EUROPEAN CAPTIVE FORUM 2014

# Health and Wellness
# Using Data to Identify Cost Drivers


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**Mercer Marsh Benefits**


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## REALITY: VUCA (Volatile, Uncertain, Complex, Ambiguous)

DEMOGRAPHIC CHANGE

HEALTH COSTS INCREASING

WAR FOR TALENT AND ENGAGEMENT

MULTI-GENERATIONAL WORKFORCE

CHRONIC DISEASES DISABILITY

LIFE STYLE/ RISK FACTORS

GROWTH AND PROFITABILITY

GOVERNANCE, LITIGATION AND RISK MANAGEMENT

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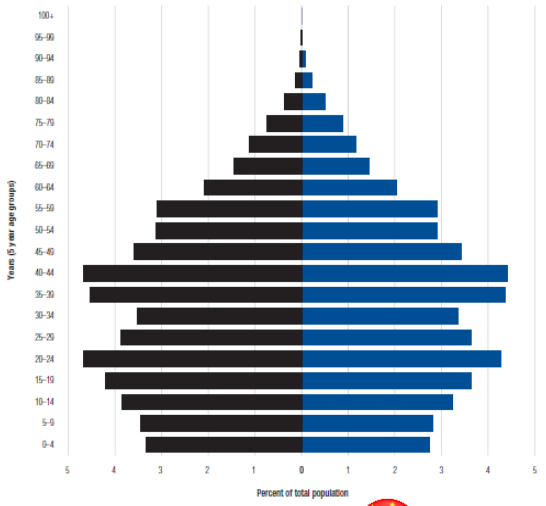
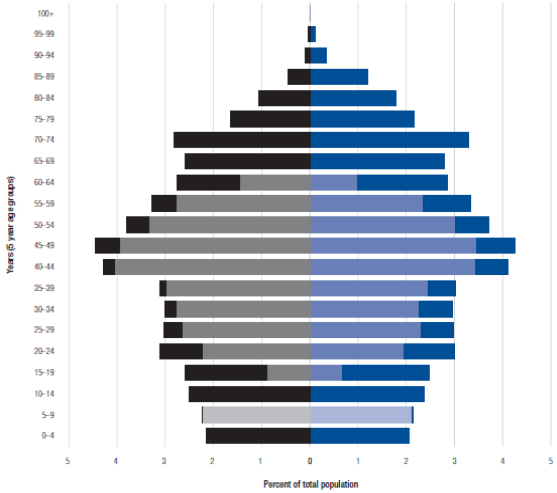
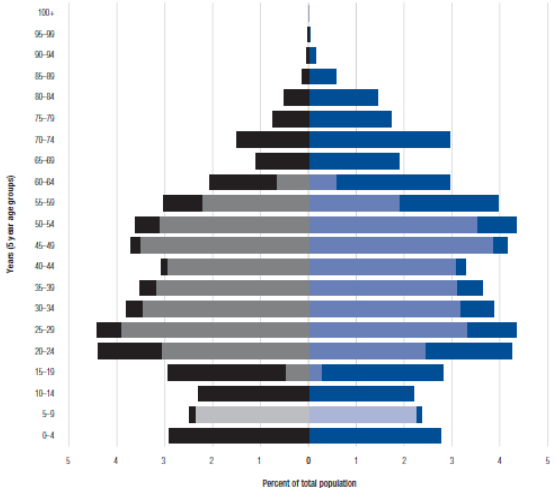
# Demographics and Human Capital



