El Porqué de la Necesidad de una Salud Conectada

Manuel Rodríguez

Director, Expediente Digital Único en Salud,
Caja Costarricense de Seguro Social
Costa Rica

HIMSS Latin America

¿Qué esta pasando en el mundo?

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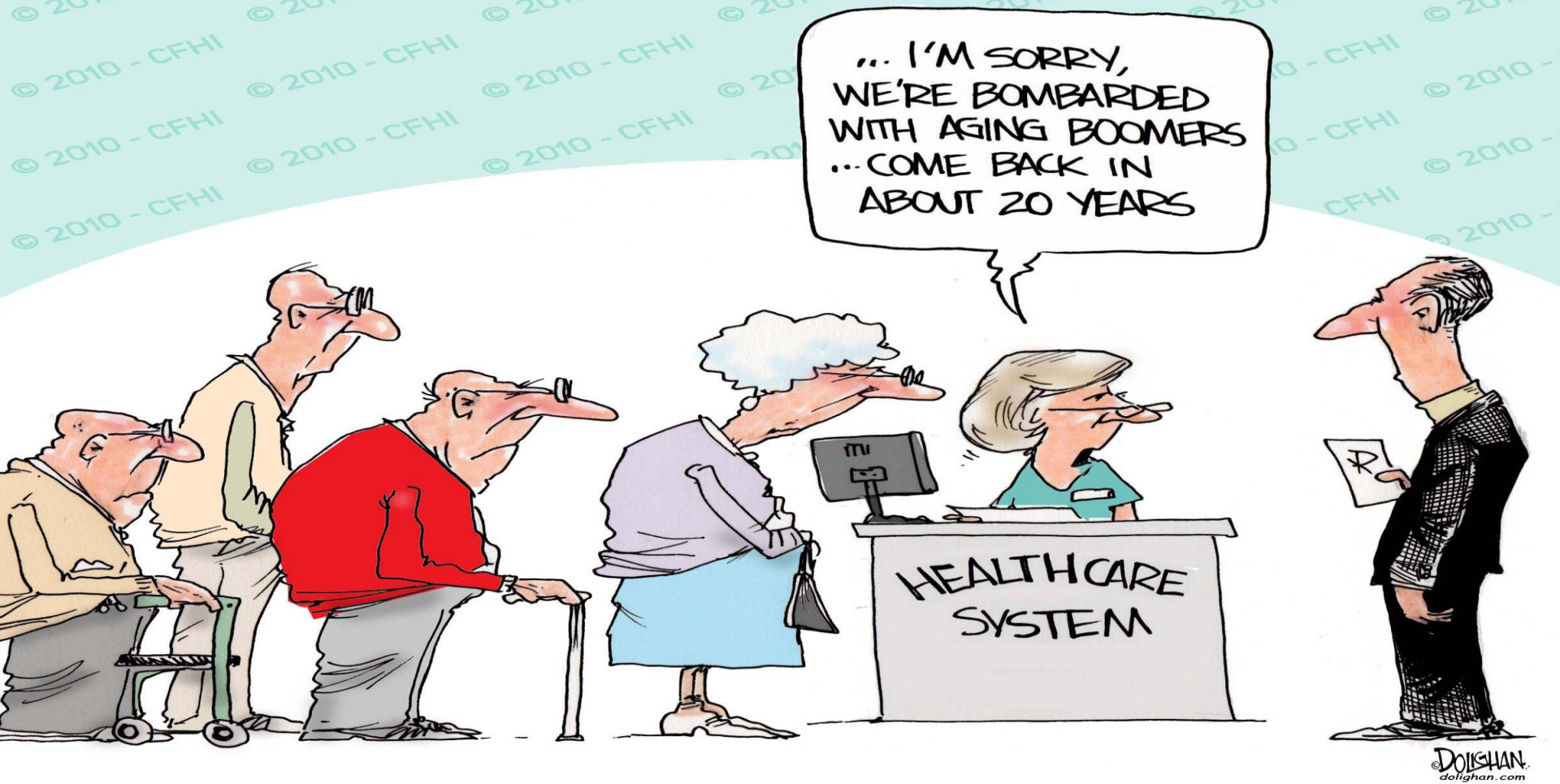
... I'M SORRY, WE'RE BOMBARDED WITH AGING BOOMERS ... COME BACK IN ABOUT 20 YEARS
HEALTH CARE SYSTEM
℞
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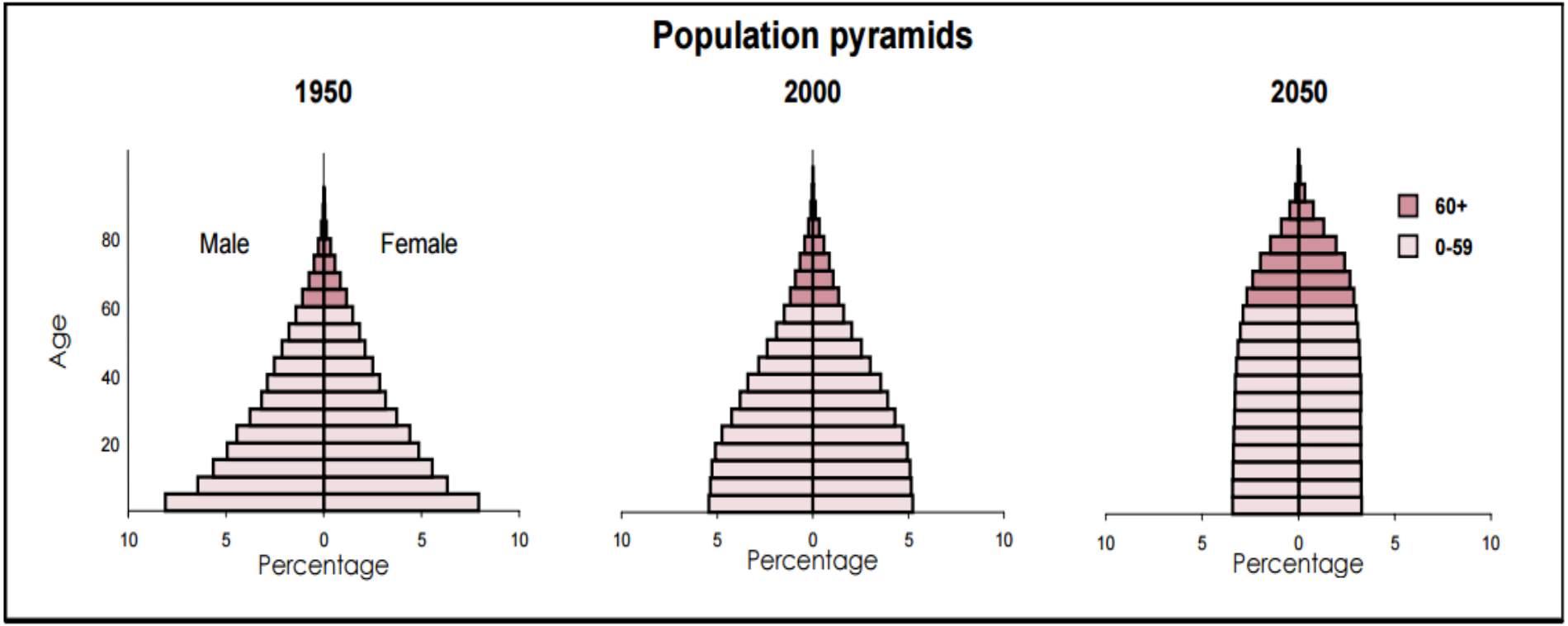


