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Global Perspectives on Long Term Care: United States and Germany

Sponsored by the International Actuarial Association Health Section (IAAHS)
and the American Academy of Actuaries

March 24, 2017

Long Term Care Webinar Series

Today's webinar is
first in the series,
featuring:
Germany and the US

May/June 2017 :
Canada & the
Netherlands (Tentative)

3rd Quarter : Australia
and an Asian Country
(Tentative)

4th Quarter : TBD

Highlighting the Long Term Care Report by the International
Actuarial Association's Population Issues Working Group



Global Perspectives and Country Specifics

Demographics

**Expenditure and
Financing**

Program Designs

**Public/ Private
Partnership**

**Strategic Issues and
Approaches**

Actuarial Roles



Presenters



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Practice International
Committee
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Long-Term Care: Public and Personal Challenges

Sam Gutterman, MAAA, FSA, FCAS, HonFIA

on behalf of the International Actuarial Association Population Issues Working Group

The IAA Report: Long-Term Care

- Prepared by the Population Issues Working Group of the International Actuarial Association (IAA)
 - To be published at end of March 2017
- Scope
 - Focuses on LTC needs of the elderly, although other population segments are also in need of these services

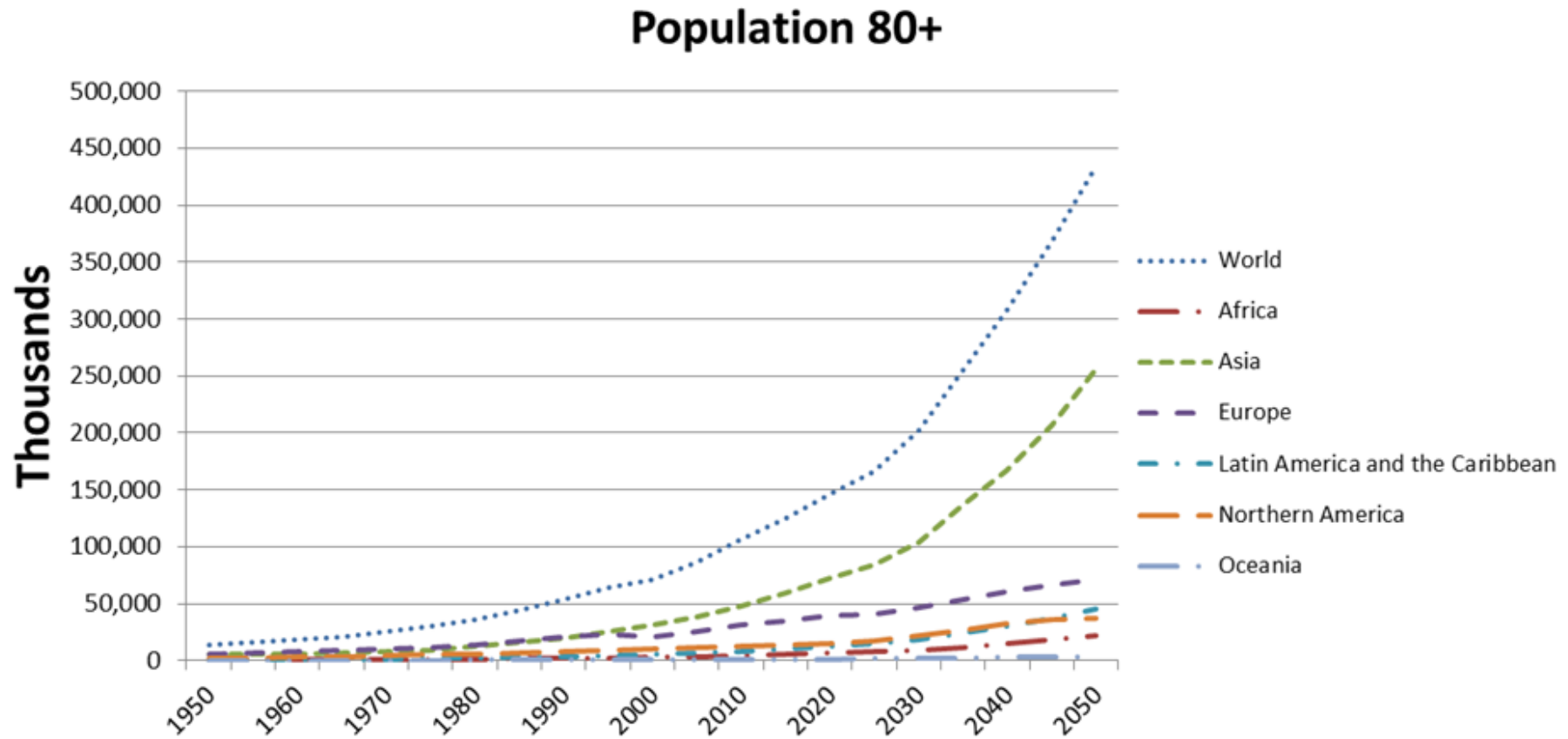


Agenda

- The importance of LTC
- Underlying needs
- Satisfying the needs
- Financing the needs
- Challenges
- Approaches



Demographic Explosion



Number of people age 80 and older is expected to increase from about 120,000 now to more than 400,000 in 2050

Source: United Nations 2015 Revision of World Population Prospects

Percent of Population Age 80 and Older

Gender	F	M	F	M	F	M	F	M
Country	Canada		China		France		Germany	
1970	1.8	1.3	0.4	0.2	3.2	1.4	2.4	1.4
1990	3.0	1.6	0.8	0.4	5.0	2.3	5.2	2.2
2010	4.9	2.9	1.6	1.1	6.9	3.8	6.8	3.4
2015	5.1	3.3	1.9	1.3	7.6	4.5	7.2	4.1
2030	7.4	5.6	3.4	2.4	9.2	6.4	9.4	6.6
2050	11.8	9.5	10.2	7.8	13.2	8.8	16.1	12.7
Country	Italy		Japan		South Africa		United States	
1970	2.2	1.4	1.2	0.6	0.6	0.3	2.3	1.5
1990	4.3	2.2	3.0	1.7	0.5	0.2	3.7	1.8
2010	7.4	4.2	8.1	4.4	1.2	0.7	4.5	2.7
2015	8.5	5.1	9.8	5.6	1.3	0.6	4.6	2.9
2030	11.5	7.8	15.4	9.8	1.7	0.4	6.3	4.5
2050	18.0	13.1	18.1	12.0	2.9	1.2	9.4	7.3

- Significant increase in most countries (other than South Africa)
- Caused by increased longevity and decreased fertility

Source: World Bank

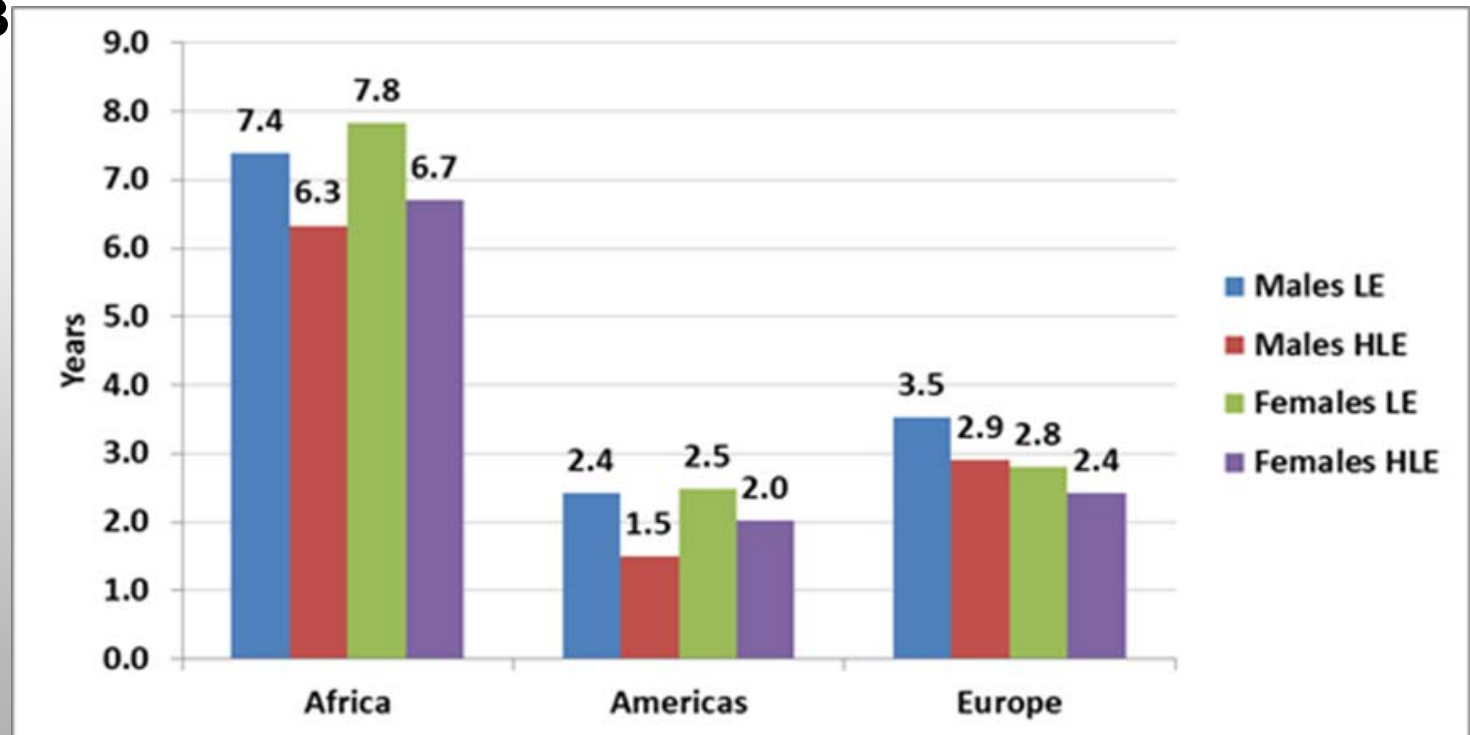
Importance of LTC

- The aging of society
 - The downside of improvement in mortality and lower fertility
 - In countries with a post World War II baby boom
 - Explosion of LTC needs will emerge in the 2030s
- Demographic and lifestyle changes
 - Smaller and less close families
 - Increased mobility
- Corresponding with the increase in LTC needs, the demand for caregivers and other assistance will also explode



Trends in Morbidity Compression/Expansion

Life expectancy (LE) and healthy life expectancy (HLE) – change between 2000 and 2013



- Apparent expansion of period of morbidity, although certain studies have shown a compression
- Significant differences by income, especially for healthy life expectancy

Source: World Health Organization

Underlying Needs

- Residence
- Assistance with daily living
- Medical/nursing
- Preserving independence and autonomy
- Affordability



Satisfying Needs

■ Residence

■ Home / community

- Psychologically and financially better if at home or community
- Aging-in-place

■ Facility

- Assisted living facility
- Nursing home
 - No one wants to use this option, but is often necessary
- Hospice



Satisfying Needs

- Assisting the activities of daily living
- Through caregivers
 - Informal
 - Family, friends and neighbors
 - Psychological and work-related burdens
 - Community
 - Formal
 - At home
 - Facility staff
 - Long-term concerns
 - Supply
 - Training



Satisfying Needs

- Medical / nursing
 - Relation with acute care
 - Hospital transitions can be a problem
 - Availability
 - At home or community
 - In-house or institutions
 - Purchase and taking medicine



