



The health crisis in 2020: an example from Lithuania

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Background

In order to reduce the spread of COVID-19, many countries have imposed a lockdown with movement restrictions, social distancing and home confinement, which has affected routine healthcare activities and everyday life [1].

This presentation was prepared using data from the Lithuanian Department of Statistics (Statistics Lithuania) and the Institute of Hygiene.

Covid-19 impact on public health

According to research, health professionals are facing anxiety, depression, stress, post-traumatic stress syndrome, insomnia, psychological distress, and burnout and etc. [2]

High rates of anxiety, depression, post-traumatic stress disorder, psychological distress, and stress were reported in the general population during the COVID-19 pandemic [3].

The Lithuanian COVIDiet Study: 49.4% of respondents ate more than usual; 45.1% increased snacking 62.1% cooked at home more often; 60.6% of respondents reported decreased physical activity; 31.5% of respondent gained weight [4]

Glycemic parameters in patients with T1D significantly improved during COVID-19 lockdown. In contrast, lockdown determined a short-term worsening in glycemic values in patients with T2D [1].

Number of visits to physicians and dentists | thousand

| Years | Physicians | Dentist |
|-------|------------|---------|
| 2016 | 26386 | 4255 |
| 2017 | 26877 | 4477 |
| 2018 | 27585 | 4375 |
| 2019 | 26663 | 4612 |
| 2020 | 17508 | 3615 |

Average number of visits to physicians and dentists per capita | times

| Years | Physicians | Dentist |
|-------|------------|---------|
| 2016 | 9.2 | 1.5 |
| 2017 | 9.5 | 1.6 |
| 2018 | 9.9 | 1.6 |
| 2019 | 9.5 | 1.7 |
| 2020 | 6.3 | 1.3 |

Source: Data of annual reports of health care institutions and the Compulsory Health Insurance Fund information system SVEIDRA.

Number of surgical operations and procedures performed in hospitals per 100 000 population

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|-------|------|-------|-------|-------|
| Transluminal coronary angioplasty | 284.6 | 297 | 311.9 | 324.4 | 264.1 |
| Bypass anastomosis for heart revascularization | 63 | 55.2 | 55.6 | 56.6 | 41 |
| Carotid endarterectomy | 9.1 | 8.6 | 7.6 | 9.9 | 7.4 |
| Femoropopliteal bypass | 30.3 | 28.3 | 25.4 | 22.4 | 19.7 |
| Infrarenal aortic aneurysm repair | 3.3 | 3 | 2.6 | 3.3 | 2.5 |

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------------------|-------|-------|-------|-------|-------|
| Colonoscopy with or without biopsy | 320.8 | 330.6 | 318.6 | 329.3 | 248 |
| Colectomy | 46.2 | 49.1 | 46.7 | 48.7 | 42.4 |
| Appendectomy | 174 | 177.3 | 170.2 | 167.4 | 141.1 |
| Laparoscopic appendectomy | 78.4 | 89.6 | 97.8 | 105.3 | 91.5 |

Source: Statistics Lithuania

Number of adults (aged 18 and older) suffering from certain diseases per 1 000 population

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------------------|-------|-------|-------|-------|--------------|
| Diseases of the circulatory system | 293.1 | 294.7 | 293.6 | 295.9 | 287.1 |
| Hypertensive diseases | 233.1 | 238.9 | 235.9 | 235.6 | 239.8 |
| Ischaemic heart disease | 67.1 | 65.8 | 65 | 65.7 | 56.8 |
| Cerebrovascular diseases | 50.5 | 51.7 | 53.9 | 55.1 | 46 |

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|-------|------|-------|-------|--------------|
| Diabetes mellitus | 44 | 45.9 | 46.9 | 47.6 | 44.3 |
| Endocrine, nutritional and metabolic diseases | 154.9 | 163 | 174.8 | 190.2 | 168.9 |
| Diseases of the skin and subcutaneous tissue | 83.4 | 84.7 | 86.1 | 85.7 | 68.2 |
| Neoplasms | 79.5 | 81.8 | 83.6 | 87.7 | 72.2 |