Population Division, DESA, United Nations

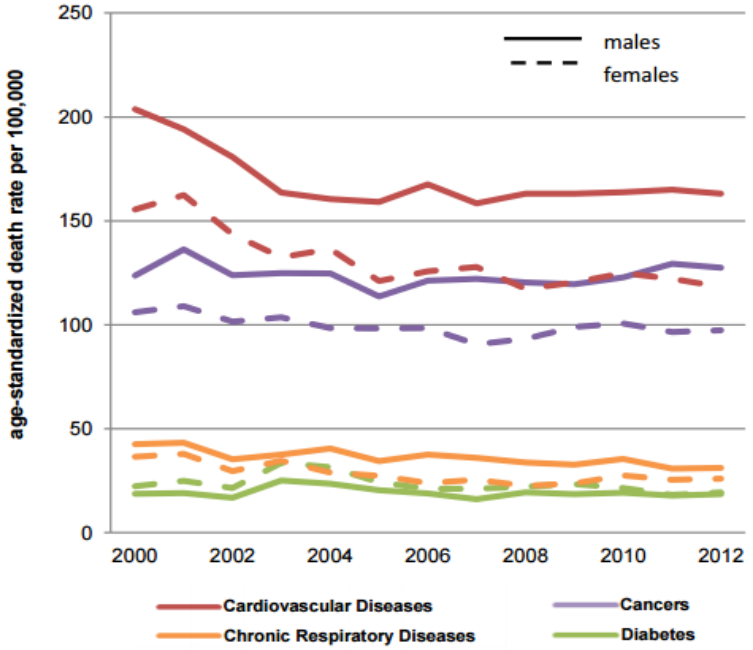
McDonald's
FREE DIABETES
WITH PURCHASE OF
LARGE COKE

Costa Rica

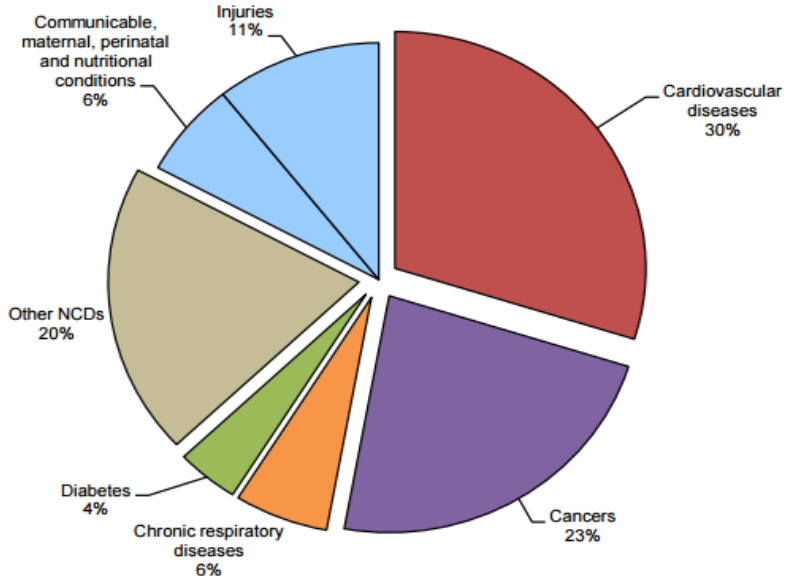
Total population: 4 805 000
Income Group: Upper middle

Percentage of population living in urban areas: 64.7%
Population proportion between ages 30 and 70 years: 44.1%