Financing the Need

■ Personal

■ Savings

- Including residence

■ Insurance

- Standalone or in a combination product
- Worldwide, most individual

■ Family, friends, or community human resources

■ Part of or as a supplement to an employer-sponsored program

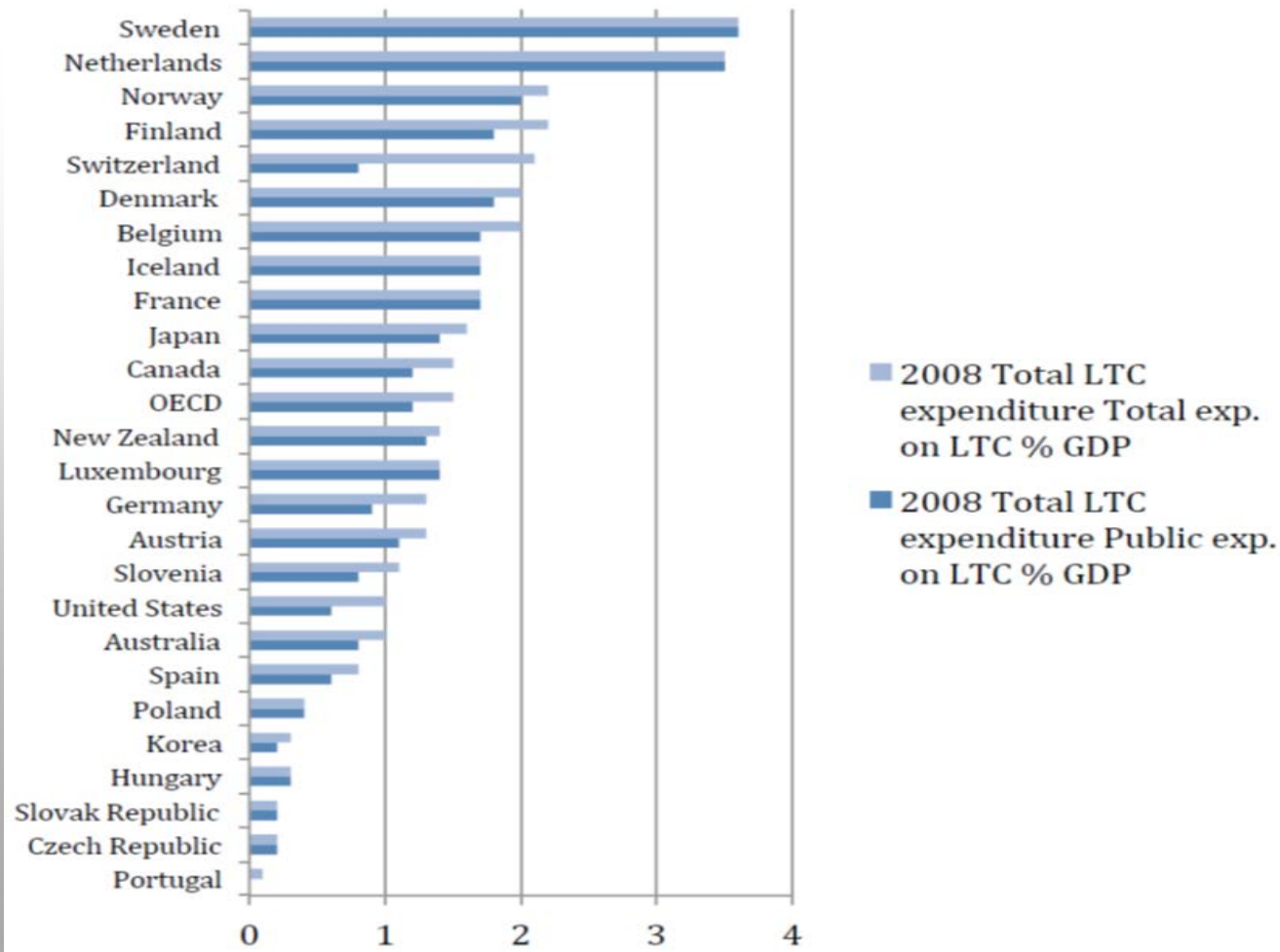


Financing the Need

- Public
 - Social insurance
 - Limited use of wage-related contributions
 - Social assistance
 - Wealth or other needs-tested
 - Income or inheritance taxes
 - Who pays
 - National or local authorities
- Component of healthcare or retirement program – rare, but has been used



Recent Expenditures on LTC



Source: OECD Health Data, 2011

Challenges

- The cost
 - The sheer numbers needing LTC
 - Lack of sufficient savings to finance needs
- Caregiving
 - Availability of informal care
 - Low fertility rate, so fewer children
 - Mobility of children
 - Higher labor force participation, particularly females
 - Training
- Aging at home
 - Feasibility for those with mental conditions



Approaches

- Around the world
 - Typically piecemeal programs
 - Some better coordinated than others
 - Importance given to developing solutions
 - Primarily depends on degree of aging populations
 - Huge potential costs that are and will in the future present significant budgetary problem
 - In many countries, issue has not been given serious policy discussions
 - But will have to address in the next two decades



Possible Solutions

- Every country may end up with its own approach
 - Will likely emphasize aging-in-place or home LTC delivery, as usually best for individual and to better control costs
- Some type of means-testing or social insurance
- Personal responsibility – for middle class
 - Combination of personal savings and private insurance



Program Changes and Cost Control

- Preventive actions
 - Nutrition, physical/mental activity, social interaction
 - Encourage aging-in-place
- Cost sharing
- Technology
- Caregiver support
- Community programs
- Situs
 - Intermediate care situs approaches, with abuse control
 - Less expensive geographic locations
- Fee negotiation/caps



Raising Awareness

- Priority needs to be raised
- Effective education
 - Both personal and policy
 - Difficult because relevance is typically a long time away
- Develop and disseminate technology
- Enhance coordination with
 - Acute care approaches
 - Retirement programs



The Long-Term Care Crisis

- Coming to your country in the future
 - Increasing population exposed and cost
 - Even if relatively small elderly population
- Need better coordination of programs to avoid gaps
 - Retirement plans
 - Taxwise – treat similar to retirement benefits
 - Acute health care
 - Enhance savings programs (not just for LTC)
- Especially of concern for the middle class
 - Rich can afford and poor will be means-tested
- Mandatory public-private coordination



Role for Actuaries

- Quantitative analysis
 - Considering benefit design
 - As much relevant data/information needed as possible
 - Identify cost-saving approaches
- Benefit design
 - Minimize moral hazard and anti-selection
- Should not only focus on a single solution for all
- Potential to contribute to any policy discussion



Criteria for LTC program

- Coverage
- Benefit design
- Affordability – to the individual and society
- Appropriateness and quality of delivery
- Risk management / cost
- Sustainability of funding
- Avoiding unintended consequences



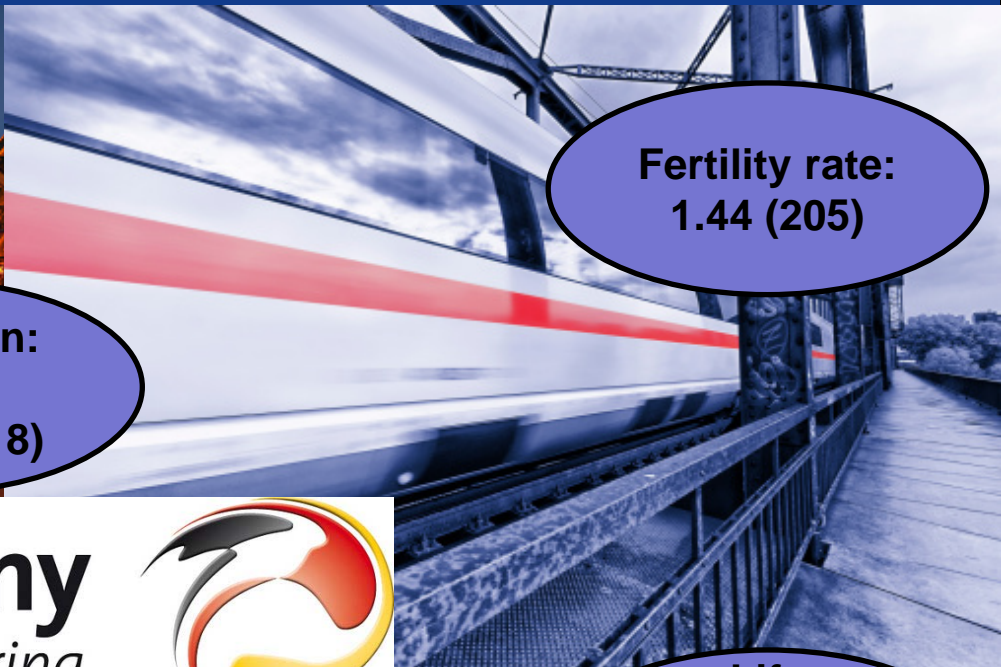
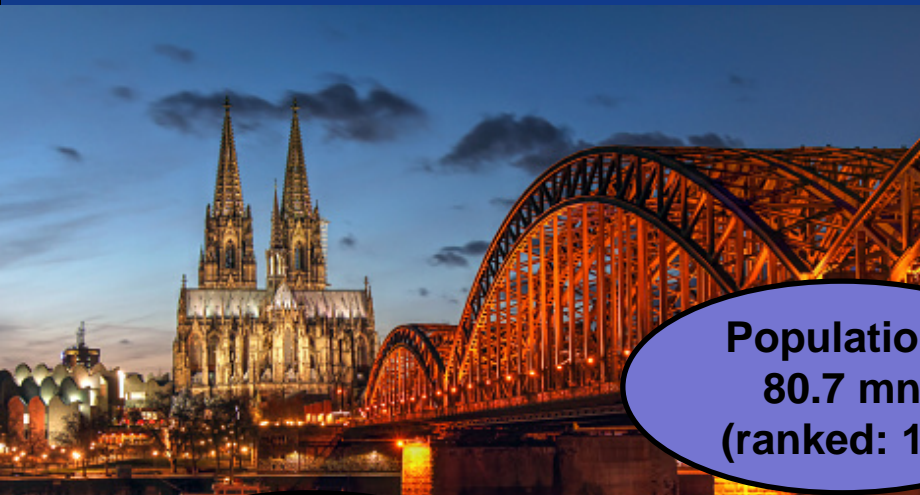


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Country Perspectives on LTC – Germany

Sabrina Link



Fertility rate:
1.44 (205)

Population:
80.7 mn
(ranked: 18)

**GDP per
capita PPP:**
\$48,200 (27)

Germany
Simply inspiring



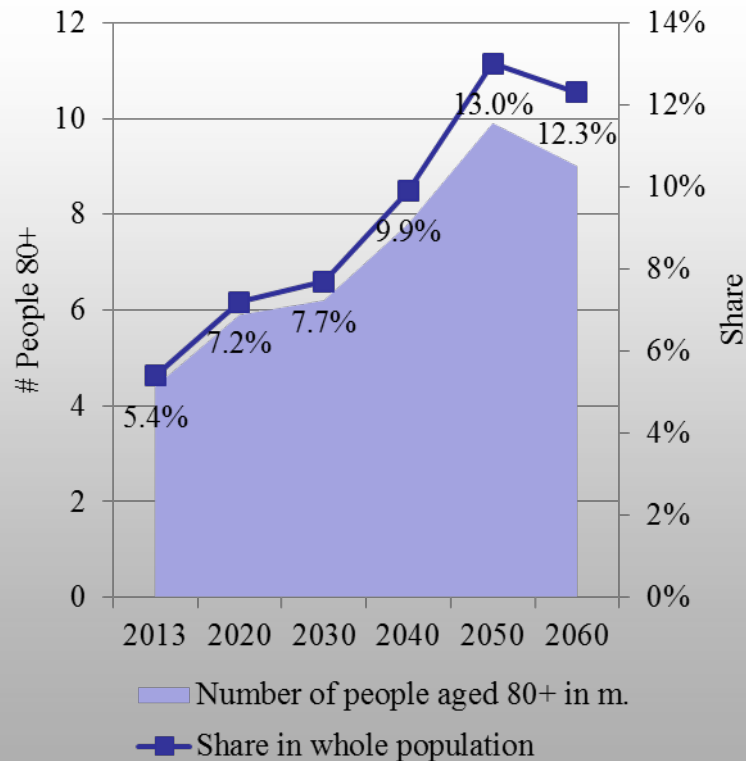
**Life
expectancy:**
80.7 years
(34)

