

Surveillance system, key element to fight Cardiovascular Diseases

Regional Workshop on Non-Communicable Diseases, with a specific focus
on cancer and cardiovascular diseases,
Rio de Janeiro Brazil, May 04-05, 2012.

The Brazilian Academy of Sciences and the Brazilian National Academy of Medicine is organizing, in collaboration with the Latin American Association of Academies of Medicine (ALANAM) and with the support of the Interamerican Network of Academies of Sciences (IANAS), of the Global Network of Science Academies (IAP) and of the InterAcademy Medical Panel (IAMP).

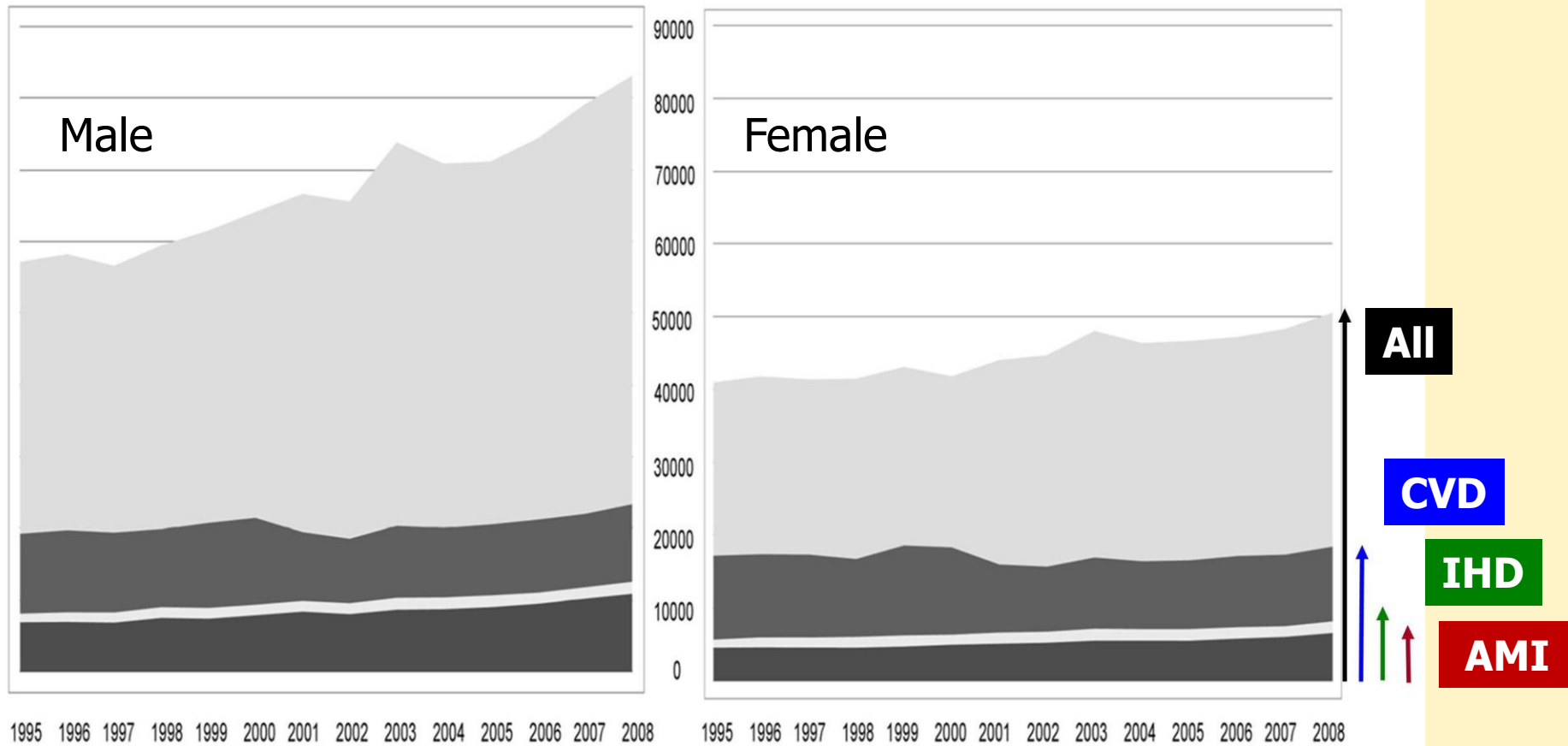
Ricardo Granero, MD, MHSc, FPCC

In representation of the Venezuelan National Academy of Medicine

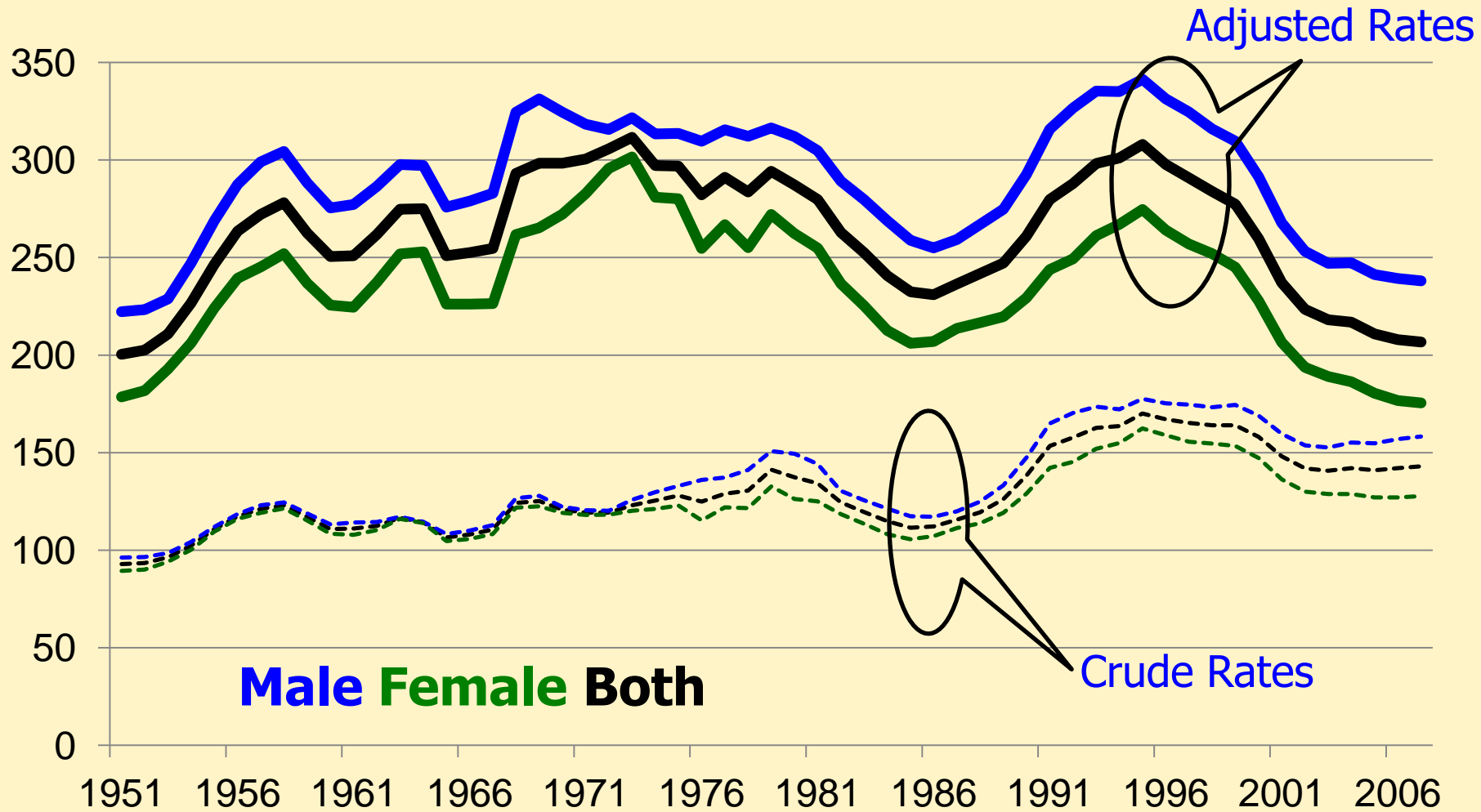
ASCARDIO, Ministry of Health, AMNET

Trend on Death in Venezuela, 1995-2008

All causes (**ALL**); Cardiovascular Diseases (**CVD**);
Isquemic Heart Disease (**IHD**); Acute Miocardial Infarction (**AMI**)