Age-standardized death rates

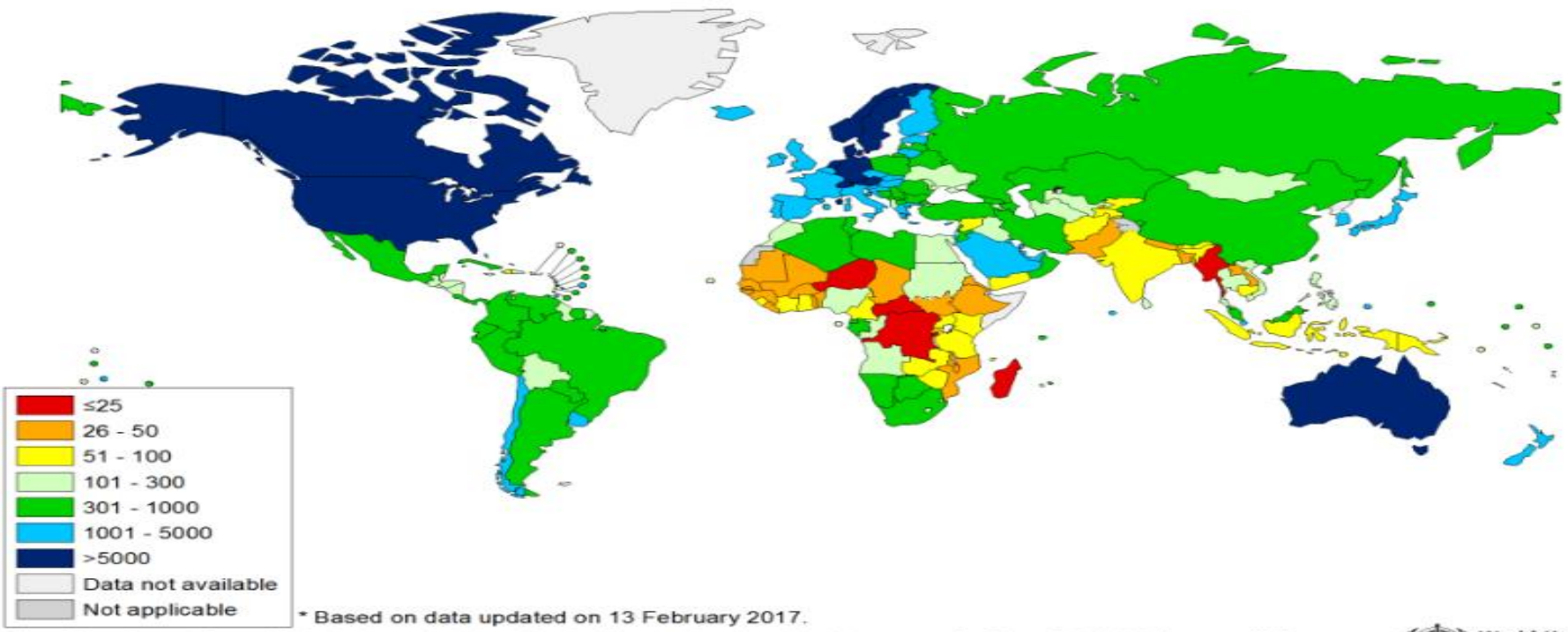


Proportional mortality (% of total deaths, all ages, both sexes)



Total deaths: 21,000
NCDs are estimated to account for 83% of total deaths.

Per capita total expenditure on health at average exchange rate (US$), 2014 *



* Based on data updated on 13 February 2017.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Health Observatory, WHO
Map Production: Information Evidence and Research (IER)
World Health Organization

World Health Organization

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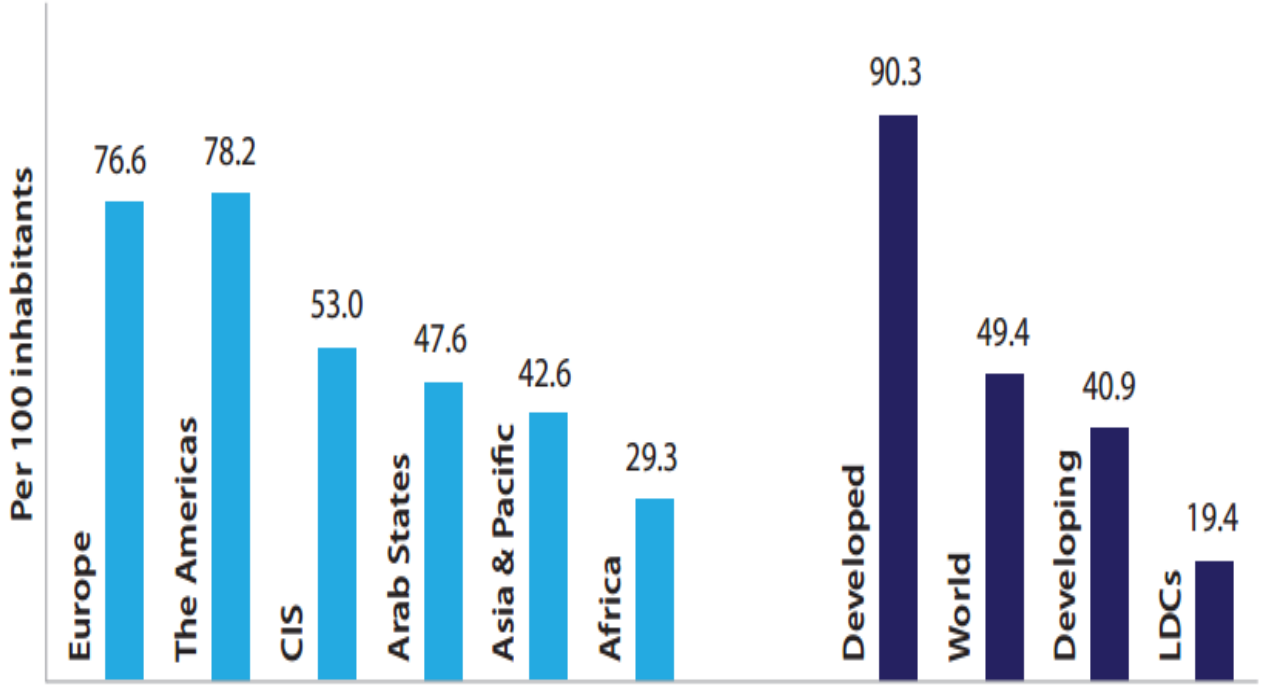
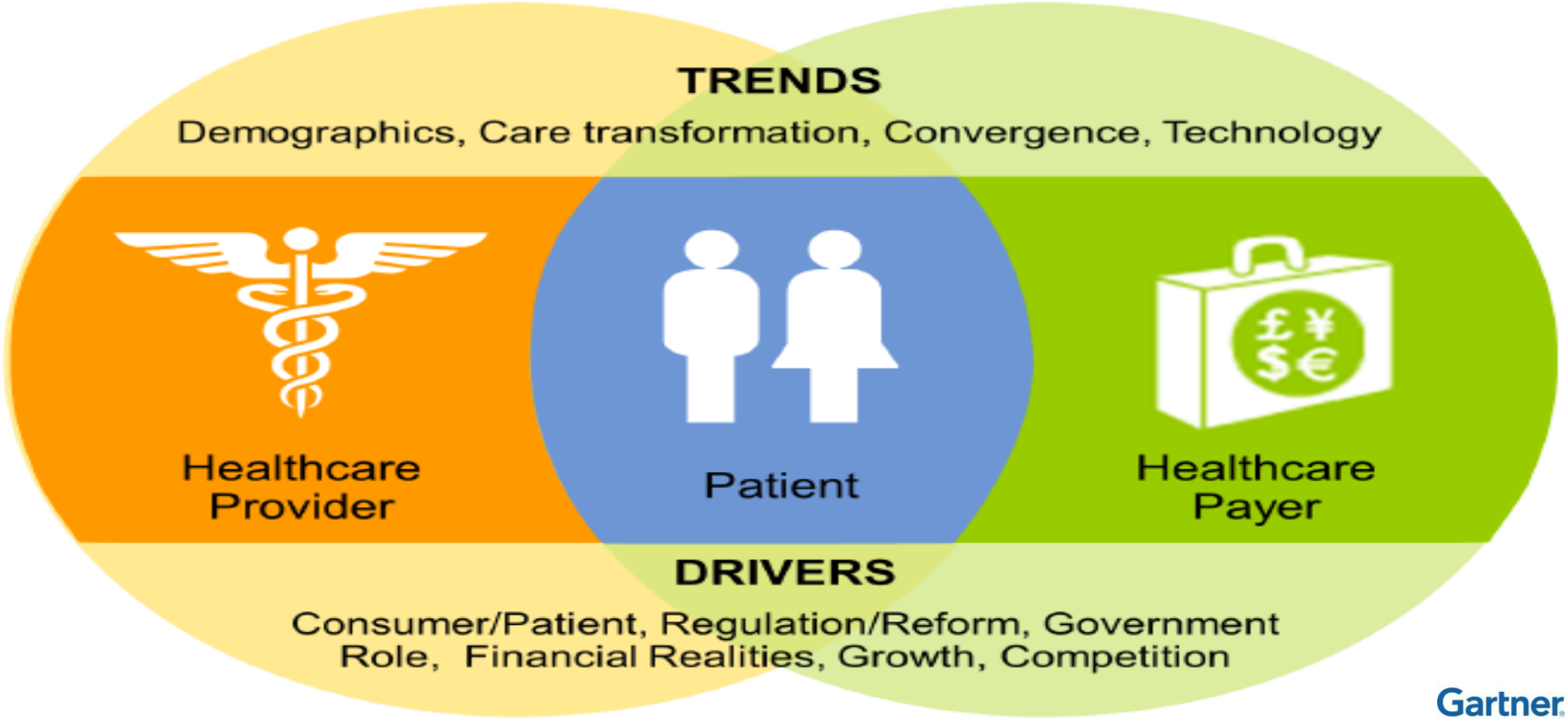
Mobile-broadband subscriptions