**21.8% of
population:**
65+

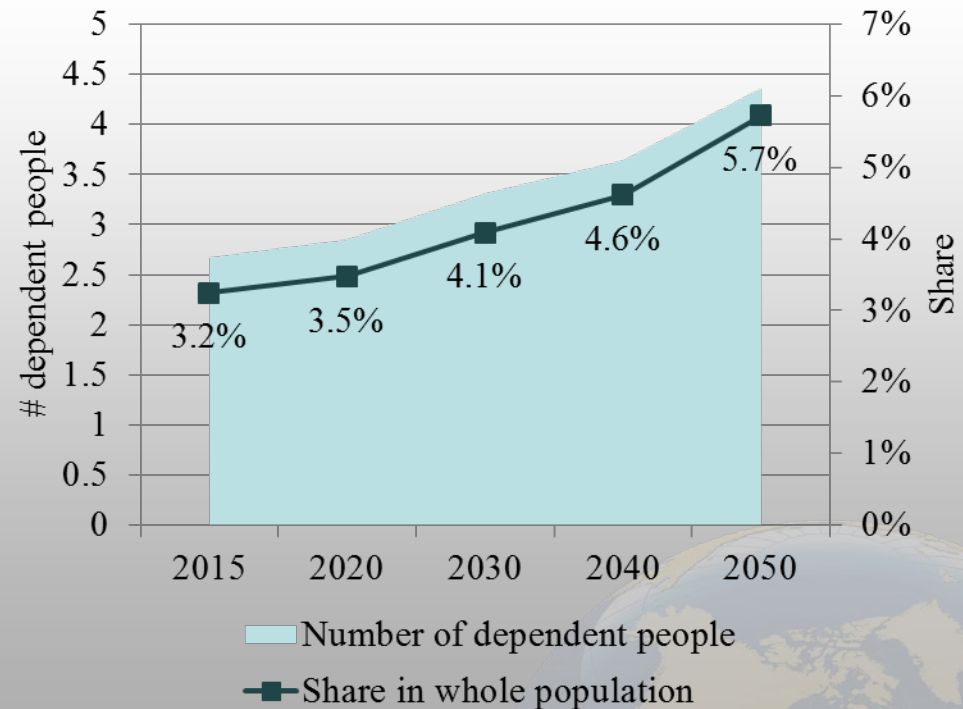


Demographics

Development of population



Development of # of dependent people in m. (public sick fund only)



Source: BMG, Zahlen und Fakten zur Pflegeversicherung, Statistisches Bundesamt, 13. koordinierte Bevölkerungsvorausschätzung (Variante 2)

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The 5 pillars of Social Insurance in Germany

The latest pillar was the introduction of a compulsory LTC scheme on 1 January 1995

Social security system

Health

1883

Pension

1889

Occupational Accident

1884

Unemployment

1927

LTC

1995

LTC coverage is compulsory

- Citizens with compulsory public health insurance are insured through sickness funds
- Citizens with private health insurance must obtain compulsory private LTCI coverage

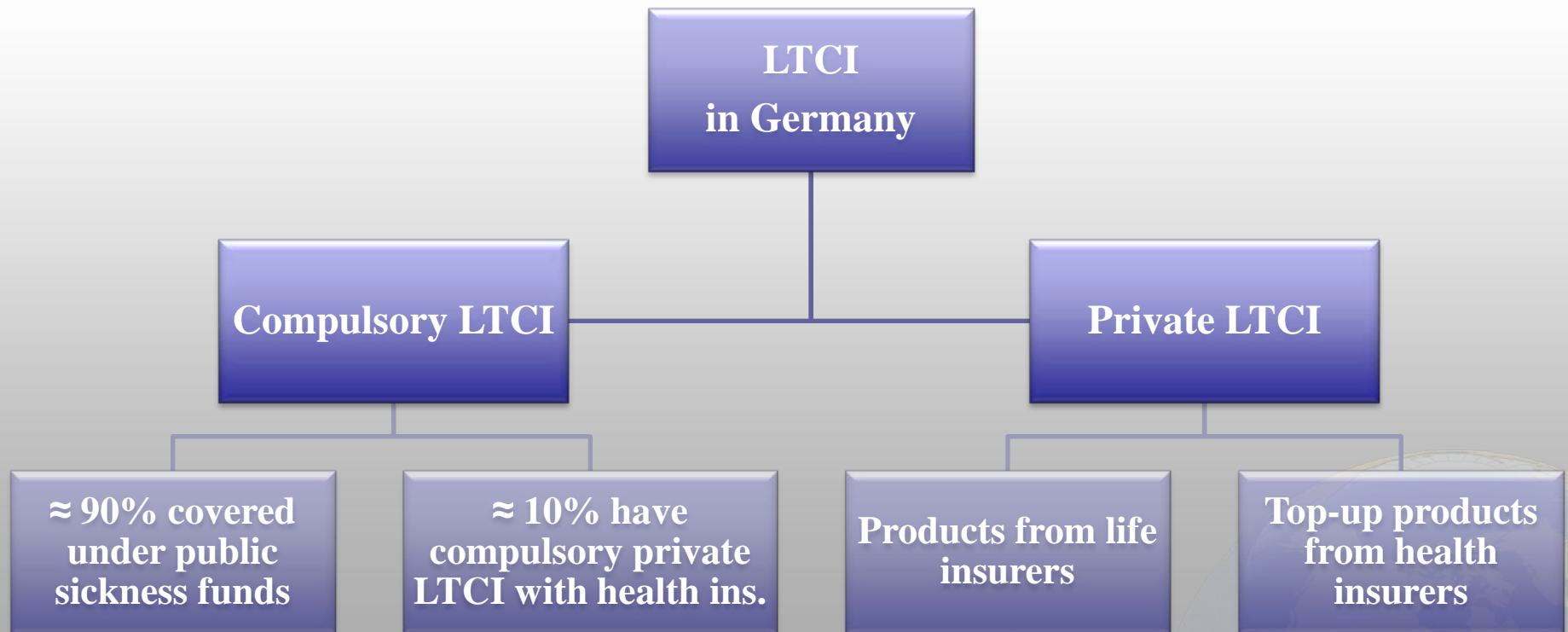
What is Covered?

- Nursing care in a home or at home
- Cash benefit to informal care-giver when cared for at home
- Devices
- Improvement measures at home
- Contributions towards social security benefits (for informal care-givers)
- LTC training courses
- Home care if usual care-giver is prevented
- Day- and night-time care provision
- Short-term care
- Additional support
- Claims assessment expenses



Long-Term Care Insurance (LTCI) in Germany

Compulsory and Private Coverage



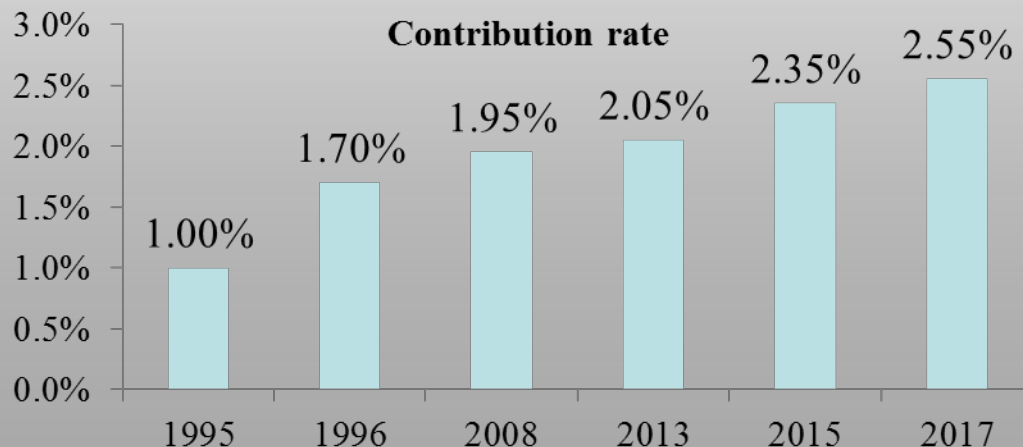
Principals Underlying the Compulsory Public LTCI

■ Principles of the compulsory LTCI

“Home Health Care over Nursing Home“

Partial coverage insurance

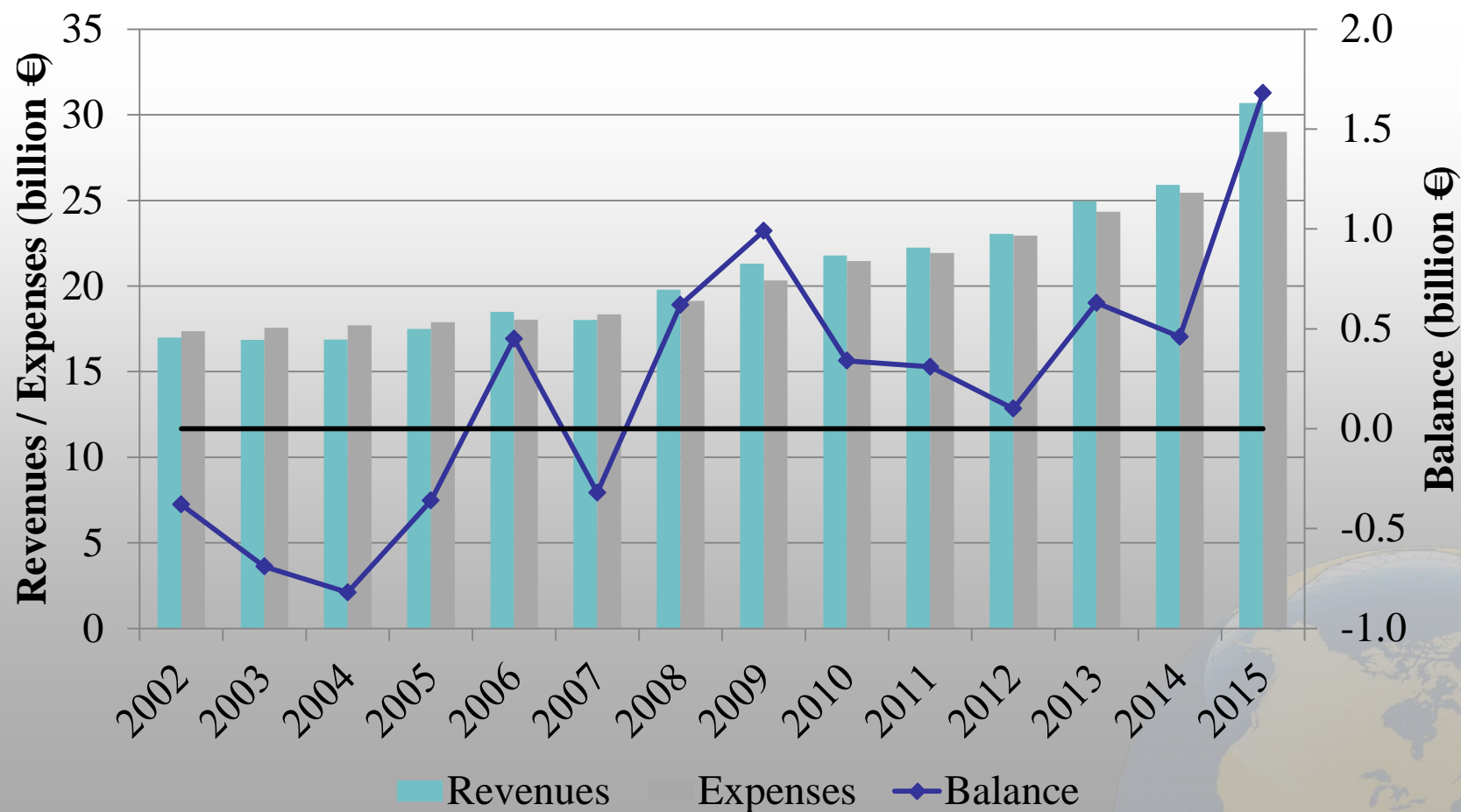
■ Financing*



- Pay-as-you-go system
- Not means-tested
- Contribution is shared equally between employer and employee

