

Impact report of the Swedish Cancer Society's research funding, 2010-2020

- Executive summary



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Executive summary

The Swedish Cancer Society is an independent, non-profit organization that is not receiving any state aid. By funding the most prominent research, the Swedish Cancer Society is working towards ensuring that more people survive a cancer diagnosis and can live long lives with a good quality of living.

When the Swedish Cancer Society was founded in 1951, 30 percent of the people who were diagnosed with cancer survived. Today, more than two out of three people survive.

×2

The research funding has more than doubled over the last decade

€1,2 billion

Since the founding in 1951, the Swedish Cancer Society has contributed with roughly €1,2 billion to Swedish cancer research

26 → 34 %

Women's share of the funds allocated from the Swedish Cancer Society has increased from 26 to 34 pct. since 2010



11 892

...publications, funded by the Swedish Cancer Society, have been published between 2010-2020

High research quality and citation rate

4 pct. of the publications are published in the top 1 pct. most frequently cited journals and have a higher citation rate than average



80 %

of the Swedish national care plans refers to research funded by the Swedish Cancer Society

28 %

of the 361 examined international clinical guidelines for cancer refers to research funded by the Swedish Cancer Society



More people survive cancer diagnosis and can live a long life with good quality of living

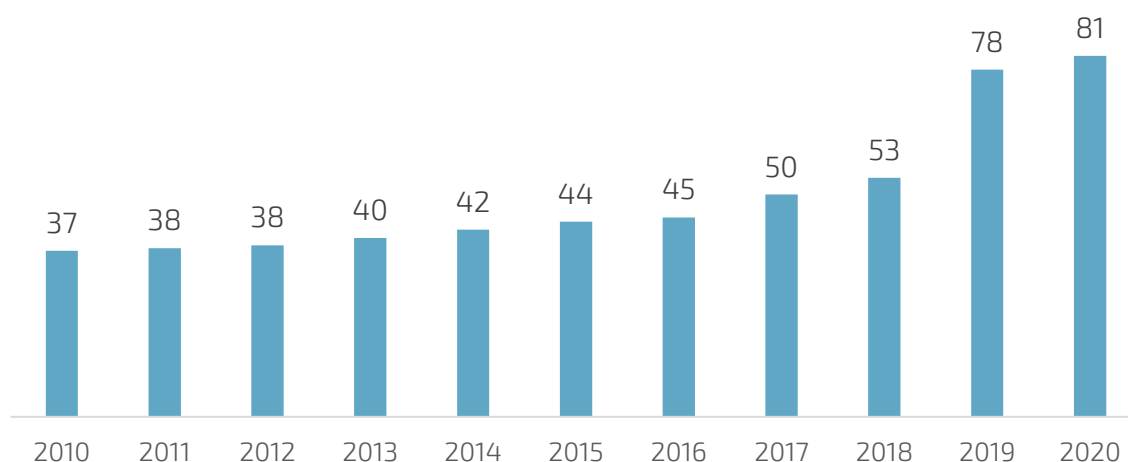


Funding of knowledge creation

During the period 2010–2020, the annual sum of granted funding from The Swedish Cancer Society for cancer research has more than doubled from €37 million to €81 million. The funded research covers several disciplines in which medicine, biochemistry, genetics, and molecular biology are the largest. The Swedish Cancer Society also contributes to the internationalization of Swedish cancer research. Six out of ten publications produced within the framework of funded research projects are written in collaboration between Swedish and international institutions.

Most of the research funding goes to project grants within the range of €60,000 to €2,5 million per year. Many leading scientists have been receiving project grants for several decades, and thus been given the opportunity to build several world-class research environments.