Source: Statistics Lithuania

Number of adults (aged 18 and older) suffering from certain diseases per 1 000 population

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|-------|-------|-------|-------|--------------|
| Diseases of the musculoskeletal system and connective tissue | 201.9 | 209.8 | 221.1 | 230.3 | 200.1 |
| Arthropathies | 84.6 | 87.4 | 92.6 | 97.5 | 82.9 |
| Mental and behavioural disorders | 73.9 | 79.5 | 85.3 | 87.3 | 85.1 |
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Diseases of the genitourinary system | 155.3 | 155.2 | 160.5 | 166.1 | 138.5 |
| Diseases of the digestive system | 182 | 188.2 | 194.7 | 205.4 | 170.9 |
| Diseases of the respiratory system | 234.3 | 241.9 | 255.3 | 238.2 | 191.8 |
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Diseases of the eye and adnexa | 137.9 | 137.1 | 139.2 | 140.5 | 107 |
| Diseases of the nervous system | 125.3 | 128.4 | 127.9 | 130.6 | 113.7 |

Source: Statistics Lithuania

Number of children who visited out-patient health care facilities

| Years | Boys and Girls | Boys | Girls |
|-------|----------------|---------|---------|
| 2016 | 514 996 | 263 960 | 251 036 |
| 2017 | 507 687 | 260 235 | 247 452 |
| 2018 | 502 535 | 257 428 | 245 107 |
| 2019 | 499 714 | 256 049 | 243 665 |
| 2020 | 475 499 | 243 005 | 232 494 |

Number of children with disorders diagnosed during a visit, per 1000 children who visited out-patient facilities

| Years | Visual disturbance | Hearing disorders | Deforming dorsopathies | Scoliosis | Abnormal posture |
|-------|--------------------|-------------------|------------------------|-----------|------------------|
| 2016 | 230.5 | 3.2 | 20.2 | 18.6 | 32.4 |
| 2017 | 234.5 | 3.5 | 18.1 | 16.8 | 34.7 |
| 2018 | 235.4 | 3.4 | 16.1 | 15.9 | 35.1 |
| 2019 | 230.3 | 3.8 | 15.4 | 14.7 | 35.7 |
| 2020 | 185.4 | 3 | 10.8 | 10.2 | 24.1 |

Source: Institute of Hygiene

Number of children (aged 0–17) suffering from certain diseases per 1 000 population

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|-------|-------|-------|-------|-------|
| Diseases of the eye and adnexa | 263.1 | 268.1 | 270.7 | 269.5 | 201.8 |
| Hypermetropia | 106.2 | 108 | 108.2 | 104 | 76.1 |
| Myopia | 60.9 | 63.3 | 63.4 | 62.1 | 48.6 |
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Diseases of the musculoskeletal system and connective tissue | 103.5 | 101.5 | 98.1 | 97.7 | 69.2 |
| Arthropathies | 51.2 | 52.1 | 52.2 | 53.3 | 39.1 |
| Deforming dorsopathies | 38.2 | 34.5 | 31.1 | 29.2 | 19.5 |
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Neoplasms | 15.8 | 16.5 | 15.6 | 16 | 12.6 |
| Anaemias | 16.5 | 17.7 | 18.4 | 17.6 | 12.1 |
| Diseases of the circulatory system | 32.1 | 32.5 | 31.6 | 30.6 | 20.7 |