* For publicly insured, in % of gross income up to the contribution assessment ceiling, without surcharge for those without children

Financial Situation of the Compulsory Public LTCI



Source: BMG, Zahlen und Fakten zur Pflegeversicherung

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Financing of the Compulsory Private LTCI

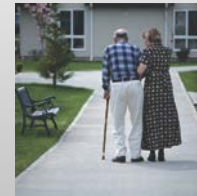
- Funding system (reserves)
- Same benefits as in the public scheme
- Premium depends on
 - Age
 - State of health at policy issue
 - But not gender
- The premium is capped by the maximum contribution to the compulsory public scheme for those who have been insured in the private compulsory system...
 - ...since introduction of the scheme or
 - ...for at least five years
- Children are insured through their parents without paying a premium (like in the compulsory public scheme)



Care Definition Until End 2016

The activities of daily living which are taken into account when assessing the care need according to SGB XI § 14 Abs. 4 are:

- Personal hygiene
- Nutrition
- Mobility
- Household assistance

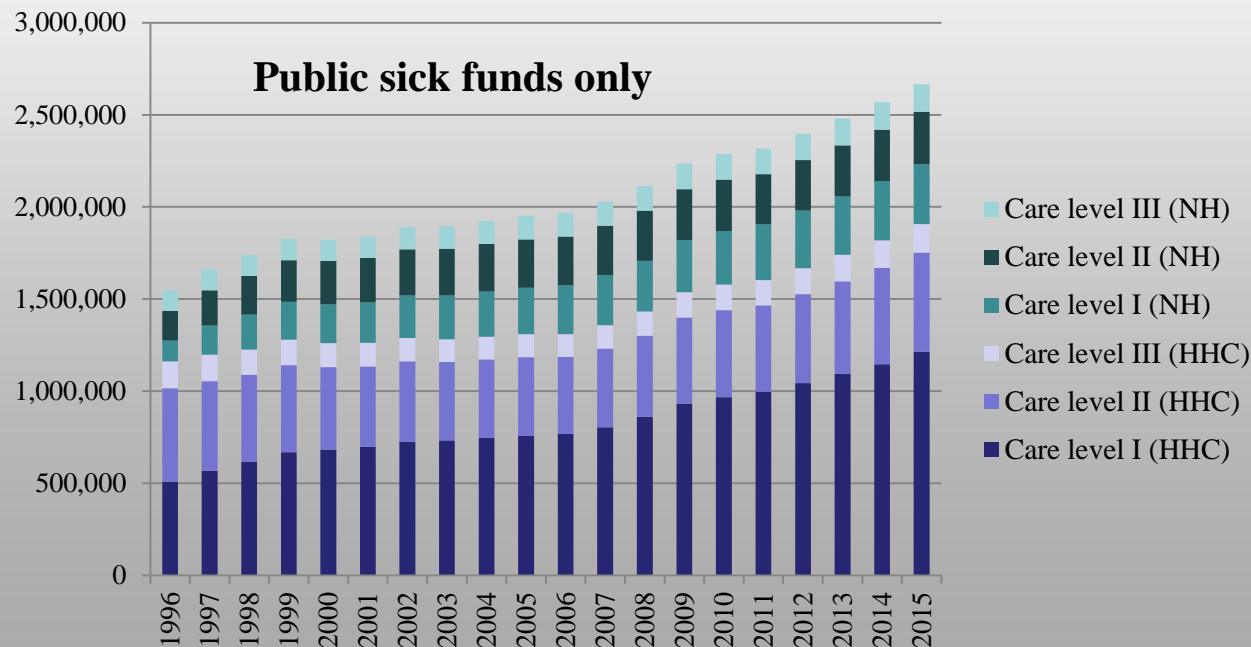


The assessment focuses on the amount of care (in hours!) needed

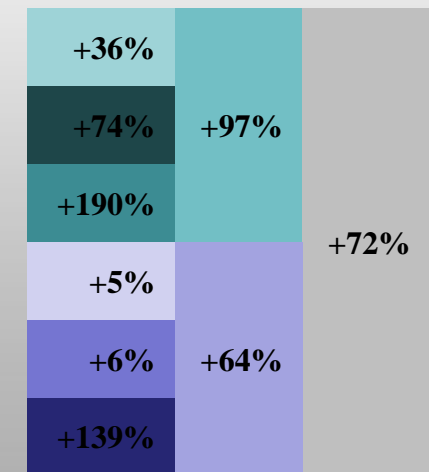
	Care required	Duration per day	Of which ADLs
Care level I	≥ 1x per day	≥ 90 min	≥ 45 min
Care level II	≥ 3x per day	≥ 3 hours	≥ 2 hours
Care level III	permanent, also at night	≥ 5 hours	≥ 4 hours

Facts and Figures (as at end 2015)

- 2,843,184 individuals receiving LTCI benefits
 - 6.3% privately insured
 - 71.6% are cared for at home



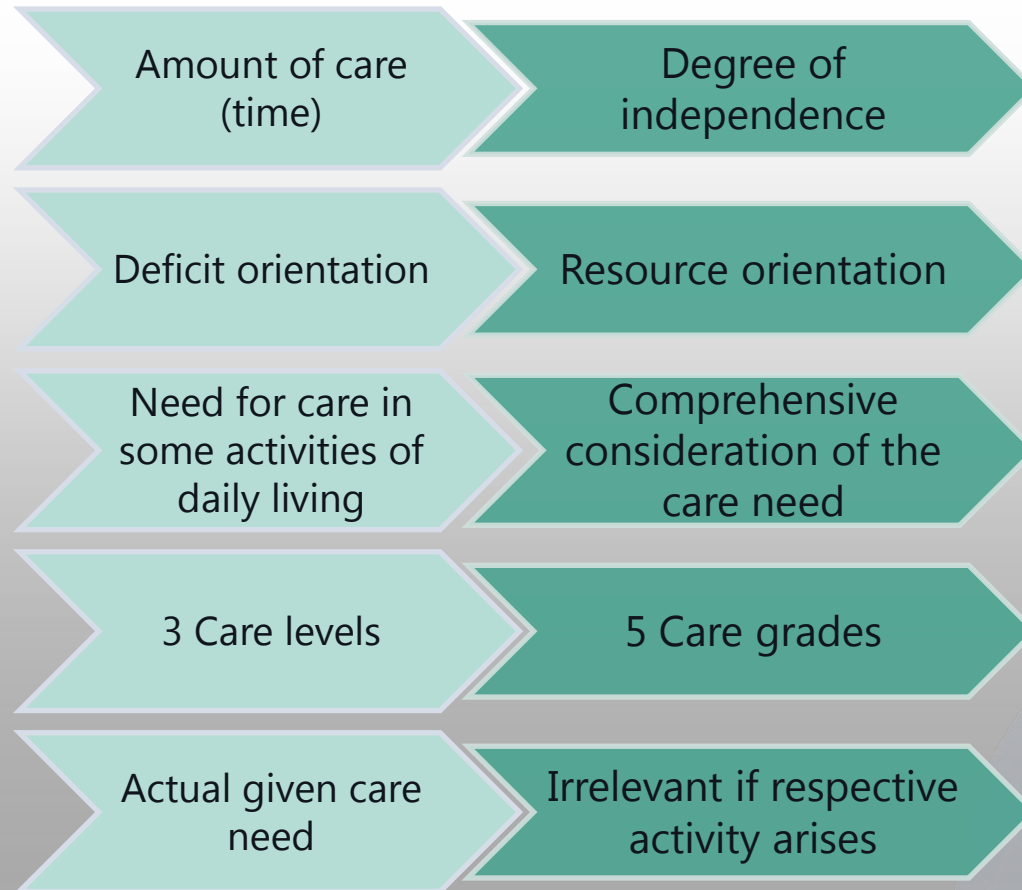
Change 1996 – 2015



NH: Nursing home
HHC: Home health care

The LTC Reform – Assessment Philosophy

Basic changes



The New Care Assessment

Module 1 Mobility



10%

Module 2 Cognitive & communicative abilities



15%*

Module 3 Behaviour & psychic problems



15%*

Module 4 Self-supply



40%

Module 5 Dealing with requirements due to illness or therapy



20%

Module 6 Organisation of everyday life and social contacts



15%

**Higher value from Module 2 or 3*

Do the Benefits of the New LTCI Cover the Actual Need?

Maximum benefits From 01/01/2017 (in Euro per month)	Care grade 1	Care grade 2	Care grade 3	Care grade 4	Care grade 5
Home health care					
Cash benefit		316	545	728	901
Cost reimbursement		689	1,298	1,612	1,995
Relief benefit	125	125	125	125	125
Nursing home care	125	770	1,262	1,775	2,005

Adjustments are planned every three years

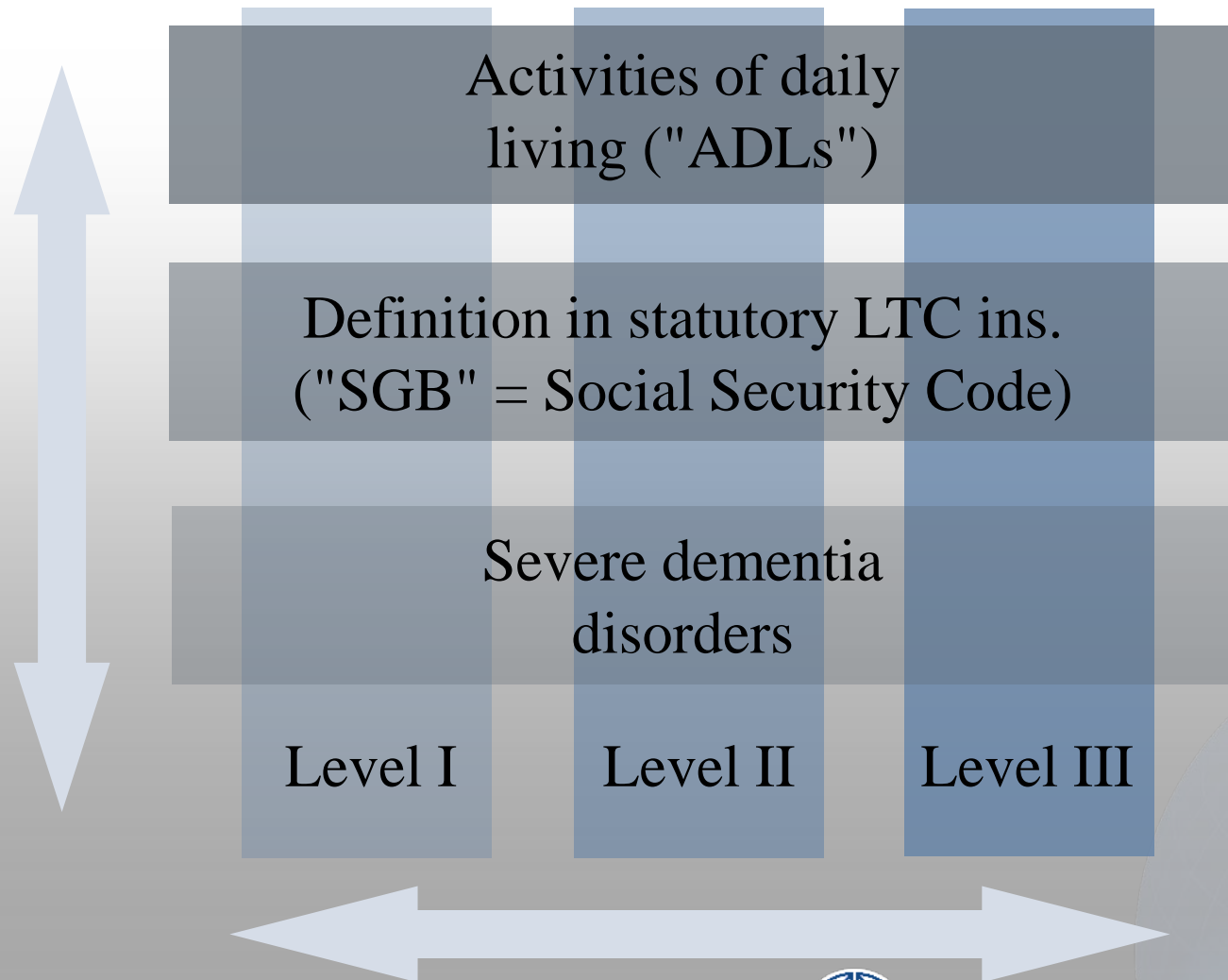
The benefits contrast to the following actual monthly expenses for care (in Euro)