Mortality rates per 100000 inhabitants due to cardiovascular diseases (CVD) according to IDC-10 (I00 a I99) in Venezuela



Do you want to avoid
premature
cardiovascular disease?

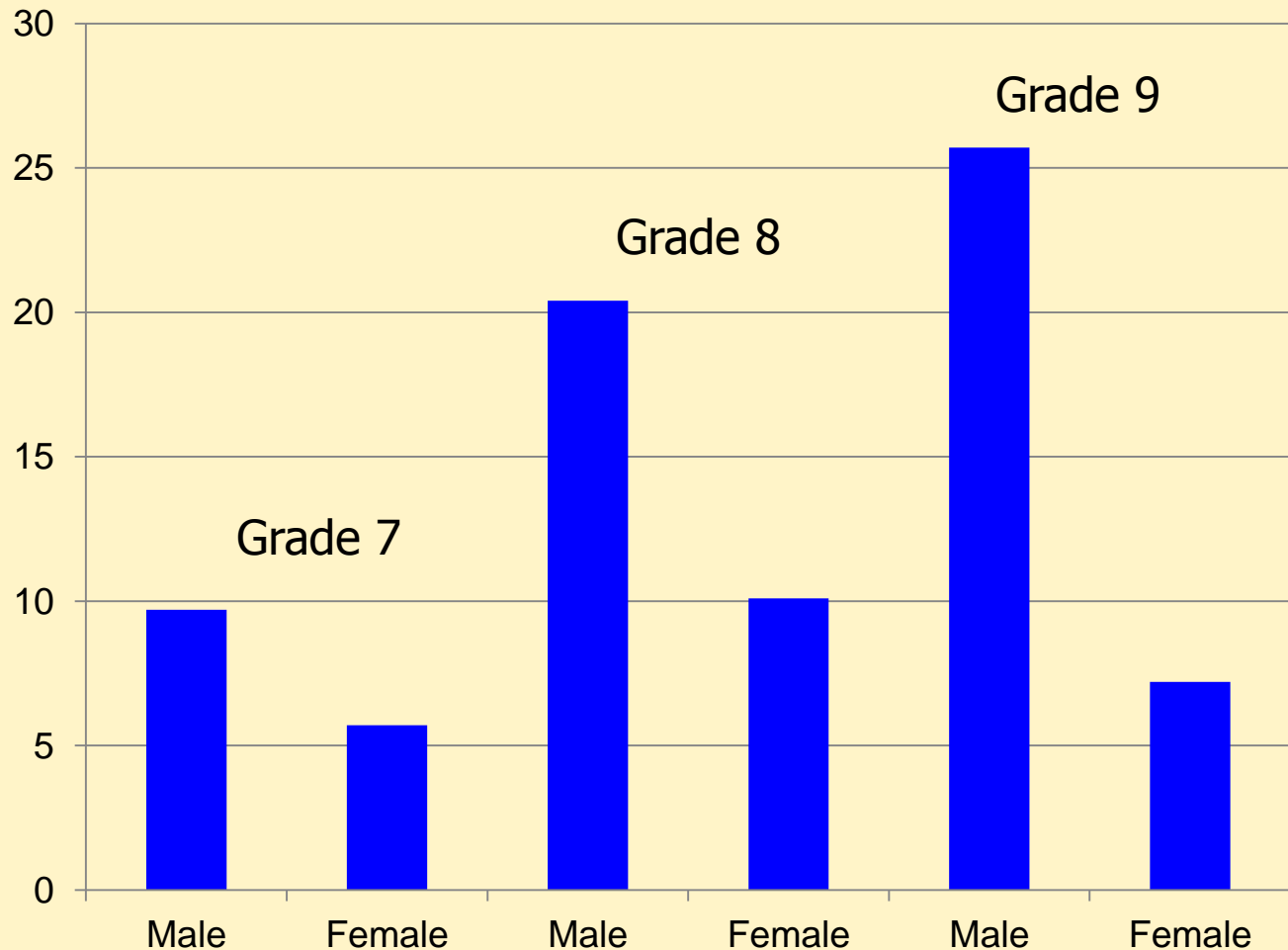
- ✓ Avoid overweight or obesity
- ✓ Keep fat and salt intake low
- ✓ Eat fruit and vegetables every day
- ✓ Never use tobacco, or quit it ASAP
- ✓ Do exercises as often as possible
- ✓ Check your blood pressure and glucose
- ✓ Control HBP
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Do exercises as often as possible

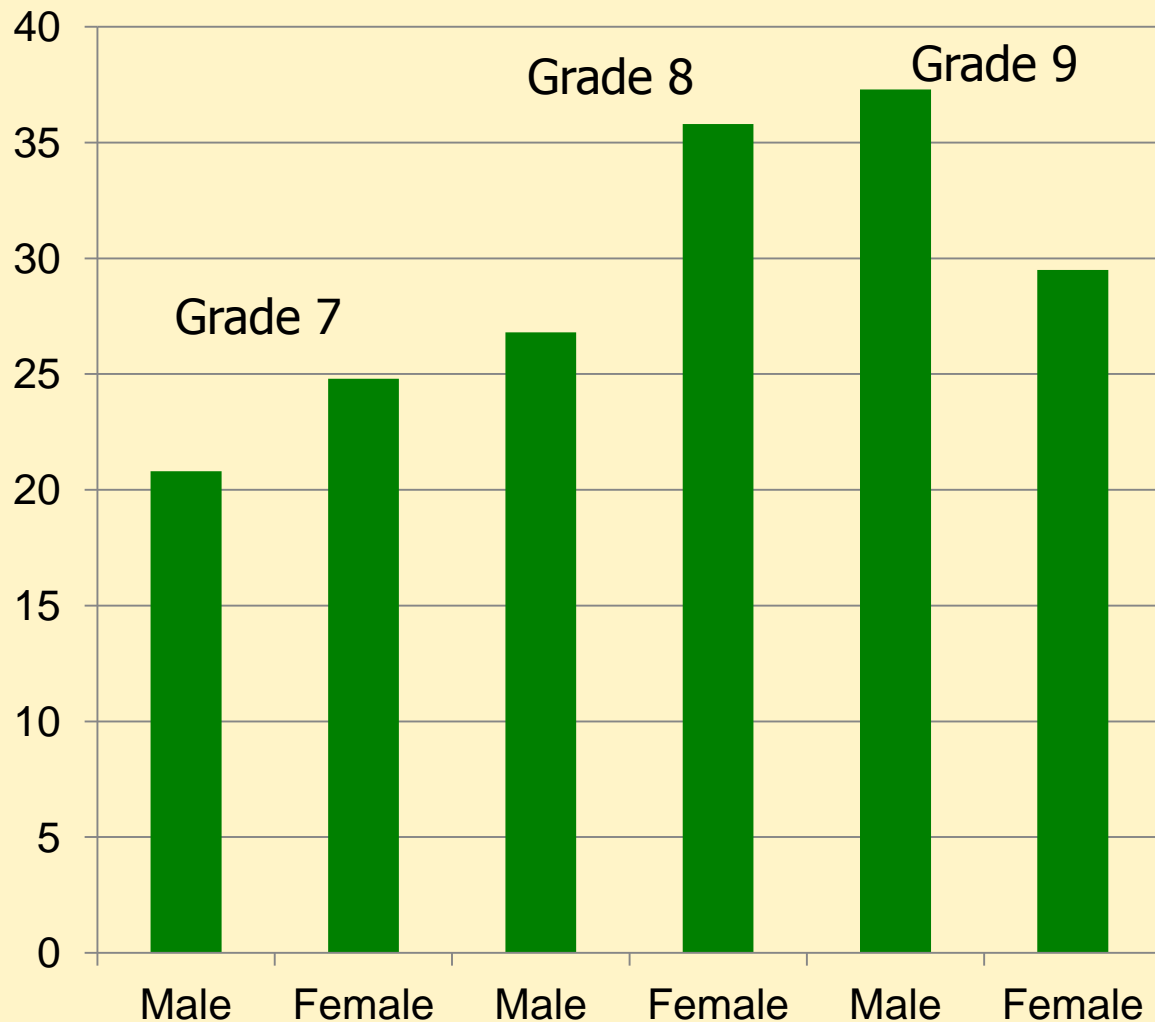
Are we **sure** that this very well recognized recommendation is being followed by the population?

