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INTRODUCTION TO PUBLIC HEALTH

COMPONENT 2 - MAJOR HEALTH ISSUE

CANCER

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Introduction

A definition of the disease

Cancer is defined by the abnormality in the cells that divides uncontrollably and destroy the body tissue. The growth of the body cells uncontrollably, and spreading it to the other parts of the body is another aspect of abnormality. That is usually involved in a simple form, invasion into the nearby tissues, and then constantly spreading it to the other parts of the body to blood and lymph system makes cancer, spreadable, and deadly for the human body.

Levels of the incidence in the UK

The prevalence of cancer in the UK alone is concerning which compiles the national government to take it seriously, and make it a major public health concern. As of 2019, alone, over 387,820 cases of cancers where, identified out of which 200,386 were male population and 187,434 were female population (Cancer Research UK, 2014). In terms of the mortality rate, in 2019, 160 6502 candidates were identified and since 2017, the increase as a result of cancer has only gone up. An estimation of 0.8% of death has been identified in the date on mortality rate resulted from cancer.

In the UK, breast cancer is known to be the most common form of cancer that causes cancer, diagnosis, and death, next to breast, cancer, prostate, cancer, lung cancer, bowel and skin also known as melanoma are some of the different forms of cancers that extremely prevalent in the population (World Cancer Research Fund, n.d.).

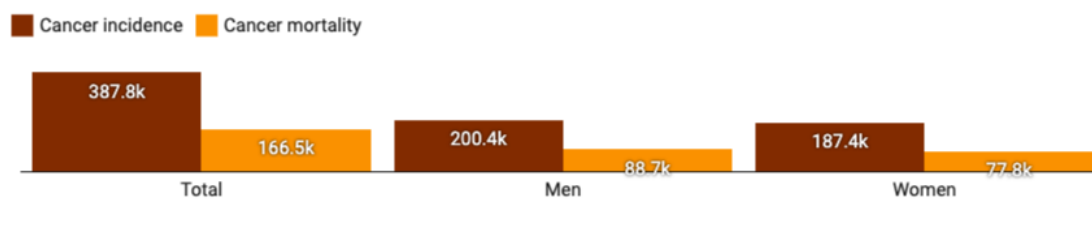


Figure: Severity of cancer in the UK

(Source: Cancer Research UK, 2014)

Main Body

Public health measures available

In the UK, the public health measures and its requirement for assisting better health outcomes of cancer is exponential. In that regard, the NHS Long-Term Plan is a major support system in the public healthcare to aid cancer patients and support them to have held their lives and live longer while educating them to implement all their lifestyle dices and treating the illness add an early stage (Knuppel et al., 2020). Another program that is prevalent by the national government of UK, NHS Cervical Screening Program that was extremely effective which implemented the primary screening test in the UK (Snowsill et al., 2019). With this particular plan, it is directly linked to cervical cancers, where human papillomavirus also known as HPV is the primary concern (Vithayathil et al., 2021). With the screening, the NHS has been successful in acquiring comprehensive information on specific population who are at high risk of coming in contact with the virus and then potentially have the development of cancer (Perez-Cornago et al., 2017).

Besides, there are so many prevention programs that help individuals to overcome, tobacco addiction, alcohol, abuse, obesity, related complications, and other possibilities that can lead to the development of cancer (Jones et al., 2020). Public health professionals are heavily implied by the UK government to ensure that these public health measures are extremely effective and is able to generate desired health outcomes (Degasperi et al., 2022).

UK government had also invested heavily in the cancer prevention an improvement on the national screening programs. The primary intention of the programs such as Cancer Research UK 2015 is to provide faster access to diagnostic tests, and with the aspect of investing in cutting-edge treatments and technologies, the national government in the UK have ensure that more patients are able to benefit from the size and highly personalised treatments in the medical science advancement (Martins et al., 2019). The national government of the UK how long with the public health experts, have constantly focusing on the young population who are also susceptible to the development of cancers. For instance, coming to contact with HPV is a major risk that directly develop cervical cancer that is heavily prioritised by the national government (Burton et al., 2021).