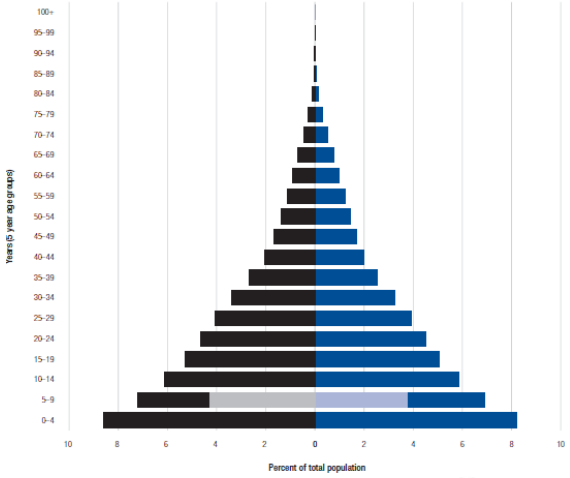

China



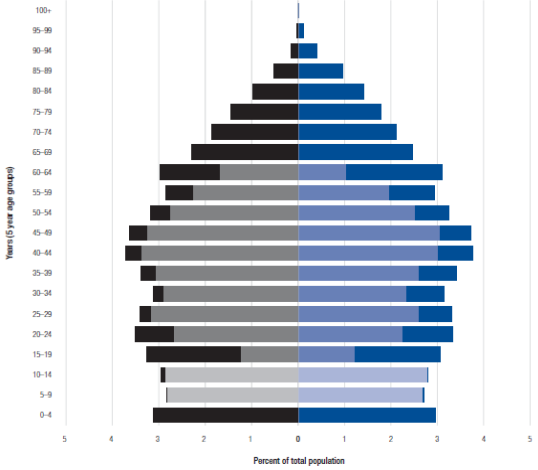

Germany



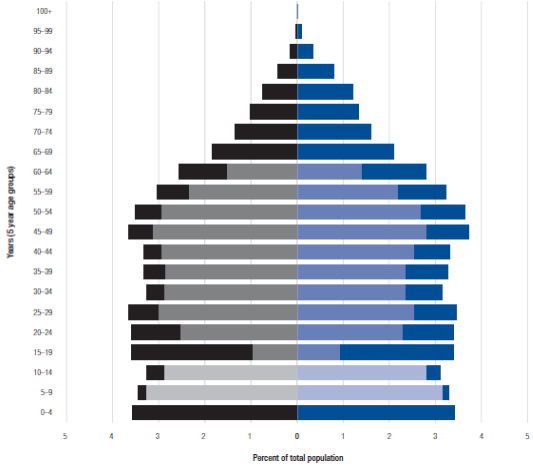

Russia




Nigeria




United Kingdom




United States

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# What are projected increases in PMI premiums around the globe?

| E7 country | 2014 Projected Medical Trend |
|---|---|
| China (Mainland) | 11.0% |
| India | 19.0% |
| Brazil | 14.0% |
| Mexico | 12.0% |
| Russia | 11.0% |
| Indonesia | 10.0% |
| Turkey | 12.0% |

| G7 country | 2014 Projected Medical Trend |
|---|---|
| United States | 8.0% |
| Japan | 11.0% |
| United Kingdom | 6.0% |
| Germany | 3.5% |
| France | 4.0% |
| Canada | 5.5% |
| Italy | 4.5% |

**SOURCE:** Mercer 2014 Global Medical Trends

## What exactly is included in / causes Medical Trend?

INFLATION, OF COURSE (INCREASE IN UNIT COSTS)

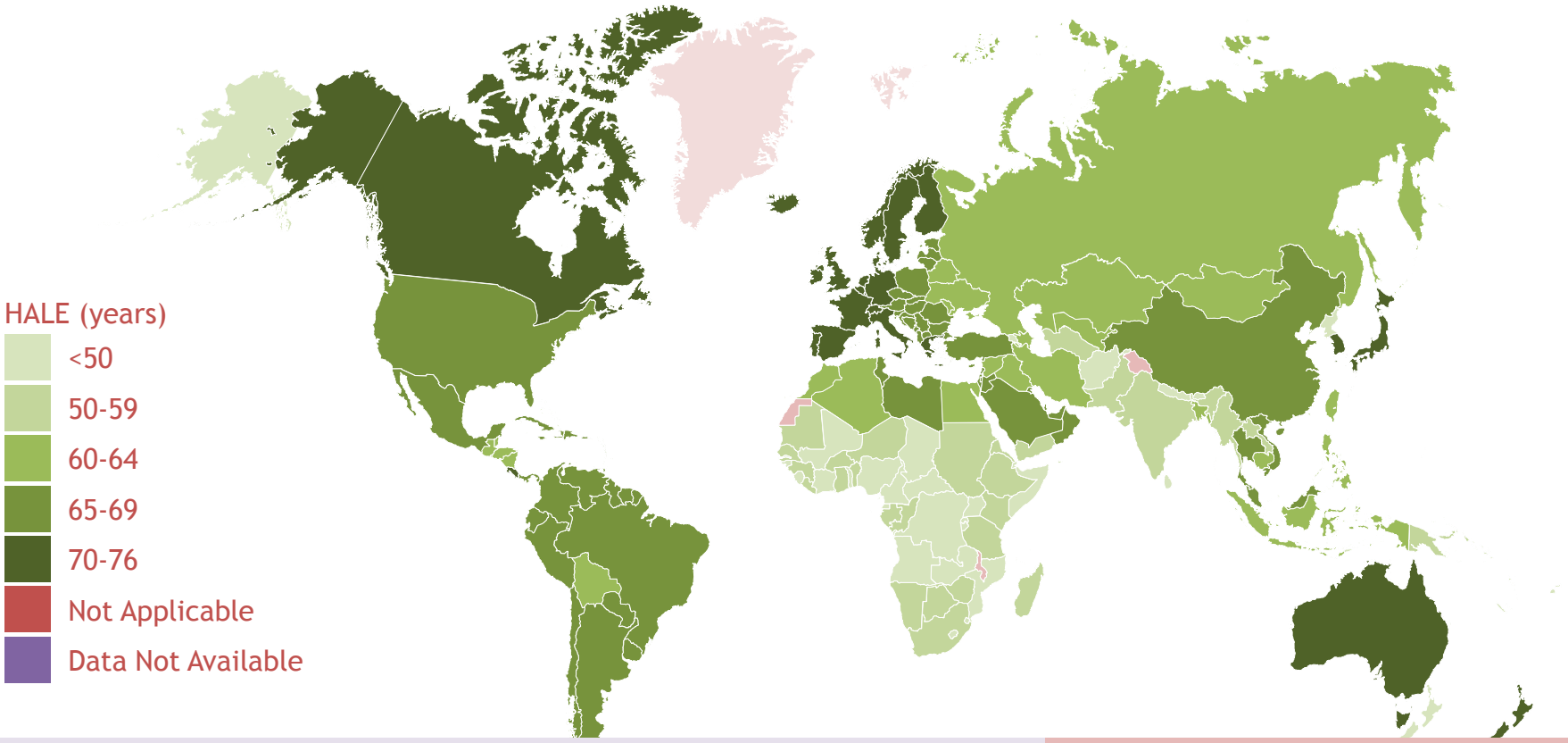
Yes, absolutely.
But also:

- CHANGES IN A POPULATION'S BURDEN OF ILLNESS
- IMPROVEMENTS / ADVANCES IN TECHNOLOGY AND PHARMACEUTICALS
- INCREASES IN CONSUMER (PATIENT) DEMANDS
- CHANGES IN PHYSICIAN TREATMENT PATTERNS
- SHIFTS AWAY FROM LOCAL PUBLIC HEALTH SYSTEMS

**WHAT DOES THIS REALLY MEAN?**

# We are living longer

## HEALTY LIFE EXPECTANCY (HALE) AT BIRTH, BOTH SEXES, 2012



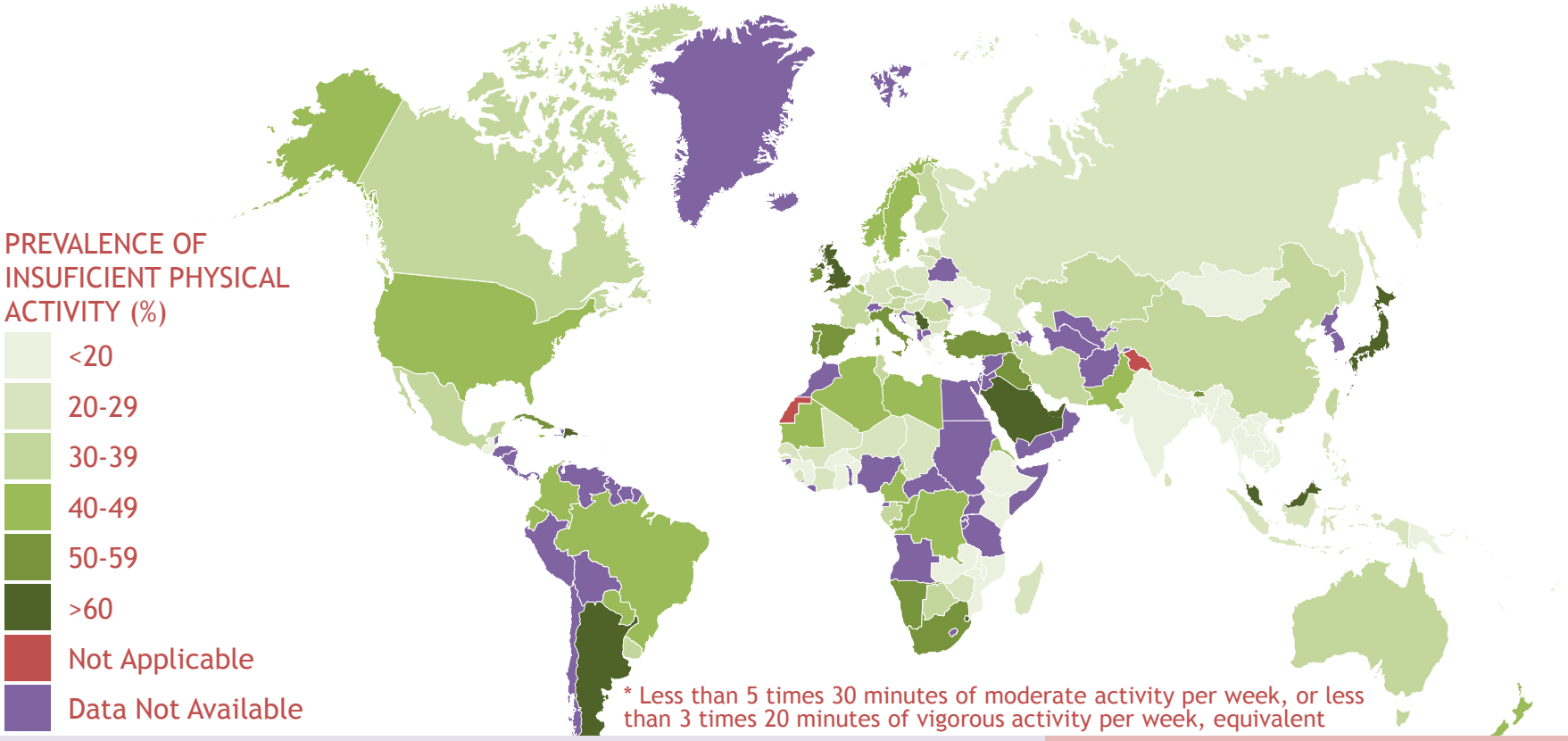

**WE ARE LIVING LONGER**

A baby born in 2012 can expect to live to 72.7 (girls) or 68.1 (boys). This is 6 years longer than the life expectancy for a child born in 1990.