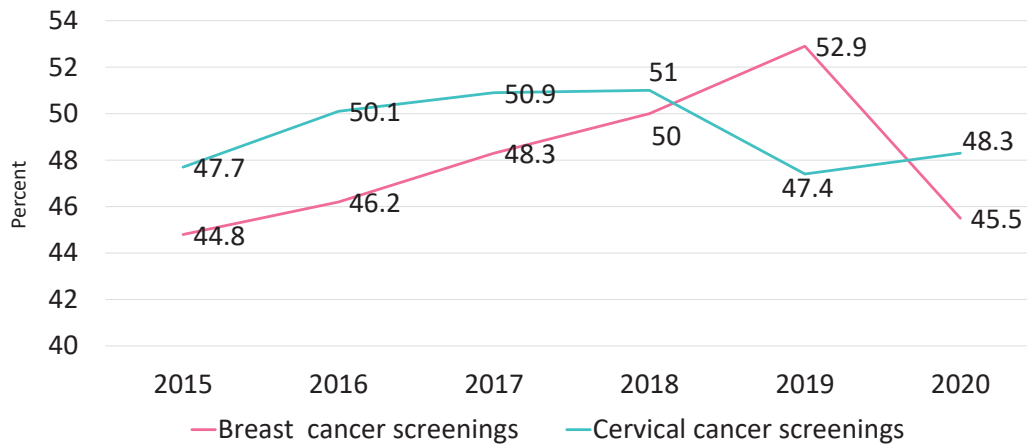
Source: Statistics Lithuania

Number of children (aged 0–17) suffering from certain diseases per 1 000 population

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|-------|-------|-------|-------|-------|
| Certain infectious and parasitic diseases | 128.9 | 135.4 | 145.8 | 153.7 | 81.5 |
| Diseases of the respiratory system | 615.8 | 628.1 | 639.6 | 590.1 | 374.9 |
| Injury, poisoning and certain other consequences of external causes | 168.3 | 168.9 | 171.5 | 171.2 | 123 |
| Endocrine, nutritional and metabolic diseases | 100.6 | 100.9 | 106.7 | 111 | 71.6 |
| Mental and behavioural disorders | 71.1 | 72.6 | 70.3 | 70.1 | 55.7 |