Professional home health care	1,000	2,400	3,900
Nursing home care	Deductible in care homes independent of care grade (except grade 1): ca. 580 EUR (on average)		



Intention of partial coverage

Benefit Triggers for LTC in Life/Health Insurance

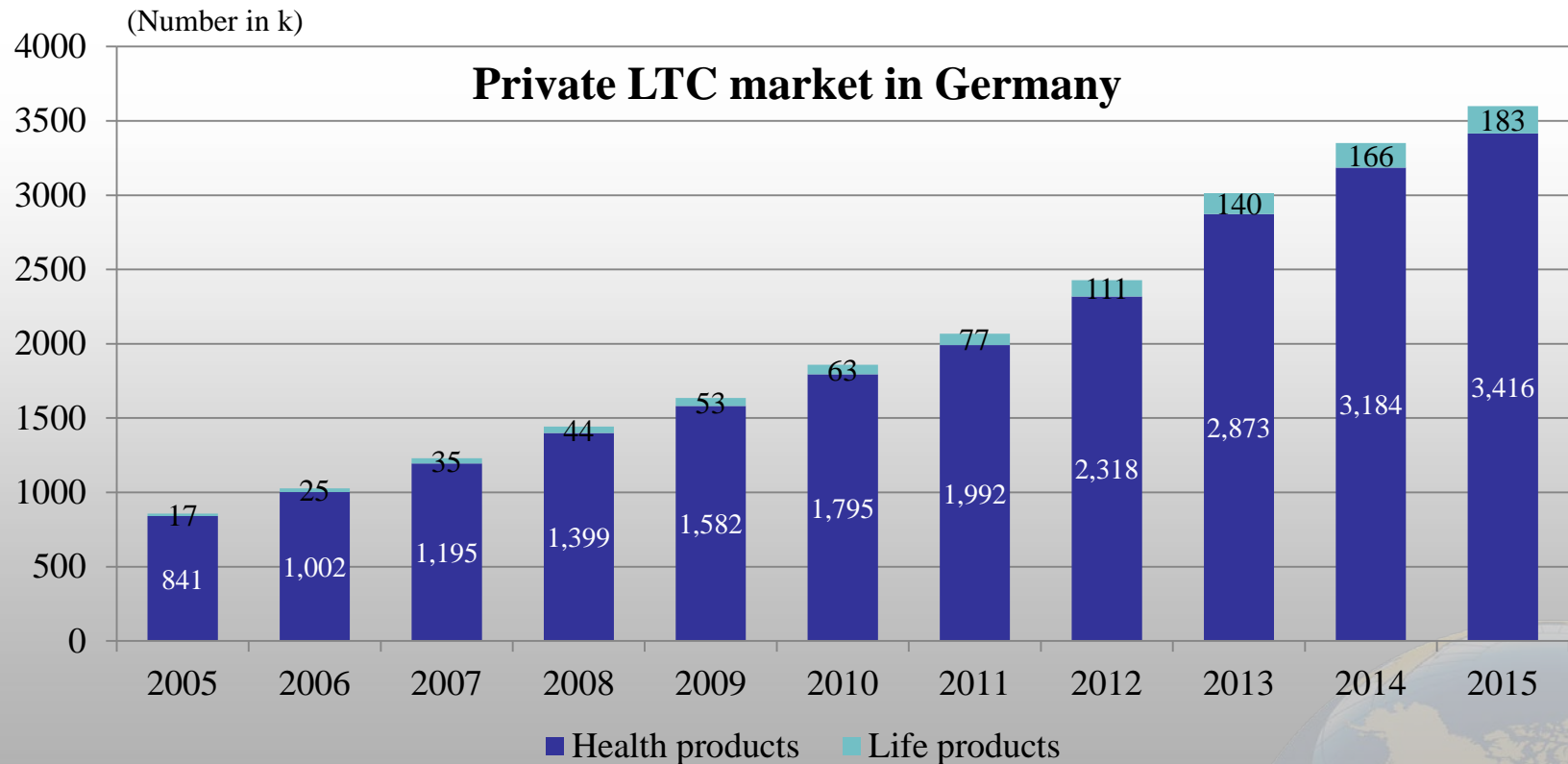


Tiered Benefits Very Popular

- Idea: The benefit amount depends on the number of failed ADLs / care level
- Motivation: The need for financial support typically increases with the level of dependency
- Example:
 - Full benefit pay-out (100 %) when failing 6 out of 6 ADLs / care level 3
 - Partial benefit (e.g. 50 %) when failing 4 out of 6 ADLs / care level 2
 - Waiver of premium when failing 3 out of 6 ADLs / care level 1
- The benefit amount can also depend on whether the claimant suffers from dementia
 - E.g.: Partial benefit (50 %) when failing 4 out of 6 ADLs or when suffering from dementia



Are Additional Private LTCI Policies Sold Successfully?



Average growth of number of policies in force (life insurance products) 2005-2015:
+27 % p.a.

LTCL in Life and Health Insurers

Life insurers

- annuity benefits
- lifetime guarantees
- profit participation
- surrender values payable
- lapses not considered in premium calculation
- waiver of premium in case of LTC
- additional lump sum benefit in case of LTC or death possible
- single premium
- often additional benefit for: failure of n/6 ADLs
- typically higher benefit for dementia

Much more expensive!

Health insurers

- annuity benefits or reimbursement
- reviewable premiums
- calculation and product design subject to detailed regulations
- higher interest rates accepted by regulator
- no surrender values
- no waiver of premium



2013 Government Initiative to Promote Private Insurance ("Pflege-Bahr")

**Government
pays €5 p.m.
towards LTCI**

**Guaranteed
acceptance
(min. age 18)**

**First 5 years
no benefits**

**Min. premium
€15 p.m., no
waiver**

**Min. benefit of
€600 in care
level III**

**Min. benefit:
CL0: 10%; CL1:
20%, CL2: 30%**

**Expenses
limited to 10%**

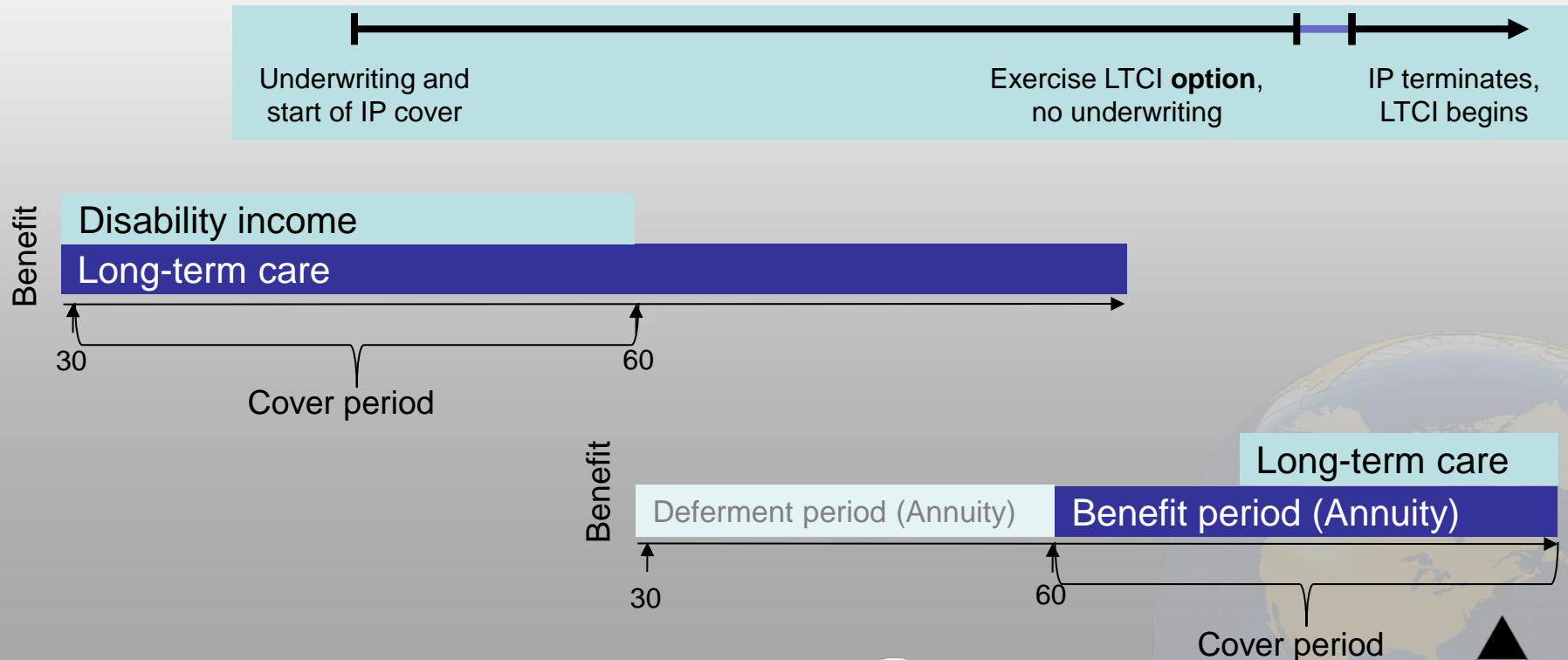
**Funding system
with old-age
provision**



Newer Product Ideas

Life insurers increasingly offer

- options (attached to deferred annuity plans and IP) as well as
- combination products with deferred annuity plans and IP



The Role of Actuaries

- LTC:
 - Extremely long time horizon
 - Driven by mortality & morbidity trends, demographics, medical developments, costs
- Actuaries' experience & expertise include:
 - Risk assessment
 - Developing & interpreting actuarial/statistical models
 - Analysing the effect of mortality, morbidity,... trends
 - Product design & pricing
 - ...
- Actuaries are essential for developing comprehensive, but affordable LTC products.
- They need to step forward in the public dialogue about public LTC programs and solutions.
- In future, big data will expand the operational area for actuaries.