In developing countries, the number of mobile-broadband subscriptions continues to grow at double digit rates, reaching a penetration rate of close to 41%.

The total number of mobile-broadband subscriptions is expected to reach 3.6 billion by end 2016.

Entonces… ¿cómo debemos responder a estos retos?


TRENDS
Demographics, Care transformation, Convergence, Technology
Healthcare Provider
Patient
Healthcare Payer
DRIVERS
Consumer/Patient, Regulation/Reform, Government Role, Financial Realities, Growth, Competition

Gartner

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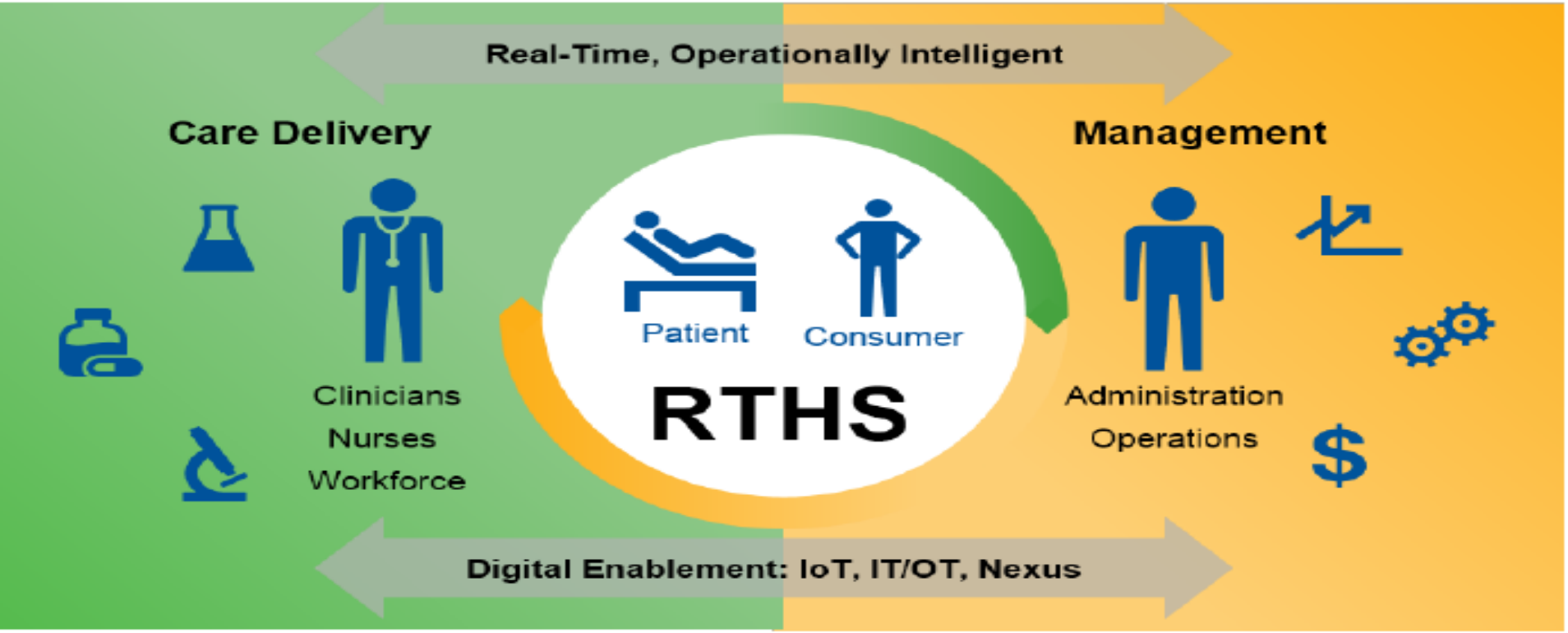
Figure 1. The Real-Time Health System