**DATA SOURCE:** World Health Organization
**MAP PRODUCTION:** Health Statistics and Information Systems (HSI) World Health Organization

# We lead increasingly sedentary lives

## PREVALENCE OF INSUFICIENT PHYSICAL ACTIVITY*, AGES 15+, AGE STANDARIZED BOTH SEXES, 2008




* Less than 5 times 30 minutes of moderate activity per week, or less than 3 times 20 minutes of vigorous activity per week, equivalent

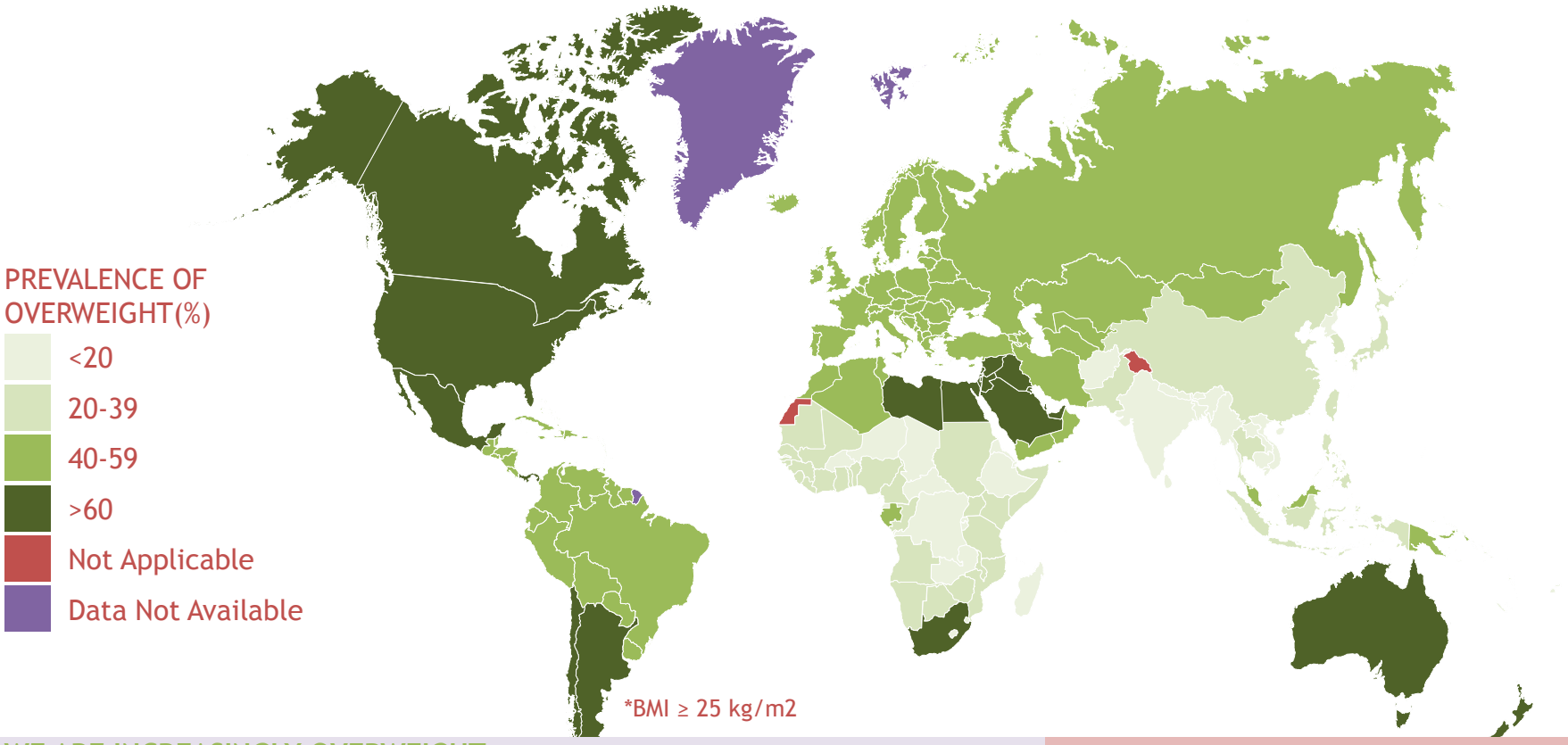
**WE ARE INCREASINGLY SEDENTARY**

Physical inactivity is tied for the 3rd leading risk factor for global mortality, causing 6% of all deaths. Only high blood pressure (13%) and tobacco use (9%) are higher, and high blood glucose is on the same level (6%).