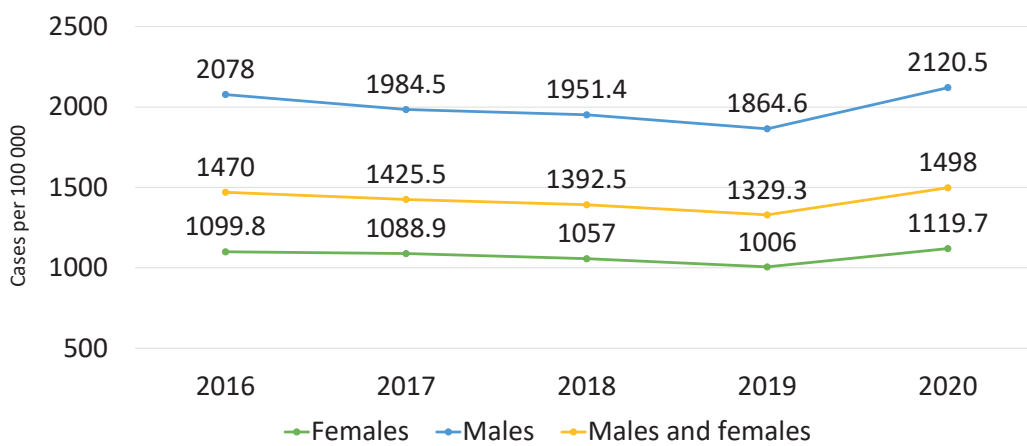
Source: Statistics Lithuania

Participation in breast cancer and cervical cancer screenings programs



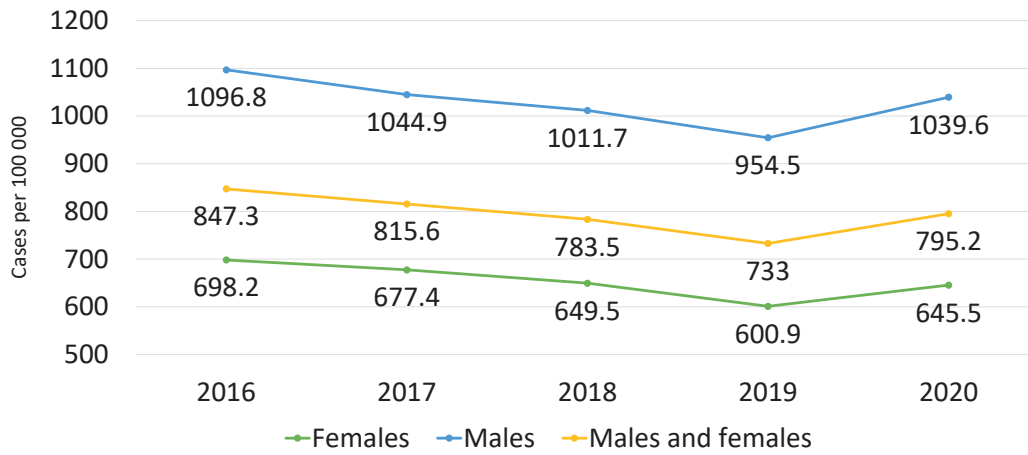
Source: Data calculated Institute of Hygiene from the Compulsory Health Insurance Fund information system SVEIDRA.

Standardized mortality in 2016-2020

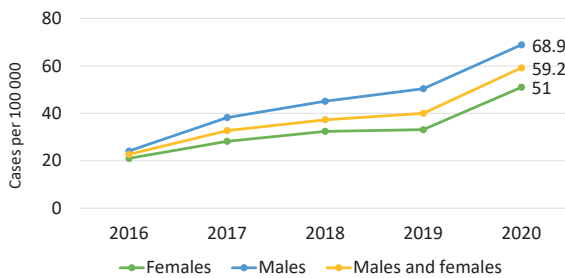


Source: Public health monitoring information system (Institute of Hygiene)

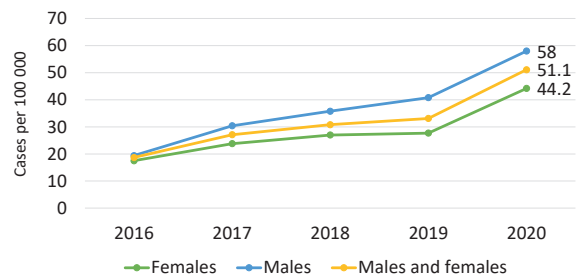
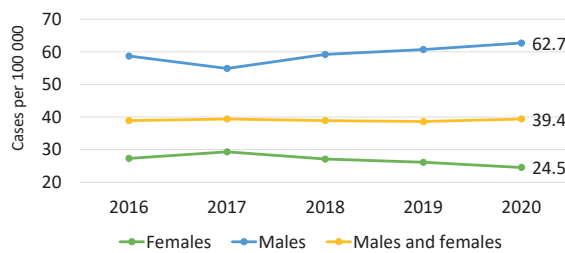
Standardized mortality, diseases of the circulatory system (I00-I99)



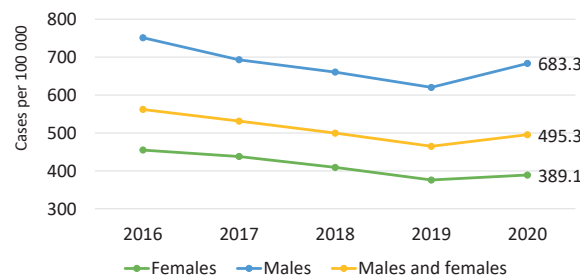
Source: Public health monitoring information system (Institute of Hygiene)



