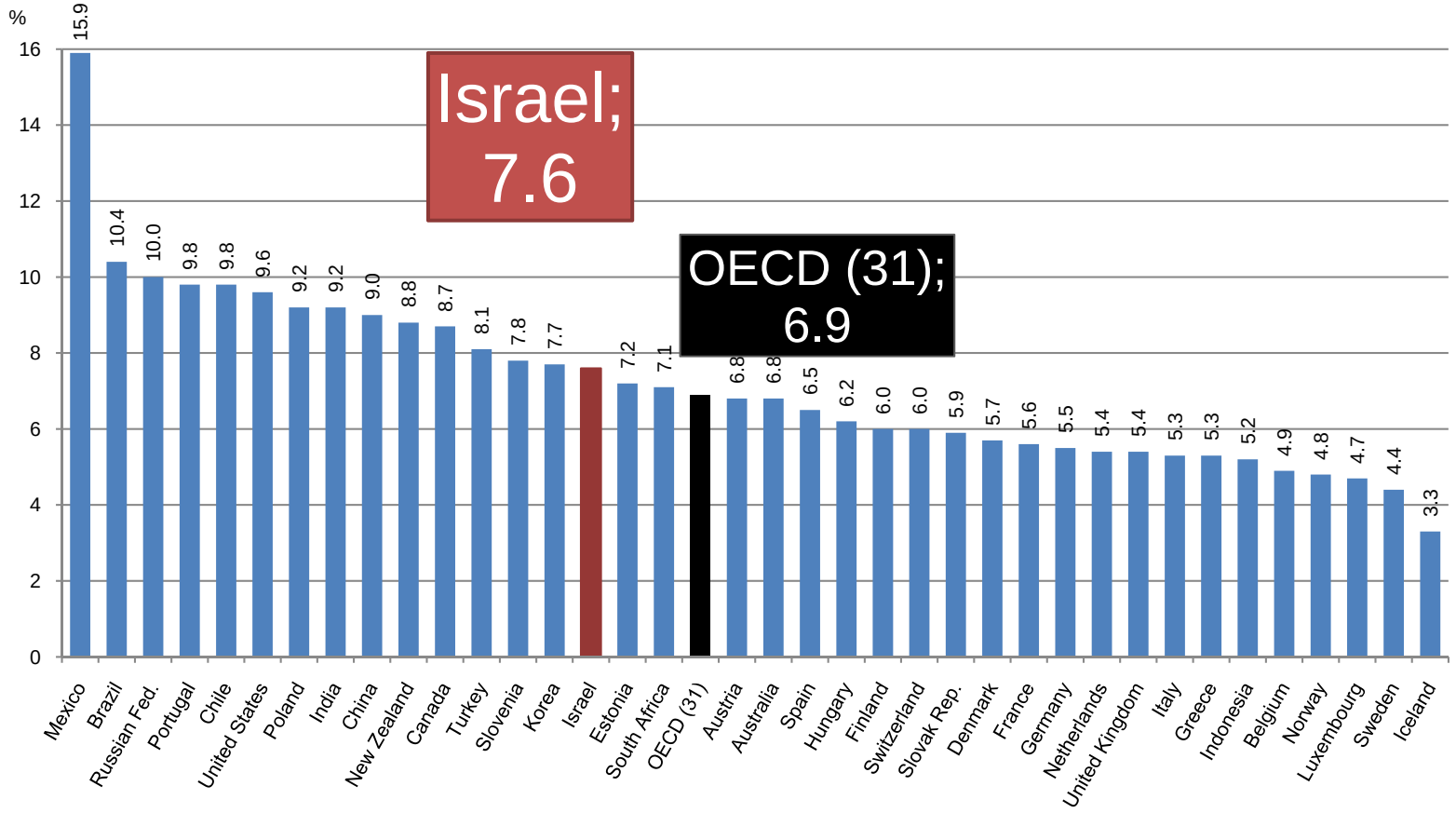
# Importance & Relevance
# DIABETES Prevalence Worldwide (2011)




(OECD INDICATORS, ADULTS 20-79 YEARS, 2011)

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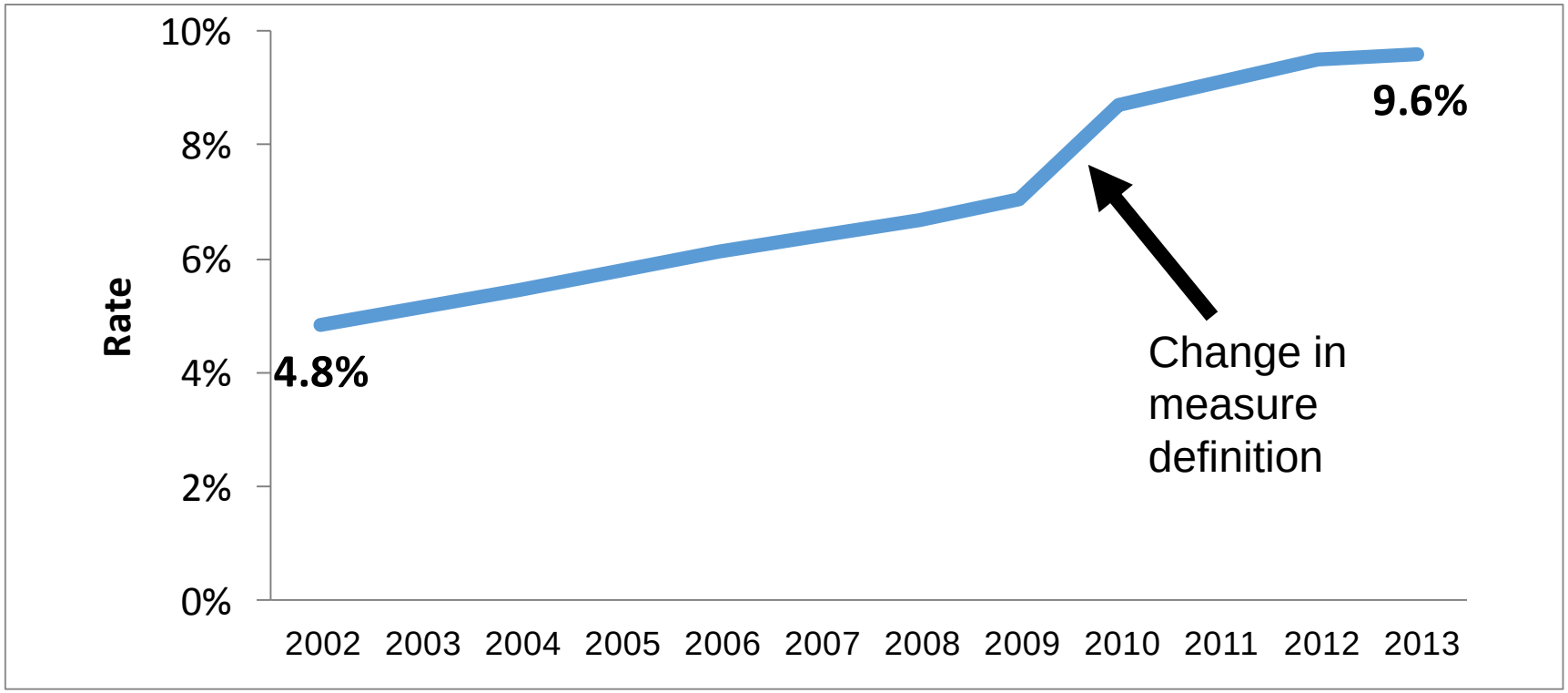
# Importance & Relevance
# Diabetes Prevalence, Israel (18+ YEARS) (QICH)




(defined by medication use)

***Israel National health Interview Survey 2007-2010: self-reported prevalence at 8.4% (ICDC)**

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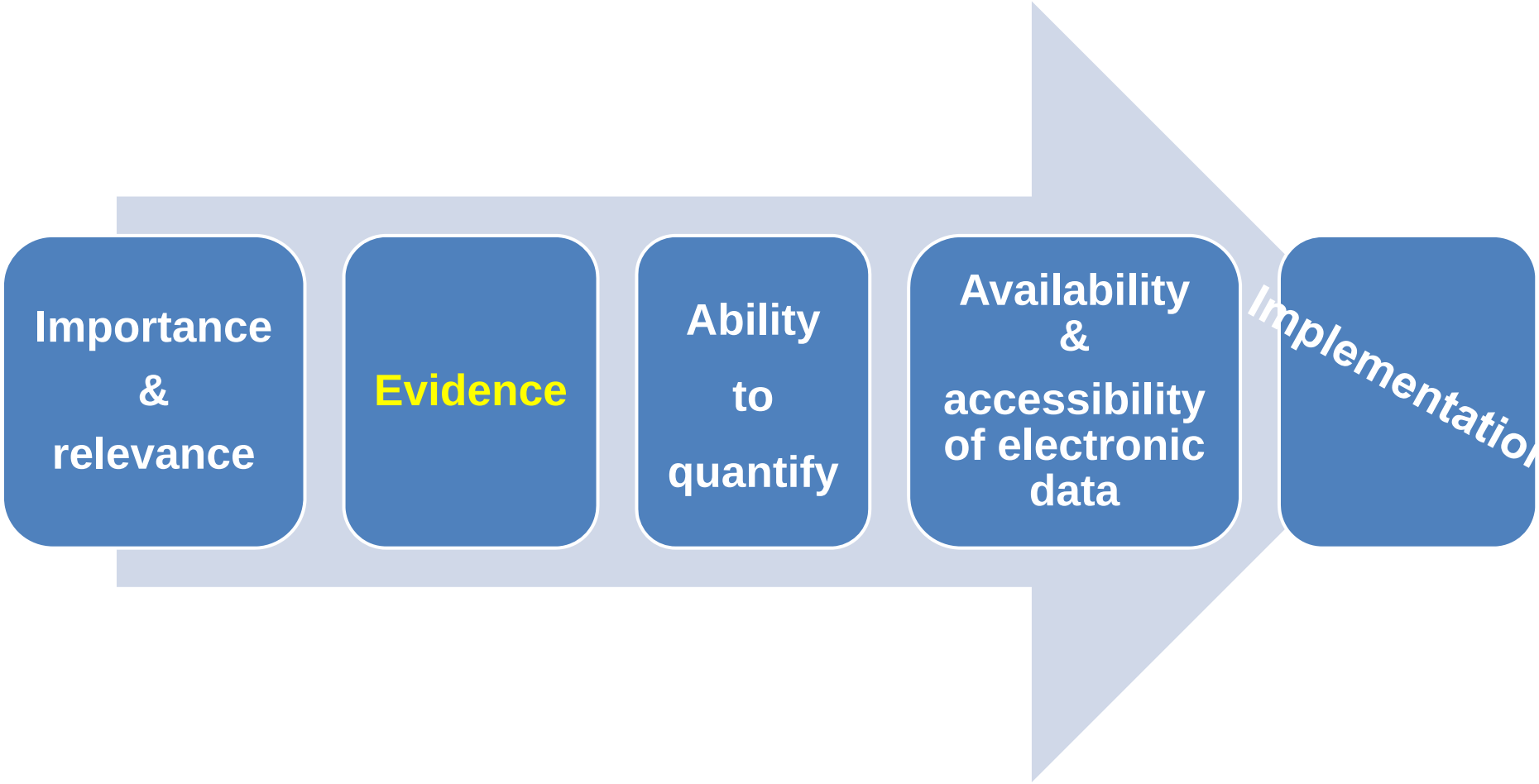
# **Process:** Updating quality indicators

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# **Evidence**: A Moving Target

**Glycemic Control**

- Assessment of adequate control of hemoglobin A1c for individuals with diabetes

# **Evidence**: A Moving Target

Effects of Intensive Glucose Lowering in Type 2 Diabetes

(NEJM 2008)

ACCORD (10-years)

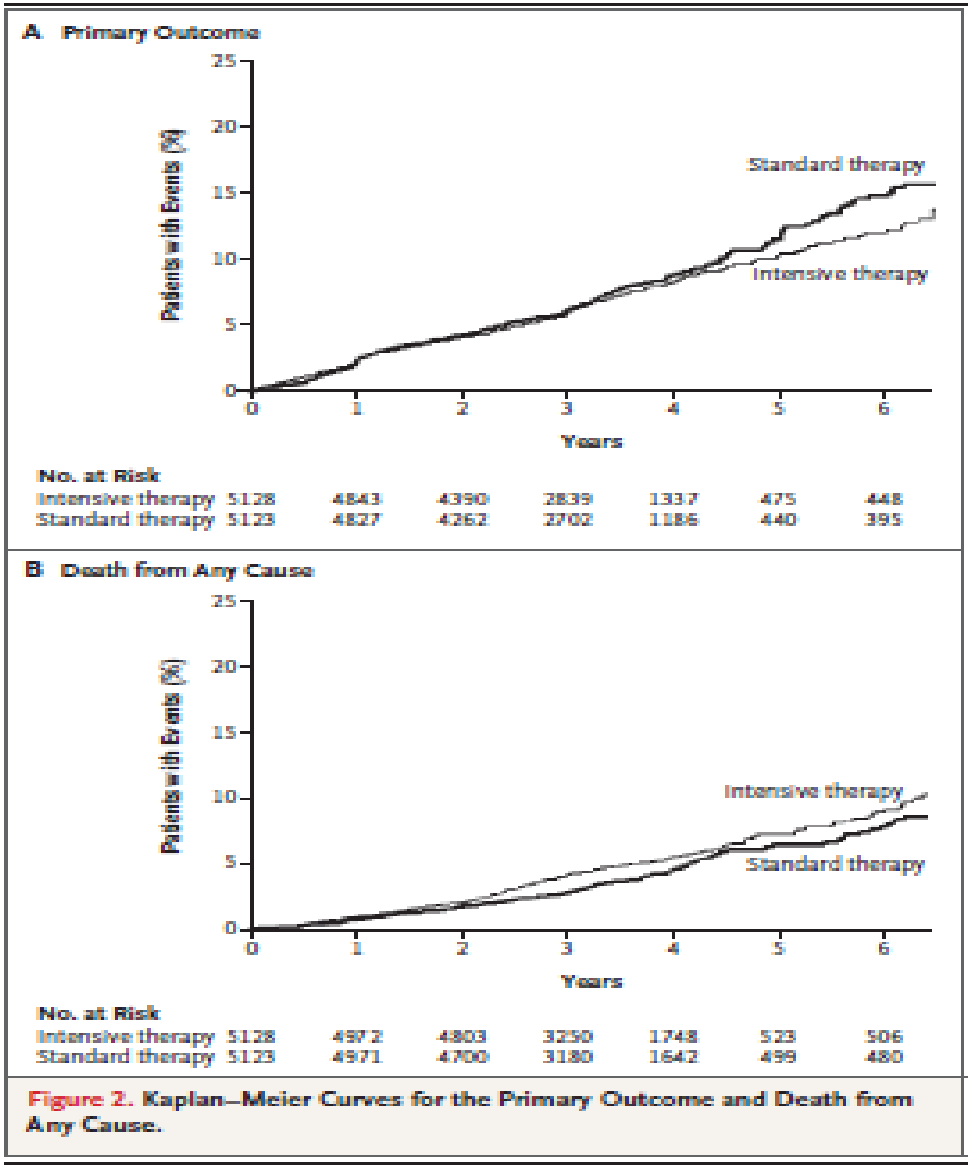
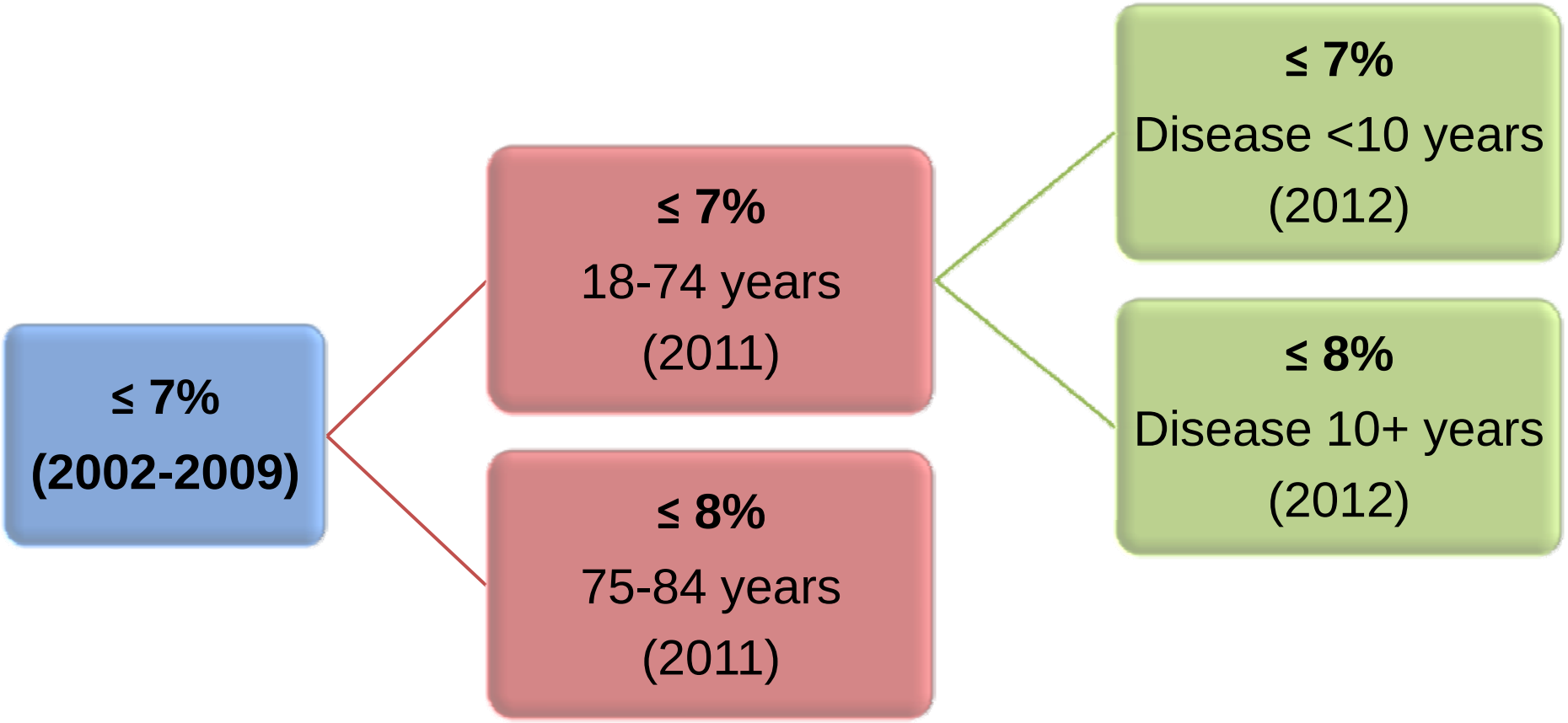



Figure 2. Kaplan–Meier Curves for the Primary Outcome and Death from Any Cause.