**DATA SOURCE:** World Health Organization
**MAP PRODUCTION:** Public Health Information and Geographic Information Systems (GIS) World Health Organization

# We are becoming increasingly overweight

## PREVALENCE OF OVERWEIGHT*, AGES 20+, AGE STANDARIZED BOTH SEXES, 2008




**WE ARE INCREASINGLY OVERWEIGHT**

This is a major risk factor for a number of chronic diseases, including diabetes, cardio-vascular diseases and cancer. Once a rich country's problem, prevalence is rising fast in low- and middle-income countries, particularly in urban settings.

**DATA SOURCE:** World Health Organization
**MAP PRODUCTION:** Public Health Information and Geographic Information Systems (GIS) World Health Organization

# Globally, our burden of illness is changing rapidly

Rates of non-communicable or chronic ("lifestyle") diseases continue to increase dramatically, surpassing infections as the primary burden of illness among adults


SOURCE: Institute for Health Metrics and Evaluation (IHME). GBD Arrow Diagram. Seattle, WA: IHME, University of Washington, 2013.

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# But burden of illness can differ greatly by country and region

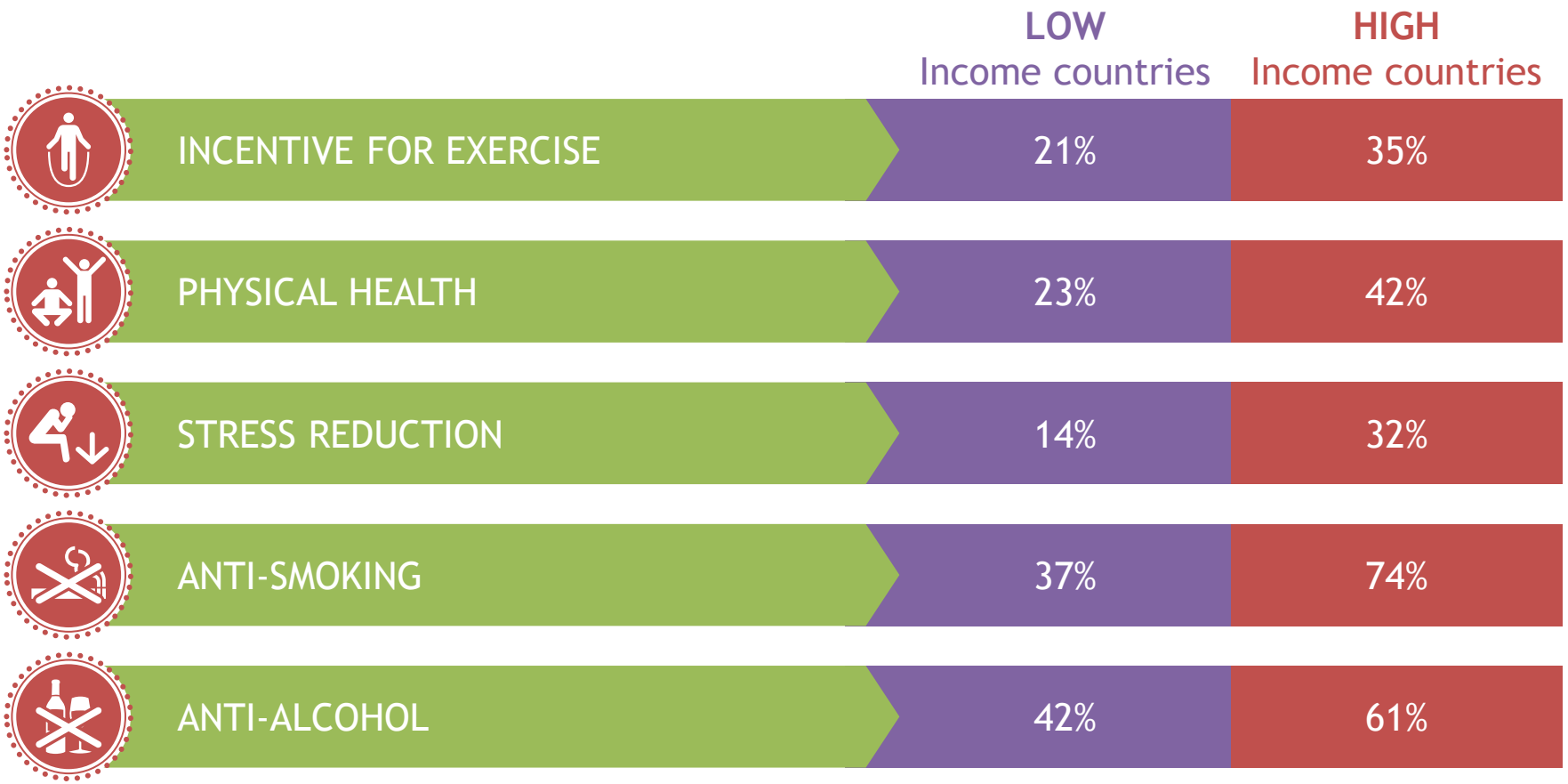
| | GLOBAL | High-income Asia Pacific | Western Europe | Australasia | High-income North America | Central Europe | Southern Latin America | Eastern Europe | East Asia | Tropical Latin America | Central Latin America | Southeast Asia | Central Asia | Andean Latin America | North Africa and Middle East | Caribean | South Asia | Oceania | Southern Sub-Saharan Africa | Eastern Sub-Saharan Africa | Central Sub-saharan Africa | Western Sub-Saharan Africa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ischemic heart disease | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 3 | 1 | 3 | 1 | 2 | 4 | 5 | 15 | 21 | 19 | 20 |
| Lower respiratory infections | 2 | 7 | 21 | 27 | 21 | 17 | 6 | 13 | 15 | 7 | 6 | 4 | 2 | 1 | 5 | 4 | 1 | 1 | 2 | 3 | 4 | 2 |
| Stroke | 3 | 2 | 3 | 5 | 7 | 2 | 2 | 2 | 1 | 4 | 11 | 1 | 3 | 11 | 2 | 3 | 12 | 14 | 7 | 16 | 14 | 15 |
| Diarrheal diseases | 4 | 46 | 52 | 53 | 46 | 76 | 43 | 48 | 47 | 25 | 14 | 8 | 17 | 8 | 11 | 8 | 3 | 4 | 3 | 4 | 2 | 3 |
| HIV/AIDS | 5 | 108 | 59 | 87 | 34 | 72 | 33 | 3 | 39 | 11 | 13 | 13 | 31 | 15 | 57 | 9 | 17 | 9 | 1 | 1 | 5 | 4 |
| Malaria | 6 | 160 | 159 | 155 | 158 | 160 | 165 | 161 | 167 | 144 | 154 | 27 | 160 | 141 | 68 | 60 | 44 | 7 | 22 | 2 | 1 | 1 |