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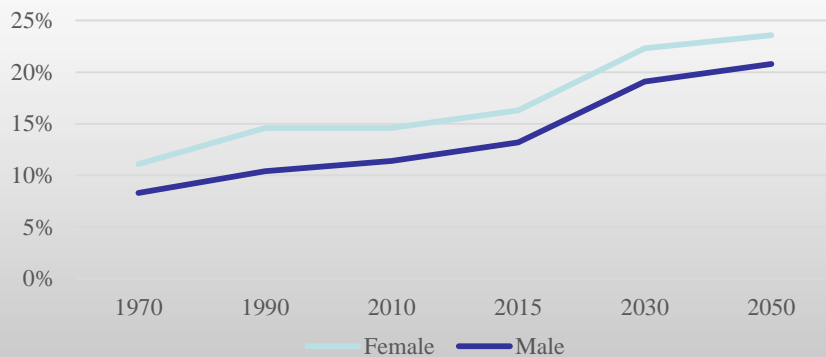
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Country Perspectives on LTC – United States

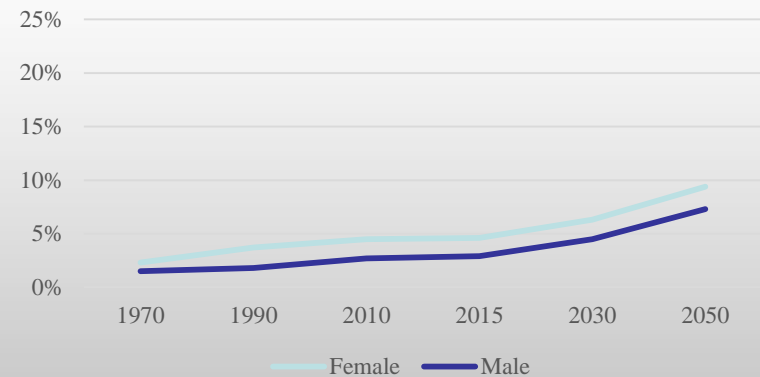
Andrew H. Dalton, MAAA, FSA

Demographics

United States
% of Population Above Age 65



United States
% of Population Above Age 80



U.S. Department of Health and Human Services:

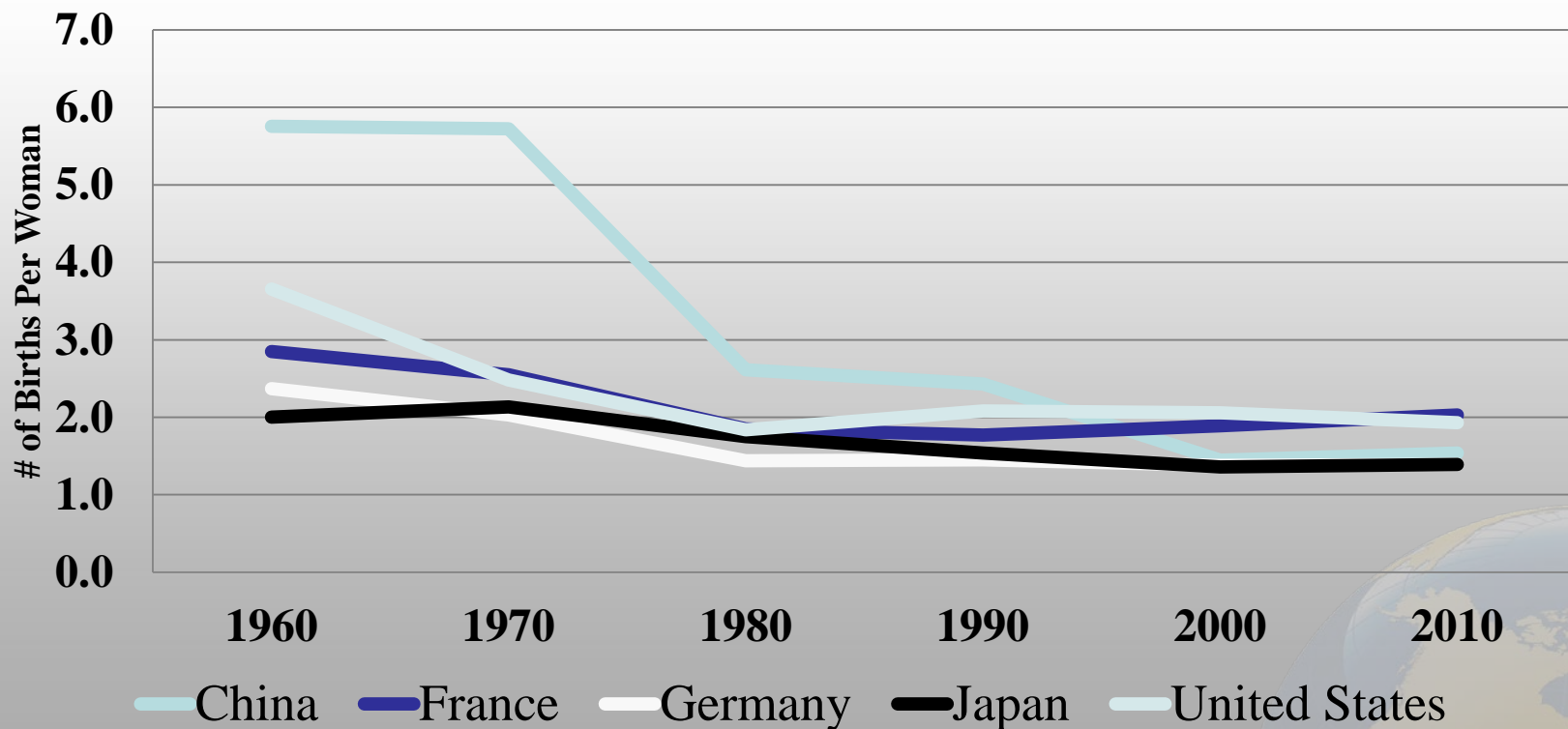
- Of individuals turning 65 in 2016, 70% will need some form of Long Term Care
- Of those requiring care, 20% will require care exceeding 5 years

Source: „Long Term Care“ by the Population Issues Working Group of the International Actuarial Association, 2017