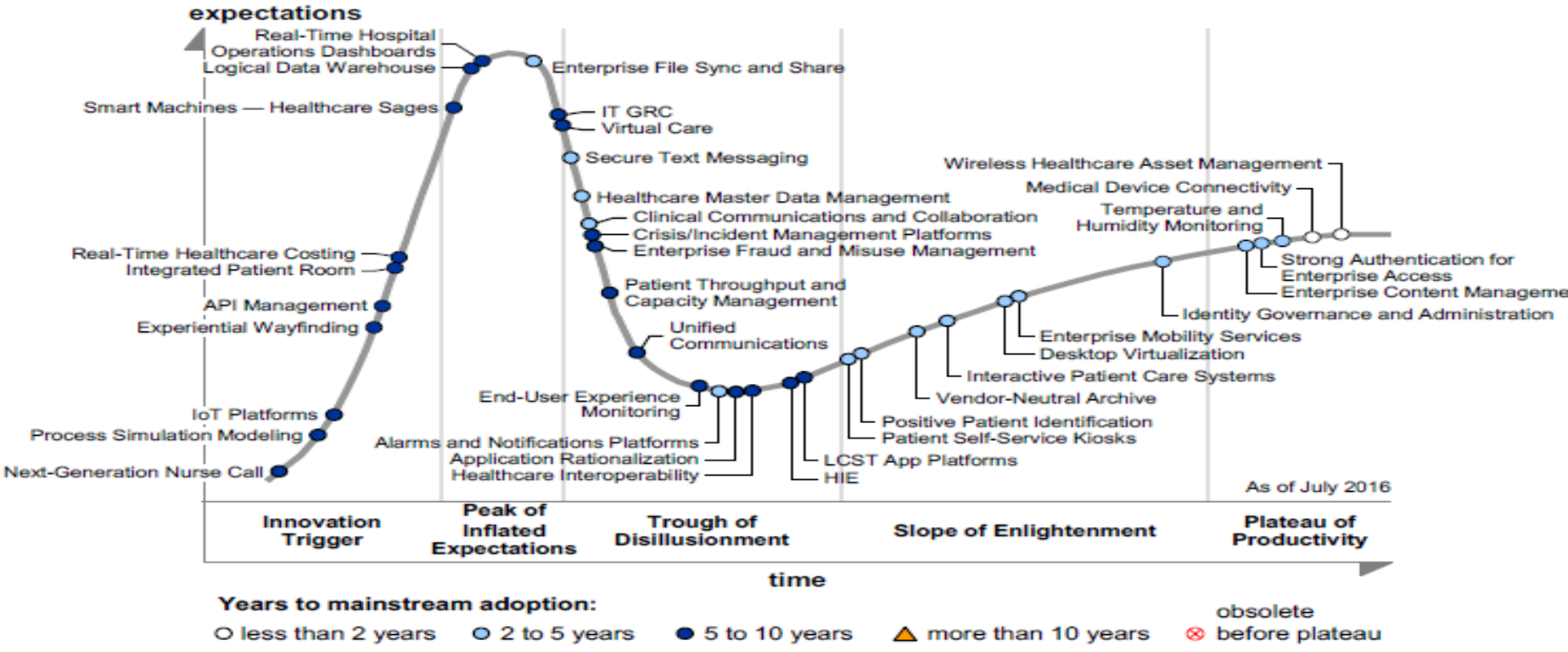


Source: Gartner (May 2016)

EMR Adoption Model℠

Stage	Cumulative Capabilities
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), Closed Loop Medication Administration
Stage 5	Full complement of Radiology PACS
Stage 4	CPOE, Clinical Decision Support (clinical protocols)
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable
Stage 1	Ancillaries – Lab, Rad, Pharmacy - All Installed
Stage 0	All Three Ancillaries Not Installed