Prevalence (%) of elementary school students that were active at least 60 minutes on 5 or more days in the last week.



Behavioral patterns of physical activity and leisure-time among the students of the 7th, 8th and 9th grades in the State of Lara, Venezuela. [Global School Health Surveillance System](#)

Prevalence (%) of elementary school students that spend 3 or more hours watching TV or chatting in a normal school day in the last week.



Behavioral patterns of physical activity and leisure-time among the students of the 7th, 8th and 9th grades in the State of Lara, Venezuela. [Global School Health Surveillance System](#)

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Prevalence (%) of elementary school students that indicate eating occasionally or not at all fruits or vegetables in the previous 30 days

	7 Grade	8 Grade	9 Grade
Fruits	41.8	44.8	47.2
Vegetables	46.5	43.7	42.0

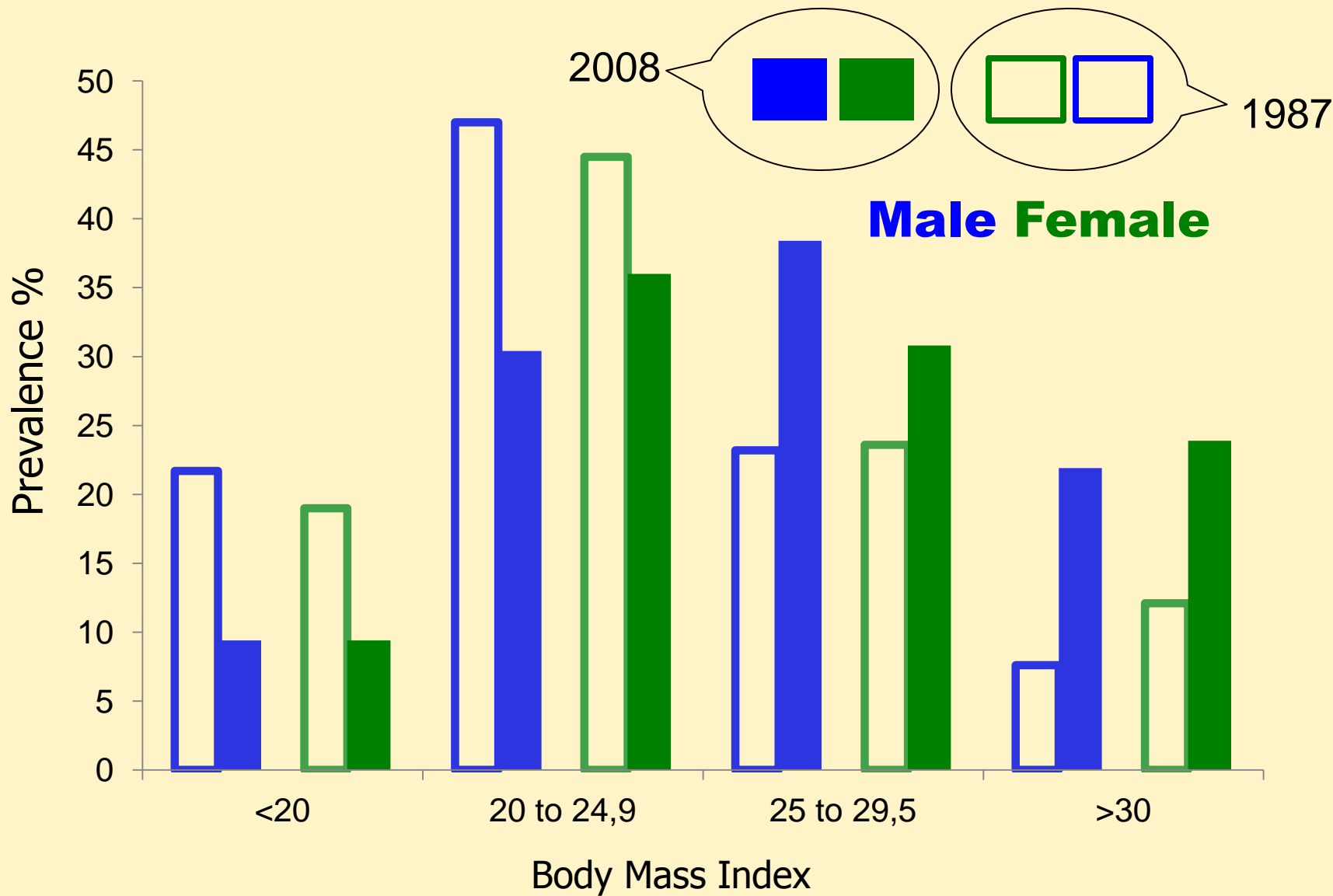
Behavioral patterns of physical activity and leisure-time among the students of the 7th, 8th and 9th grades in the State of Lara, Venezuela. [Global School Health Surveillance System](#)

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Prevalence (%) of elementary school students that are **obese (P95)** or **at risk of being obese (P85)**

	7Grade		8 Grade	
	P85	P95	P85	P95
Male	17	2.3	13	5.8
Female	11	1.8	15	2.0

Behavioral patterns of physical activity and leisure-time among the students of the 7th, 8th and 9th grades in the State of Lara, Venezuela. [Global School Health Surveillance System](#)



ESCEL Estudio de Salud Cardiovascular del Estado Lara

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Prevalence of High Blood Pressure in the adult population of Venezuela