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Demographics

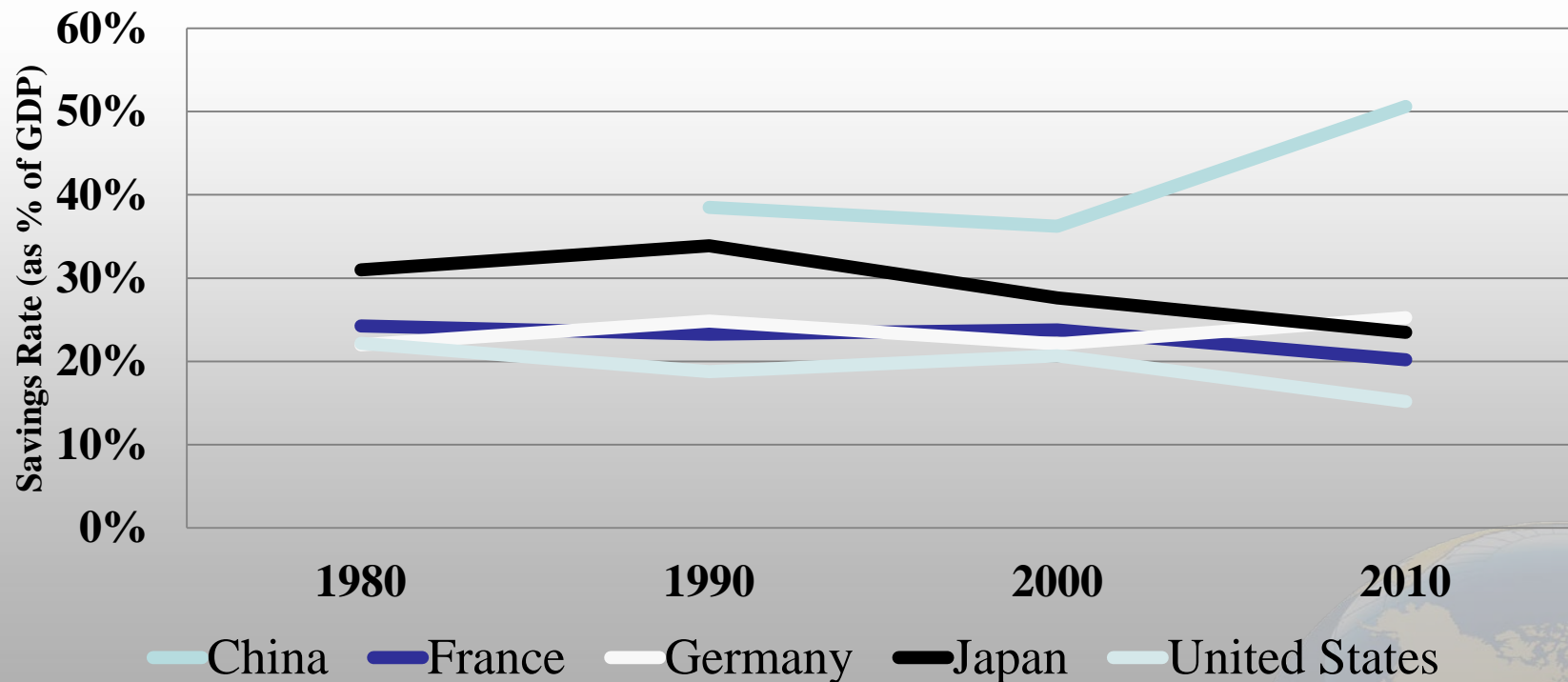
Fertility Rates



Source: <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN/>

Demographics

Global Savings Rates



Source: <http://data.worldbank.org/indicator/NY.GNS.ICTR.ZS>

Demographics

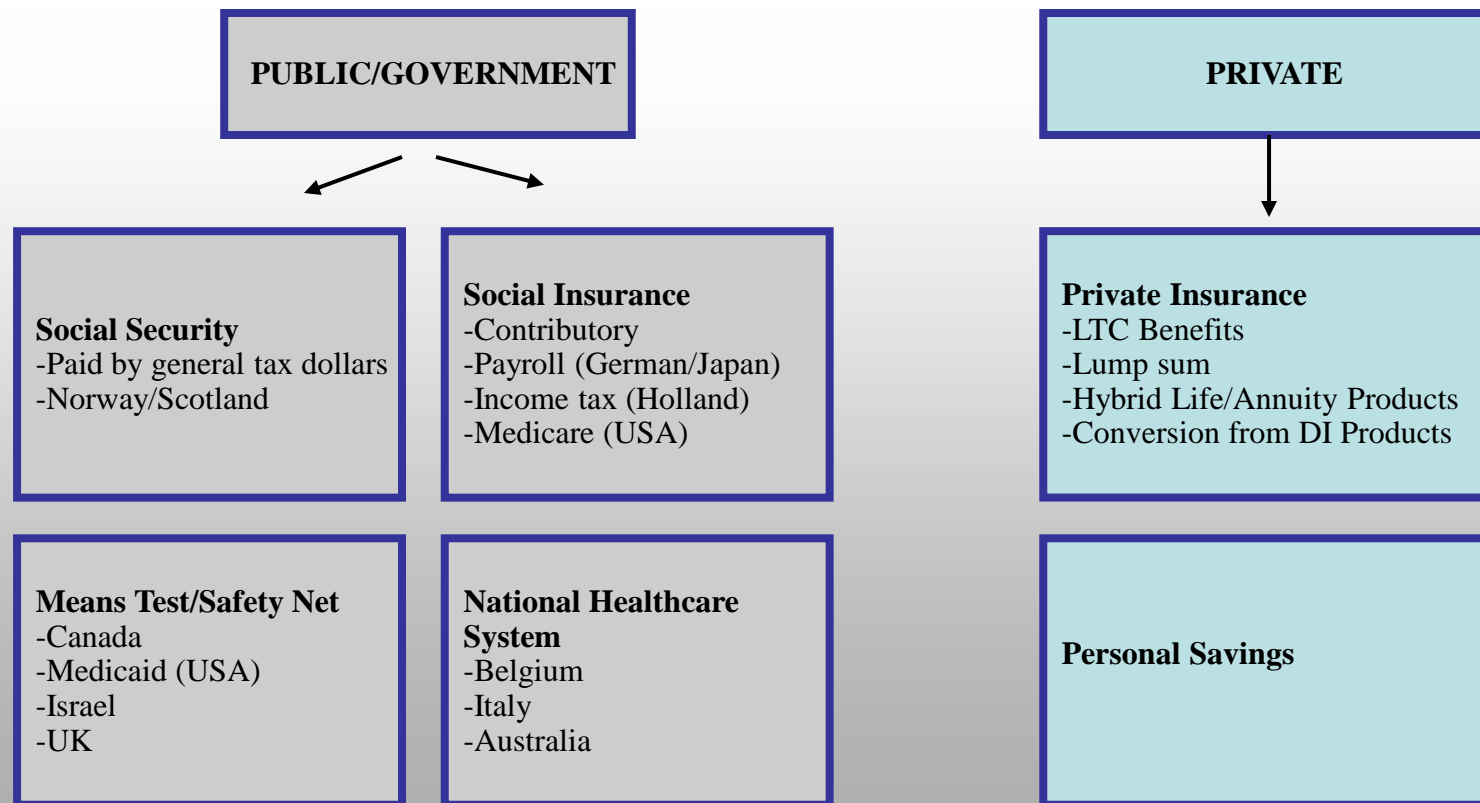


Aging population

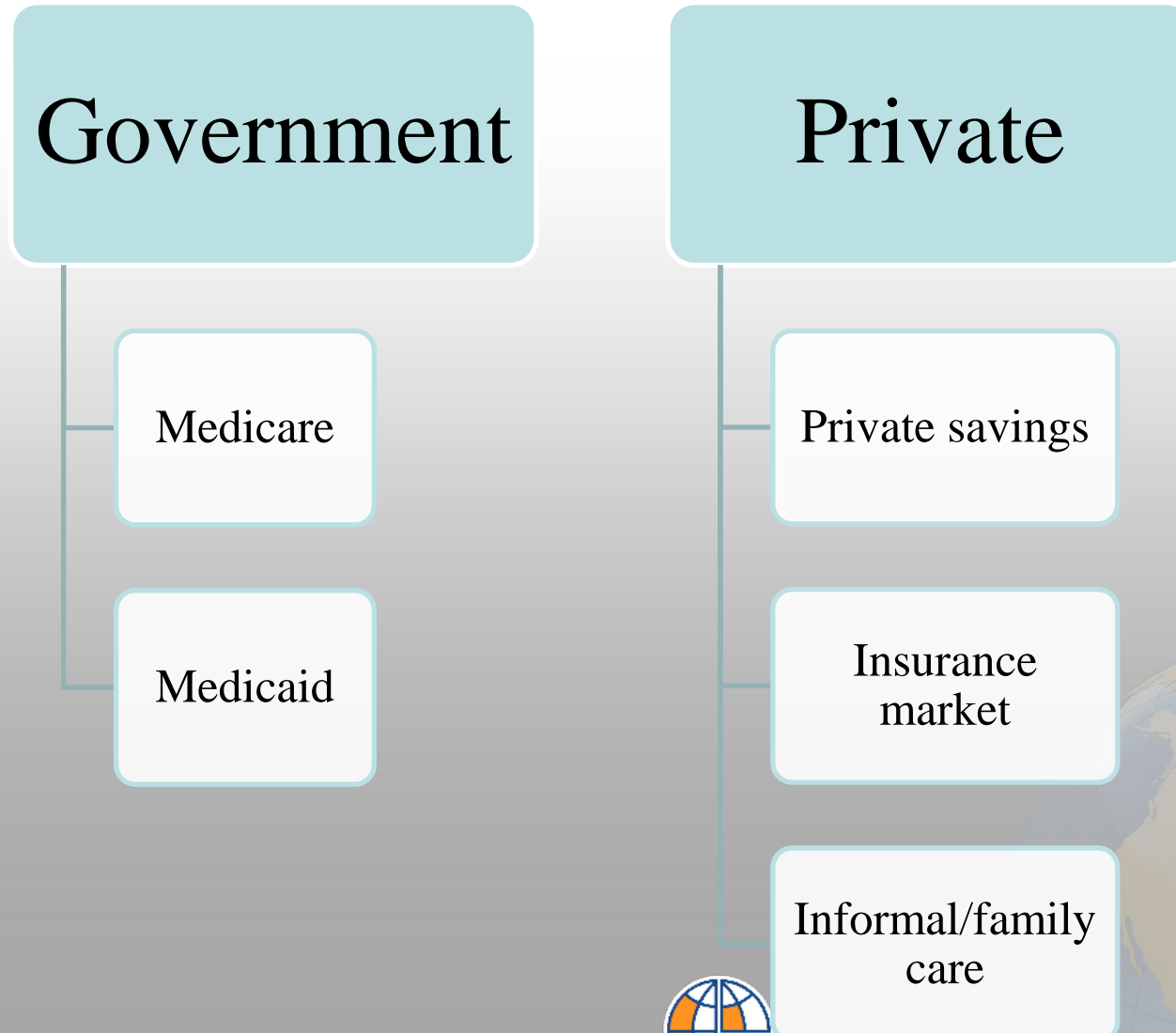
Reduced Fertility Rates

Reduced private savings

Global Approaches for Funding LTC



Financing LTC in the United States



Role of the Actuary (United States)

- Design and price products
- Ongoing valuation work
- Reserve adequacy testing
- Monitor emerging experience relative to pricing/expected
- Contribute to risk management
- Rate increase filings



Trends in the U.S. Market



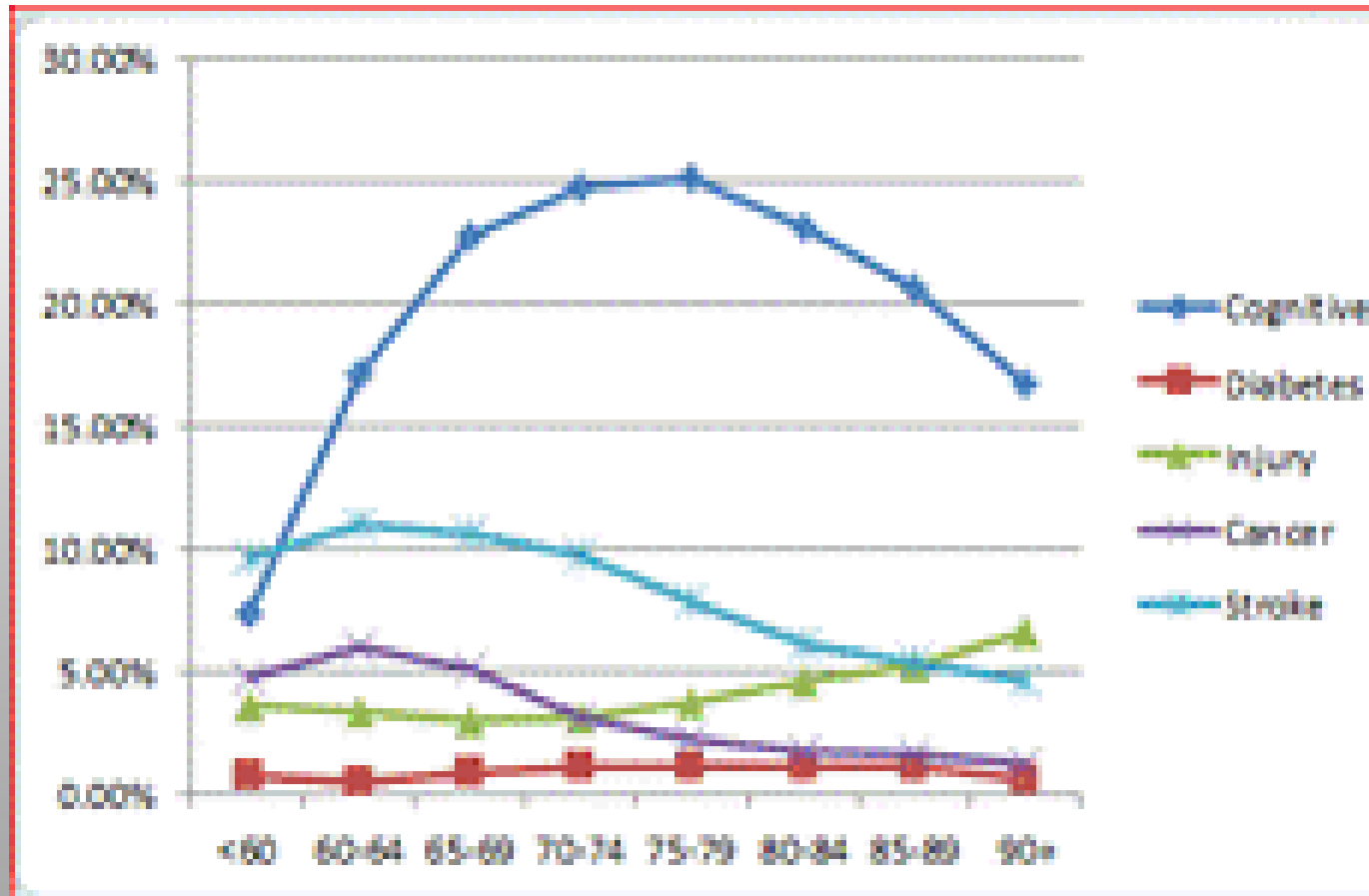
Age

Calendar Year

Emerging Experience

Age Trends

Analysis of LTC insurance claims (U.S.) by age at incurral and cause of claim

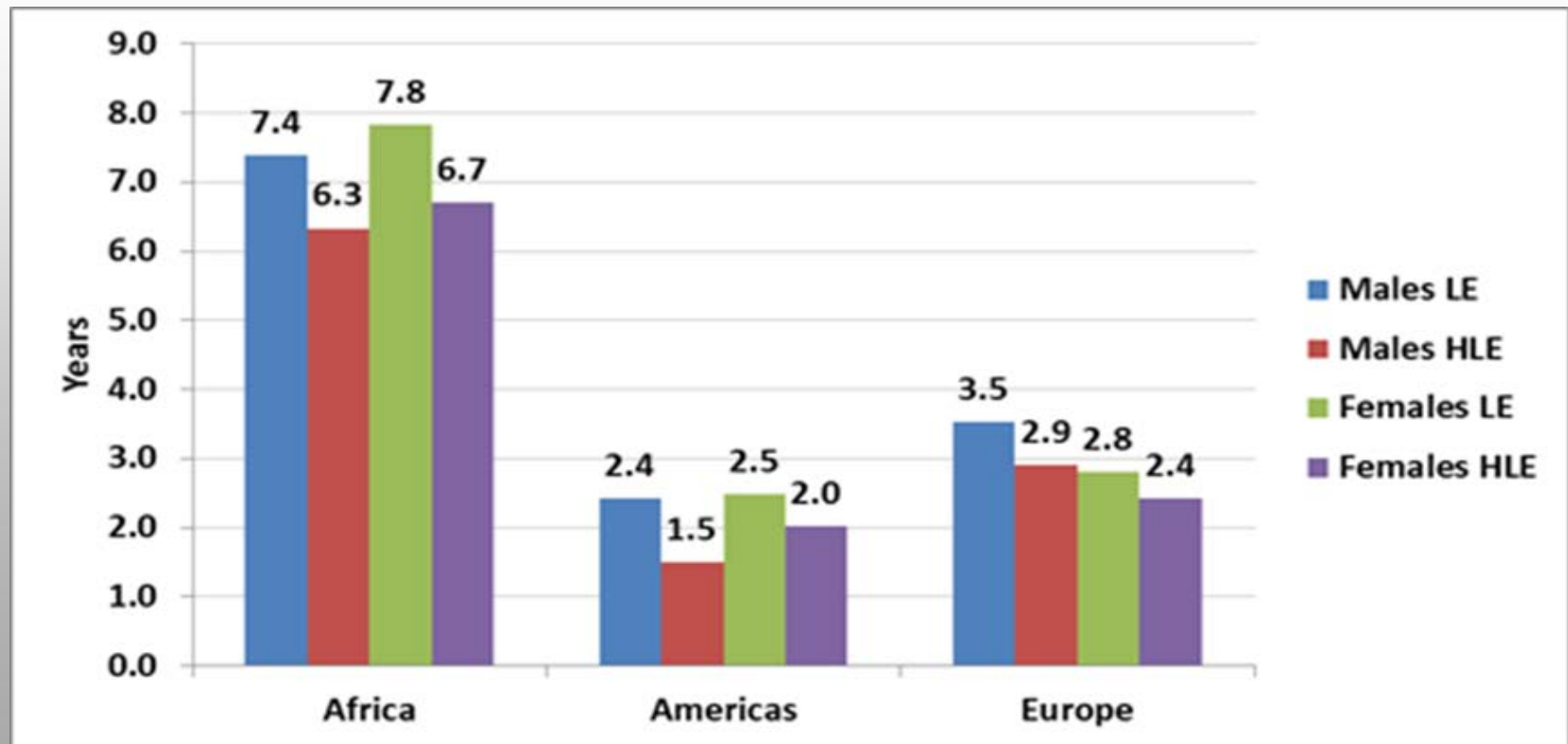


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Calendar Year Trends (Mortality)