Figure 1. Hype Cycle for Real-Time Health System Technologies, 2016



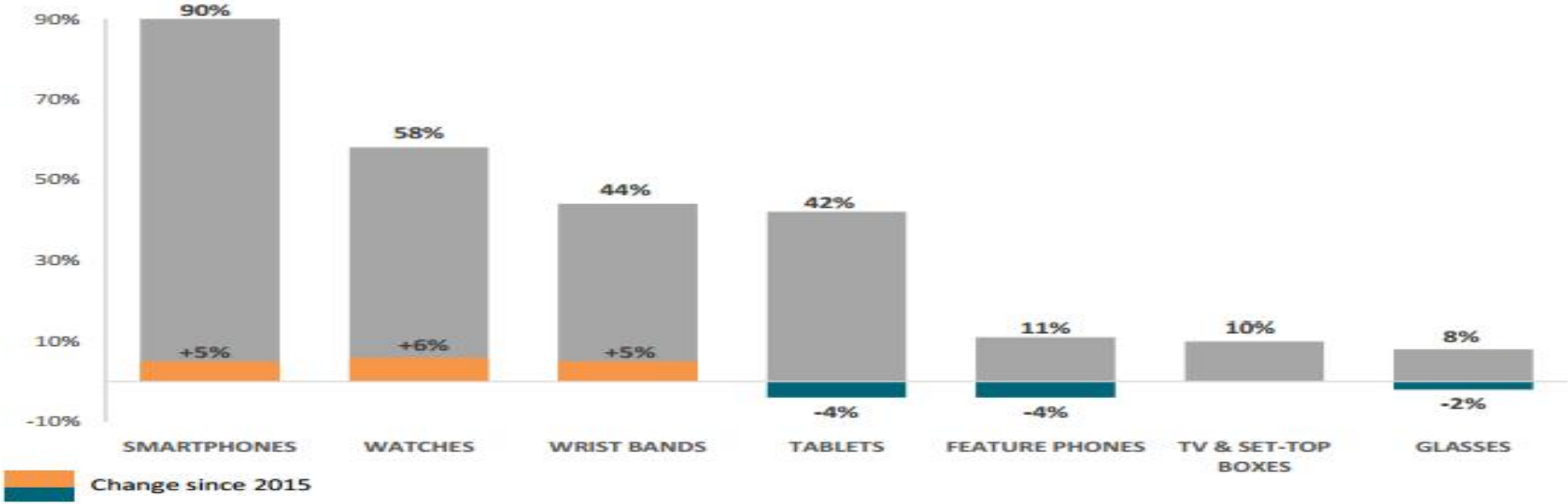
Source: Gartner (July 2016)

Finalmente… las megatendencias

m - Salud

SMARTPHONES REMAIN THE MAIN PREFERRED DEVICE FOR MHEALTH APP

Which devices offer the best market potential for mHealth in the next 5 years?

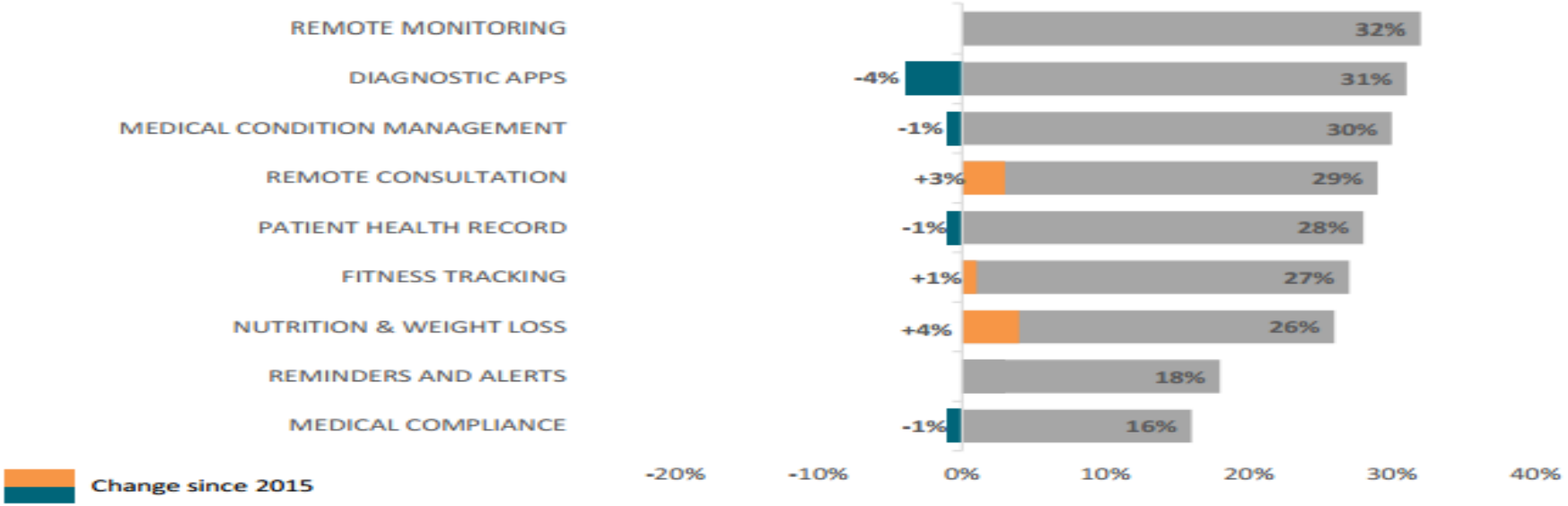


Copyright research2guidance 2016

Source: research2guidance - mHealth App Developer Economics study 2016, n=2600

REMOTE MONITORING IS NOW THE APP CATEGORY WITH THE GREATEST MARKET POTENTIAL RATING IN THE NEXT 5 YEARS

Which mHealth app categories will offer the highest market potential in the next 5 years?