Place	Type	Male	Female
Maracaibo	Cross seccional, 2000	45%	29%
Barquisimeto	Cross seccional CARMELA, 2004	27.5% (IC95% 23.7-31.3)	22.9% (IC95% 20.6-25.2)
Lara State	ESCEL, Surveillance system 1987 and 2008	52.6%	38.9%
		30.8% (IC95% 26.7-34.8)	23.7% (IC95% 21.3-26.2)

ESCEL Estudio de Salud Cardiovascular del Estado Lara

Issues concerning High Blood Pressure in the adult population of Venezuela

Out of all people in the survey, proportion that knew they had HBP
46% Maracaibo, 72% Barquisimeto, 75% ESCEL 2008

Those with known HBP, proportion that had any treatment prescribed
23% Maracaibo, 49% Barquisimeto, 89% ESCEL 2008,

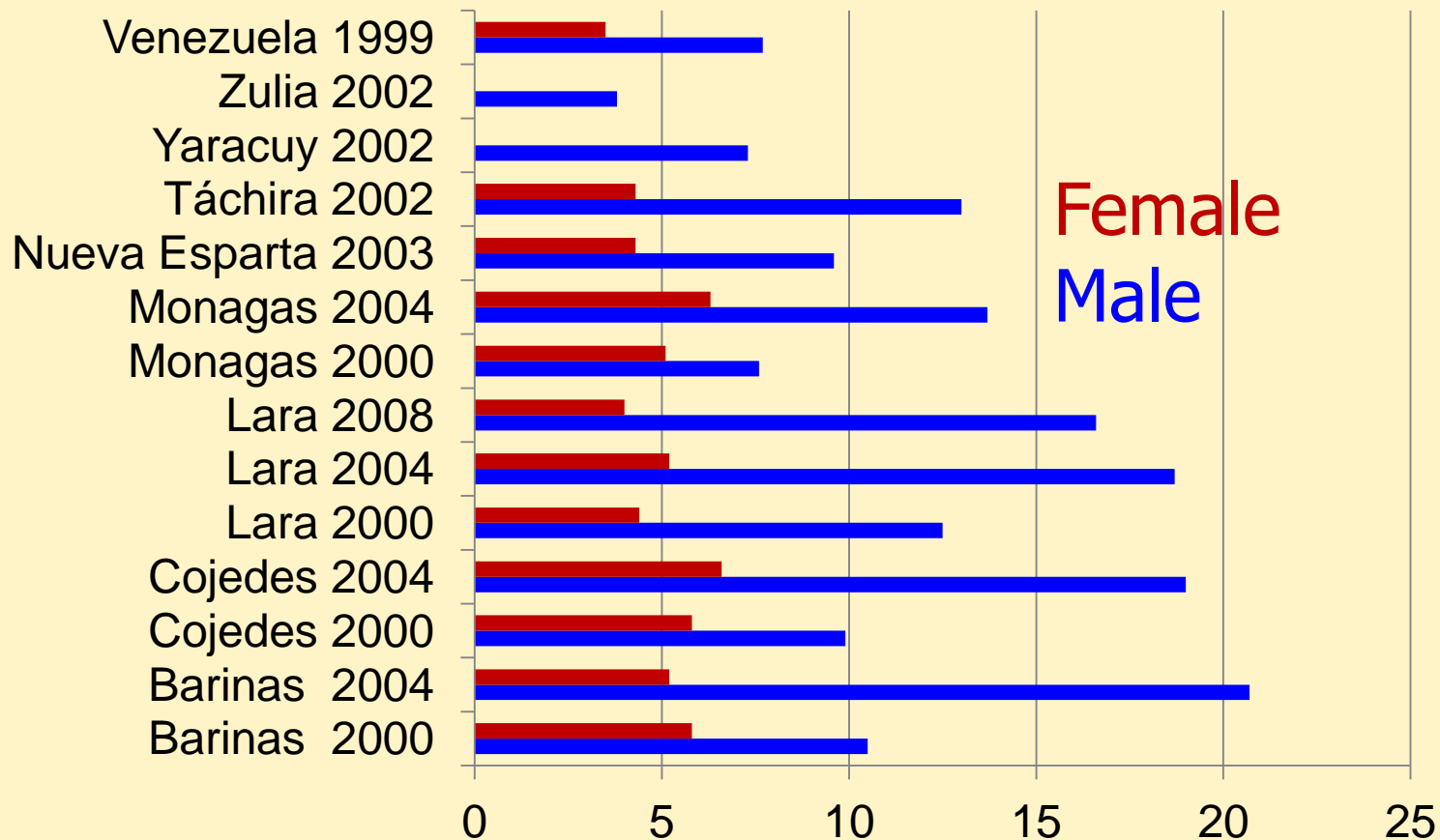
Out of those that said they take the prescribed medication, proportion of people with controlled BP.

4.5% Maracaibo, 42% Barquisimeto, 46.5% ESCEL 2008

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Chimo (%) use in Venezuelan Elementary School Students The Global Youth Tobacco Survey (GYTS)



Uso de chimo entre adolescentes en Venezuela. Encuesta Mundial sobre Tabaquismo en Jóvenes 1999-2008. Ricardo Granero 1-3, Patricio Jarpa 3-5. Acta Odontologica Venezolana Vol. 49 N° 3, 2011.

Looks like we are
not doing too well

How a surveillance system
could help?

Currently

- The **paradigm shift** from disease prevention to **health promotion**
- Need for **evidence** to support public health initiatives

Surveys

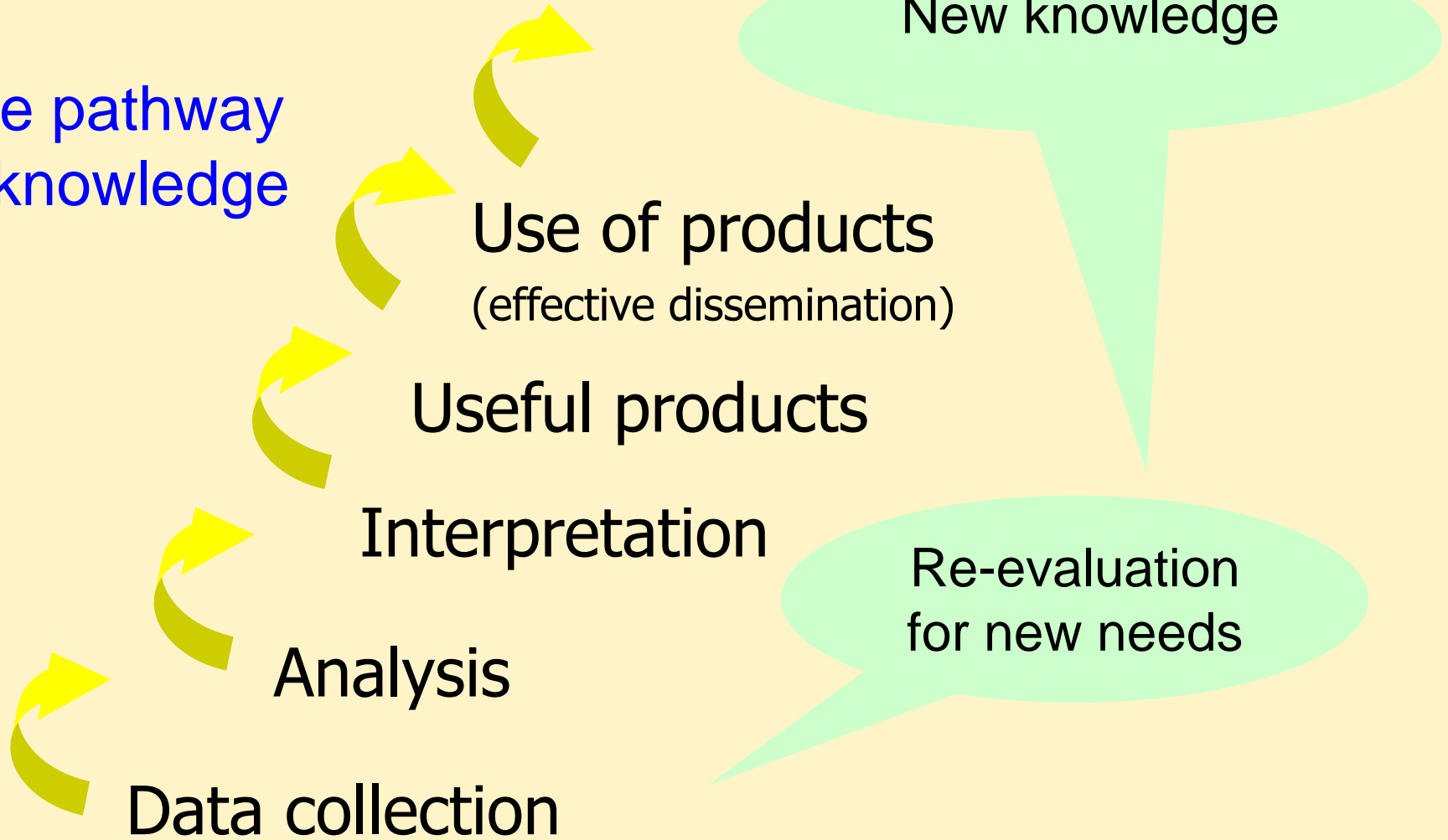
- Show relationships between factors
- One point in time
- Subpopulation-based
- Results point to the way things