Cancer awareness and giant campaigns are heavily conducted by the NHS, England in collaboration with local and national level experts in cancer (Jones et al., 2018). The UK

government has a smoke-free 2030 ambition which has provided some significant improvements with the implementation of policies to tackle obesity and decrease alcohol-related cancer developments (Yuan et al., 2020). Additional cancer screening with the help of NHS, PHE implementation of reviewing three cancer, screening programs for bowel, breast and cervical have effectively been implemented into the public health measures (Snowsill et al., 2019). This has also unable to patients and the public and professionals to access information and the clinicians to use that as a support system to provide the best services to the public and support the informed uptake and reduce inequalities in the patient's treatment process (Wells et al., 2017).

Key determinants/risk factors of the chosen disease

Determinants or risk factors are extremely relevant when it comes to the development of cancer. In the UK, there are several determinants that are evident that can lead to the development of cancer or any kind of complications as a result of cancer diagnosis. These are some of the risk factors or key determinants of cancer in the UK as follows:

Smoking is a major cause of cancer that leads to little outcomes in the UK. In the UK more than one and four cancer deaths have caused by smoking and heavy usage of tobacco (Snowsill et al., 2019).

Keeping a healthy weight is a major risk factor when it comes to the development of cancer. Obesity is a big problem, especially in the lower- and middle-income household in the UK where individuals do not have the proper access to healthy food and lack of education, often leads to the development of such results where individuals are compelled to consume, unhealthy food and implement ineffective, lifestyle choices (Luo et al., 2020).

Physical activity and eating a balance diet is another risk factor that needs to be improved in the UK to reduce the negative implications and the possibility of developing cancer

Limitation on alcohol consumption and any kind of unhealthy food consumption are extremely important since UK has a heavy alcohol consumption rate which has been identified to be a major determinant of cancer (Liu et al., 2019)

Melanoma is another form of cancer that directly associated with how long individuals are exposed to the Sun. In most cases, taking care of the skin and having sunscreen at all cost is a major aspect that individuals are required to consider since this is an extremely common form of cancer that leads to lethal health consequences in the UK (Dodwell et al., 2020)

Short-term public health consequences

Some of the short-term public health consequences as a result of cancer specially in health and social care setting would include:

- Usually once a disease goes away, or is about to be developed, short-term impact such as nausea is common (Snowsill et al., 2019)
- Development of vomiting or diarrhoea related complications are also having any common when it comes to the development of cancer (Morgan et al., 2018)
- Going through chemo treatment can lead to hair loss which is another short-term effect of cancer
- Fatigue and mouth sores are some of the common aspects when it comes to the short-term effects of cancer (Yaghjyan et al., 2018)

In short-term health consequences, these are more of the symptoms than a prolonged development of complications. Welcome to cancer, the short-term complications are, however, not to be avoided and good to have some significant negative implications on the patient (Feng et al., 2019). For instance, individuals can have panic attacks, mental breakdowns as a result of early diagnosis are from the development of apprehension, after knowing the possibility of cancer development in their bodies. Besides, lack of accessibility or financial constraints can develop idiotic, depression amounts to patients. Obesity-associated cancers can lead to the short-term consequences such as immobility and inefficacy amongst the patients. However, the short-term consequences may differ depending on the types of cancers individuals have (Snowsill et al., 2019). For instance, in case of lung cancer, short-term complications, such as shortness of breath, a block in the major airways, accumulation of fluid around the lungs, inability to expand the lungs, while inhaling are common. In case of melanoma, a type of skin cancer, individuals can have inflammation, redness, and increased sensibility on the skin. In case of brain, cancer, dizziness and exhaustion, headache and Indians headache at times, are some of the major short-term health consequences that can be developed as a result (Knuppel et al., 2020).