# **Evidence**: A Moving Target – HbA1c



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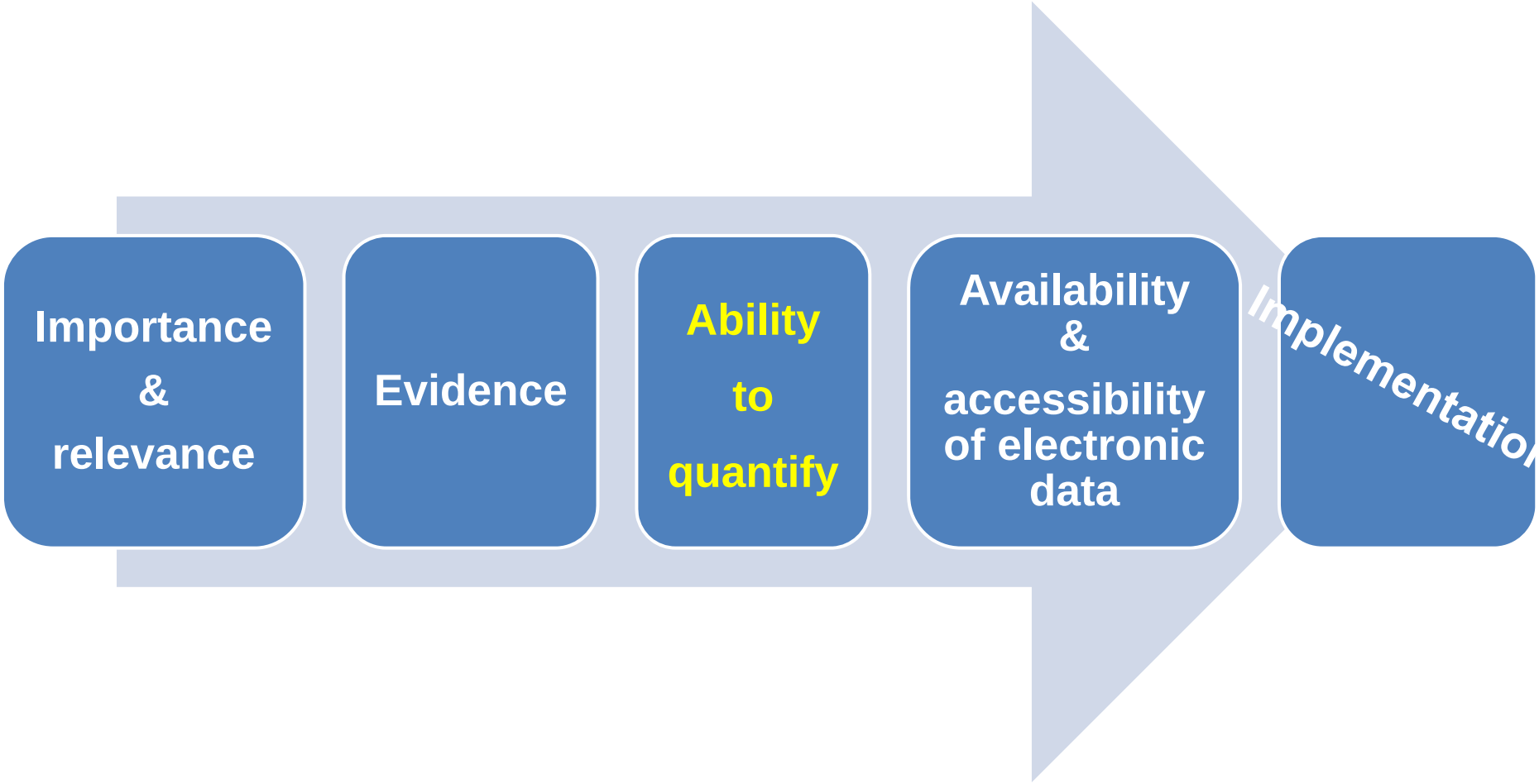


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# **Ability To Quantify:** Diabetes

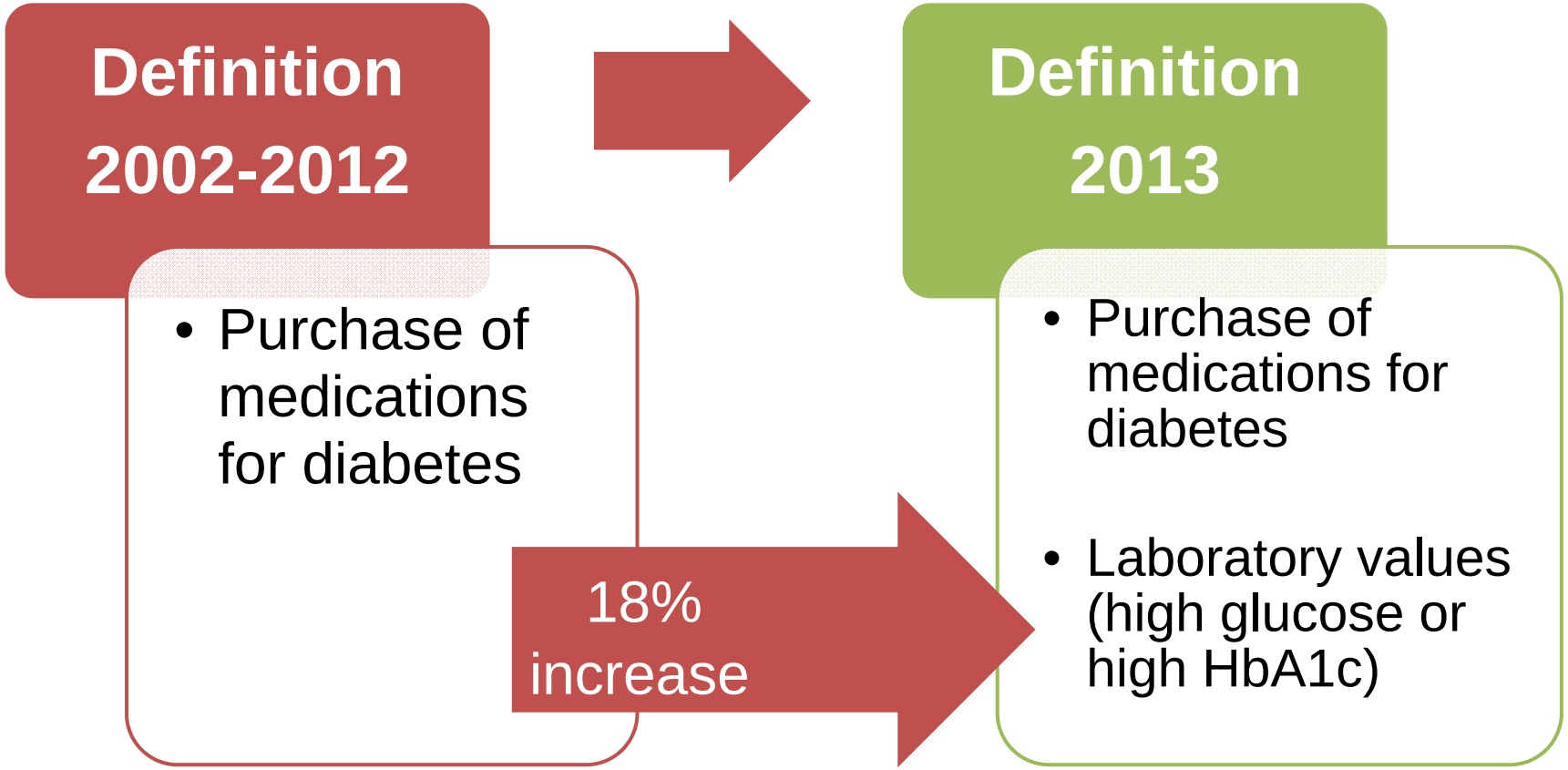
**Definition 2002-2012**

- Purchase of medications for diabetes

**Definition 2013**

- Purchase of medications for diabetes
- Laboratory values (high glucose or high HbA1c)

# **Ability To Quantify:** Diabetes

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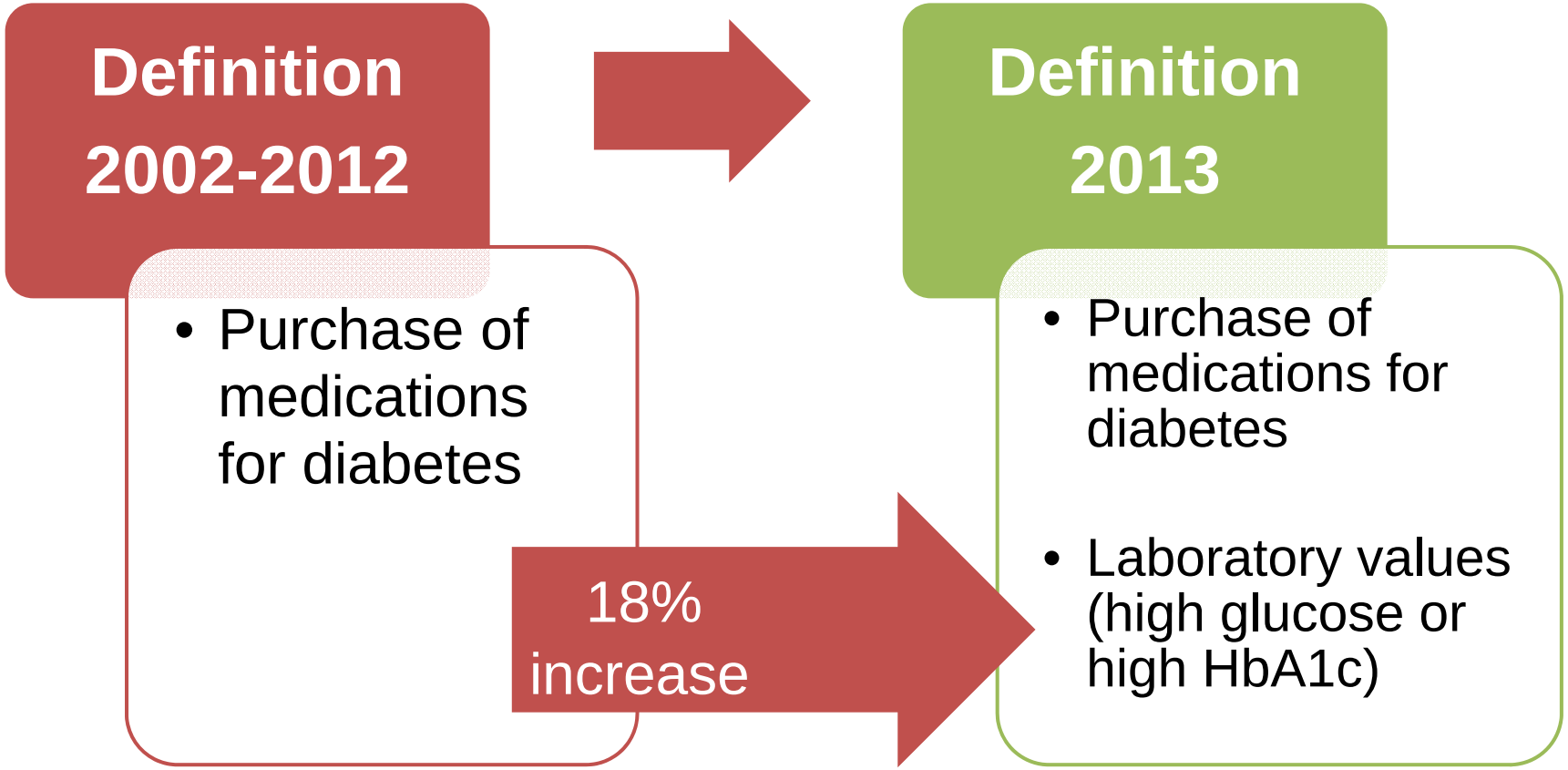
# **Ability To Quantify:** Diabetes

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# **Ability To Quantify:** Target Organ

**Urine Albumin documentation (2004-2013)**

**eGFR documentation (2014)**

**Kidney damage documentation (2014)**

**Treatment with ACEI/ARB (2014)**

התכנ
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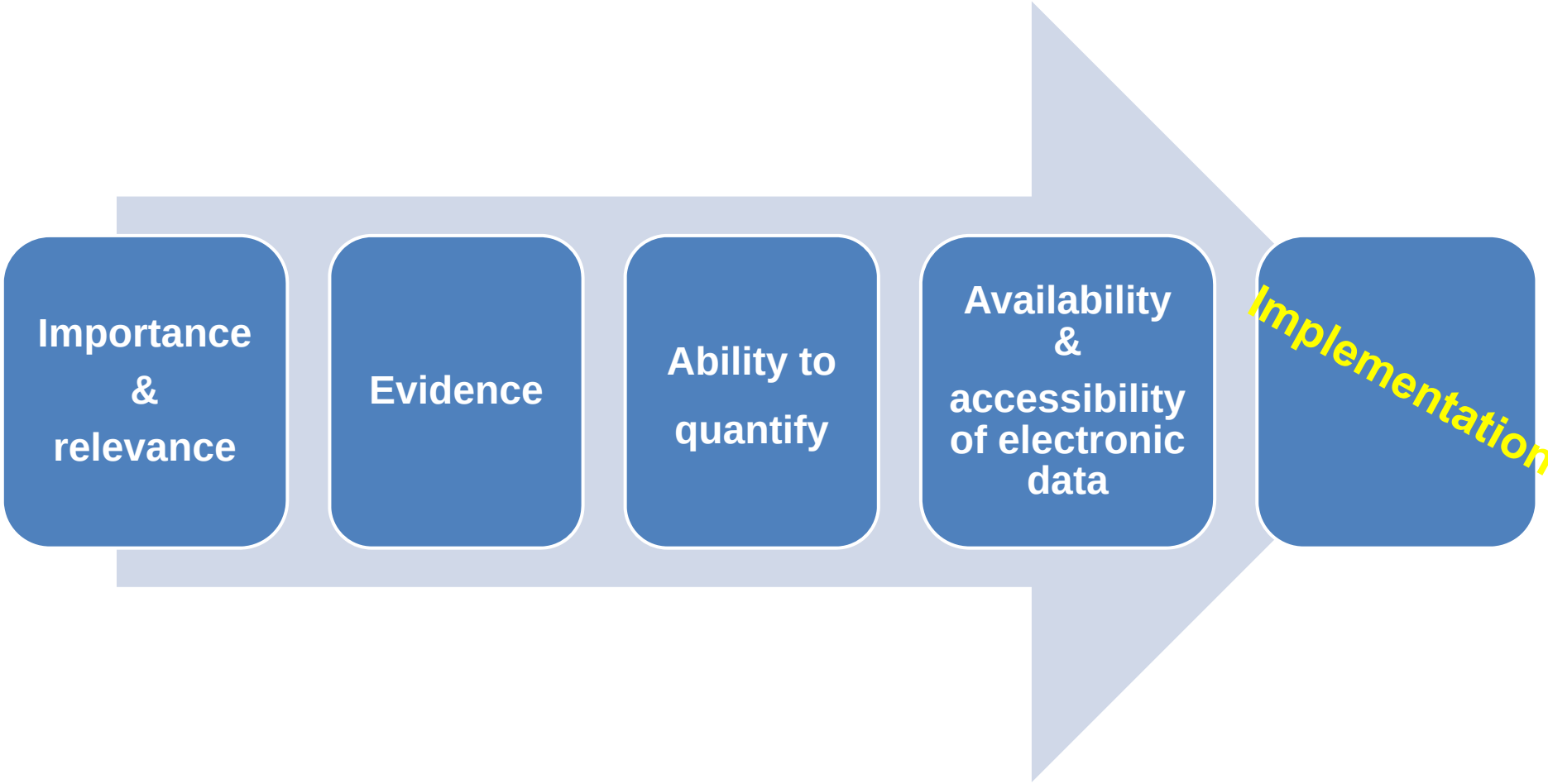
# **Process:** Updating quality indicators