| Low back pain | 7 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 3 | 7 | 7 | 6 | 5 | 4 | 13 | 11 | 13 | 13 | 17 | 22 | 13 |
| Preterm birth compications | 8 | 58 | 43 | 28 | 25 | 35 | 11 | 35 | 28 | 9 | 9 | 11 | 8 | 6 | 8 | 11 | 2 | 6 | 6 | 5 | 6 | 7 |
| COPD | 9 | 18 | 7 | 3 | 2 | 7 | 7 | 9 | 3 | 10 | 16 | 10 | 11 | 16 | 13 | 22 | 5 | 18 | 9 | 20 | 20 | 22 |
| Road injury | 10 | 15 | 12 | 10 | 9 | 8 | 5 | 6 | 5 | 5 | 4 | 5 | 5 | 2 | 6 | 10 | 10 | 15 | 14 | 11 | 12 | 9 |
| Major depressive disorder | 11 | 12 | 4 | 4 | 5 | 6 | 3 | 5 | 8 | 6 | 5 | 6 | 7 | 4 | 3 | 7 | 14 | 12 | 10 | 13 | 17 | 19 |
| Neonatal encephalopathy | 12 | 84 | 66 | 50 | 54 | 65 | 40 | 40 | 24 | 20 | 20 | 12 | 4 | 9 | 18 | 15 | 6 | 19 | 12 | 8 | 10 | 10 |
| Tuberculosis | 13 | 42 | 107 | 122 | 123 | 53 | 64 | 17 | 37 | 44 | 44 | 2 | 15 | 21 | 33 | 17 | 7 | 3 | 4 | 7 | 7 | 12 |
| Diabetes | 14 | 10 | 10 | 15 | 8 | 9 | 10 | 15 | 9 | 8 | 3 | 9 | 12 | 14 | 9 | 6 | 16 | 2 | 8 | 27 | 28 | 26 |
| Iron-deficiency anemia | 15 | 40 | 85 | 35 | 117 | 28 | 27 | 29 | 32 | 18 | 18 | 14 | 13 | 7 | 10 | 5 | 9 | 20 | 11 | 12 | 11 | 11 |
| Neonatal sepsis | 16 | 119 | 120 | 111 | 100 | 114 | 51 | 81 | 132 | 29 | 30 | 35 | 54 | 18 | 22 | 14 | 8 | 24 | 29 | 9 | 13 | 5 |
| Congenital anomalies | 17 | 39 | 34 | 26 | 29 | 32 | 12 | 25 | 16 | 12 | 10 | 16 | 10 | 10 | 7 | 16 | 15 | 17 | 17 | 18 | 8 | 17 |
| Self-harm | 18 | 5 | 16 | 18 | 14 | 11 | 14 | 7 | 13 | 28 | 25 | 29 | 14 | 31 | 39 | 33 | 13 | 27 | 27 | 31 | 35 | 67 |
| Falls | 19 | 11 | 6 | 7 | 15 | 5 | 17 | 14 | 10 | 24 | 28 | 21 | 20 | 27 | 19 | 20 | 20 | 31 | 40 | 32 | 31 | 21 |
| Protein-energy malnutrituion | 20 | 112 | 118 | 128 | 116 | 120 | 78 | 122 | 98 | 59 | 33 | 49 | 69 | 35 | 36 | 32 | 18 | 21 | 35 | 6 | 3 | 6 |
| Neck pain | 21 | 9 | 9 | 9 | 10 | 14 | 9 | 19 | 11 | 15 | 17 | 19 | 18 | 17 | 16 | 23 | 27 | 33 | 24 | 29 | 32 | 30 |
| Lung cancer | 22 | 6 | 5 | 8 | 4 | 4 | 15 | 10 | 6 | 30 | 38 | 24 | 28 | 47 | 28 | 26 | 47 | 58 | 43 | 92 | 73 | 95 |
| Other musculoskeletal | 23 | 4 | 8 | 6 | 6 | 13 | 8 | 16 | 14 | 14 | 15 | 22 | 19 | 19 | 21 | 24 | 30 | 26 | 26 | 34 | 33 | 35 |
| Cirrhosis | 24 | 17 | 19 | 36 | 16 | 10 | 16 | 11 | 21 | 19 | 12 | 15 | 9 | 20 | 15 | 34 | 22 | 16 | 37 | 30 | 27 | 25 |
| Meningitis | 25 | 90 | 101 | 91 | 91 | 80 | 59 | 77 | 73 | 51 | 45 | 36 | 33 | 37 | 29 | 29 | 21 | 8 | 23 | 10 | 9 | 8 |