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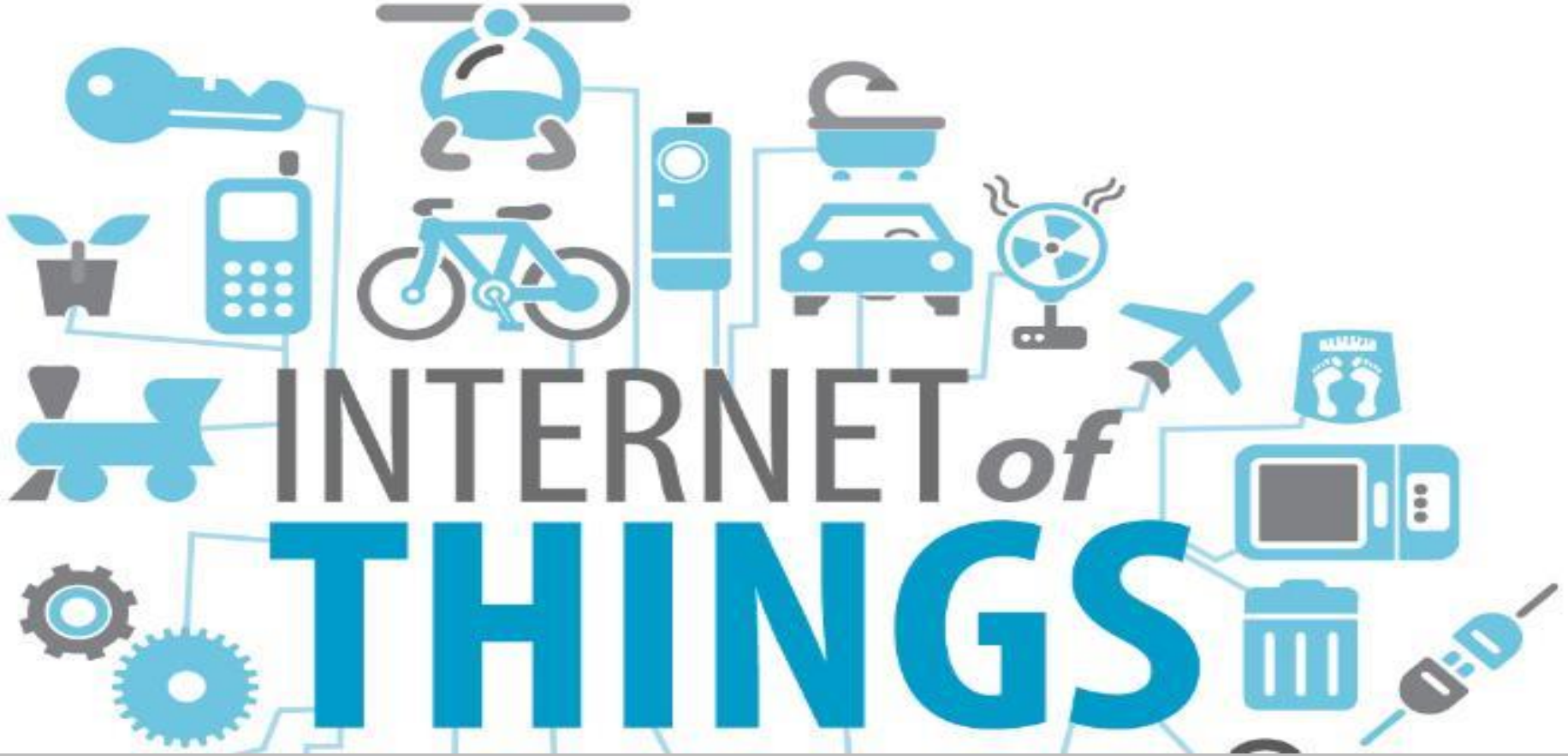
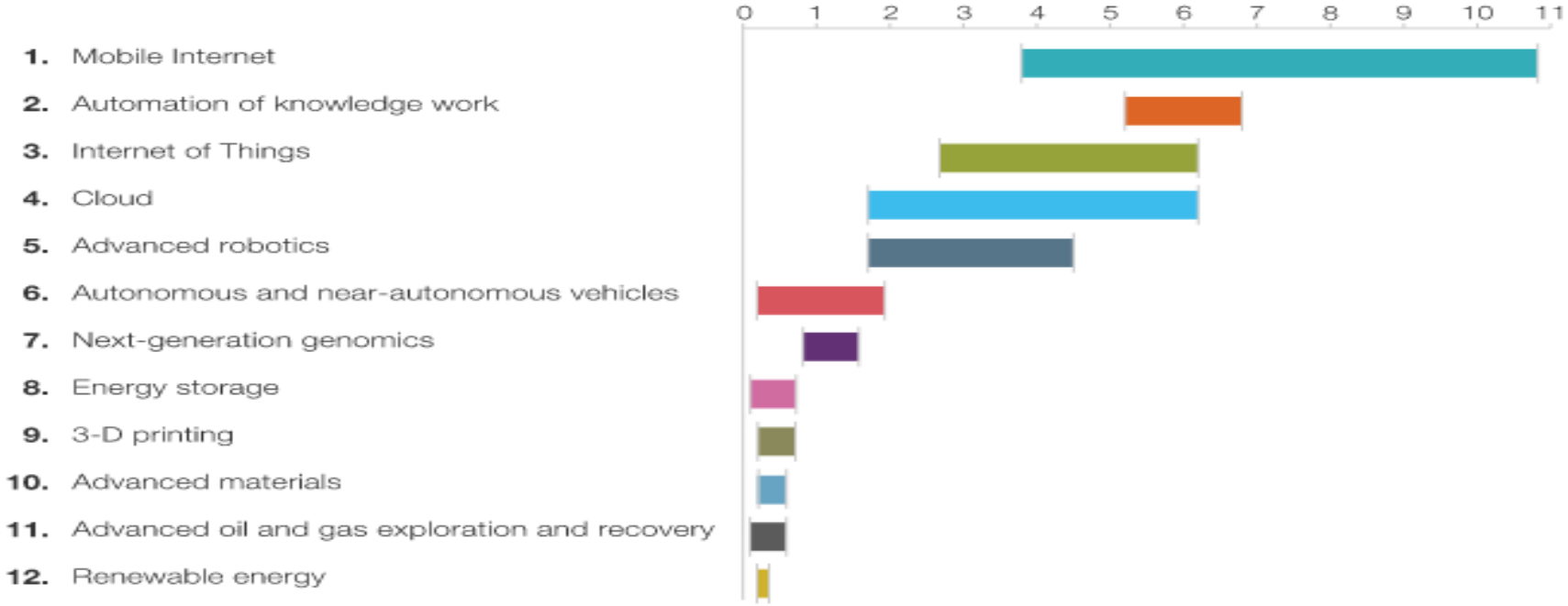
Source: research2guidance - mHealth App Developer Economics study 2016, n=2600


INTERNET of
THINGS

A gallery of **disruptive technologies**

Estimated potential economic impact of technologies across sized applications in 2025, $ trillion, annual



SOURCE: McKinsey Global Institute

#3 Internet of Things

Networks of low-cost sensors and actuators for data collection, monitoring, decision making, and process optimization

Potential economic impact in 2025 across sized applications of **$2.7 trillion–$6.2 trillion**