■ were

Surveillance

- Show actual changes in factors
- Continuous
- Population-based
- Results point to the way things
- are changing

The pathway
to knowledge



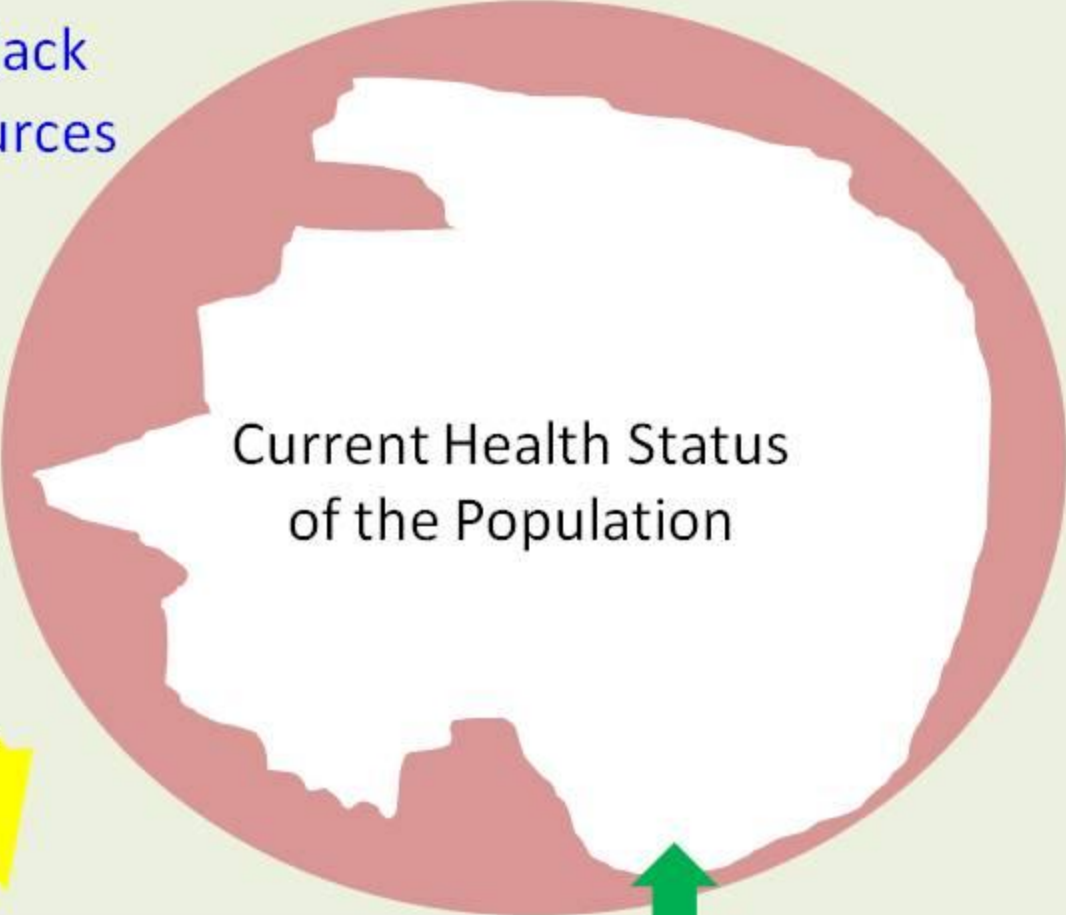
Health Surveillance

The **tracking and forecasting** of any health event or health determinant, through the **continuous** collection of high-quality data, **the integration, analysis and interpretation** of those data into **surveillance products** and **the dissemination** of those surveillance products to those who need to know.

Surveillance products are produced for a specific public health purpose or policy objective like **health promotion and disease prevention**

Scenario A Unaware, lack of knowledge, lack of resources

Opportunity to Improve health (needs of the community)



