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New cancer diagnoses in 2020 on par with previous years despite noticeable decline in spring

Pandemic led to significant delay in cancer diagnoses in 2020

Vienna, 2023-02-02 – As reported by Statistics Austria on the occasion of World Cancer Day on 4 February, the number of new cancer cases in 2020 was 43 014, similar to the previous years. However, the onset of the pandemic in Austria led to a significant postponement of diagnoses until later in the year.

“More than 43 000 people were diagnosed with cancer in 2020. This is almost as many new diagnoses as in the years before the pandemic. However, analysis of the data shows a clear shift in diagnoses on the time axis: compared to previous years, around 1 600 fewer cancer diagnoses were made between March and May 2020, while around 1 070 more were made between June and September 2020. We will only see in a few years what impact the delayed diagnoses have on therapy and the chances of cure”, says Statistics Austria’s Director General Tobias Thomas.

Delay in diagnoses in the first corona year

Overall, the number of new cancer diagnoses in 2020, with 43 014 documented cases, is similar to the average of the previous three years (average 2017–2019: 43 048 new cancer diagnoses).

However, the onset of the pandemic in Austria led to a significant shift in diagnoses to later in the year (see Table 1). It is striking that about 540 more diagnoses were made in January and February than in the average of previous years. The annually visible decline in the number of diagnoses in the three weeks of February, in which the semester break falls, did not occur in 2020. Compared to previous years, about 1 600 fewer diagnoses were made between March and May 2020. Much of this was made up between June and September 2020 (about 1 070 cancer diagnoses). From October to November, about 220 fewer diagnoses were made compared with previous years, while in December the number of new cancer diagnoses was by nearly 180 cases higher than the average for previous years. Temporally, the periods with declines match the timing of the 2020 lockdowns, with the magnitude of change varying depending on tumour location.

The lower number of cases in 2020 is also partly due to a change in the data basis of the cancer statistics. In accordance with the Cancer Statistics Ordinance 2019, persons who do not have a valid primary residence in Austria at the time of diagnosis are no longer included in the statistics as of mid-2019. Compared to the previous approach, this results in a reduction of about 320 cases for 2019 and just under 600 cases for 2020.

Most common new cancer cases: breast cancer in women, prostate cancer in men

The overall picture of new cases is unchanged compared to previous years (see Table 2). In 2020, 19 641 women and 23 373 men received a cancer diagnosis in Austria. The most frequent diagnoses were malignant tumours of the breast in women (5 443 cases) and malignant tumours of the prostate in men (6 126 cases), followed by malignant tumours of the lung (4 799 cases, both sexes combined) and malignant tumours of the colon or rectum (4 427 cases, both sexes combined).

In 2020, breast cancer accounted for around 28 % of new cases in women and 17 % of all cancer deaths. Thus, breast cancer was also the most common cause of cancer-related death in women. Prostate cancer accounted for about one-quarter (26 %) of all new malignant neoplasms diagnosed in men in 2020 and was responsible for about one in eight cancer deaths (12 %) in men in 2020.

Lung cancer ranked second among new cancer deaths in 2020, accounting for 2 011 cases (10 %) in women and 2 788 cases (12 %) in men, respectively. With about one in five cancer deaths, lung cancer ranked first among cancer-related causes of death in men (21 %) and was second only to breast cancer in women (17 %). After increasing sharply in women in recent years, the risk of disease has been relatively stable since 2016. However, this trend is not yet evident in the risk of death.

The third most common site of new cases in 2020 was colon cancer, with 1 923 cases (10 %) in women and 2 504 cases (11 %) in men. Colorectal cancer accounted for approximately 10 % of cancer deaths. The risk of colorectal cancer is significantly lower for women than for men and has decreased in recent years for both women and men.

More and more people are living with cancer

Relative five-year survival has increased in recent decades, averaging around 61 % in the 2013–2017 diagnosis period (see Table 2). Accordingly, the survival disadvantage of people with cancer compared with the general population is at 39 %. The most important factors affecting survival after a cancer diagnosis include tumour entity and tumour stage at diagnosis. Tumour sites with good prognosis are primarily testicular, thyroid, and prostate. In contrast, malignant tumours of the lung, oesophagus, liver, and pancreas have a poor or very poor prognosis.

In the period from 1983 to 2020, the Austrian Cancer Registry recorded about 1.4 million new cases of cancer in about 1.29 million persons. Of these persons, 384 883 were still alive at the end of 2020, of whom 200 457 were women and 184 426 men. In relation to the total population, persons suffering from cancer accounted for about 4 %. These individuals had a total of 415 593 tumours.

Over the past ten years, the number of new cases per year has increased from around 40 000 to about 43 000. Accordingly, cancer prevalence (the number of people living with cancer on a given date) has been rising steadily for years. In 2010, 300 075 people were living with a cancer diagnosis in Austria, about 85 000 fewer than in 2020, resulting in a 28 % increase in prevalence from 2010 to 2020 (women 27 % and men 30 %). This is mainly due to the fact that, in absolute terms, there are more and more people of advanced age as a result of demographic aging and increasing life expectancy, and the probability of developing cancer increases with age. Increased screening and improved diagnostic methods are also helping to detect cancer more frequently and at an earlier stage, thus increasing the number of new cases registered.

For detailed results and further information please refer to our [website](#).