Increases in life expectancy (LE) and healthy life expectancy (HLE) at birth between 2000 and 2013 for WHO member states in Africa, Americas and Europe

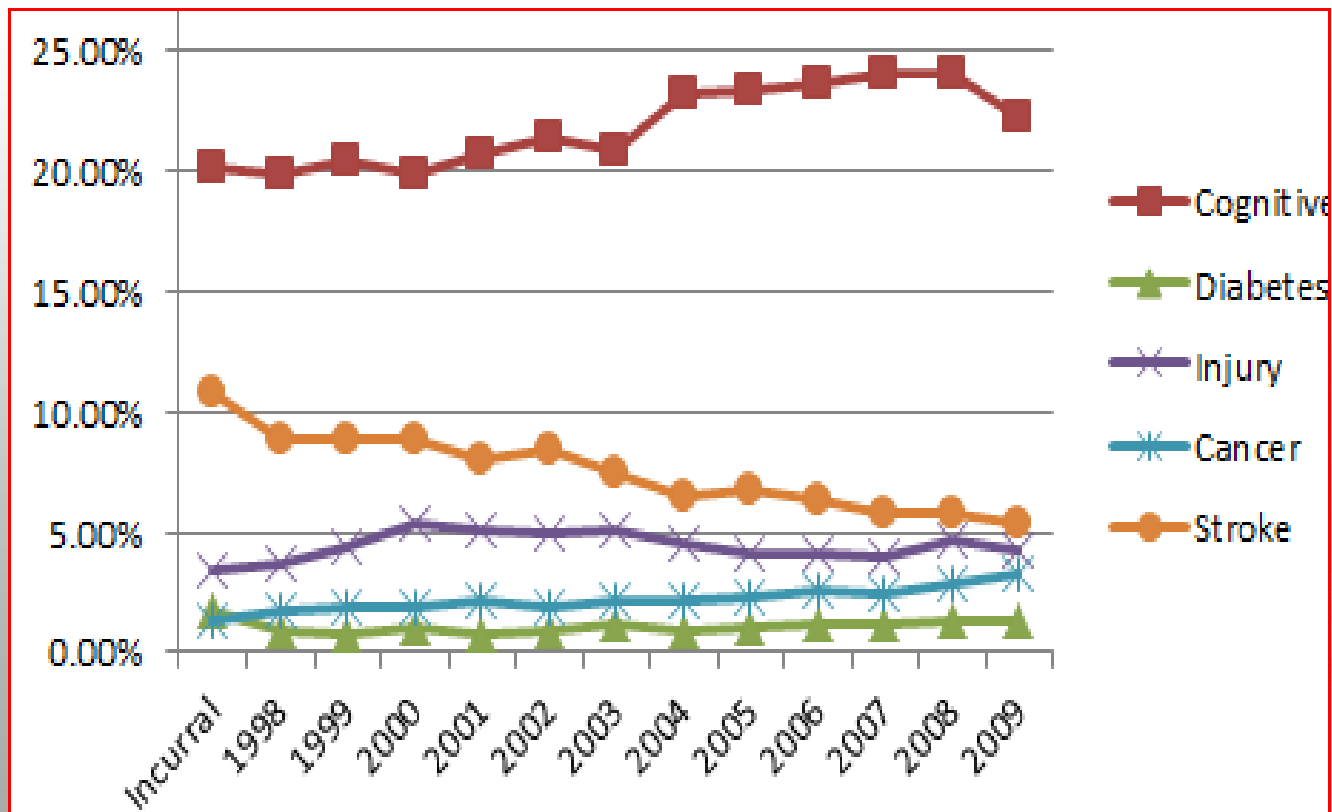


Source: „Long Term Care“ by the Population Issues Working Group of the International Actuarial Association, 2017. Based on WHO data.

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Calendar Year Trends (Morbidity)

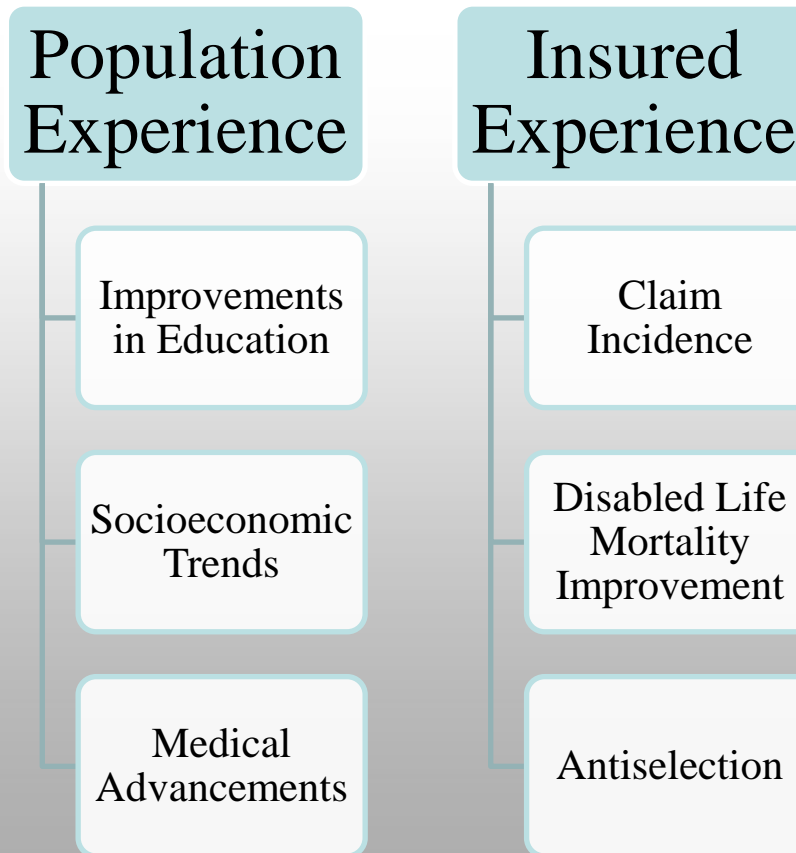
Analysis of outstanding LTC insurance claims (U.S.) by incurral year and cause of claim



Source: „Long Term Care“ by the Population Issues Working Group of the International Actuarial Association, 2017.

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Calendar Year Trends (Morbidity)



Calendar Year Trends (Morbidity)

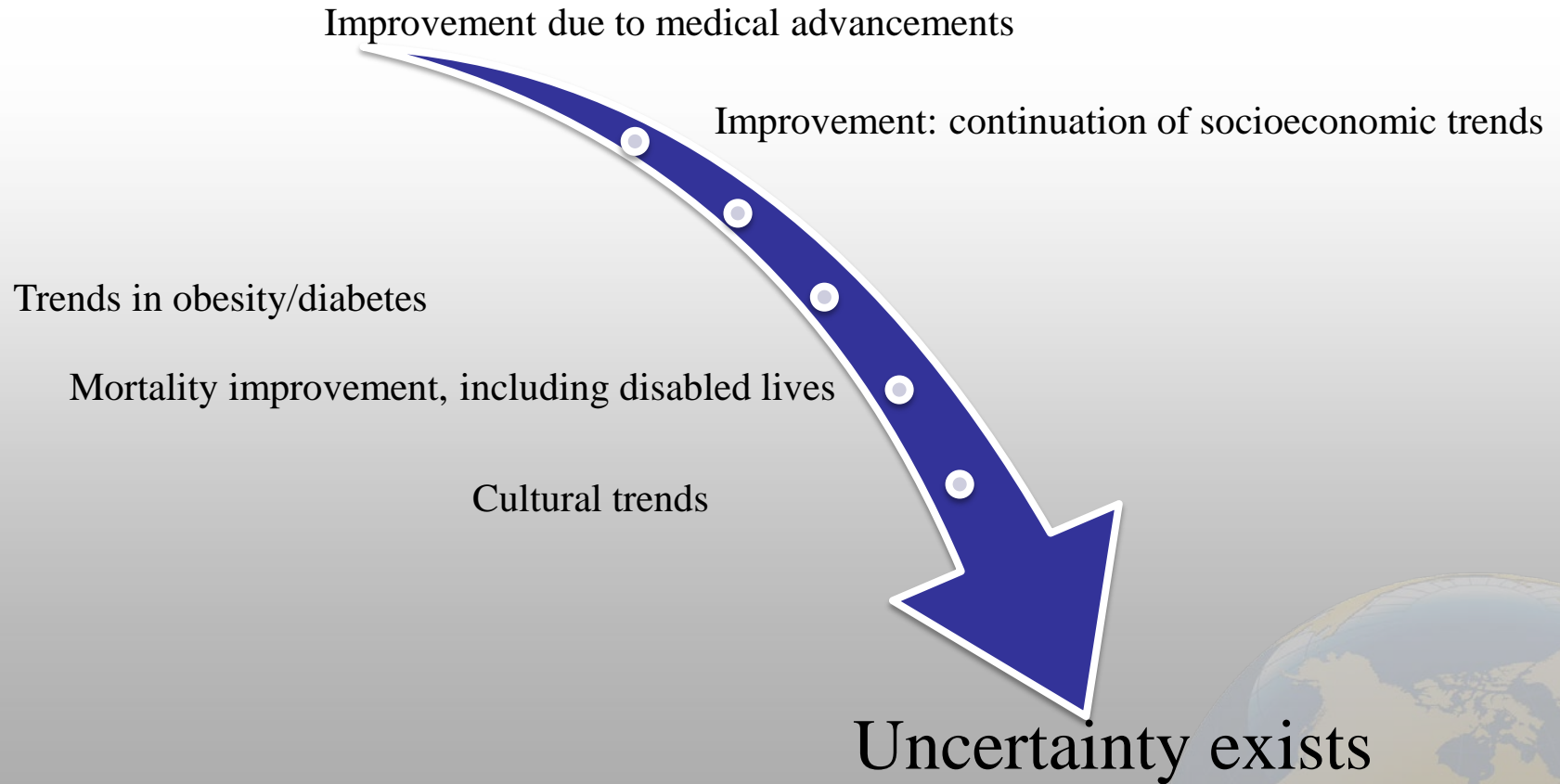
Improvement in LTC insurance (U.S.) claim frequency

<u>Policy Duration</u>	<u>Average Annual Improvement in Claim Incidence</u>
1-4	3.9%
5-8	2.2
9+	0.1
All	2.3

Source: „Long Term Care“ by the Population Issues Working Group of the International Actuarial Association, 2017. Based on Milliman Long Term Care Guidelines

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Future Trends



Question & Answer Session

And please complete the short survey before you sign off.

THANK YOU !