Policies Programs Services

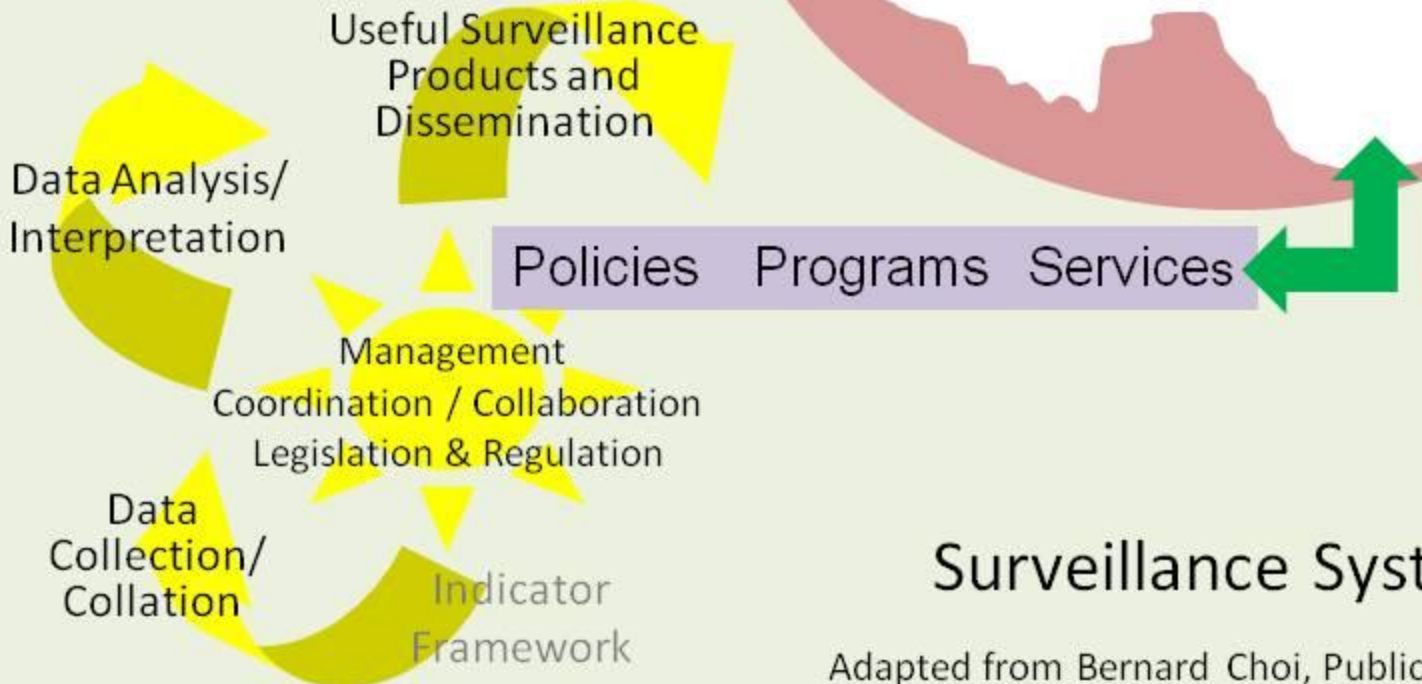
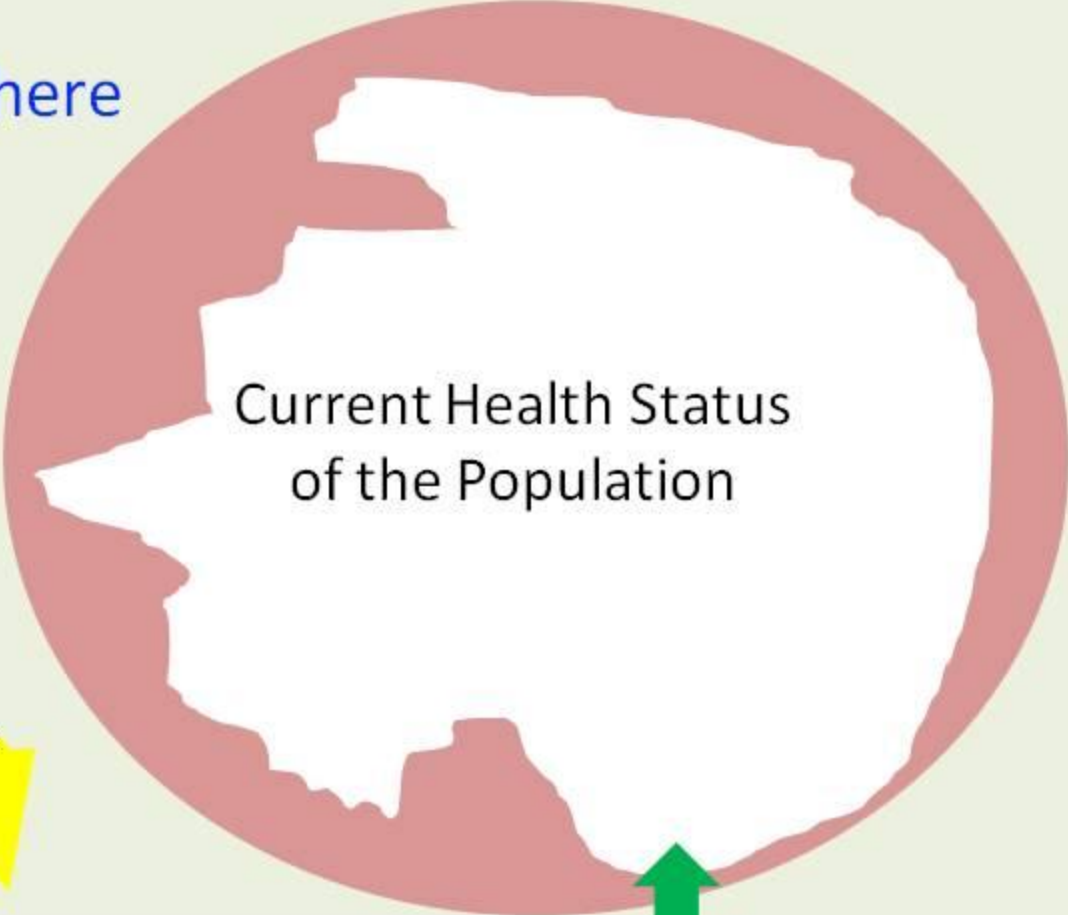


Surveillance System

Adapted from Bernard Choi, Public Health Agency of Canada

Scenario B Data not there

Opportunity to Improve health (needs of the community)

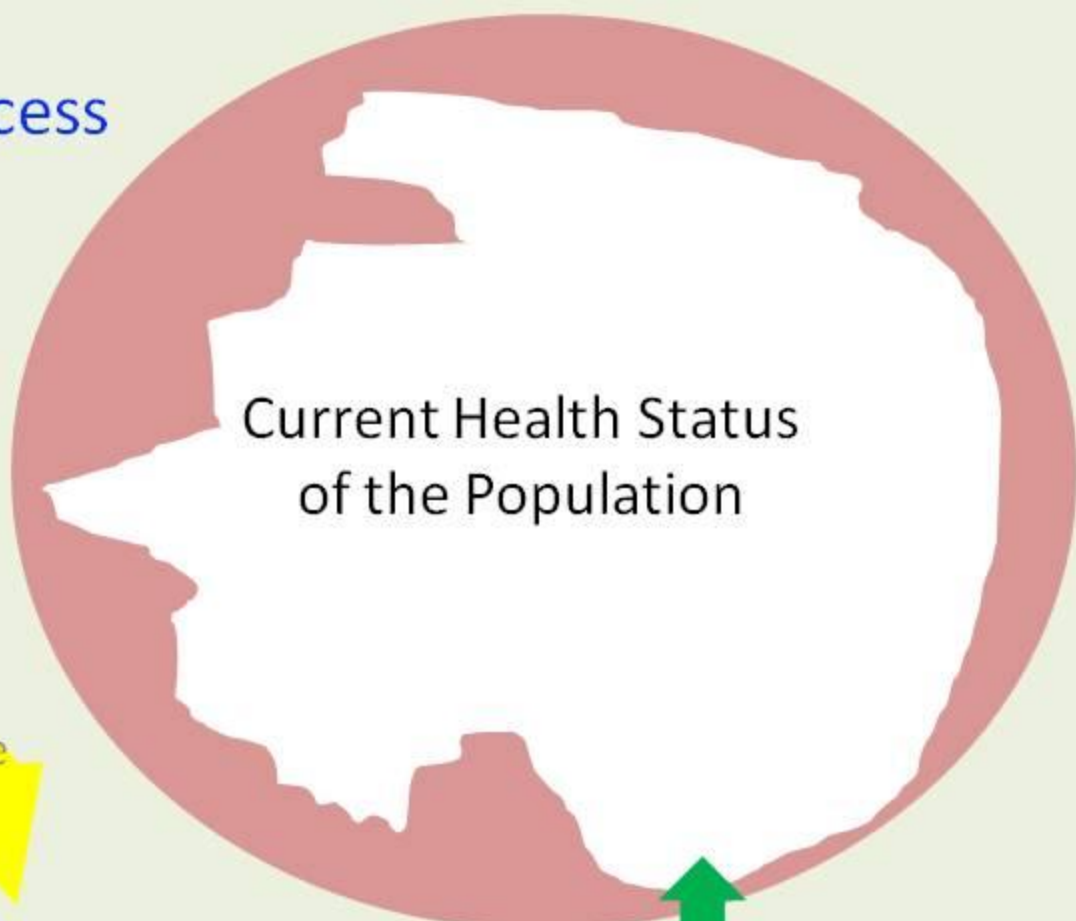


Surveillance System

Adapted from Bernard Choi, Public Health Agency of Canada

Scenario C, Can't access

Opportunity to Improve health (needs of the community)