Table 1: Monthly new cancer cases 2015 to 2020

Month	2015	2016	2017	2018	2019	Average 2017–2019	2020	Difference 2020 to average 2017–2019
January	3 764	3 528	3 597	3 956	3 704	3 752,3	3 878	125.7
February	3 351	3 537	3 453	3 335	3 439	3 409,0	3 824	415.0
March	3 828	3 761	4 003	3 807	3 724	3 844,7	3 609	-235.7
April	3 450	3 738	3 403	3 555	3 603	3 520,3	2 721	-799.3
May	3 460	3 452	3 894	3 465	3 862	3 740,3	3 171	-569.3
June	3 578	3 779	3 526	3 610	3 175	3 437,0	3 534	97.0
July	3 734	3 496	3 759	3 719	3 852	3 776,7	4 196	419.3
August	3 082	3 342	3 584	3 382	3 310	3 425,3	3 548	122.7
September	3 269	3 456	3 378	3 270	3 400	3 349,3	3 785	435.7
October	3 434	3 409	3 529	3 687	4 176	3 797,3	3 692	-105.3
November	3 631	3 672	3 689	3 584	3 705	3 659,3	3 545	-114.3
December	3 291	3 439	3 241	3 149	3 618	3 336,0	3 511	175.0
Total reporting year	41 872	42 609	43 056	42 519	43 568	43 047,7	43 014	-33.7

Q: STATISTIK AUSTRIA, Austrian National Cancer Registry (as at 17 January 2023) and Causes of Death Statistics.

Table 2: Incidence, mortality, 5-year survival and prevalence of cancer 2020

Lokalisationen ¹	Incidence	Mortality	Survival ²	Prevalence ³
	Absolute numbers	Absolute numbers	in %	Absolute numbers
Head and Neck (C00-C14)	1 305	529	52.0	9 127
Esophagus (C15)	480	424	22.2	1 412
Stomach (C16)	1 174	753	35.6	7 306
Colon and Rectum (C18-21)	4 427	2 132	62.2	44 745
Liver (C22)	995	847	17.6	2 161
Pancreas (C25)	1 967	1 863	11.0	3 169
Larynx (C32)	353	146	59.0	3 002
Trachea, Bronchus and Lung (C33-C34)	4 799	4 047	23.4	15 613
Malignant Melanoma of the Skin (C43)	1 659	394	85.4	24 629
Breast (C50)	5 530	1 663	87.0	85 207
Cervix (C53)	411	143	65.5	8 774
Corpus Uteri (C54)	903	196	78.0	14 267
Ovary (C56)	689	492	44.3	7 038
Prostate Gland (C61)	6 126	1 398	92.9	72 760
Testis (C62)	431	16	96.2	10 652
Kidney (C64)	1 362	375	77.5	16 765
Bladder (C67)	1 381	555	65.8	15 323
Central Nervous System (C70-C72)	794	619	29.9	4 604
Thyroid Gland (C73)	830	85	95.2	16 663
Hodgkin's disease (C81)	214	43	86.5	4 064
Non-Hodgkin's Lymphoma (C82-C86, C96)	1 462	619	67.4	13 994
Myeloma (C90)	521	338	48.5	2 778
Leukaemia (C91-C95)	1 245	851	53.7	9 799
Other malignancies (rest of C-codes and B21 excl. B21.2)	3 956	2 288		21 741
Malignant Neoplasms total (C00-C97, excl. C44)	43 014		61.4	415 593
All persons with a cancer diagnosis (C00-C97, excl. C44)		20 816		384 883

Q: STATISTIK AUSTRIA, Austrian National Cancer Registry (as at 17 January 2023) and Causes of Death Statistics.

1) Malignant invasive cases, incl. DCO cases. – 2) Cumulative five-year relative survival related to the diagnosis period 2013–2017, end of follow-up 31.12.2021. – 3) On 31.12.2020.

Information on methodology, definitions: The Austrian National Cancer Registry of Statistics Austria provides results on new cancer cases. The results include data on incidence, prevalence and survival after a cancer diagnosis. The basis for this is the legally obligatory cancer reports, which, in addition to information on the cancer, also contain details on the age, sex and place of residence of the patients.

Information on the Cancer Registry and the Cancer Statistics Ordinance 2019 can be found here:

<https://www.statistik.at/ueber-uns/erhebungen/bildungs-kultur-forschungs-und-gesundheitseinrichtungen/krebsregistermeldung>

Cancer incidence refers to the number of new cancer cases per calendar year.

Age-standardised incidence rates are adjusted for effects of a changing age structure over time or different age compositions of the respective reference populations and can be interpreted in terms of disease risk.

Cancer prevalence is the number of persons (or the proportion in a population) who are alive with a previous cancer diagnosis at a given time. All cancer diagnoses are included in this measure, regardless of the individual's health status. Prevalence data were calculated based on figures from the Austrian Cancer Registry and a follow-up of the survival status of all registered individuals. Since individuals may also have multiple malignancies, prevalence is reported by individuals with cancer (regardless of the number of

malignancies) as well as by tumour location. Consequently, the overall prevalence by tumour location is higher than by person.

Relative survival relates the observed survival of cancer patients after a certain period of time (cumulative, e.g. five years) to the survival of the total population, taking into account age and sex distribution. A relative survival rate of 100 % means that the mortality among cancer patients is as high as the mortality of the general population of the same age and sex. Relative survival is thus an estimator of cancer-specific survival that is independent of knowledge of the true cause of death. For more information on calculating cancer patient survival, see Dickman, P. (2004): "Estimating and modeling relative survival using SAS" at <https://www.pauldickman.com>.

The transmission of **cancer registry notifications** to Statistics Austria is sometimes delayed. The publication of **statistics on new cancer cases in 2021 and 2022** will therefore take place at a later date due to the currently incomplete data situation.

The results on **cancer deaths** are derived from linking the data of the cancer registry with the data of the cause-of-death statistics. The definition of cancer deaths follows the rules of the International Association of Cancer Registries (IACR). Therefore, the results differ somewhat from the results of the cause-of-death statistics.

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