HIGH CONCERN

LOW CONCERN

SOURCE: Institute for Health Metrics and Evaluation (IHME). GBD Heatmap. Seattle, WA: IHME, University of Washington, 2013.

## What programs do employers implement to combat non-communicable diseases?

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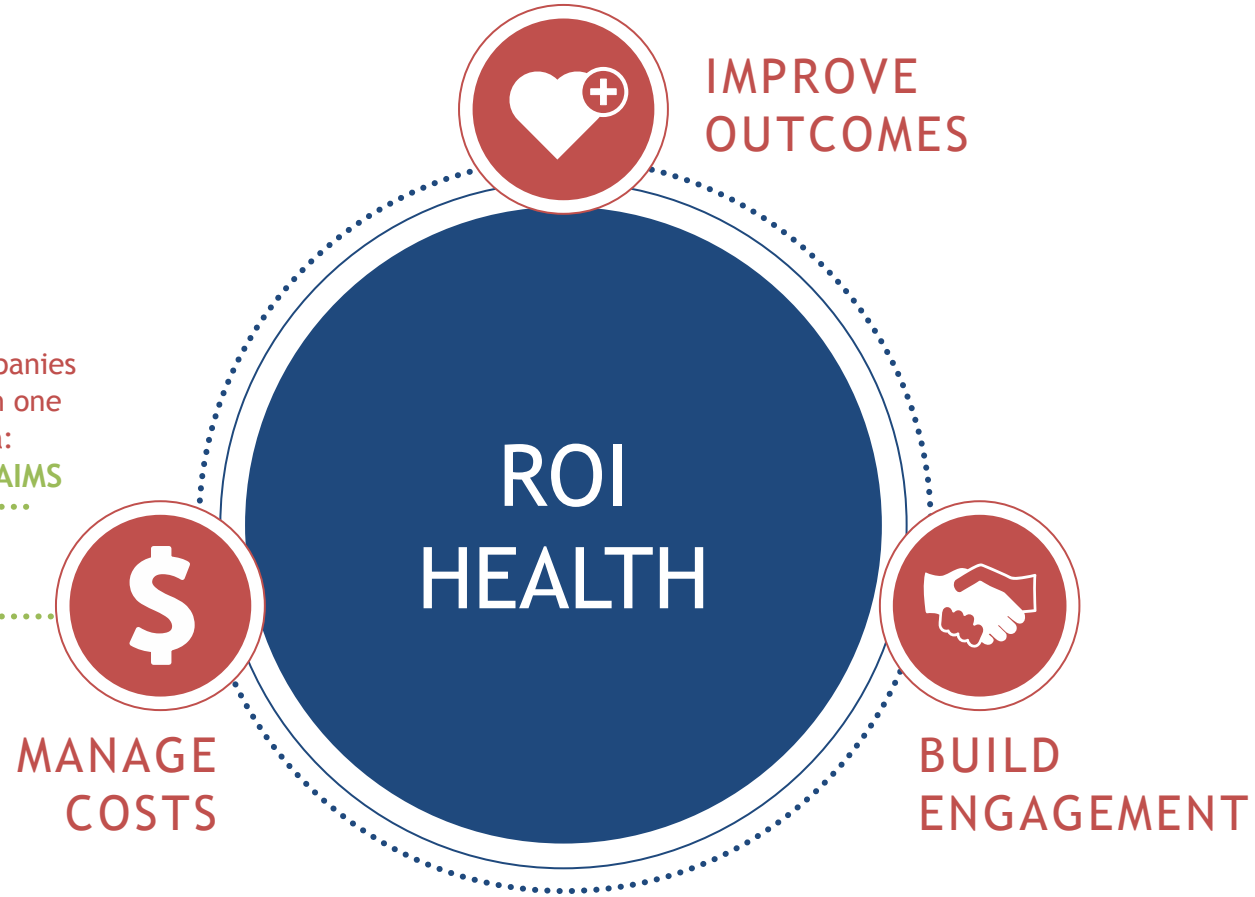
**SOURCE:**
The Workplace Wellness Alliance. Delivering on Health and Productivity. (2011). World Economic Forum.