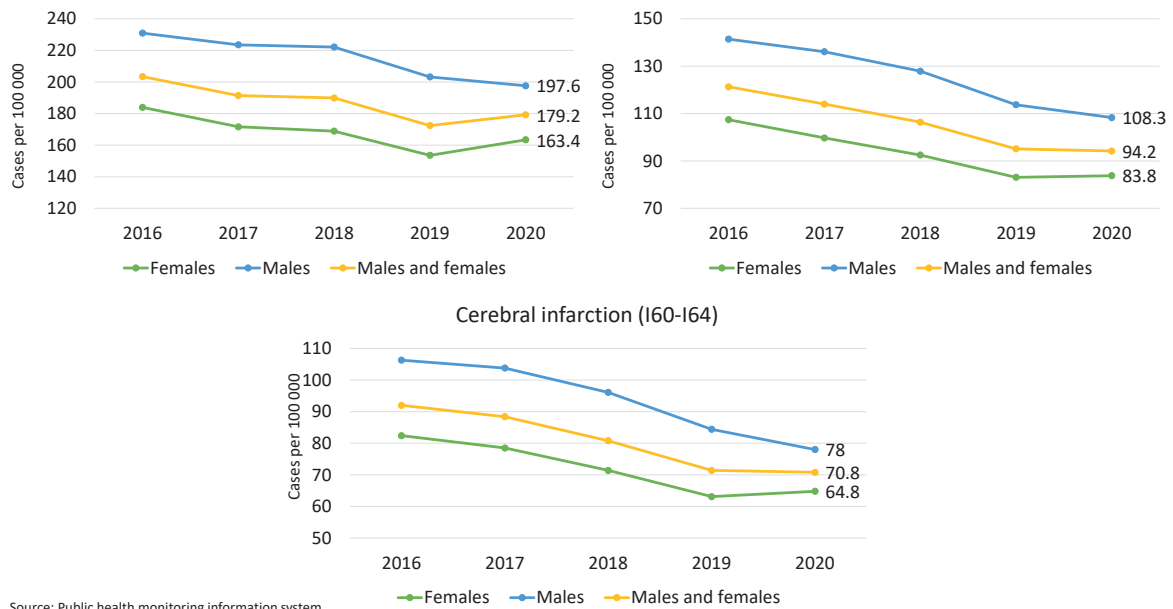
Myocardial infarction (I21-I22)



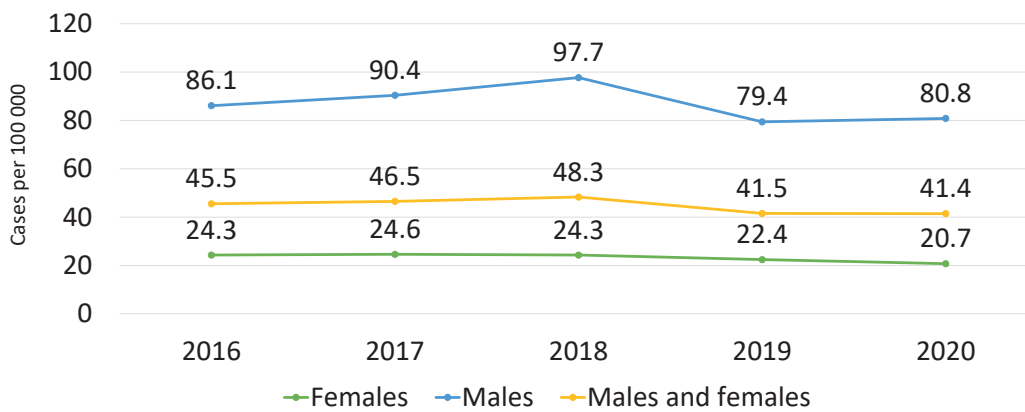
Ischaemic heart diseases (I20-I25)



Source: Public health monitoring information system (Institute of Hygiene)