Useful Surveillance Products and Dissemination

Data Analysis/ Interpretation

Policies Programs Services

Management
Coordination / Collaboration
Legislation & Regulation

Data Collection/ Collation

Indicator Framework

Surveillance System

Scenario D can't interpret

Opportunity to Improve health (needs of the community)

Current Health Status of the Population

Useful Surveillance Products and Dissemination

Data Analysis/ Interpretation

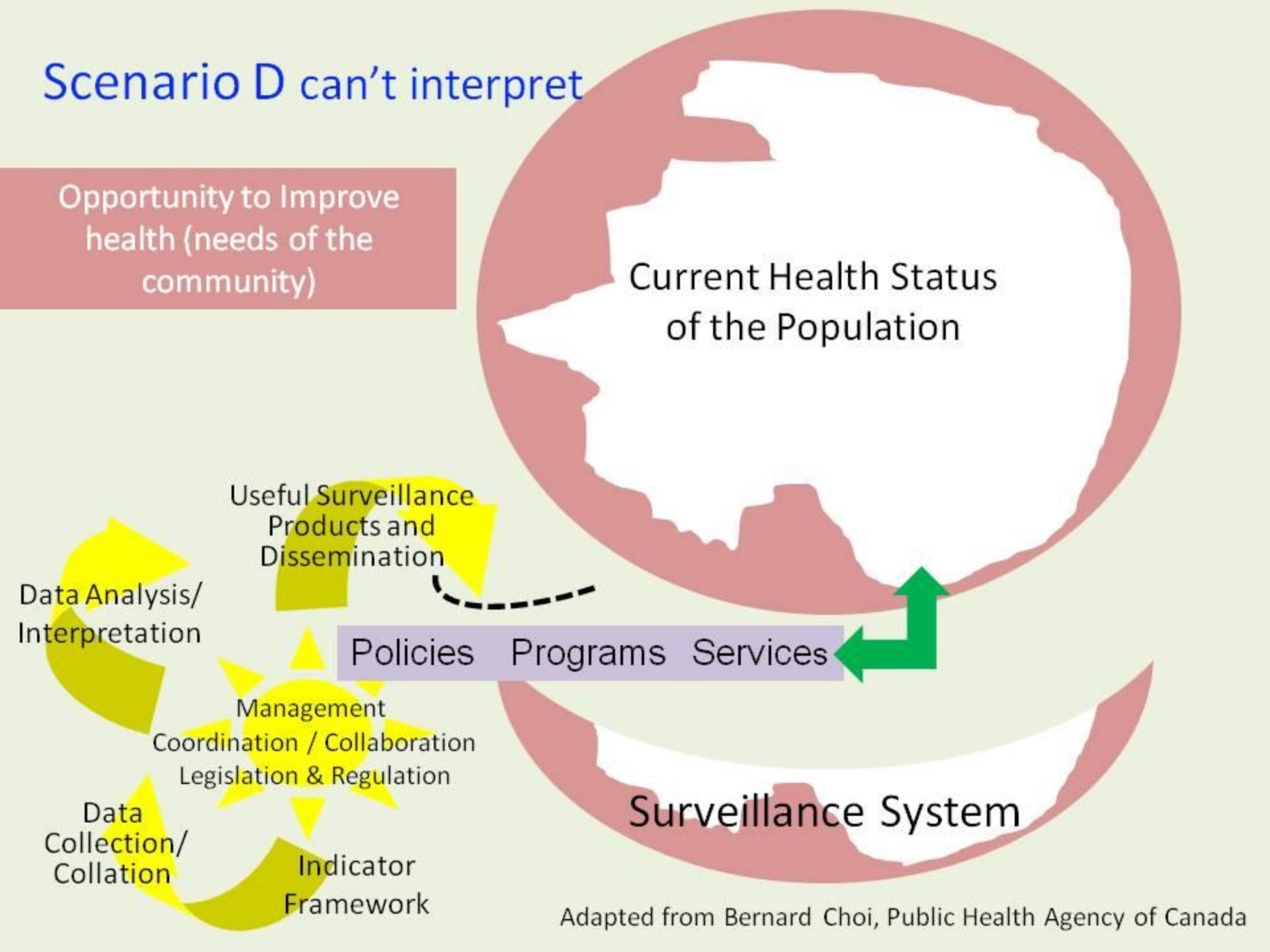
Policies Programs Services

Management
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Data Collection/ Collation