Long-term public health consequences

Long-term impacts are extremely common when cancer patient is going through the treatment process, or it's taking time longer than usual to heal. These long-term impacts of cancer are as follows:

- As a result of persistent chemotherapy, dental problems can occur among individuals that can have a long-term consequence
- Decide early menopause could be a major concern when it comes to female patients with cancer diagnosis (Perez-Cornago et al., 2017)
- Hearing loss or heart problems can be developed as a result of chemotherapy treatment
- Increased risk of infertility loss can be developed as a result of chemotherapy treatment
- Problems surrounding osteoporosis and radiation related complications can be developed that can last longer even after a patient has recovered from cancer (Knuppel et al., 2020)
- Reduce lung capacity is another form of long-term effect as a result of prolonged chemotherapy treatment due to cancer (Perez-Cornago et al., 2017)

Development of musculoskeletal complications are identified to be a major long-term consequence in a social care setting as a result of prolonged therapy and treatment to recover cancer. Late-onset stamina deficits related to cardiovascular complications are also coming when it comes to the long-term public health, consequences of cancer (Perez-Cornago et al., 2017). Hypothyroidism, having prolonged impact on the psychology of the patient, cognitive or sexual difficulties, elevated anxiety, or depression are some of the long-term impacts that contributes to the development of prolonged complications as a result of cancer (Knuppel et al., 2020). The science, diagnosis of cancer is also leads to the recurrences, second cancers or cardio-pulmonary risks. recent research has provided evidence is that both physical and functional difficulties that can have long-term impact on the patient as a result of cancer can be problematic. All the majority of long-term survivors, especially in the context of UK have described themselves to be having good and healthy life, along with stable functional ability. However, there are some specific deficits that are prevalent in survivors and those who are still in the process of surviving cancer (Knuppel et al., 2020). However, some of the most notable long-term consequences such as musculoskeletal symptoms and functional

difficulties such as restricted physical and social activities have been major concern amongst the cancer survivors or those who are recovering from cancer (Perez-Cornago et al., 2017). In most cases, long-term effects are usually delayed affects that are developed as a result of the cancer that can have significant impact on the overall functionality and the quality of lifestyle that the survivors are likely to have forced recovery from cancer (Snowsill et al., 2019).

Conclusion

Based on the key findings acquired from the present study, with the aspect of public health measures available in the UK, smoking rates have been reduced from 40% amongst adults in the UK in nineteen seventies to 13.9% by 2020 (Knuppel et al., 2020). This reduction has been extremely effective with the help of NHS, PHE who Have exponentially conducted awareness-raising campaigns in the recent years that includes not only just smoking but all sorts of unhealthy life choices that adults usually make in the context of the UK. With the development of high-impact public education campaigns have been extremely effective and the intervention by the government to make sure that it is continuing have also helped generate some desired outcomes as a result of conducting these campaigns and screening methods ((Perez-Cornago et al., 2017). Although, in 2000 and 19/167,000 individuals died from cancer in the UK, which is 460 individuals' body on average; the mortality rate has some stable development, despite the dramatic increase rising by 7% in the last 10 years (Snowsill et al., 2019).

With the key findings acquired in the present assessment, it is also very much evident that intervention by the National government of the UK and implementing consistent strategic developments, creating awareness-raising campaigns and developing personalised and meticulously designed dancer, related awareness events and help UK to move on the right track. Increasing the accessibility process which will enable Individuals, especially coming from the underprivileged, such as low- or middle-income households to access treatments and required information and assistance with the intervention of the UK government.