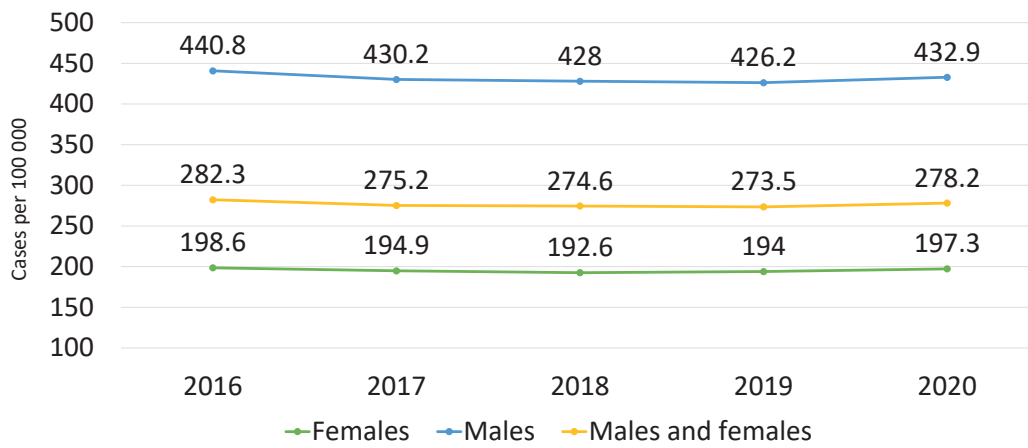


Standardized mortality, diseases of the respiratory system (J00-J99)



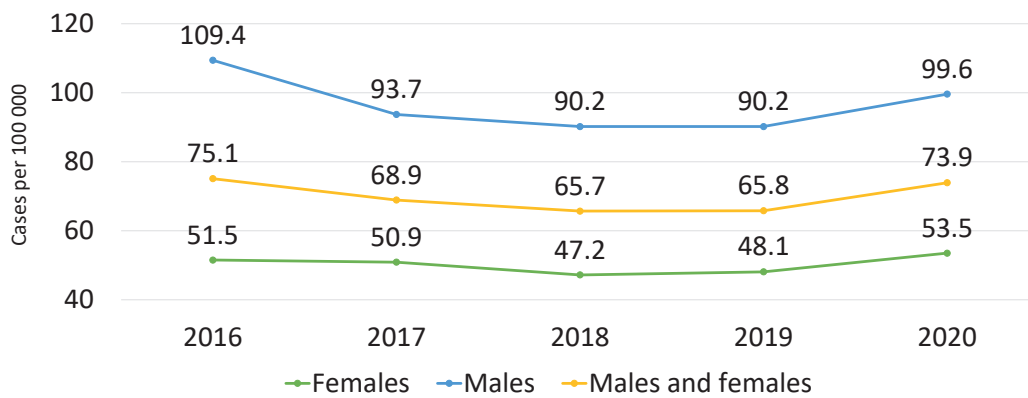
Source: Public health monitoring information system (Institute of Hygiene)

Standardized mortality, malignant neoplasms (C00-C96)



Source: Public health monitoring information system (Institute of Hygiene)

Standardized mortality, diseases of the digestive system (K09-K93)



Source: Public health monitoring information system (Institute of Hygiene)

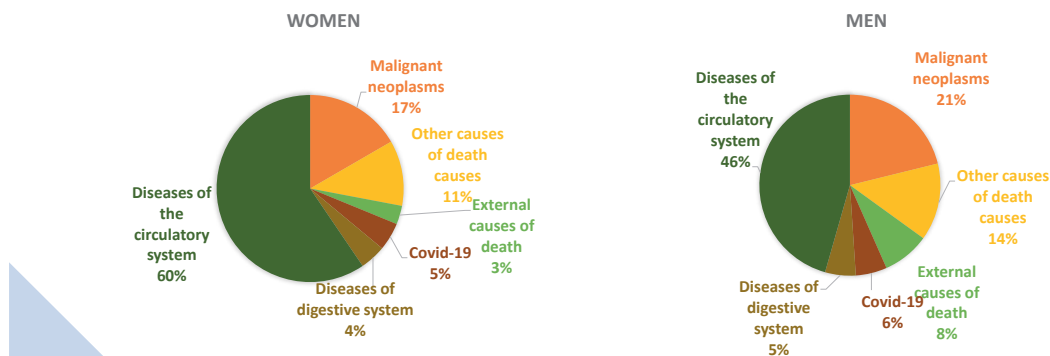
Life expectancy in 2016-2020

| Years | Male | Female | Total |
|-------------------------------|--------------|--------------|----------------|
| At birth (0 years old) | | | |
| 2016 | 69.49 | 80.00 | 74.83 |
| 2017 | 70.70 | 80.38 | 75.69 |
| 2018 | 70.92 | 80.60 | 75.91 |
| 2019 | 71.53 | 81.04 | 76.43 |
| 2020 | 70.09 | 80.06 | 75.11 ↓ |

