This document provides summary of most important Poland population and mortality statistics and most important new research overview. Document prepared by Ewa Dylewska.

CONTENTS

New Research........................................................................................................................................... 2
New mortality Table ‘GUS 2014’ .................................................................................................................. 2
Improved life expectancy due to Treatment of HIV/AIDS................................................................. 2
Another Project.......................................................................................................................................... 3
Country Background .................................................................................................................................. 4
Population.................................................................................................................................................. 4
Demographics........................................................................................................................................... 4
Population Mortality Tables ....................................................................................................................... 5
Population Mortality Improvements .......................................................................................................... 5
Protection Insurance.................................................................................................................................. 7
Market Background................................................................................................................................... 7
Mortality Tables.......................................................................................................................................... 7
Mortality Improvements.............................................................................................................................. 7
Retail Longevity Protection......................................................................................................................... 8
Market Background................................................................................................................................... 8
Mortality Tables.......................................................................................................................................... 8
Mortality Improvements.............................................................................................................................. 8
Relevant Organisations ............................................................................................................................... 9
Details on Government Statistics department ....................................................................................... 9
Actuarial Society of the Country ................................................................................................................ 9
Insurance regulator.................................................................................................................................... 9
Attachments............................................................................................................................................... 9
NEW RESEARCH

This section is for research published in the last 12 months.

NEW MORTALITY TABLE ‘GUS 2014’¹

The latest available Poland mortality table is GUS 2014 population table developed by Central Statistical Office of Poland (GUS - Główny Urząd Statystyczny). In 2014 study report (Life expectancy tables of Poland 2014²) GUS provides detailed description of methodology underlying construction of Polish mortality tables.

<table>
<thead>
<tr>
<th>Period Covered</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication date</td>
<td>28th of July 2015</td>
</tr>
<tr>
<td>Factors</td>
<td>Gender</td>
</tr>
<tr>
<td>Duration</td>
<td>Only ultimate rates</td>
</tr>
</tbody>
</table>

IMPROVED LIFE EXPECTANCY DUE TO TREATMENT OF HIV/AIDS³

Total number of HIV registered cases in Poland since start of observation in 1985 till 31.01.2016 is 20 062, AIDS cases is 3 342 and there have been 1 331 deaths due to HIV/AIDS. Although awareness of HIV/AIDS is increasing, percentage of diagnosed to total HIV/AIDS cases is still low: around 30% (2011 estimate⁴) which may disturb the overall observation of new diagnosed cases.

Latest data of National Institute of Public Health (PZH – Państwowy Zakład Higieny) indicate increased number of registered HIV/AIDS cases during last 6 years (2010-2015). Although number of diagnosed each year HIV/AIDS cases is generally increasing (2004-2015), number of deaths due to AIDS remains at relatively stable level. Introduced by Ministry of Health new HIV/AIDS treatment plan for years 2012-2016 is expected to decrease mortality risk resulting from this disease³. Detailed data regarding number of new registered cases of HIV/AIDS and AIDS related deaths in Poland in years 2004-2015 (12 years), as well as age & gender structure of cases in years 2009-2015 (7 years) is presented as attachment to this report.

Graph 1: Number of new registered cases of HIV/AIDS and AIDS related deaths in Poland in years 2004-2015. Own elaboration based on PZH data.

ANOTHER PROJECT

N/A
COUNTRY BACKGROUND

This section is aimed to provide background about the country.

POPULATION

DEMOGRAPHICS

The Table below summarises basic information on population of Poland.

<table>
<thead>
<tr>
<th>Basic Information</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current population</td>
<td>38 478.6 thousands(^5) (on 31(^{st}) of December 2014)</td>
</tr>
<tr>
<td>Current period life expectancy</td>
<td></td>
</tr>
<tr>
<td>- At birth</td>
<td>Males: 73.75, Females: 81.61 (2014)(^6)</td>
</tr>
<tr>
<td>- At 65</td>
<td>Males: 15.87, Females: 20.18 (2014)(^8)</td>
</tr>
<tr>
<td>Population of urban areas (%)</td>
<td>60.3% (2014)(^7)</td>
</tr>
</tbody>
</table>

Population Pyramid

Total population by age & gender (2014)\(^7\)


**Population Pyramid**

Total population by age & urban/rural areas residence (2014)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>2,500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>5-9</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>10-14</td>
<td>1,500,000</td>
<td>1,500,000</td>
</tr>
<tr>
<td>15-19</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>20-24</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>25-29</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>30-34</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>35-39</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>40-44</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>45-49</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>50-54</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>55-59</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>60-64</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>65-69</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>70-74</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>75-79</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>80+</td>
<td>500,000</td>
<td>500,000</td>
</tr>
</tbody>
</table>

**Number of people**

| Population projections | 36,693.9 thousands in year 2035, 34,856.0 in year 2050 (GUS projection of residence population in 2016) |

---

**POPULATION MORTALITY TABLES**

Poland population mortality tables are published by Central Statistical Office of Poland (GUS - Główny Urząd Statystyczny) and are the basic and the only official source of information regarding mortality rates in Poland. Mortality tables for consecutive years 1990-2014 are attachment to this report.

**POPULATION MORTALITY IMPROVEMENTS**

Life expectancy ($e_x$) is increasing for both Males and Females. There is particularly significant gap between length of life of Males and Females. Detailed data is presented in the attachment to this report.

Graph 2: Life expectancy at age 0 ($e_0$) of Males and Females in Poland in years 1950-2014. Own elaboration based on GUS data.