## Case 2:

## Primary prevention of cardiovascular disease - Adequate control of cholesterol

# **Process:** Updating quality indicators

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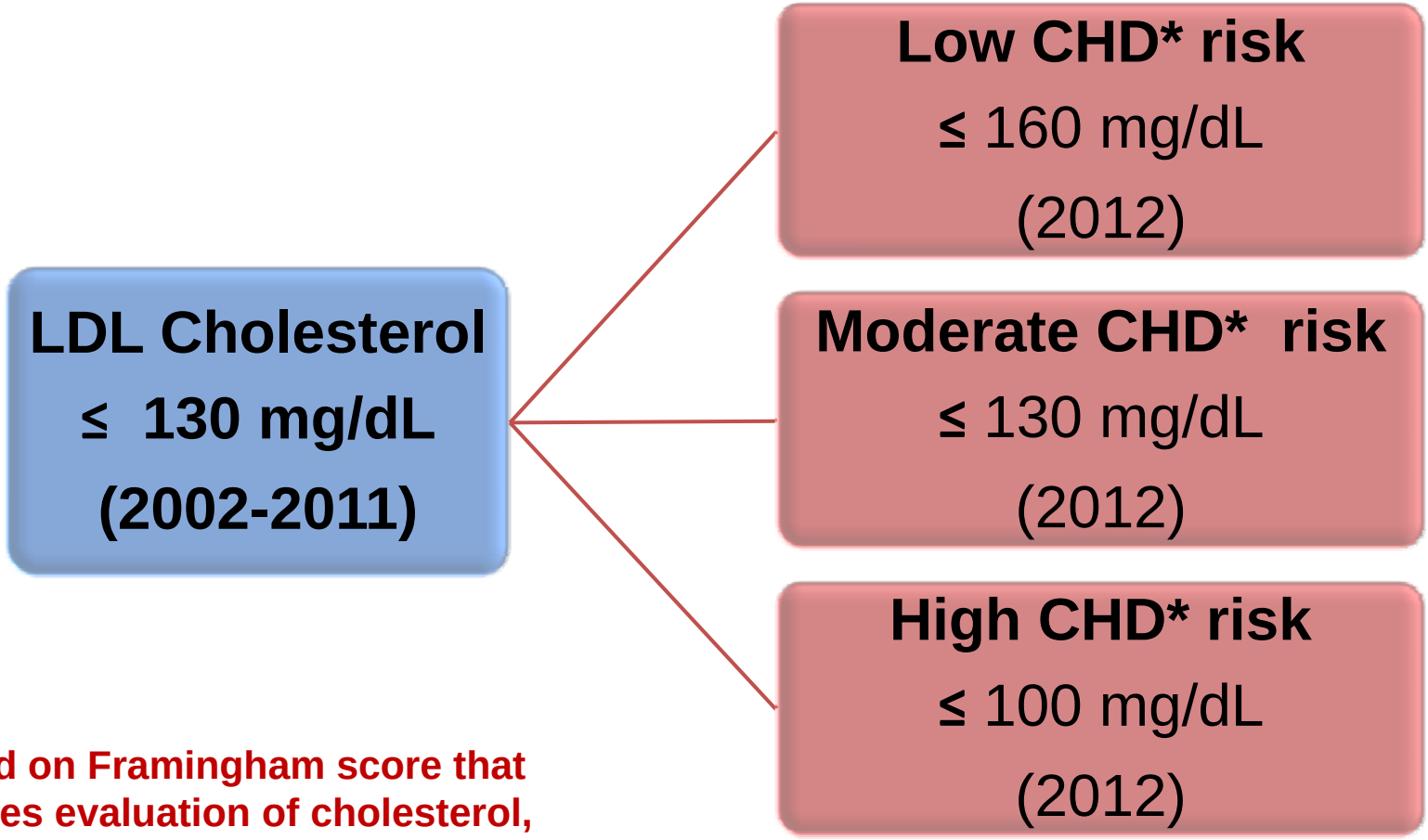
# **Implementation:** Cholesterol Control

## Primary Prevention (ages 35-74 years)




***Based on Framingham score that includes evaluation of cholesterol, smoking, hypertension, age and gender. ATP III update Circulation. 2004;110:227-239**

# **Implementation:** Cholesterol Control

## Primary Prevention (ages 35-74 years)

**Personalized medicine**
**Results indicate- those at high risk needs more attention !**

**LDL Cholesterol**
**≤ 130 mg/dL**
**(2002-2011)**

**Low CHD* risk**
≤ 160 mg/dL
(2012)

**Moderate CHD* risk**
≤ 130 mg/dL
(2012)

**High CHD* risk**
≤ 100 mg/dL
(2012)

***Based on Framingham score that includes evaluation of cholesterol, smoking, hypertension, age and gender. ATP III update Circulation. 2004;110:227-239**

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# **Implementation:** Cholesterol Control

## Primary Prevention (ages 35-74 years)

**Personalized: preliminary data indicate- these**

Stone NJ, et al.
2013 ACC/AHA Blood Cholesterol Guideline

2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults

A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

**Low CHD**

≤ 100 mg/dL

(2012)

**...d on Framingham score that includes evaluation of cholesterol, smoking, hypertension, age and gender. ATP III update Circulation. 2004;110:227-239**

# **Implementation:** Cholesterol Control

## Primary Prevention (ages 35-74 years)

**Personalized: preliminary**

**Low**

≤ 100 mg/dL

(2012)

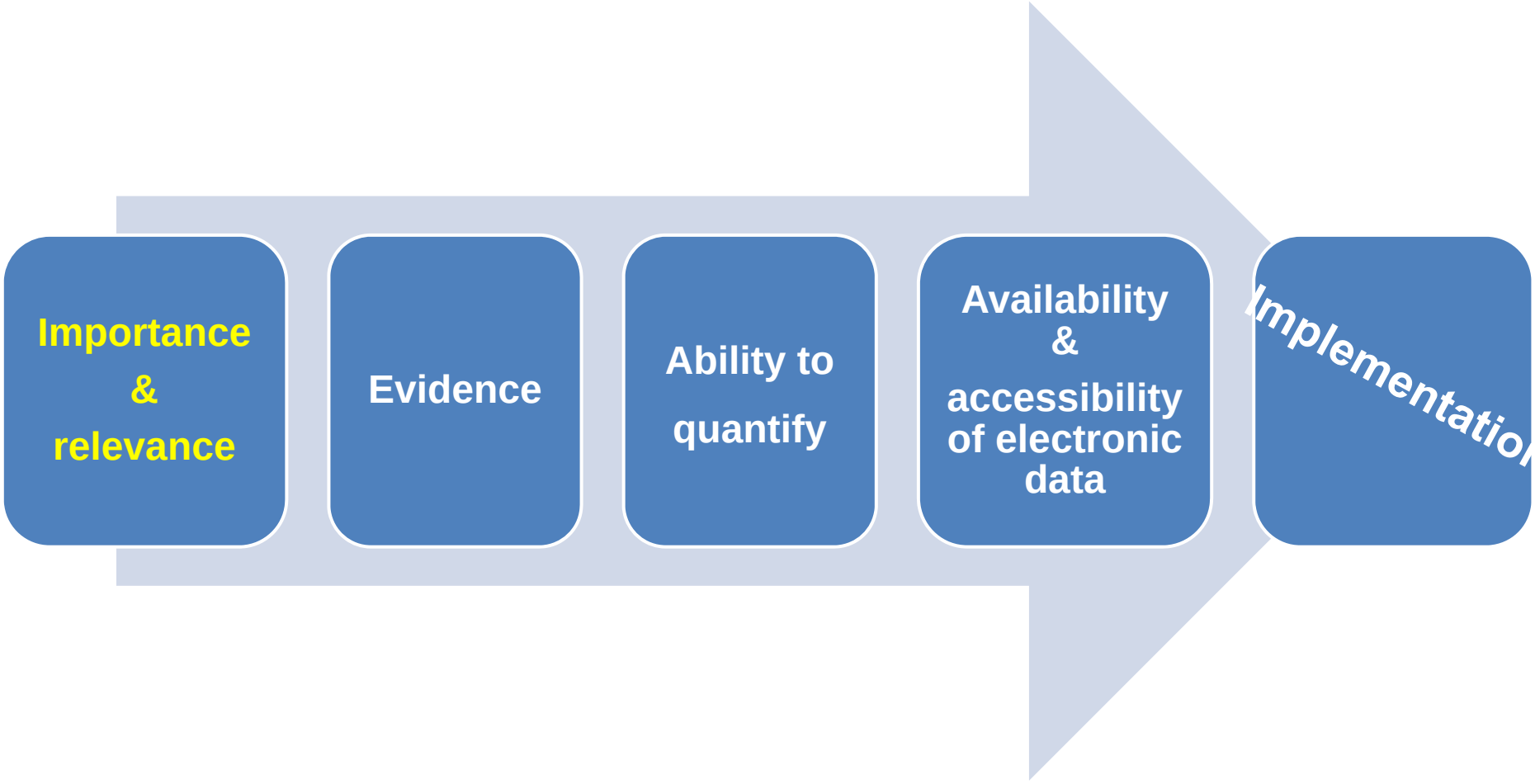
**Based on Framingham score that includes evaluation of cholesterol, smoking, hypertension, age and gender. ATP III update Circulation. 2004;110:227-239**

# Process

## Case 3:

## Developing new domains

# **Process:** New domains and indicators

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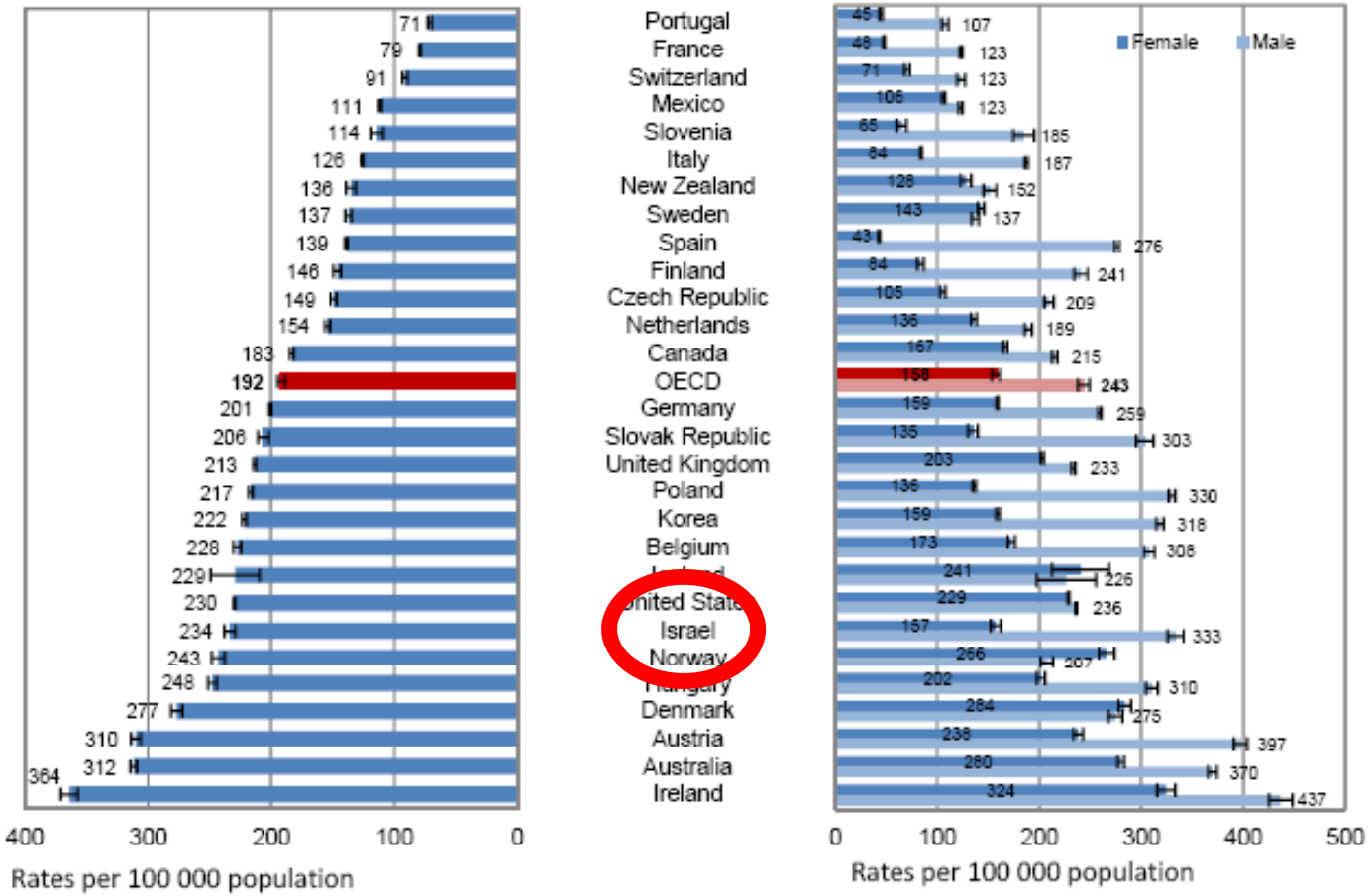
# Importance & Relevance : COPD

5.1.2 COPD hospital admission rates, population aged 15 and over (2009)




Note: Rates are age-sex standardised to 2005 OECD population. 95% confidence intervals are represented by H.