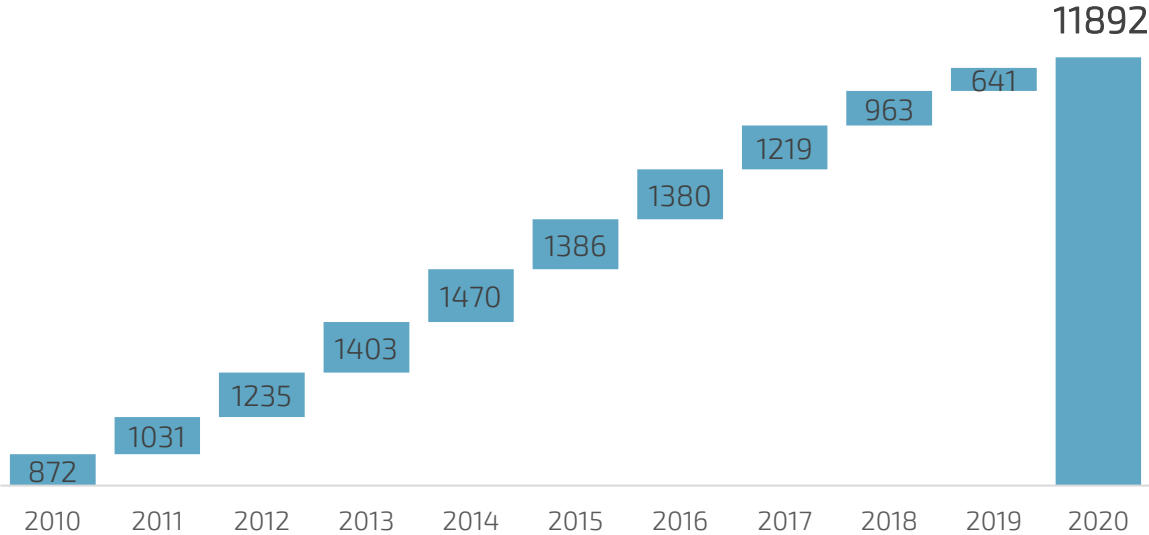
The annual sum of granted funding from the Swedish Cancer Society has increased from €37 million to €81 million between 2010–2020



The research areas that have been receiving the most funding from the Swedish Cancer Society are breast, blood, prostate, and colon cancers, as well as brain tumors. Each area is allocated approximately 10–15 percent of the total funding, which is aligned with the funding of cancer research in the rest of the world. In terms of research type, the distribution is approximately as follows: 46 percent to translational research, i.e., research that bridges basic research to clinical research, 35 percent to preclinical research, nine percent to clinical research, seven percent to epidemiological research and the remaining four percent to healthcare research. During the period 2010–2020, a total of 11,892 publications funded or co-funded by the Swedish Cancer Society were published. This means that the funding resulted in on average a little over 1,000 publications per year.

While the annual contribution towards cancer research from the Swedish Cancer Society and the number of funded projects has increased, so has the proportion of funding towards projects led by female researchers. The proportion of funding granted to female main applicants increased from 26 to 34 percent in the period 2010–2020.

11,892 publications created within the framework of the funded projects have been published between 2010-2020



Medicine is the most common discipline that publications funded by the Swedish Cancer Society have been published within. 37 percent of the published publications are within this field. The second most common discipline is *biochemistry, genetics, and molecular biology*, to which 32 percent of the published publications belong. 8 percent of the publications are categorized as *multidisciplinary* research which makes it the third most common.

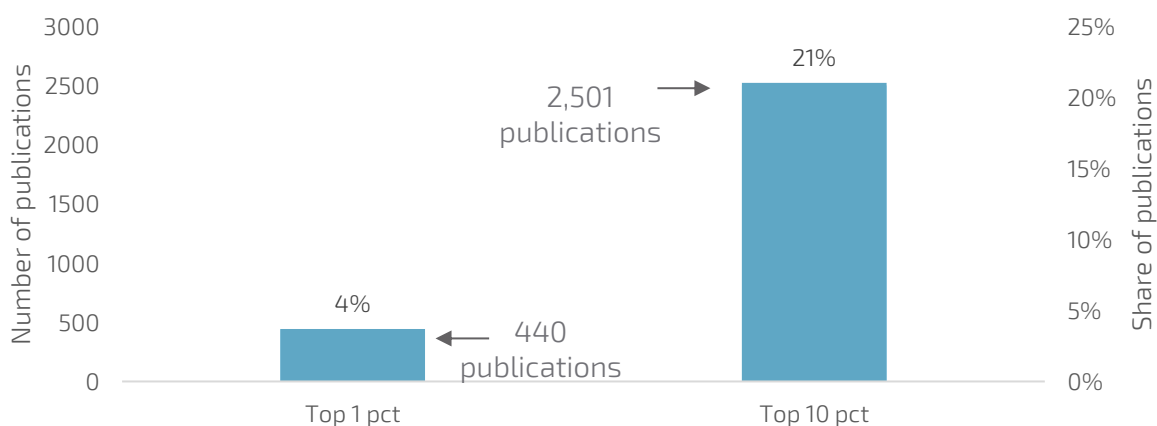
The projects funded or co-funded by the Swedish Cancer Society during the period 2010-2020 have resulted in both national and international collaboration. Collaboration is defined as co-publication of scientific publications. The Swedish Cancer Society is funding Swedish cancer research, but also contribute towards the internationalization of Swedish Cancer research and research collaboration with industry. Six out of ten publications within the framework of funded projects have been published together with researchers affiliated with institutions outside Sweden. The 643 publications published together with industry authors broadly follow the overall publication patterns for all projects funded by the Swedish Cancer Society.