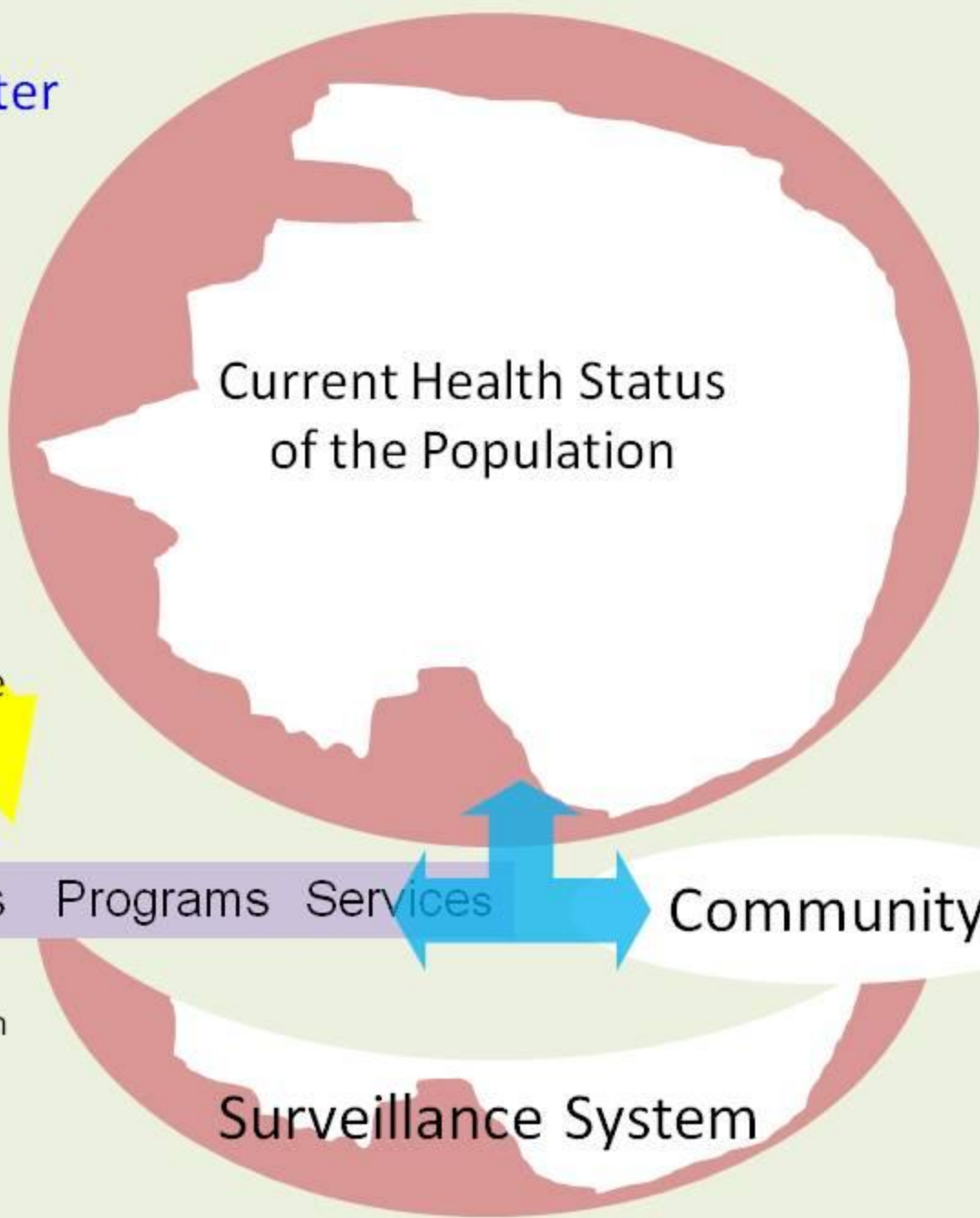
Indicator Framework

Surveillance System



Scenario E Much better

Opportunity to Improve health
(needs of the community)



Useful Surveillance
Products and
Dissemination

Data Analysis/
Interpretation

Management
Coordination / Collaboration
Legislation & Regulation

Data
Collection/
Collation

Indicator
Framework

The essentials for a successful Surveillance System on Chronic non Communicable Diseases and Risk Factors

Technical base

Political will

Community
empowerment



Vision

People and Communities

have improve both:

life expand and quality of life,

as a result of policies, programs and
services designed and evaluated
using information provide by

surveillance.

Goal

To improve capacity for **meaningful** surveillance of chronic disease, its risk factors and determinants.

The key issues for a successful Surveillance System on Chronic non Communicable Diseases and Risk Factors

- Political platform
- Legislative platform
- Budget
- Personnel
- Infrastructure
- Independence

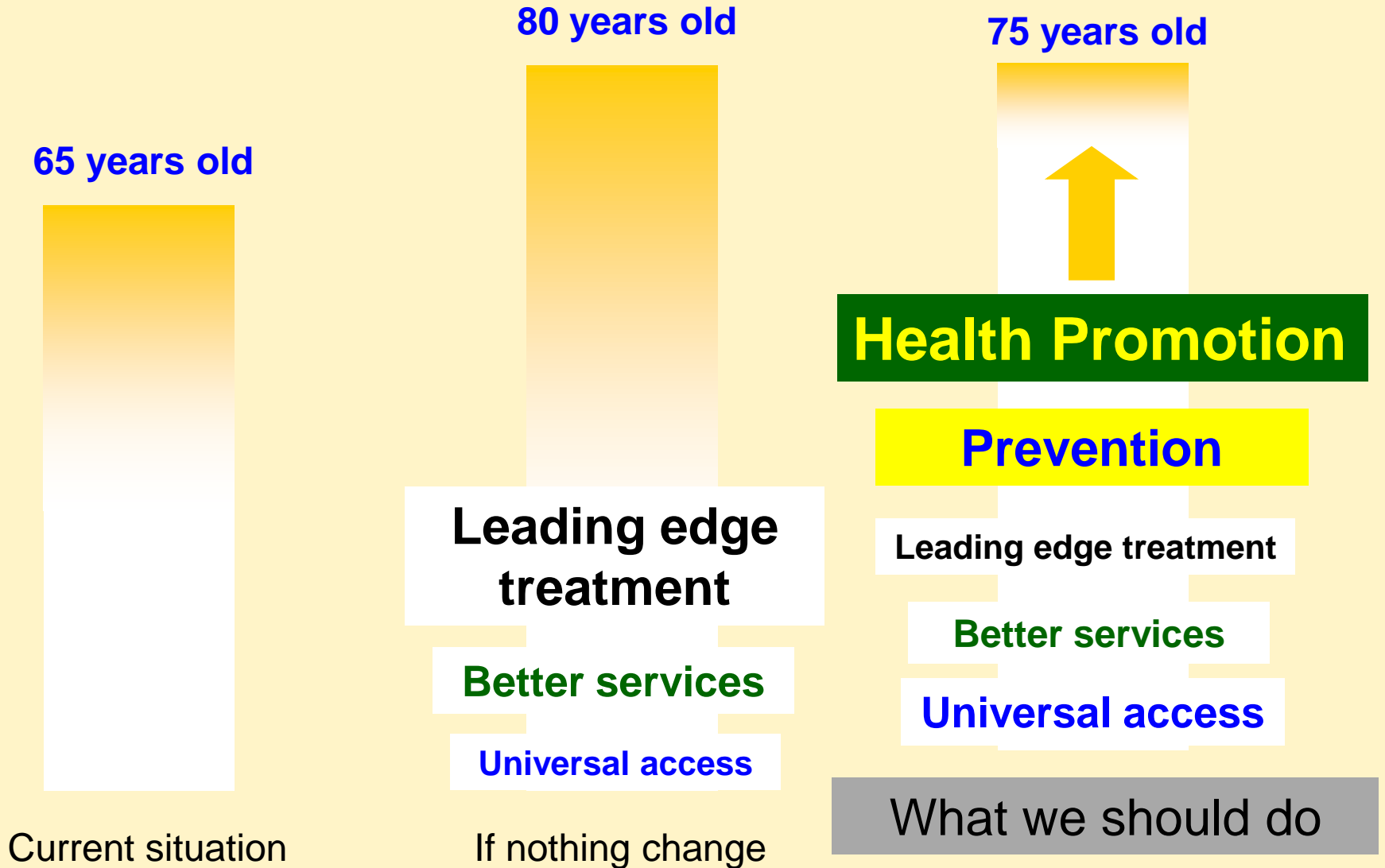
Enhancing global capacity in the surveillance,
prevention, and control of chronic diseases: seven
themes to consider and build upon

J Epidemiol Community Health 2008;**000**:1–9. doi:10.1136/jech.2007.060368

Table 1 Terms and phrases similar to those used to describe the seven themes summarised in the acronym "SCIENCE"

Theme	Similar terms and phrases
<i>Strategy</i>	Action plan, big picture thinking/planning, coherent response, integrative approaches, leadership, long-term funding, making the case, marketing skills, resource mobilisation, selling stories to our masters
<i>Collaboration</i>	Engaging providers and users, multidisciplinary expertise, networking, partnership, promoting dialogue between countries, 2 plus 2 equals 5
<i>Information</i>	Accessible information, accurate data, comparability, data standard, local needs, quality information products, relevant data, right-to-know versus right-not-to-know, timely data
<i>Education</i>	Creating user pull not provider push, enhancing local capacity, raising awareness, training young researchers and practitioners
<i>Novelty</i>	Innovation, new ideas, new thinking, thinking outside the box
<i>Communication</i>	Clear message, connecting the dots, consistent message, knowledge translation, mechanism to consult silent groups, media relations, packaged information, simple language, timely dissemination
<i>Evaluation</i>	Achieving goals and objectives, built-in evaluation system, evidence-based policy, monitoring data utilisation, participatory action research, putting knowledge into action

Morbidity and disability squeezed toward the end of life.



Muy Agradedido