*Source: OECD Health Care Quality Indicators Data 2011.*

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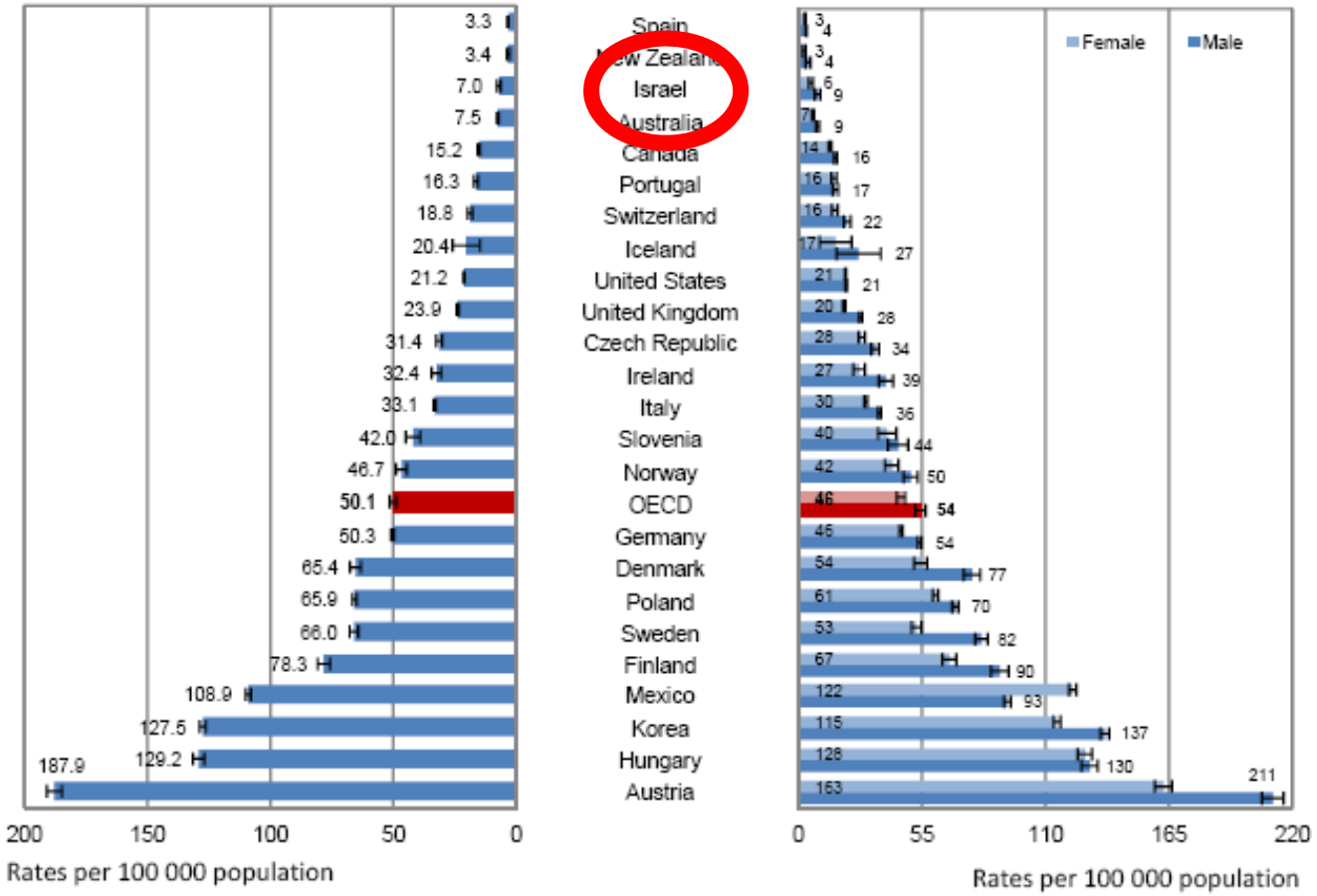
IN COMMUNITY HEALTHCARE
المشروع الوطني لمؤشرات

# Importance & Relevance: Diabetes

5.2.1 Uncontrolled diabetes hospital admission rates, population aged 15 and over, 2009




Note: Rates are age-sex standardised to 2005 OECD population. 95% confidence intervals are represented by H.

*Source: OECD Health Care Quality Indicators Data 2011.*

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ICATORS IN COMMUNITY HEALTHCARE
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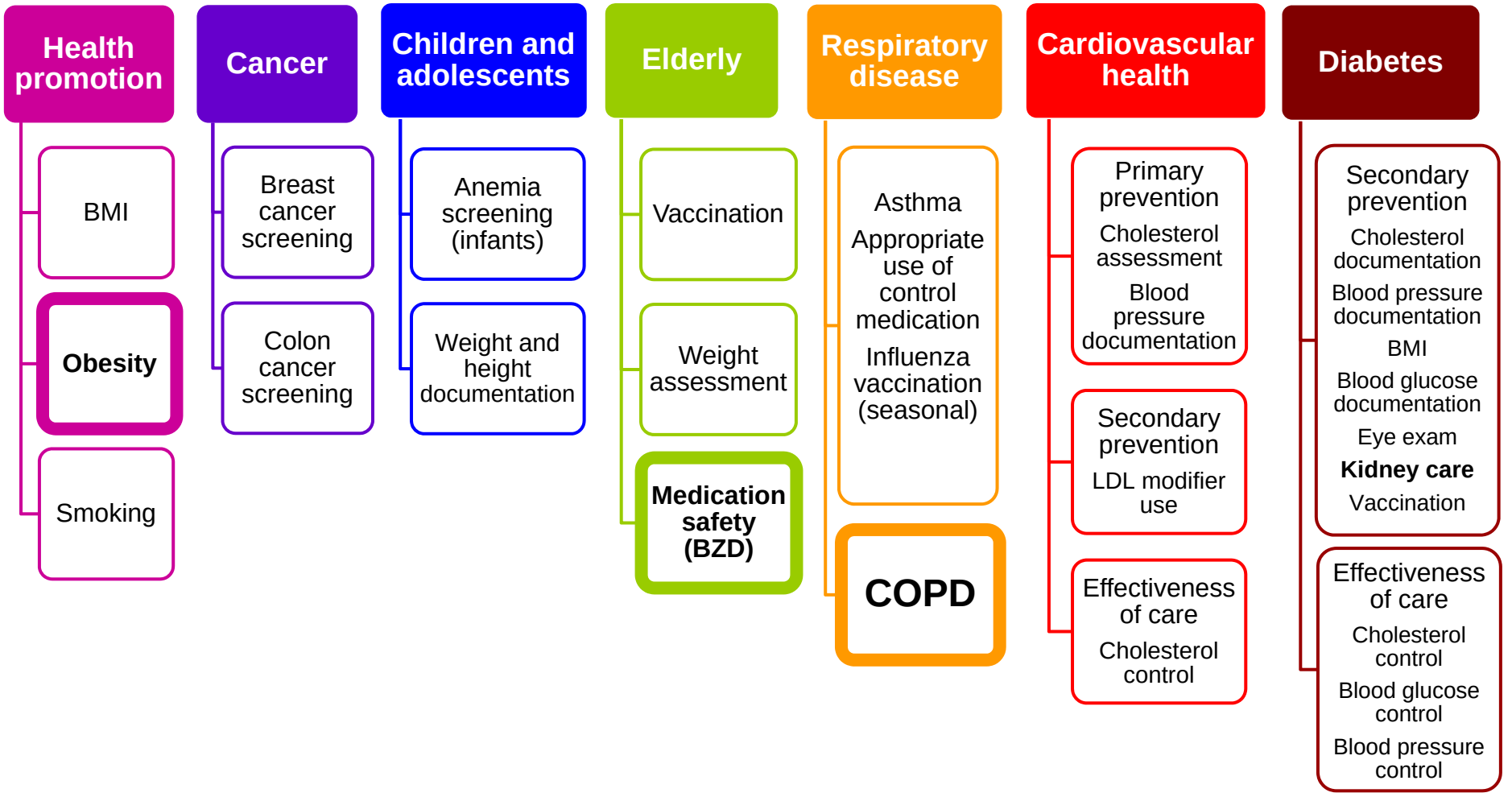
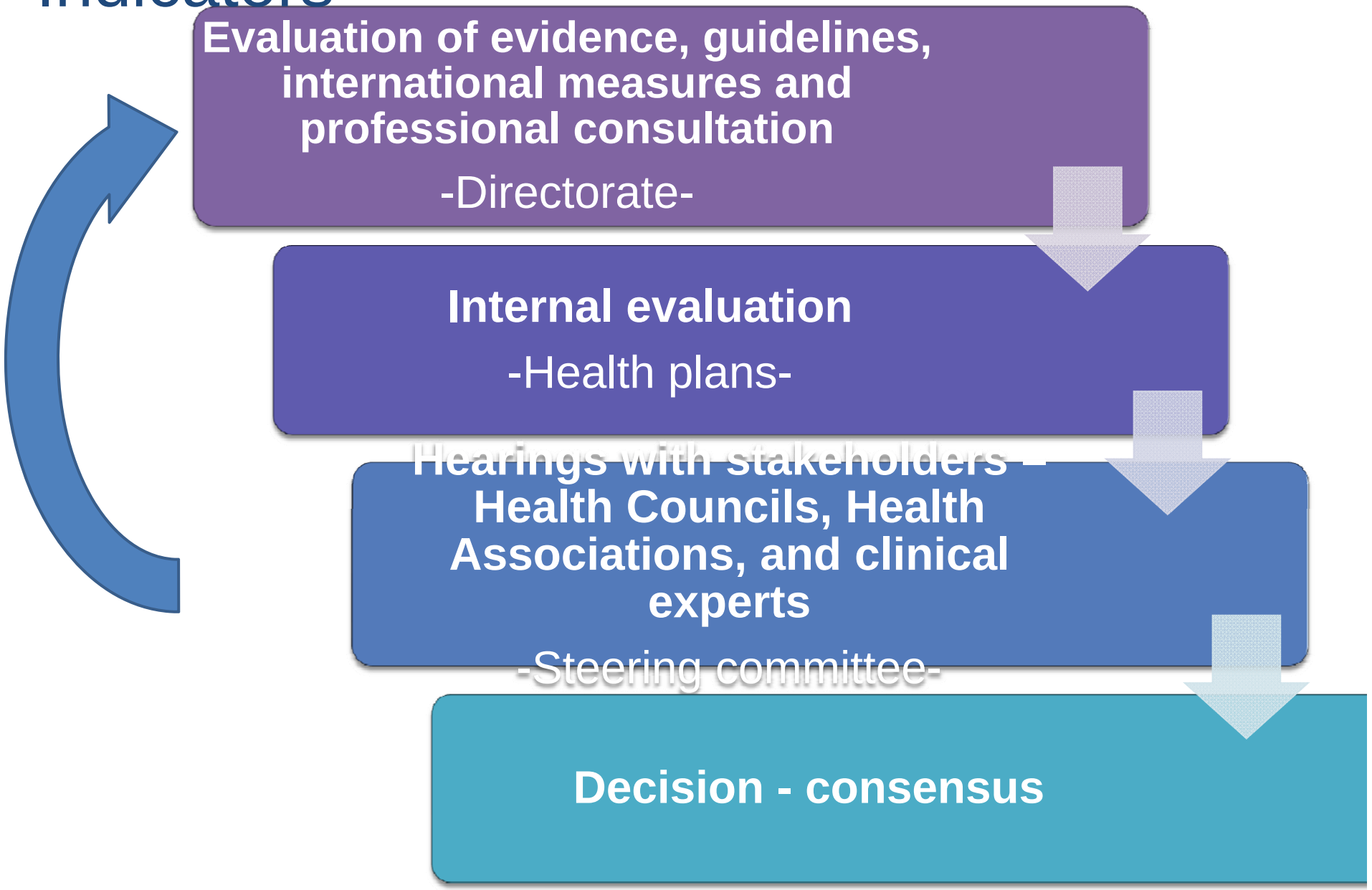
# Quality indicators (2014)





# **Process:** Updating and Developing Indicators



# Process

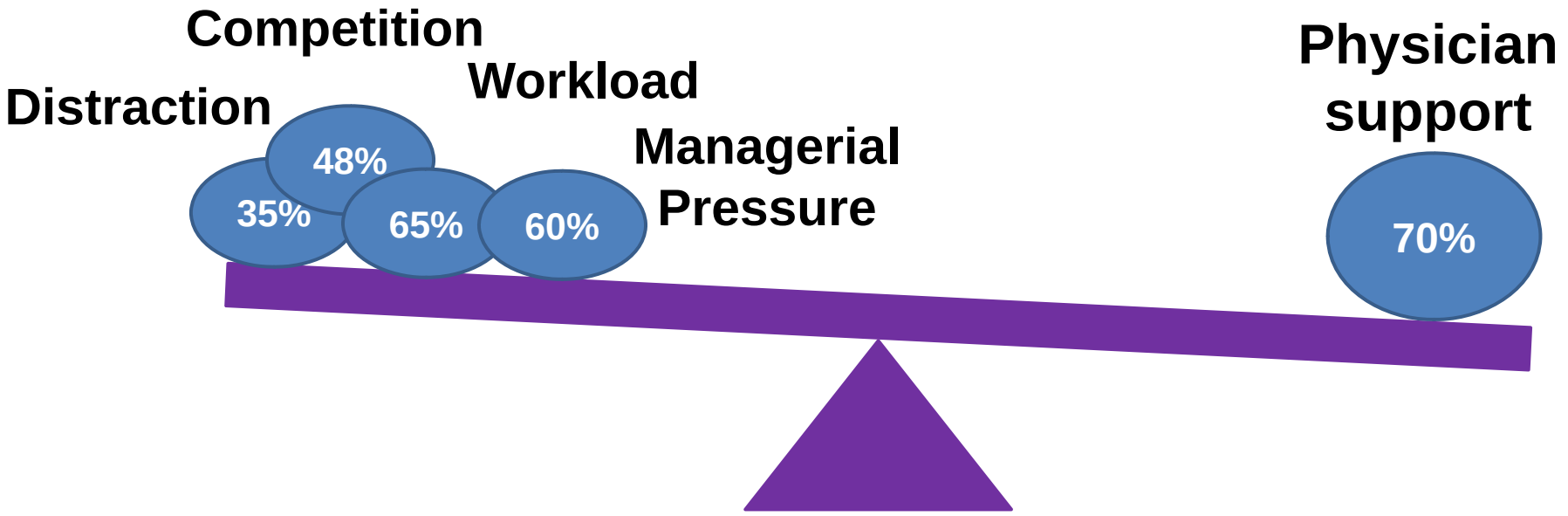
Nissanholtz-Gannot et al. Israel Journal of Health Policy Research 2012, 1:26
http://www.ijhpr.org/content/1/1/26

Israel Journal of Health Policy Research

ORIGINAL RESEARCH ARTICLE Open Access

## Monitoring quality in Israeli primary care: The primary care physicians' perspective

Rachel Nissanholtz-Gannot[1,2*], Bruce Rosen[1] and The Quality Monitoring Study Group[3]




*Survey of 609 physicians for all health plans

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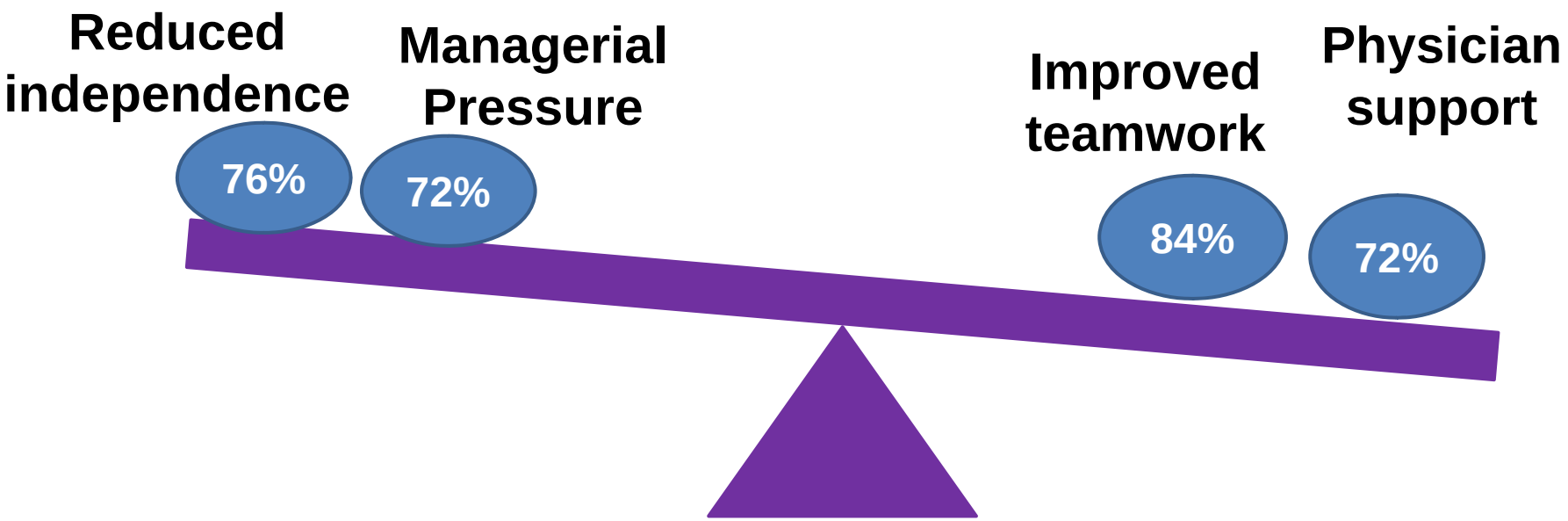
# Process

Shani M, Nakar S, Azuri Y.

**Family physicians attitude towards quality indicator program. [Hebrew]**

*Harefuah* 2012 Oct;151(10):589-91, 604.