Scientific impact of research

The publications produced within the framework of the research projects funded by the Swedish Cancer Society are of high quality and are also frequently cited. 4 percent of the publications are published in the top 1 percent most cited journals. Compared to publications from other OECD countries within the same research areas, the publications funded by the Swedish Cancer Society have been cited 10 percent more. The citation rate on prostate and colon cancer is particularly high.

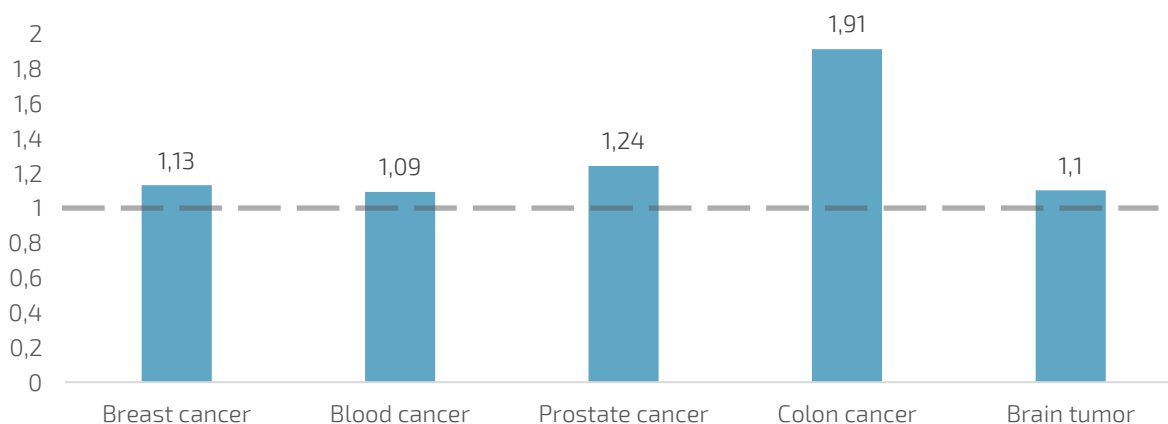
By following up on the publications published in the most frequently cited journals for each respective field of research and year of publication, an indication of the quality of the research is given. 4 percent of the publications are published in the top 1 percent most cited journals, and 21 percent are published in the top 10 percent most cited journals. This type of analysis should be interpreted with the baseline of expecting 1 percent of the publications to be published in the top 1 percent most frequently quoted journals, and so on. Thus, the funded publications are published more than expected in the most frequently quoted journals, indicating that the publications are of a high scientific level.

11,892 publications created within the framework of the funded projects have been published between 2010-2020



The research areas that have been receiving the most funding from the Swedish Cancer Society are breast, blood, prostate, and colon cancer, as well as brain tumour. In all five areas, based on the publications' keywords, the funded research is cited more frequently than the average for publications published in each research area and year of publication from institutions in OECD countries. Research funded by the Swedish Cancer Society within colon cancer is cited over 90 percent more frequently than the average for publications from the OECD countries. Funded research on prostate cancer is cited 24 percent more frequently than the average for OECD countries.

High citation rate within the five largest areas of research



The research contributes to the development of cancer care

The research funded by the Swedish Cancer Society has a direct impact on cancer care. The funded research can be found as a knowledge foundation in 80 percent of the Swedish national cancer care programs. The greatest knowledge contribution lies within the care programs of mantle cell lymphoma, prostate cancer, and cervical cancer. The funded research also contributes to international cancer care. 28 percent of 361 examined international clinical guidelines for cancer care contain references to research funded by the Swedish Cancer Society during the period of 2010-2020.