| Years | Male | Female | Total |
|------------------------|--------------|--------------|----------------|
| At 65 years old | | | |
| 2016 | 14.13 | 19.20 | 17.14 |
| 2017 | 14.36 | 19.30 | 17.29 |
| 2018 | 14.41 | 19.53 | 17.45 |
| 2019 | 14.75 | 19.82 | 17.76 |
| 2020 | 13.61 | 19.04 | 16.78 ↓ |

Source: Statistics Lithuania

Structure of causes of death by sex in Lithuania in 2020



Source: Causes of death 2020. Health Information Centre Of Institute of Hygiene: Vilnius, 2021, 193 p.

Covid-19 in Lithuania in 2020

- COVID-19 (U70.1, U70.2) caused 2266 deaths in 2020 (81.1 per 100 000);
- The number of people with covid disease (U70.1, U70.2) in 2020 was 114 002 (40.8 per 100 000).

| 15-44 | 45-64 | 65+ |
|------------|-------------|--------------|
| 23 (1.5 %) | 378 (4.6 %) | 1865 (5.5 %) |

Source: Causes of death 2020. Health Information Centre Of Institute of Hygiene: Vilnius, 2021, 193 p.

Key points

During covid-19 pandemic, the healthcare sector faced the biggest challenges.

Healthcare has faced high morbidity and mortality rates from covid-19.

Other health services have been affected by the pandemic.

Covid-19 will have long-term consequences for the healthcare sector.



Literature

1. Eberle C, Stichling S. Impact of COVID-19 lockdown on glycemic control in patients with type 1 and type 2 diabetes mellitus: a systematic review. *Diabetol Metab Syndr*. 2021 Sep 7;13(1):95. doi: 10.1186/s13098-021-00705-9. PMID: 34493317; PMCID: PMC8423337.
2. Batra K, Singh TP, Sharma M, Batra R, Schvaneveldt N. Investigating the Psychological Impact of COVID-19 among Healthcare Workers: A Meta-Analysis. *Int J Environ Res Public Health*. 2020 Dec 5;17(23):9096. doi: 10.3390/ijerph17239096. PMID: 33291511; PMCID: PMC7730003.
3. Xiong J, Lipsitz O, Nasri F, Lui LMW, Gill H, Phan L, Chen-Li D, Iacobucci M, Ho R, Majeed A, McIntyre RS. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *J Affect Disord*. 2020 Dec 1;277:55-64. doi: 10.1016/j.jad.2020.08.001. Epub 2020 Aug 8. PMID: 32799105; PMCID: PMC7413844.
4. Kriaucioniene V, Bagdonaviciene L, Rodríguez-Pérez C, Petkeviciene J. Associations between Changes in Health Behaviours and Body Weight during the COVID-19 Quarantine in Lithuania: The Lithuanian COVIDiet Study. *Nutrients*. 2020 Oct 13;12(10):3119. doi: 10.3390/nu12103119. PMID: 33065991; PMCID: PMC7599784.



Data sources

- Statistics Lithuania: <https://www.stat.gov.lt/web/lisd/>
- Institute of Hygiene. Public health monitoring information system: <https://sveikstat.hi.lt/default.aspx?lang=eng>
- Causes of death 2020. Health Information Centre Of Institute of Hygiene: https://hi.lt/uploads/pdf/leidiniai/Statistikos/Mirties_prie_zastys/Mirties_priezastys_2020.pdf