*Survey of 91 physicians from Clalit

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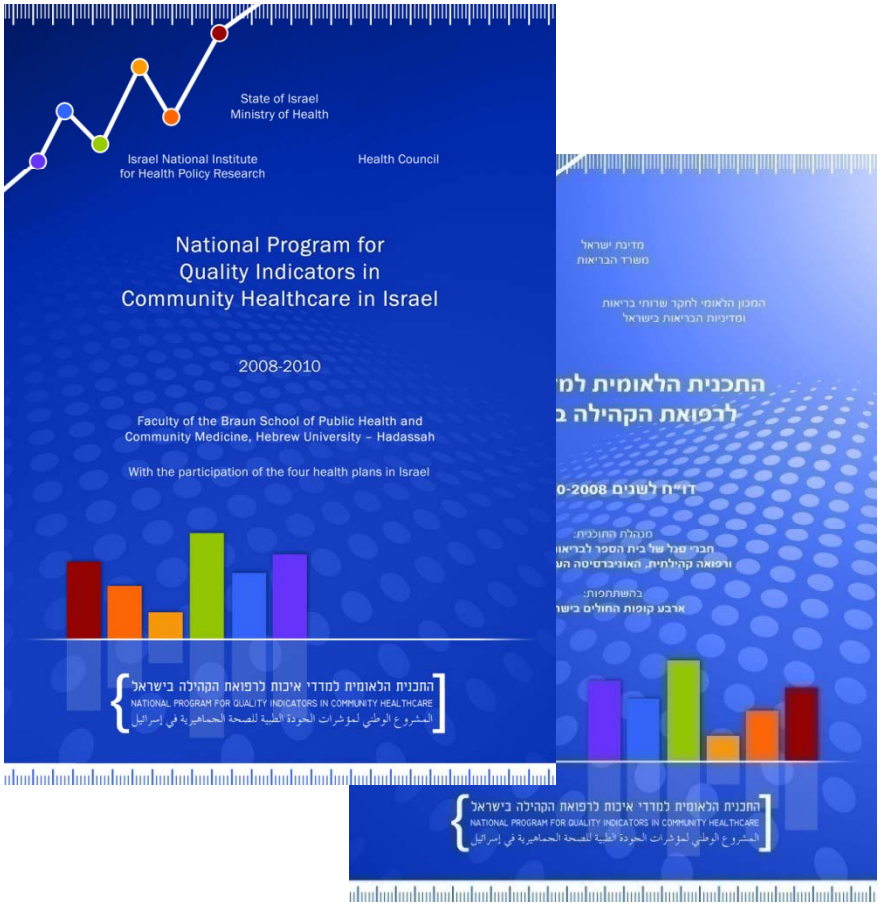
# Outcome

**Annual report**

National results of quality indicators in community healthcare

As of 2012 onwards- also data by health plan

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# Outcome

**Provides** essential information to ensure that medical quality plays a role in decision making

**Enables**

- evaluation of developments and changes in healthcare over time
- early identification of risk factors in the Israeli population and in sub-populations
- comparison of healthcare quality in Israel with other countries

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# Reporting - per provider rates

- **Court ruling** resulted in public reporting of indicators by health plan in 2012
- "*What are the purposes of publicly reporting provider performance?* In general, while public reporting efforts may have begun with the primary goal of helping patient choose providers, **providers themselves turned out to be the primary audience for public performance reports"** (Frideberg & Damberg (Rand), 2011 pp 88)
- **Transfer** between the health plans: 0.9% (~73,000 people) in 2012 (Nat'l Insurance Institute of Israel, 2013)
- **Transparency**
- **Mutual trust**

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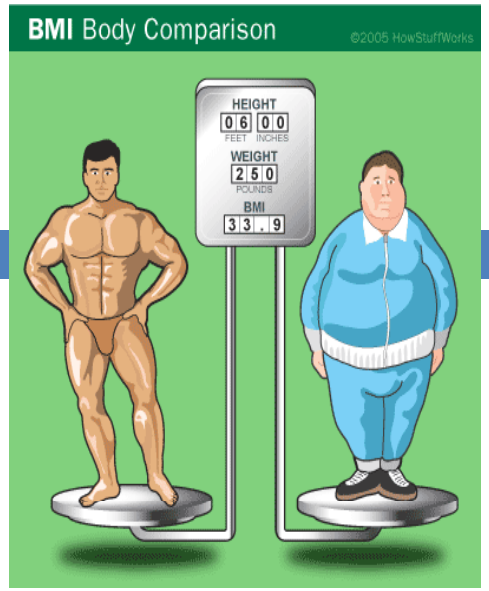
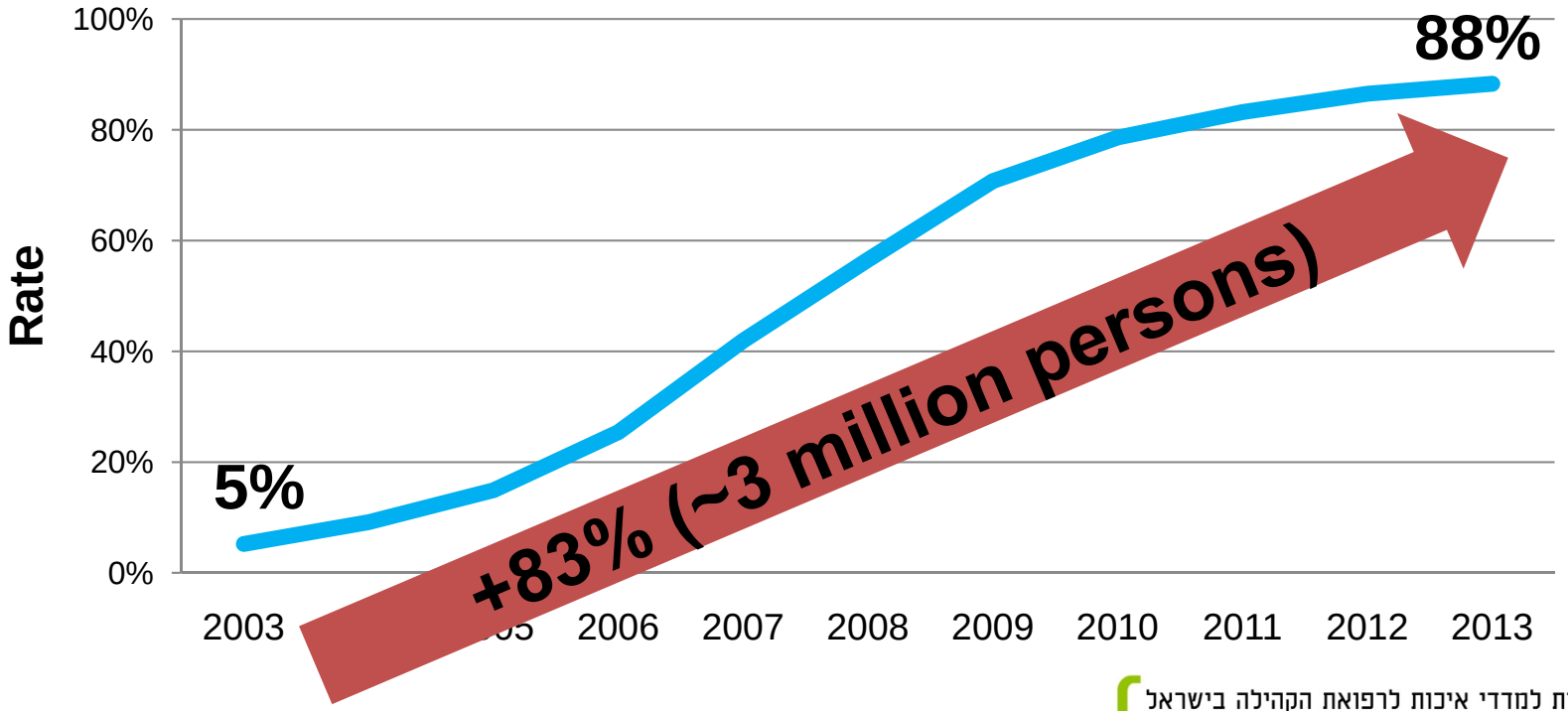
# BMI documentation - QICH




**Target population**

**~3.6 million adults ages 20-64 years**

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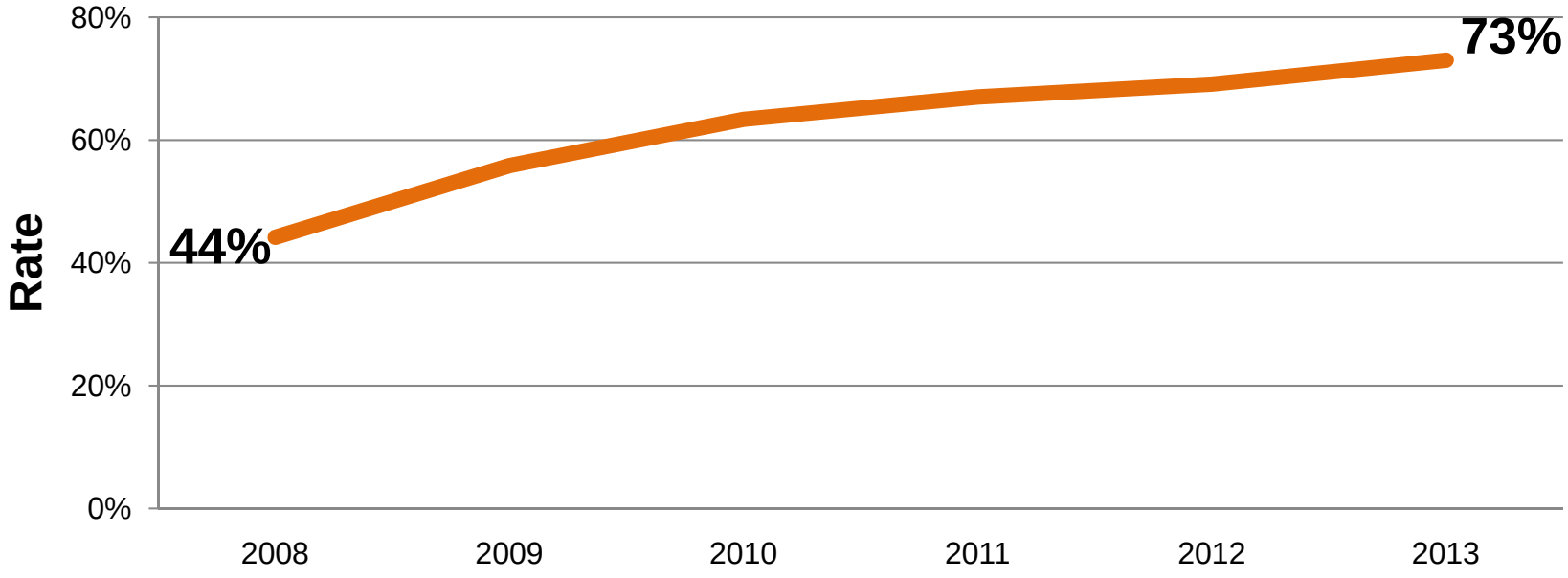
# Height and Weight Assessment in Children

Percentage of children age 7 who had height and weight documentation in the past two years

**Target population:**

**~142,000 children age 7 years**

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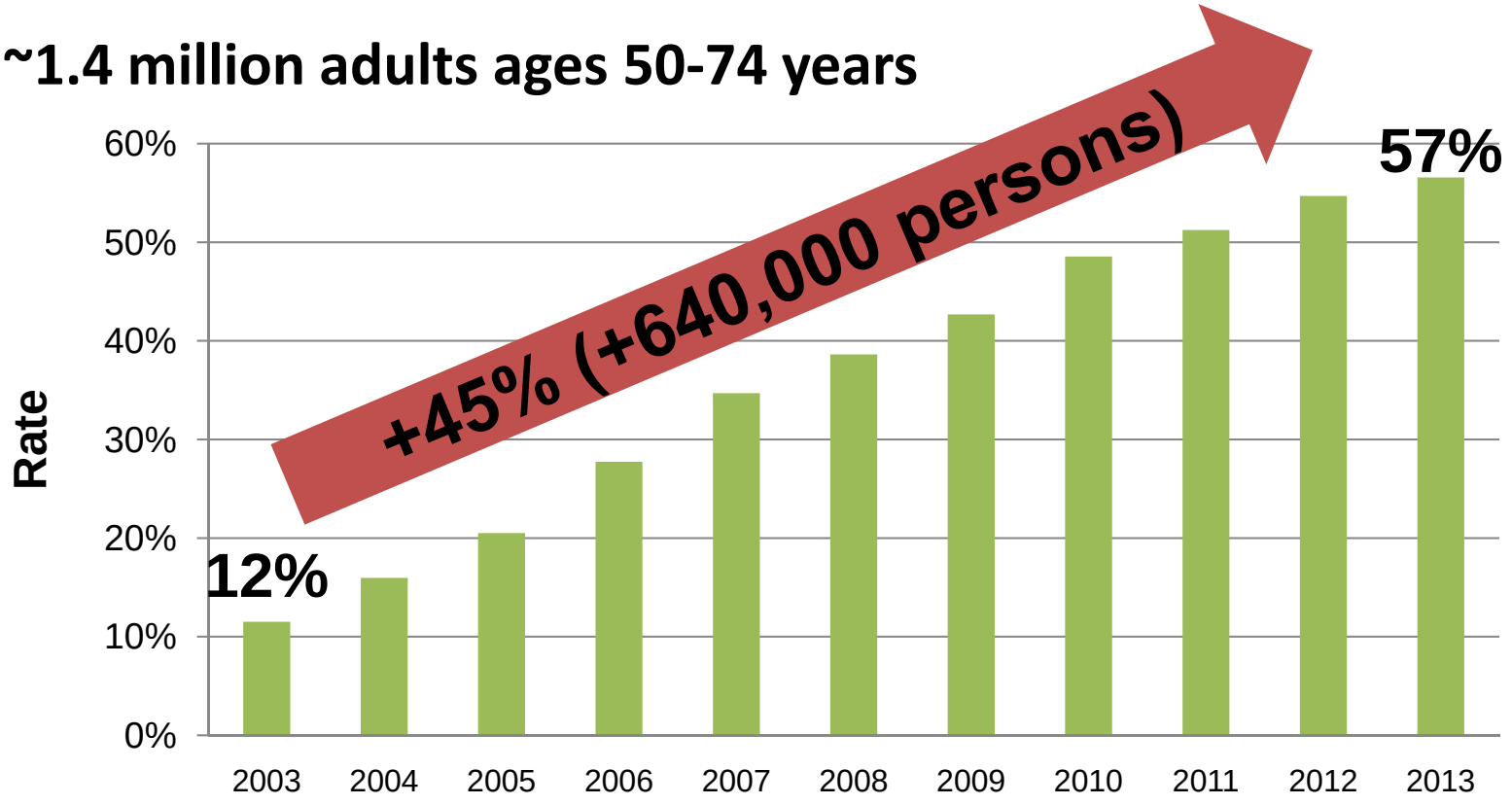
# Colon Cancer Screening - QICH



## Target population

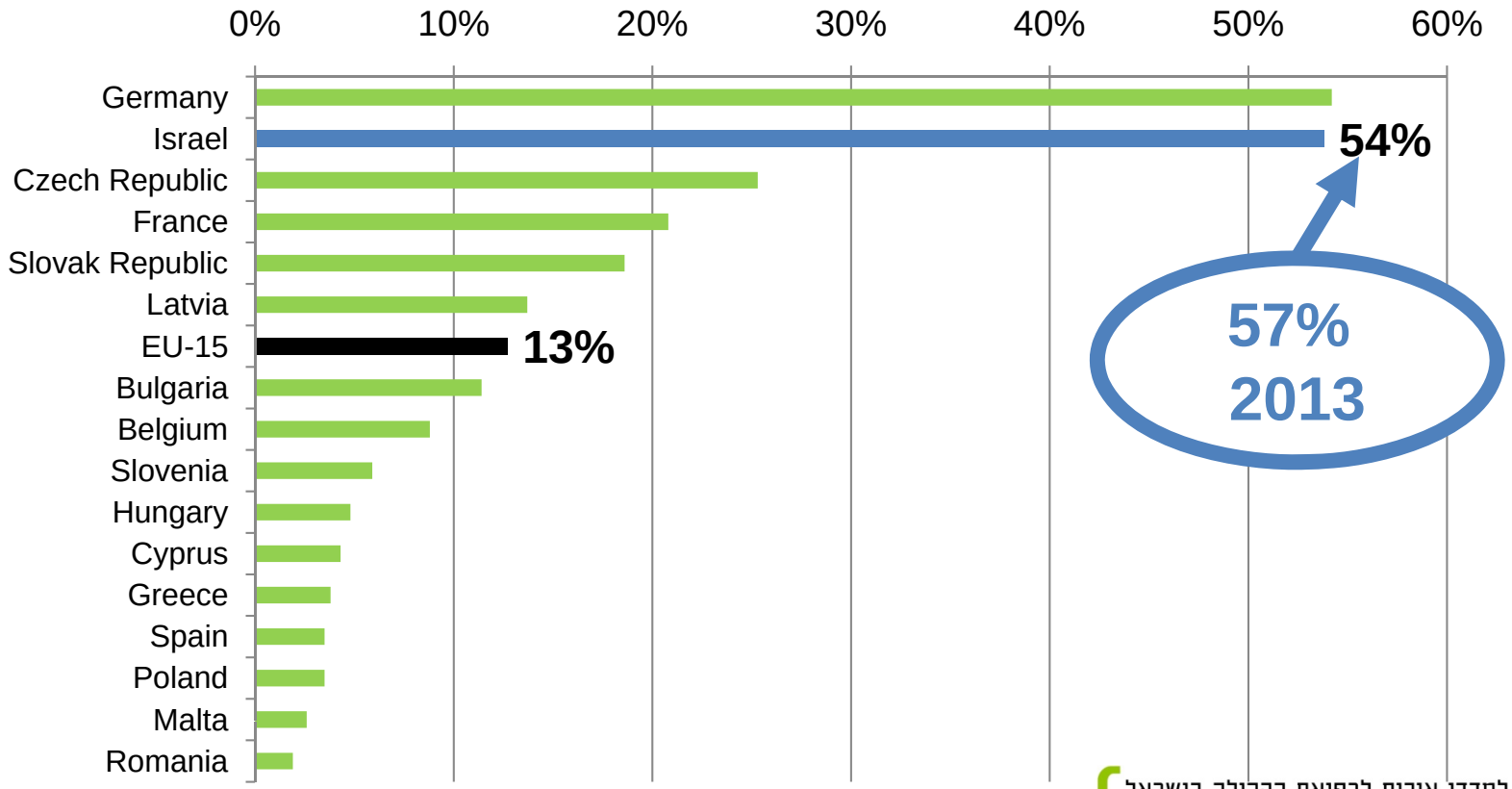
**~1.4 million adults ages 50-74 years**