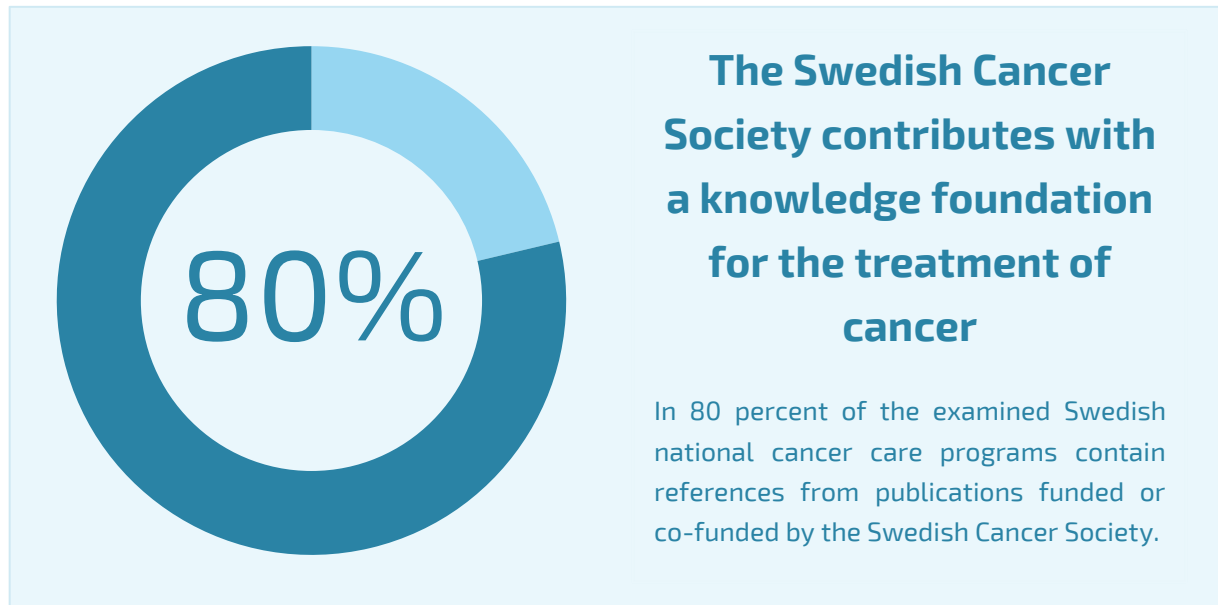
The research carried out within the framework of projects funded by the Swedish Cancer Society maintains a high scientific level as well as high scientific impact. This indicates that the Swedish Cancer Society to a large extent contributes to the progress made in both national and international cancer research. The fact that the research achieves high scientific quality is a good result of the funding - but for more people to survive cancer, it is essential that research progress is utilized in practice in cancer care.

Clinical guidelines and national care programs



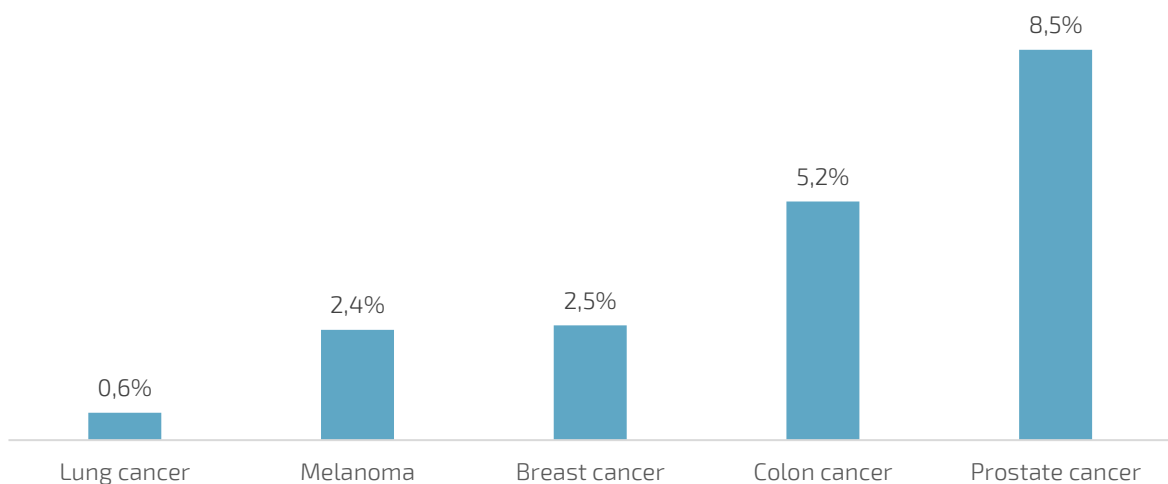
Clinical guidelines are scientifically based and systematically presented recommendations aimed at providing health care professionals with decision making support in cancer care. In Swedish cancer care, programs that are based on the best medicinal knowledge are used, and they provide health care professionals with recommendations about investigation, nursing, rehabilitation, and the follow-up of patients.