## What ROI formula do most employers use for these programs?




Unfortunately, many companies enter these programs with one sole measurement criteria:
**REDUCING MEDICAL CLAIMS**

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## Is Medical Claim reduction the right metric to use for measuring success?


1. Does your employee population reflect the general population that is driving the health conditions seen in public health data?

2. Is your private medical insurance paying for treatments related to the conditions identified as a concern by public health data?

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## Can we revisit the Medical Trend slide, and gather more insight?

INFLATION (INCREASES IN UNIT COSTS); YES, BUT ALSO:

- CHANGES IN A POPULATION'S BURDEN OF ILLNESS
- IMPROVEMENTS / ADVANCES IN TECHNOLOGY AND PHARMACEUTICALS
- INCREASES IN CONSUMER (PATIENT) DEMANDS
- CHANGES IN PHYSICIAN TREATMENT PATTERNS
- SHIFTS AWAY FROM LOCAL PUBLIC HEALTH SYSTEMS
- SHIFTS AWAY FROM LOCAL PUBLIC HEALTH SYSTEMS

**WHAT DOES THIS REALLY MEAN?**

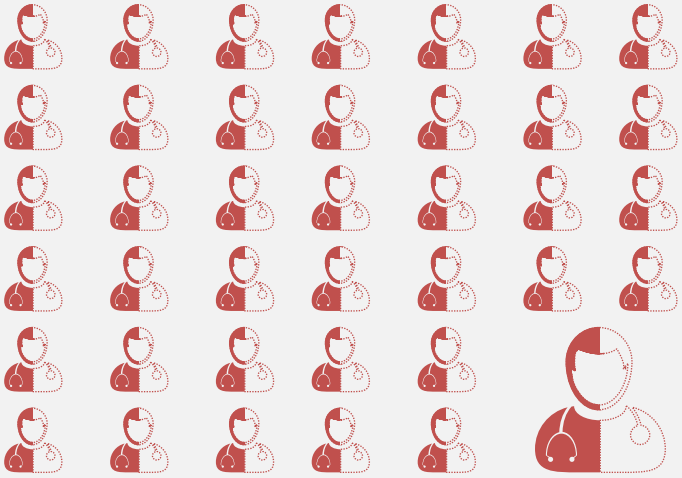
## What do we mean by "shifts away" from local public health systems?


In many parts of the world, PMI cover is very limited. Nearly everywhere is the scope of cover *evolving*, however, largely as reaction to supply / demand for private medical services.

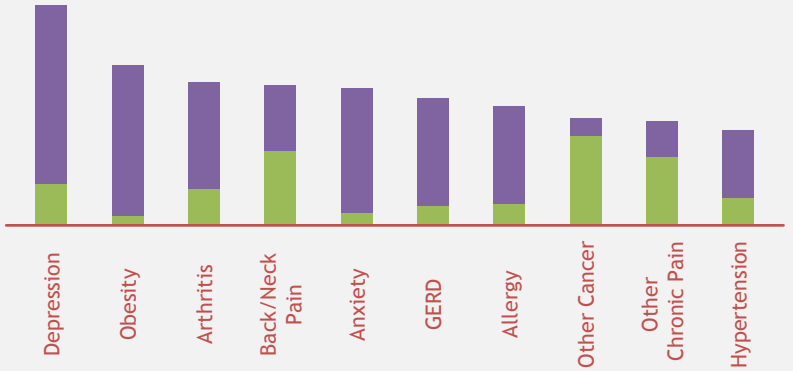
This complicates both the targeting / measuring of Wellness Programs. Depending on the scope of local cover, some programs may have little / no impact on PMI claims at all.

# Even if comprehensive, direct PMI expenditures do not tell the whole story

DIRECT COSTS **30%** MEDICAL & DRUG PLANS



INDIRECT COSTS **70%** ABSENTEEISM & PRESENTEEISM




1. Health and Productivity as a Business Strategy: A Multiemployer Study, Journal of Occupational and Environmental Medicine • Volume 51, Number 4, April 2009

## So, is reducing private medical claims the *right* metric to measure success?

Best is a mix of data sources: Public, PMI & Others

1. The less your population reflects the general profile seen in public data, the more you need to rely on medical claims data for *targeting* programs

2. The more limited the scope of your private medical cover, the less you can use *only* PMI claims for the *ROI analysis* of wellness programs.

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# How do Captives determine the cost drivers in private medical cover?


Figures for illustration

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