# Colon Cancer Screening



**Colorectal screening, percentage of people screened aged 50-74, 2010 (or nearest year)**




OECD-iLibrary.org Health at a Glance – Europe 16 Nov 2012

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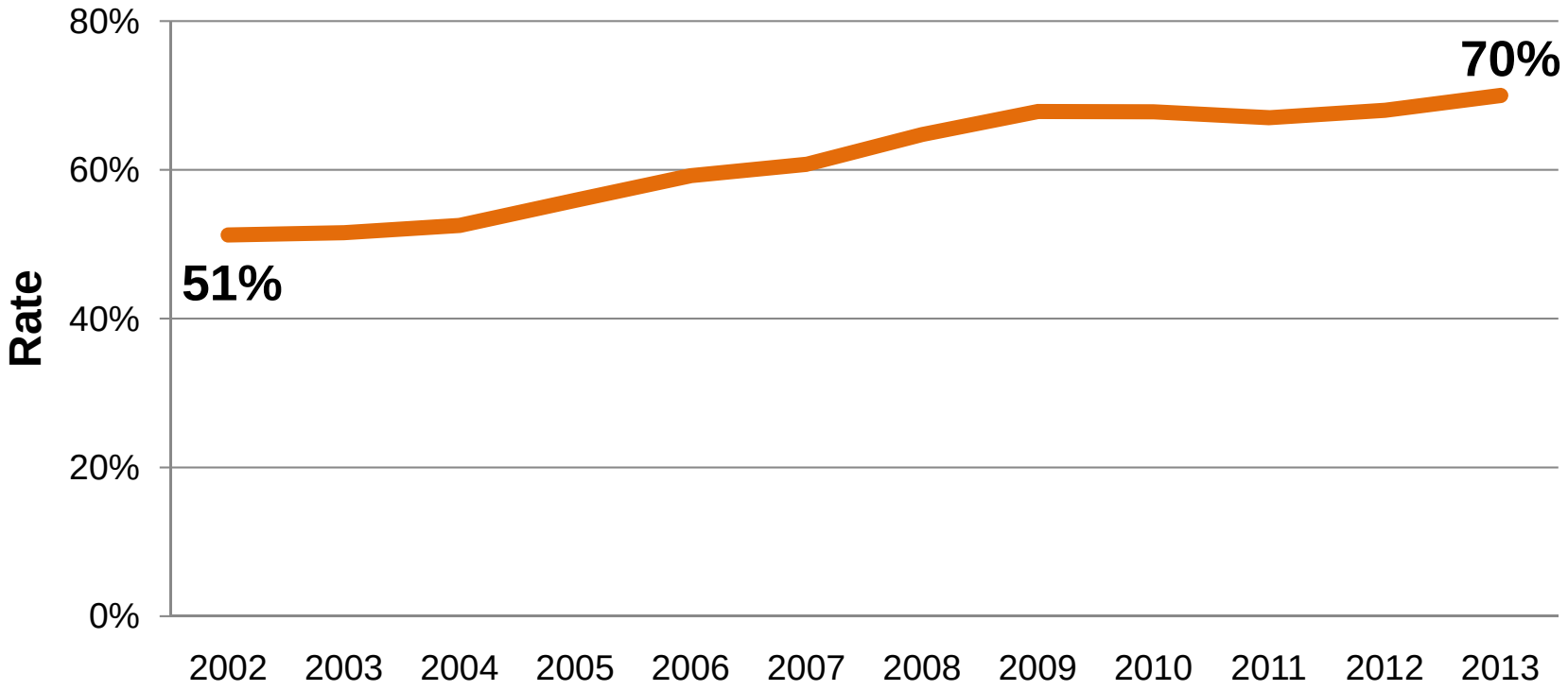
# Mammography screening

Percentage of women aged 51-74 years who have had at least one mammography performed in past two years

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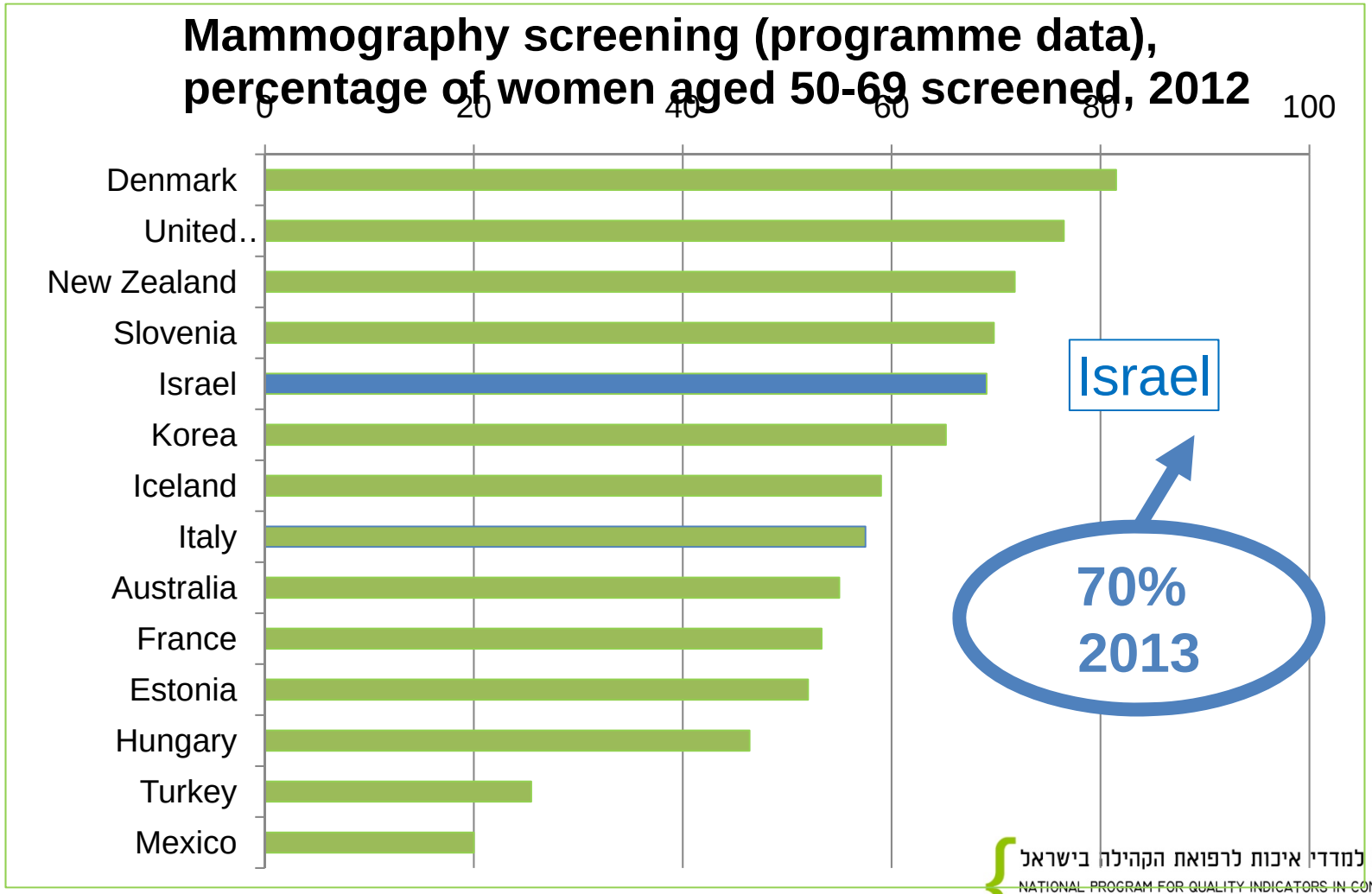
# Mammography Screening (**OECD**)




OECD-iLibrary.org Health at a Glance 2014

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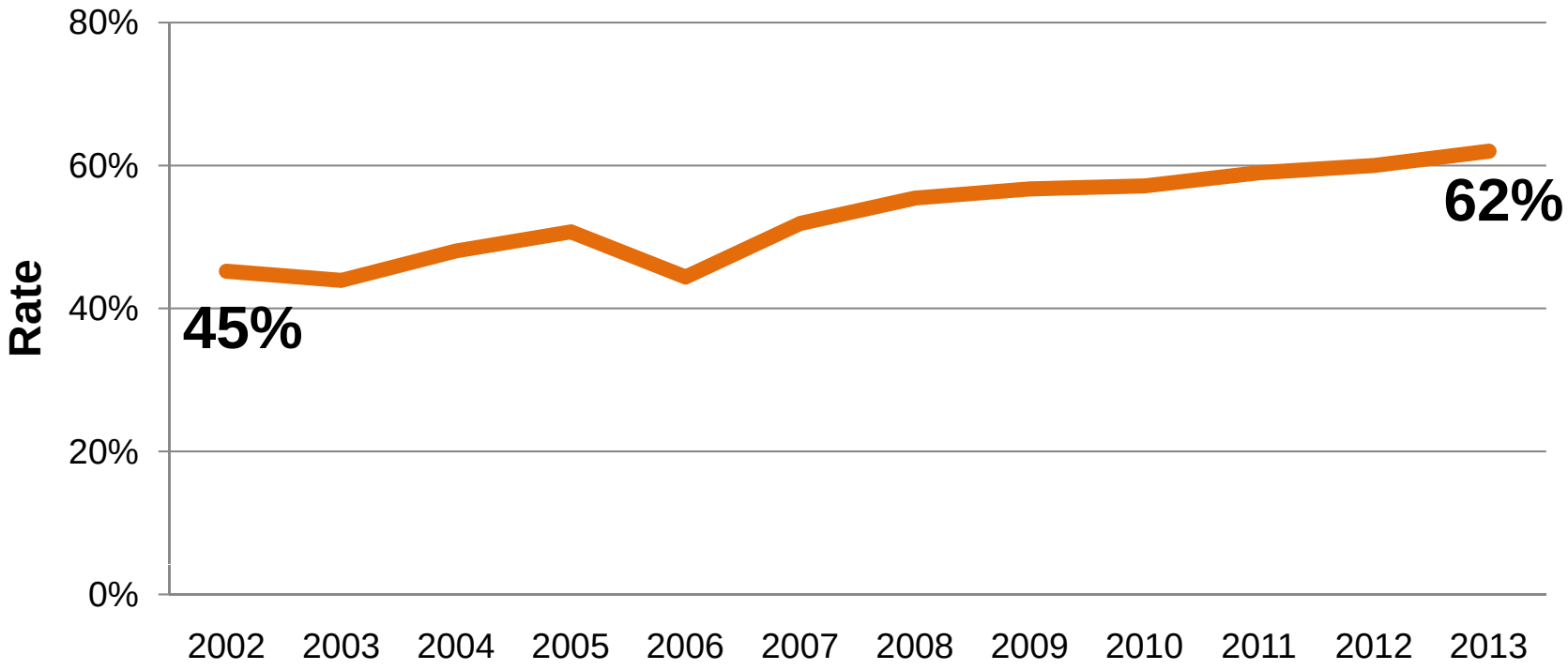
# Influenza Vaccination in Elderly

Percentage of adults aged 65+ years who had a seasonal influenza vaccination

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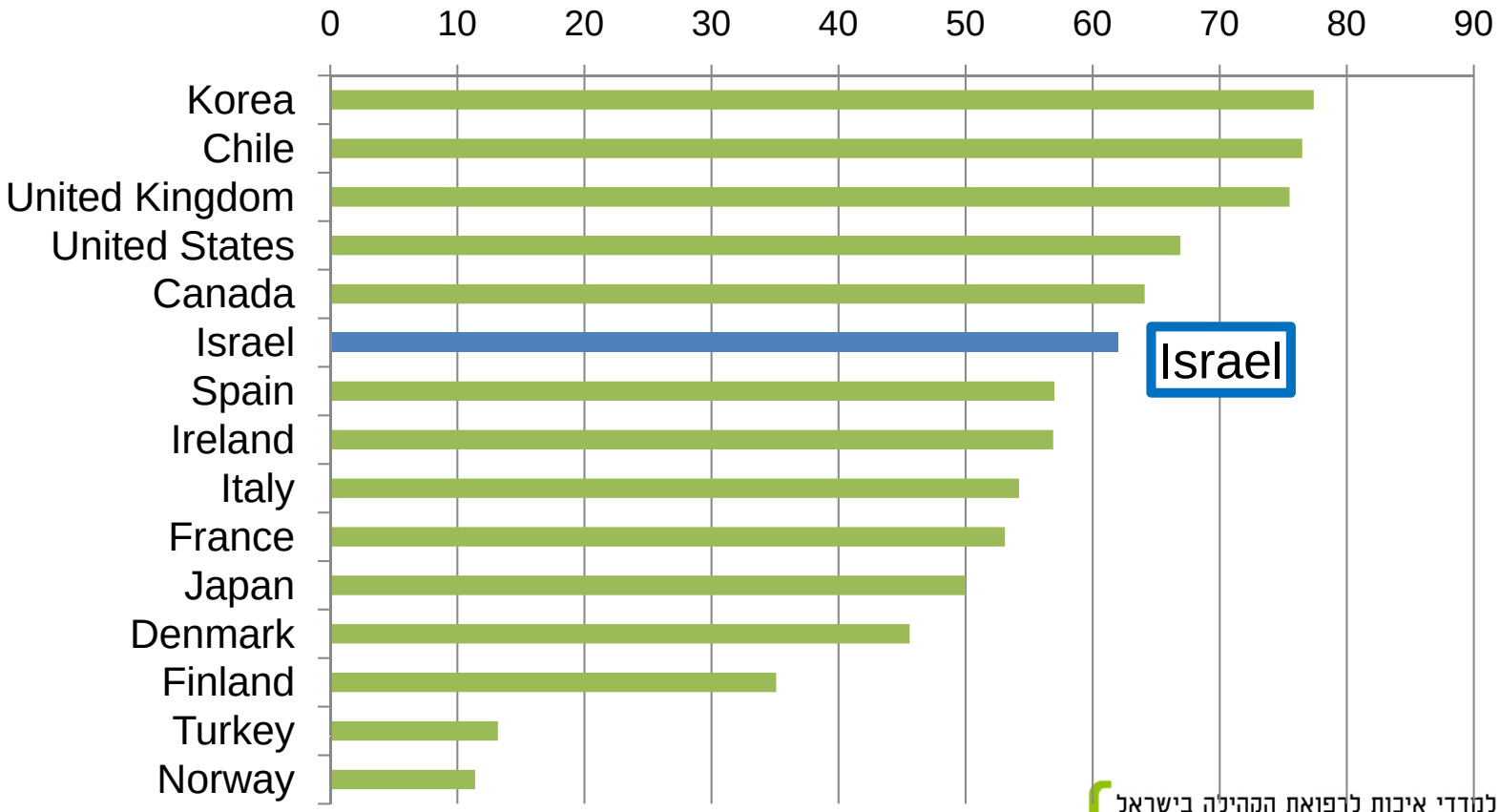
# Influenza vaccination – OECD elderly