Of the 51 Swedish national cancer care programs, 46 contain references to research articles. The analysis shows that 37 out of these 46 care programs contain references to research that has been financed by part or fully by the Swedish Cancer Society during the period between 2010-2020. Thus, during this period, the Swedish Cancer Society funded research has contributed to the knowledge foundation in 80 percent of the guidelines for the treatment of cancer.



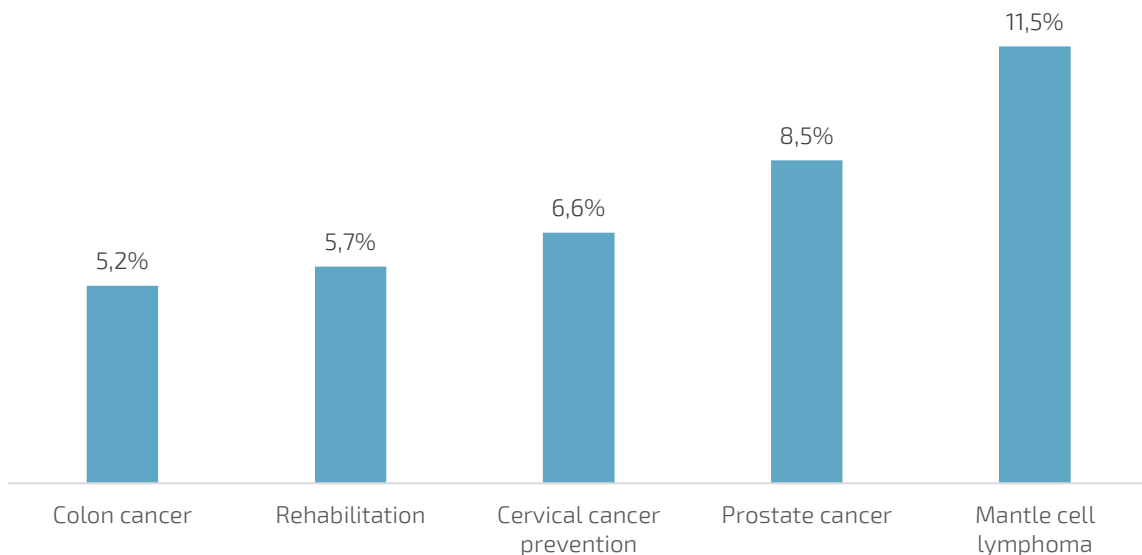
The Swedish Cancer Society receives the most applications and contributes with most of their funding towards the research of breast, blood, prostate, and colon cancer, as well as brain tumours. These five areas are also the largest fields of research related to cancer globally. At the same time, the Swedish Cancer Society has a program to stimulate deprived areas. One of these is lung cancer, which due to its high mortality receives extra funding. The funding is relatively aligned with the most common types of cancer in Sweden., where prostate cancer is to most common, followed by breast cancer. Of the five most common cancers, the research funded by the Swedish Cancer Society has contributed the most towards the knowledge foundation for the national prostate cancer care program.

Percentage of references in the care programs for the five most common cancers in Sweden, funded by the Swedish Cancer Society, 2010–2020



In terms of the proportion of references in the national care programs, the Swedish Cancer Society funding has the greatest direct impact on the care program for mantle cell lymphoma. 11,5 percent (7 out of 61) of the references in the program are from studies funded or co-funded by the Swedish Cancer Society. In addition to prostate cancer and colon cancer, the funded research also has a major impact on cervical cancer prevention and rehabilitation care programs.

A major contribution to the knowledge foundation in national care programs for mantle cell lymphoma and prostate cancer



The analysis of the Swedish national care programs is based on the 46 care programs that contain references. To understand how research funded by The Swedish Cancer Society affects international cancer care, 361 international clinical guidelines and care programs were analyzed. The examined international clinical guidelines and care programs can be geographically divided between the Nordic countries, Europe, and the United States. In 102 out of the 361 examined international clinical guidelines for cancer care there are references to research that has been funded fully or partly by The Swedish Cancer Society. This means that references to the funded research can be found in approximately 28 percent of current clinical guidelines and care programs.

The Swedish Cancer Society contributes with a knowledge foundation used in international guidelines for cancer care

102 of the 361 (28 percent) examined international clinical guidelines for cancer care contain references to research funded or co-funded by the Swedish Cancer Society.