Offers potential to drive **productivity across $36 trillion** in operating costs of key affected industries: manufacturing, health care, and mining

Component technologies

- Advanced, low-cost sensors
- Wireless and near-field communication devices—eg, RFID (radio frequency identification tags)

Key applications

- Process optimization, especially in manufacturing and logistics
- Efficient use of natural resources—eg, smart-meter and smart-grid control of water and electricity
- Remote health-care delivery, sensor-enhanced business models

BIG DATA
LARGE
RESEARCH
SCIENCE
INTERNET
INFORMATION
BUSINESS
SEARCH
PROCESS
MANAGEMENT
DEVELOPMENT
SET
NEW
ABOUT
MILLION
BILLION
TIMES
SIZE
SOFTWARE
DUE
ANALYSIS
SENSOR
WORLD
GARTNER
USES
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STATISTICS
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LIKE
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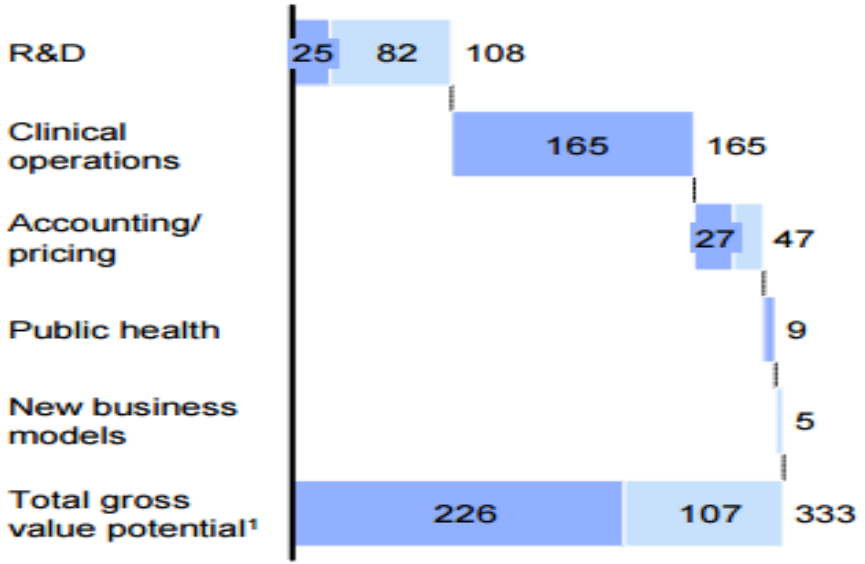
TEN
ONLINE
SECURITY
COUNTRIES
OTHER
WELL
WILL
SIX
DEFINITION
HAND
YEARS
COMPLEX
TIME
TOLS
SECURITY
BACKED

The estimated long-term value of identified levers is more than $300 billion, with potentially more than $200 billion savings on national health care spending

Value potential from use of big data
$ billion per year



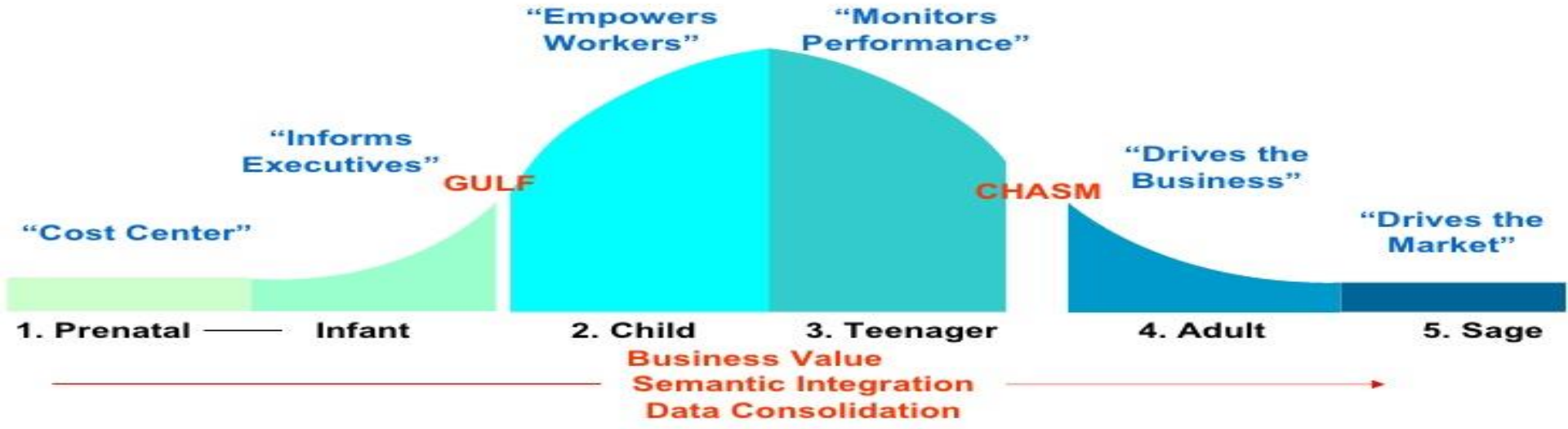
Lever examples

R&D	Predictive modeling to determine allocation of R&D resources, clinical trial design, and personalized medicine
Clinical operations	Comparative effectiveness research (CER), clinical decision support system, and dashboards for transparency into clinical data
Accounting/ pricing	Advanced algorithms for fraud detection, performance-based drug pricing
Public health	Public health surveillance and response systems
New business models	Aggregation of patient records to provide datasets and insights; online platforms and communities

1 Excluding initial IT investments (~$120 billion–$200 billion) and annual operating costs (~$20 billion per annum).

SOURCE: Expert interviews; press and literature search; McKinsey Global Institute analysis

MATURITY MODEL ADOPTION CURVE



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Gracias!

Manuel Rodríguez
mrodrigueza@ccss.sa.cr

Director, Expediente Digital Único en Salud,
Caja Costarricense de Seguro Social
Costa Rica

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