**Influenza immunization:**
Percentage of population 65 years and over




OECD-iLibrary.org July 2014

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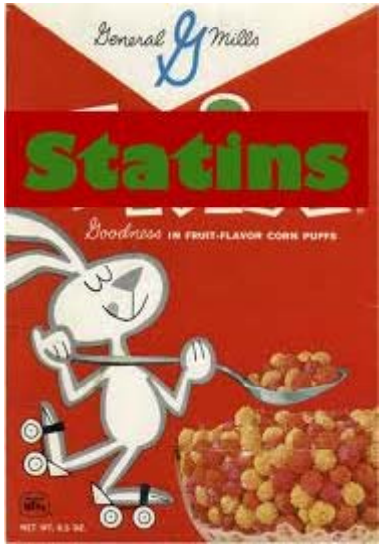
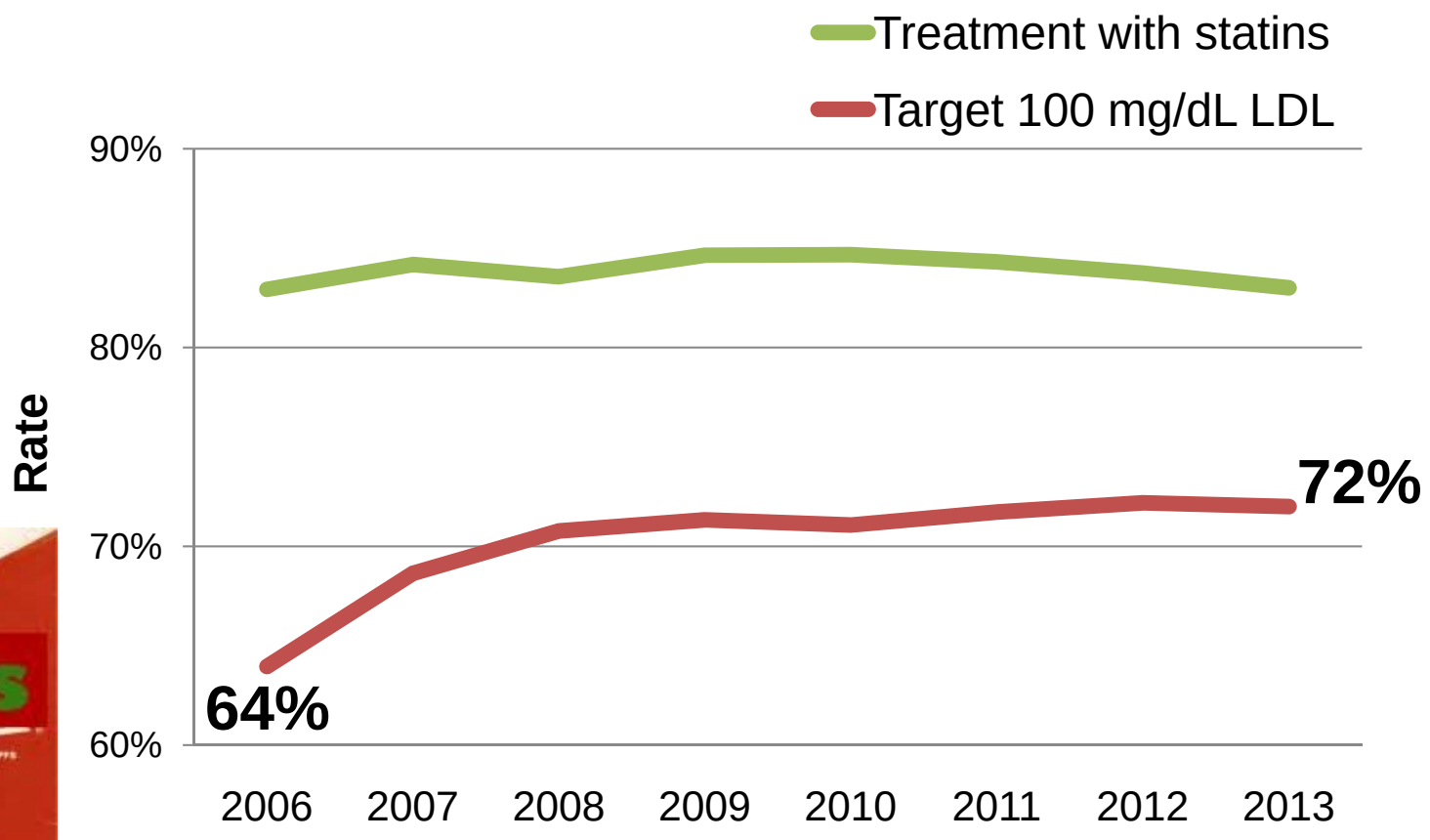
# Heart disease-Cholesterol control ages 35-74 years






Heart disease is defined as adults ages 35-74 years with ischemic heart disease (underwent PCI or CABG) in the 5 years preceding the measurement year.

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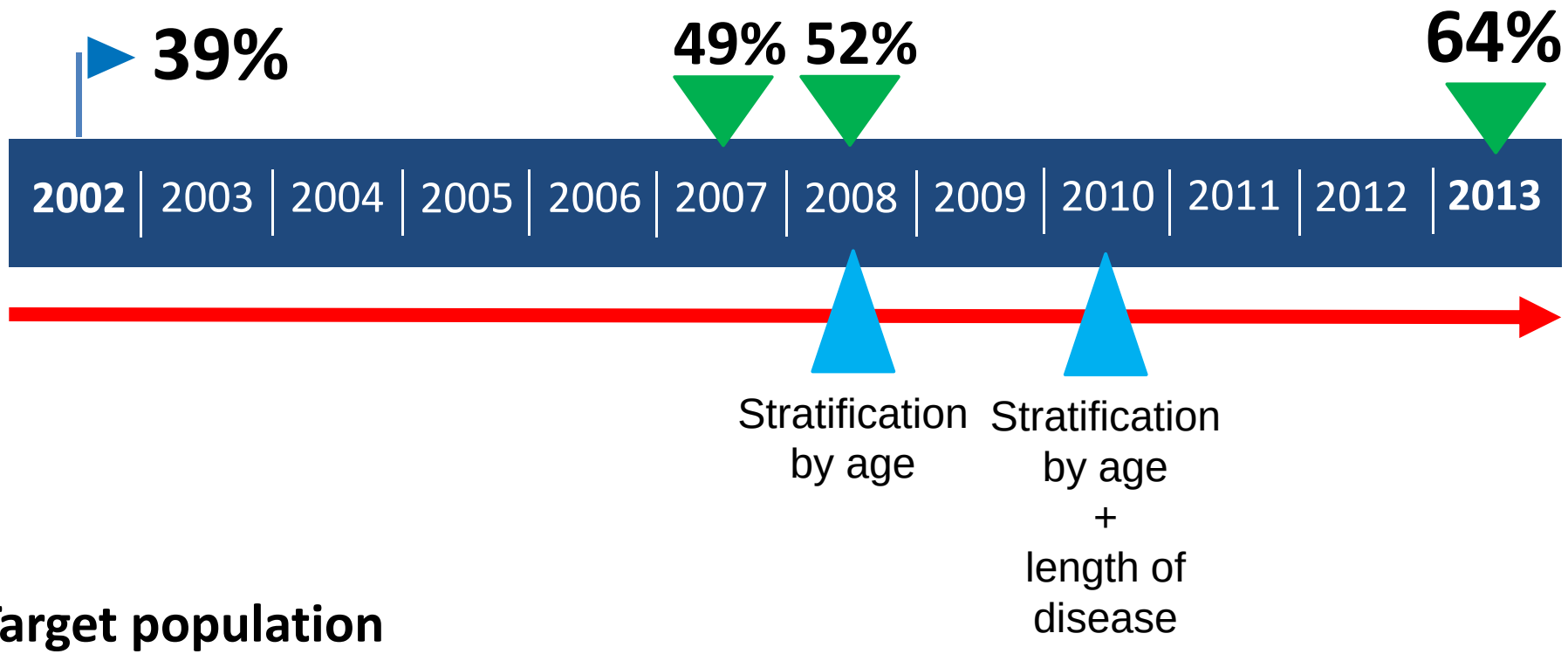
# Diabetes care- Glycemic control, adults: (HbA1c < 7% or 8%)






**Target population**

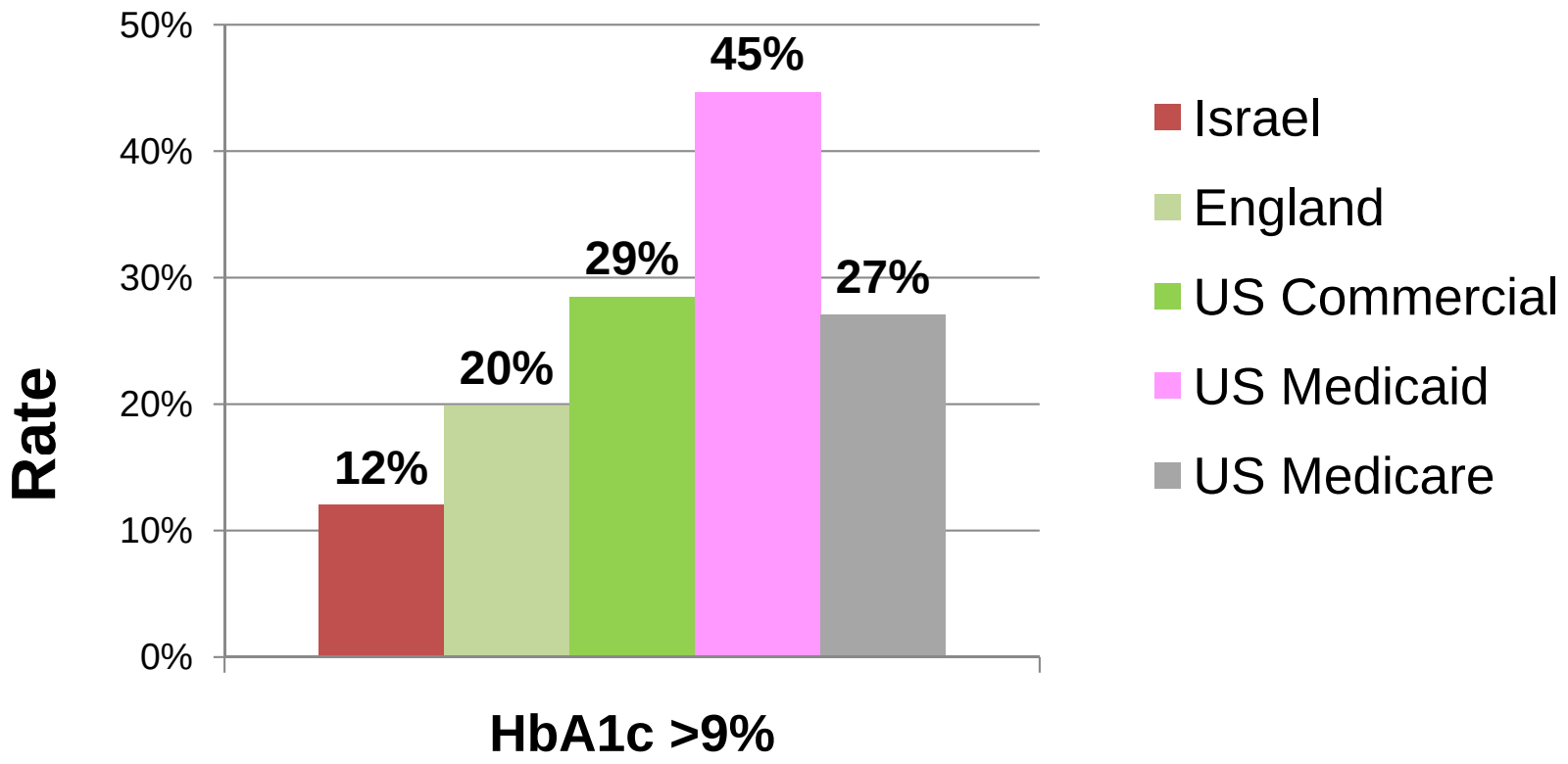
**397,000+ adults ages 18+ years in 2013**

**(90% of patients with diabetes had HbA1c documentation)**

# Diabetes care: Glycemic control, adults (HbA1c >9%)

# Diabetes care: Glycemic control (uncontrolled) (2013)






Source: US data - NCQA; www.isdscotland.org/qof; NHS, QMAS database - 2012/13 data; Rates from NHS include exceptions

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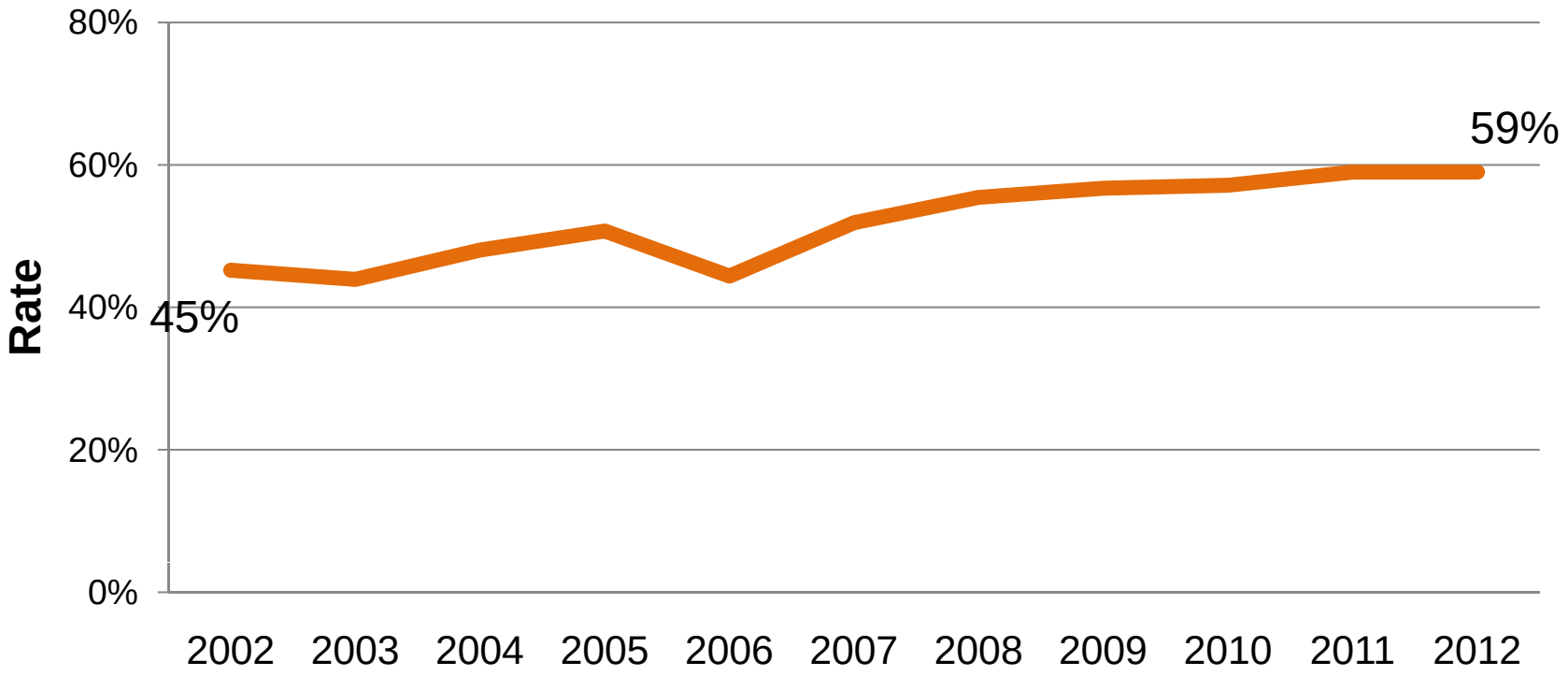
# QICH- Challenges

- **Examining outcomes – are we really moving the needle?**
- Adopting a longitudinal perspective – current perspective is a snapshot
- Monitoring health disparities