---


Graph 3: Life expectancy at age 60 ($e_{60}$) of Males and Females in Poland in years 1950-2014. Own elaboration based on GUS\textsuperscript{11} data.

PROTECTION INSURANCE

This section provides background on the life insurance protection environment. This is for life insurance and not longevity protection.

MARKET BACKGROUND

This section should provide high level details on the following:

- Products sold: mainly life insurance (Term, Endowment type, Whole Life), life insurance linked to insurance capital funds (Unit-Linked), accident and sickness insurance; all both Individual and Group. Structure of gross written premium\(^{12}\) in last 3 years (2013-2015):

<table>
<thead>
<tr>
<th>Gross written premium</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>thous. PLN</td>
<td>%</td>
<td>thous. PLN</td>
</tr>
<tr>
<td>TOTAL Personal</td>
<td>31 240 972</td>
<td>100.0%</td>
<td>28 646 461</td>
</tr>
<tr>
<td>Life insurance</td>
<td>13 139 310</td>
<td>42.1%</td>
<td>10 623 070</td>
</tr>
<tr>
<td>Dowry insurance, birth insurance</td>
<td>113 458</td>
<td>0.4%</td>
<td>114 609</td>
</tr>
<tr>
<td>Life insurance linked to insurance capital funds</td>
<td>13 051 940</td>
<td>41.8%</td>
<td>12 599 625</td>
</tr>
<tr>
<td>Annuity insurance</td>
<td>106 981</td>
<td>0.3%</td>
<td>113 705</td>
</tr>
<tr>
<td>Accident &amp; Sickness insurance</td>
<td>4 829 283</td>
<td>15.5%</td>
<td>5 195 452</td>
</tr>
</tbody>
</table>

Detailed data is presented in the attachment to this report.

- Levels of underwriting: both underwritten, simplified underwriting and guaranteed issue contracts
- 2013: group (54% in terms of GWP) and individual (46% in terms of GWP) business\(^{14}\)
- For group cover whether cover is compulsory: N/A
- State provided cover: N/A

MORTALITY TABLES

Official (GUS) population mortality tables are most commonly used in actuarial practice in Poland. Population adjustment factors and gender structure factors for unisex pricing in line with Company experience may be used as well.

MORTALITY IMPROVEMENTS

Life insurance companies may perform own mortality improvement studies or use available academic research. No official projected mortality tables.

---

RETAIL LONGEVITY PROTECTION

This section should cover the annuity / pension market.

MARKET BACKGROUND

Private pension market is negligible in Poland. For instance, only 0.5% of gross written premium in year 2015 came from private annuity insurance\(^\text{13}\). Public pensions are paid and administrated by Polish Social Insurance Institution (ZUS – Zakład Ubezpieczeń Społecznych\(^\text{14}\)).

This should explain the basics of the market, including:

- Traditional Pensioners: N/A
- Retail annuity market: Annuity market is niche
- State provision\(^\text{15}\): paid by ZUS
- Level of compulsion in purchase of annuities: voluntary, no tax incentives.

MORTALITY TABLES

Private market: Official (GUS) population mortality tables are most commonly used in actuarial practice in Poland. Population adjustment factors and gender structure factors for unisex pricing in line with Company experience may be used as well.

Public pensions: specific cohort-based prognostic models elaborated by ZUS\(^\text{16}\). The latest model for prognosis of earnings and expenditures for years 2017-2021 - FUS14 (published in December 2015) considers mortality projections till year 2060 and is based on EUROPOP 2013 population projections prepared by Eurostat. In appendix of ZUS report there are available as well results based on GUS population projection for period 2014-2050.

MORTALITY IMPROVEMENTS

Life insurance companies may perform own mortality improvement studies or use available academic research. No official projected mortality tables.

---

\(^{13}\) Polish Insurance market quarter reports, KNF: [http://www.knf.gov.pl/opracowania/rynek_ubezpieczen/Dane_o_ryniku/Dane_roczne/dzne_roczne.htm](http://www.knf.gov.pl/opracowania/rynek_ubezpieczen/Dane_o_ryniku/Dane_roczne/dzne_roczne.htm)


\(^{15}\) Organization of the Polish social security system: [http://www.zus.pl/files/social_insurance.pdf](http://www.zus.pl/files/social_insurance.pdf)

RELEVANT ORGANISATIONS

DETAILS ON GOVERNMENT STATISTICS DEPARTMENT


ACTUARIAL SOCIETY OF THE COUNTRY

Polskie Stowarzyszenie Aktuarzy (Polish Society of Actuaries): http://www.actuary.org.pl

INSURANCE REGULATOR

Komisja Nadzoru Finansowego (Polish Financial Supervision Authority): http://www.knf.gov.pl

ATACHMENTS


   [HIV_AIDS_PZH.xlsx]

2. Poland GUS Mortality tables, GUS\(^{18}\) (1990-2014)

   [lifetables1990-2014.xls]

3. Poland life expectancy at age 0, 15, 30, 45, 60 and 75, GUS\(^{19}\) (1950-2014)

   [ex1950-2014.xls]

4. Polish Financial Supervision Authority Statistical Statement, KNF\(^{20}\) (annual 2014 and 4\(^{th}\) quarter 2015):

   [V_Sprawozdanie_stata_2014_tcm75-42929.xls]
   [B_raportyfinansowe_IV_kw_2015_tcm75-46268.xls]

---