# Influenza Vaccination in Elderly

Percentage of adults aged 65+ years who had a seasonal influenza vaccination

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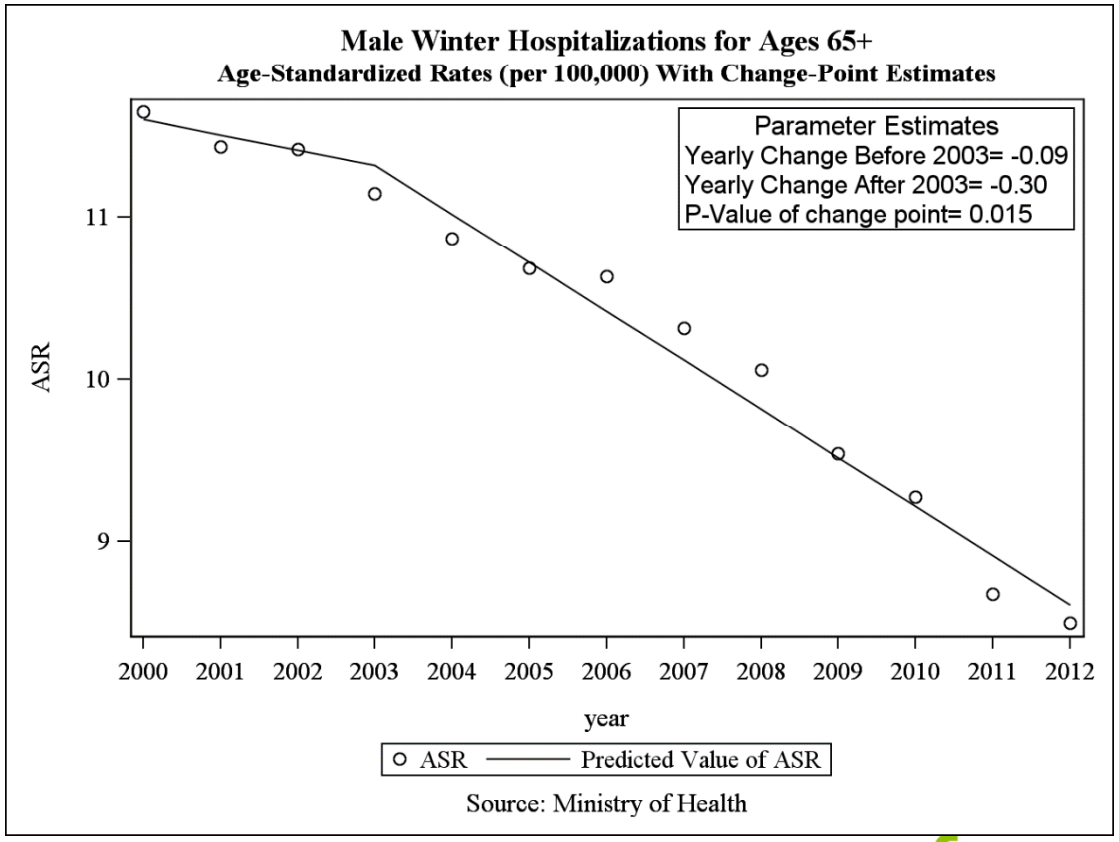
# Outcome: Winter Hospitalizations, Adult Men 65+, 2000-2012




**Outcomes Assessment Study**

**PI Ronit Calderon**

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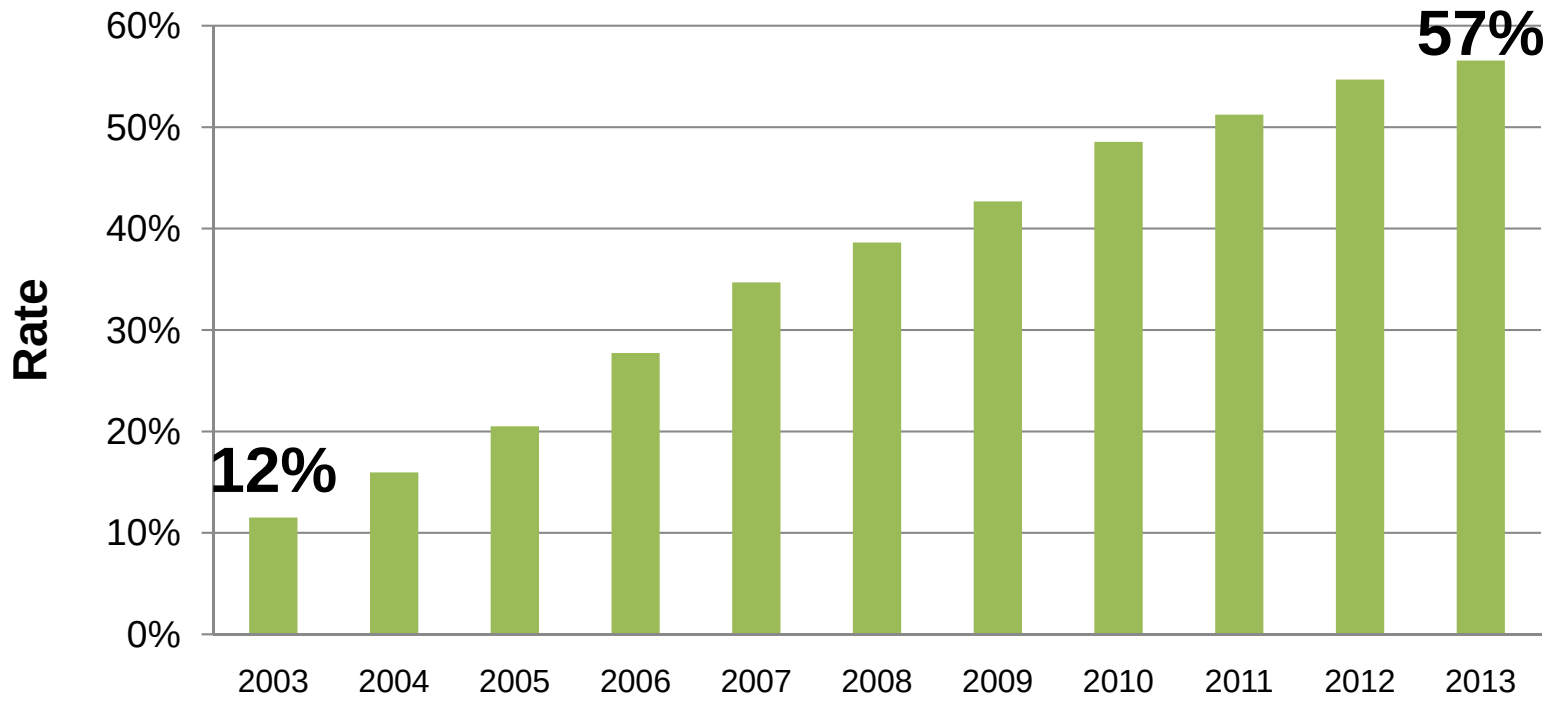
# Colon Cancer Screening - QICH



## Target population

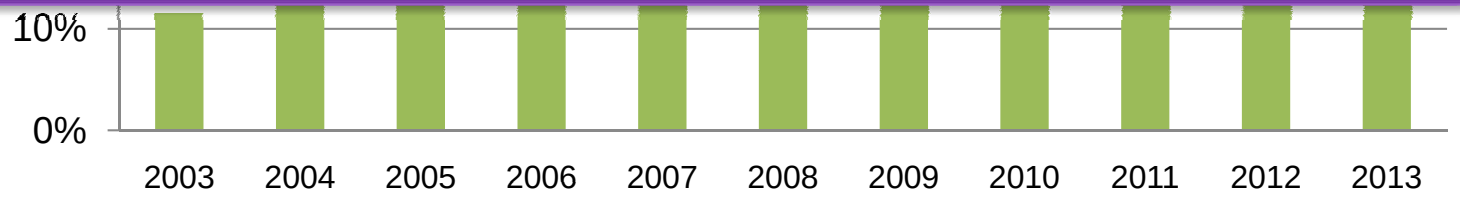
## ~1.4 million adults ages 50-74 years



# Colon Cancer Screening - QICH



- colon cancer incidence decreased among Jewish men or women, did not change for Arab women, and increased by 33% for Arab men.
- Significant and substantial changes in tumor staging were observed following the implementation of QICH, with substantial increases in localized tumors and decreases in metastasized tumors.



# QICH- Challenges

- Examining outcomes – are we really moving the needle?
- **Adopting a longitudinal perspective – current perspective is a snapshot**
- Monitoring health disparities

# Longitudinal perspective: Colon Cancer Screening

- Quality measure– conducting fecal occult blood testing (FOBT) during last year or colonoscopy during last decade
- Issues: Is FOBT conducted yearly, are positive FOBT results followed-up by a colonoscopy, how quickly?

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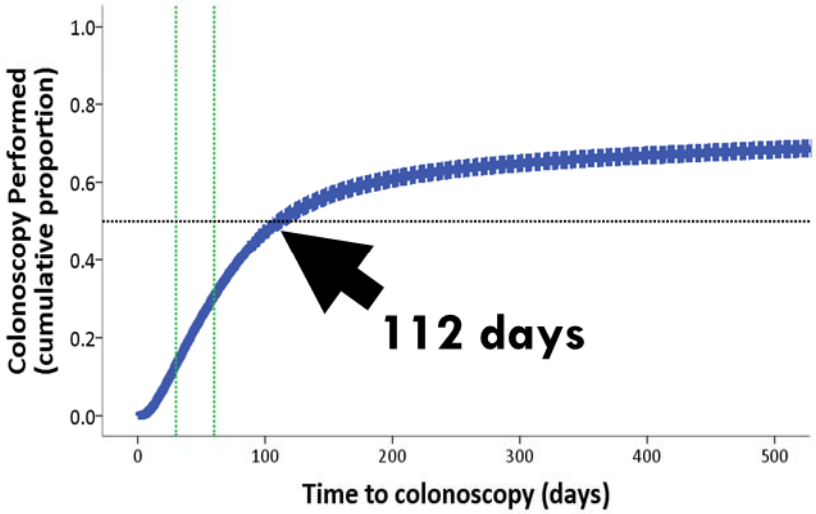
- Quality measure– conducting fecal occult blood testing (FOBT) last year or colonoscopy during last decade
- Issues: Is FOBT conducted yearly, are positive FOBT results followed-up by a colonoscopy, how quickly?

**Accompanying study:**
Preliminary data
time to colonoscopy

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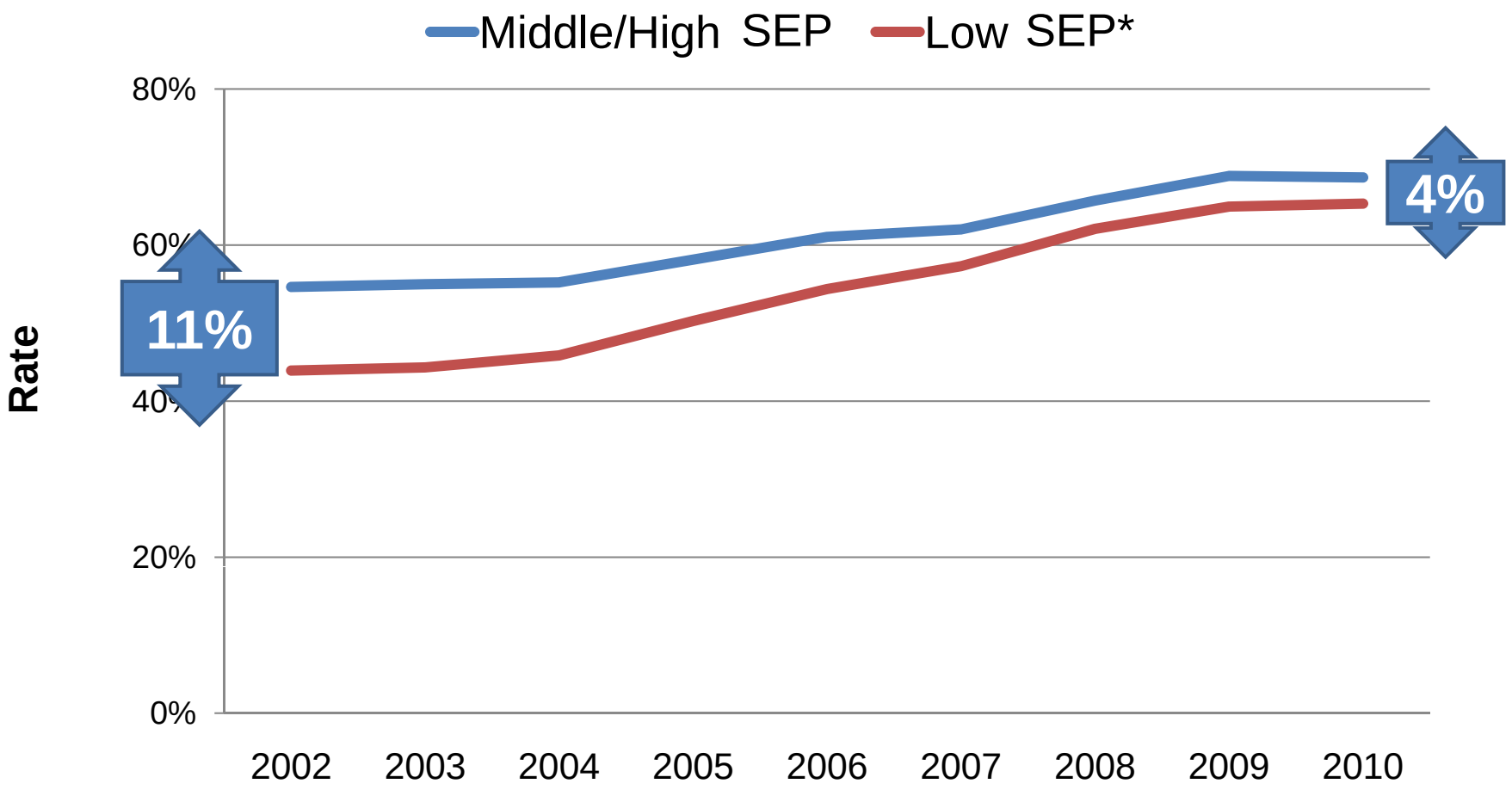
# QICH- Challenges

- Examining outcomes – are we really moving the needle?
- Adopting a longitudinal perspective – current perspective is a snapshot
- **Monitoring health inequalities**

# TRENDS IN HEALTH IMEQUALITIES

## MAMMOGRAPHY SCREENING, WOMEN AGES 51-74 YEARS




* Low SES = exempt from co-payment

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# A valid SEP measure

- Existing information on SEP – poor
- Through QICH, health plans + Central Bureau of Statistics are linking the addresses of all insured Israelis to small statistical areas → SEP score:
  - ENABLE – monitoring of health inequalities on a national level
  - ENABLE – adjusting for case mix

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# Additional Challenges

**ADDRESSING CONTINUITY OF CARE**

**CONDUCTING ECONOMIC EVALUATION OF THE PROGRAM**

Addressing co-morbidities – currently a single-disease orientation

(BMJ 2013 - two-thirds of British patients 65+ with multiple conditions. Three-quarters of Clalit [largest Israel provider] patients 65+)

# OECD REVIEWS OF HEALTH CARE QUALITY: ISRAEL

**EXECUTIVE SUMMARY, ASSESSMENT AND RECOMMENDATIONS**

14 October 2012

"Israel's efforts over the past decade have developed one of the most sophisticated programmes to monitor the quality of care in primary care across OECD countries."

OECD
BETTER POLICIES FOR BETTER LIVES

Health Division

www.oecd.org/health/qualityreviews

Directorate for Employment, Labour and Social Affairs

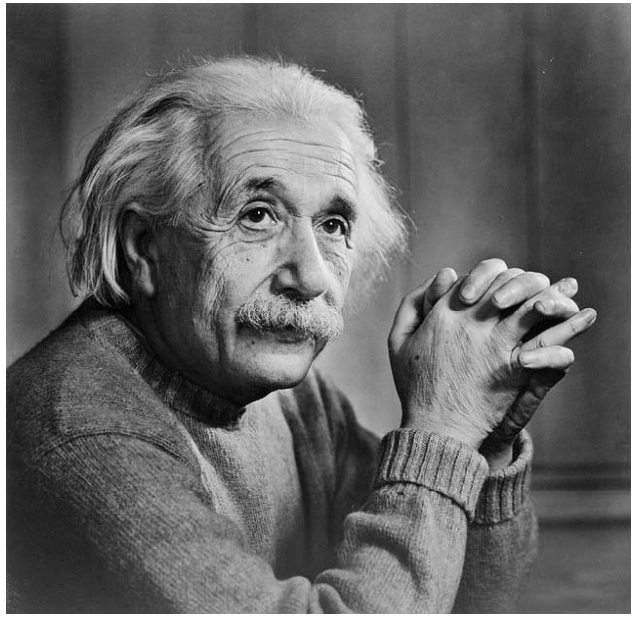
"Not everything that counts

can be counted,

and not everything that can

be counted counts."

*Einstein*



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# Recognition

The substantial improvement in the quality of care in Israel reflects the first-rate primary care services and focused efforts invested by the four health plans and their staff, including nurses, physicians, administrators and managers

# Thank you

Execute board: Orly Manor, Arie Ben-Yehuda, Amir Shmueli, Ora Paltiel,

Ronit Calderon and Dena Jaffe

**Clalit**

Chaim Bitterman

Orit Ya'akobson

Arnon Cohen

Margalit Goldfracht

Tamara Koren

**Maccabi**

Yair Birenboim

Einat Elran

Nesya Gordon

Rachel Marom

Guy Levy

**Meuhedet**

Liora Valinsky

Yossi Zini

Alon Yaffe

**Leumit**

Daniel Vardi

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Nirit Peretz

Israel National Institute for Health Policy Research

Health Councils

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