Reference List

- Statistics fact sheets the number of people living with cancer. (n.d.). [online] Available at: <https://www.macmillan.org.uk/dfsmedia/1a6f23537f7f4519bb0cf14c45b2a629/9468-10061/2022-cancer-statistics-factsheet#:~:text=New%20cases%20of%20cancer%20diagnosed.>
- Cancer Research UK. (2014). *How cancers grow*. [online] Available at: https://www.cancerresearchuk.org/about-cancer/what-is-cancer/how-cancers-grow?gclid=Cj0KCQiA-JacBhC0ARIsAIxybyMiy12neyE0Eel93SsoPo2aGW-orw2fkMTCxFWwD7hArPWtzxw3G4UaAlgsEALw_wcB&gclsrc=aw.ds [Accessed 30 Nov. 2022].
- World Cancer Research Fund. (n.d.). *UK Cancer Statistics and Data | World Cancer Research Fund UK*. [online] Available at: https://www.wcrf-uk.org/preventing-cancer/uk-cancer-statistics/?gclid=Cj0KCQiA-JacBhC0ARIsAIxybyM4xIO8Fraq-Y60hvK2CagKTUbmzzfZ-mrVcGSF5yy9OGrYsG7fBiEaApTCEALw_wcB [Accessed 30 Nov. 2022].
- Knuppel, A., Fensom, G.K., Watts, E.L., Gunter, M.J., Murphy, N., Papier, K., Perez-Cornago, A., Schmidt, J.A., Smith Byrne, K., Travis, R.C. and Key, T.J., 2020. Circulating Insulin-like Growth Factor-I Concentrations and Risk of 30 Cancers: Prospective Analyses in UK Biobank IGF-I Concentrations and Cancer Risk in UK Biobank. *Cancer Research*, 80(18), pp.4014-4021.
- Perez-Cornago, A., Key, T.J., Allen, N.E., Fensom, G.K., Bradbury, K.E., Martin, R.M. and Travis, R.C., 2017. Prospective investigation of risk factors for prostate cancer in the UK Biobank cohort study. *British journal of cancer*, 117(10), pp.1562-1571.
- Vithayathil, M., Carter, P., Kar, S., Mason, A.M., Burgess, S. and Larsson, S.C., 2021. Body size and composition and risk of site-specific cancers in the UK Biobank and large international consortia: A mendelian randomization study. *PLoS medicine*, 18(7), p.e1003706.
- Degasperi, A., Zou, X., Dias Amarante, T., Martinez-Martinez, A., Koh, G.C.C., Dias, J.M., Heskin, L., Chmelova, L., Rinaldi, G., Wang, V.Y.W. and Nanda, A.S., 2022. Substitution mutational signatures in whole-genome-sequenced cancers in the UK population. *Science*, 376(6591), p.abl9283.
- Jones, C.M., Radhakrishna, G., Aitken, K., Bridgewater, J., Corrie, P., Eatock, M., Goody, R., Ghaneh, P., Good, J., Grose, D. and Holyoake, D., 2020. Considerations for the treatment of pancreatic cancer during the COVID-19 pandemic: the UK consensus position. *British journal of cancer*, 123(5), pp.709-713.

Martins, A., Whelan, J.S., Bennister, L., Fern, L.A., Gerrand, C., Onasanya, M., Storey, L., Wells, M., Windsor, R., Woodford, J. and Taylor, R.M., 2019. Qualitative study exploring patients experiences of being diagnosed and living with primary bone cancer in the UK. *BMJ open*, 9(9), p.e028693.

Burton, A., Tataru, D., Driver, R.J., Bird, T.G., Huws, D., Wallace, D., Cross, T.J., Rowe, I.A., Alexander, G., Marshall, A. and Rowe, I., 2021. Primary liver cancer in the UK: incidence, incidence-based mortality, and survival by subtype, sex, and nation. *JHEP Reports*, 3(2), p.100232.

Jones, P., Cade, J.E., Evans, C.E., Hancock, N. and Greenwood, D.C., 2018. Does adherence to the World Cancer Research Fund/American Institute of Cancer Research cancer prevention guidelines reduce risk of colorectal cancer in the UK Women's Cohort Study?. *British Journal of Nutrition*, 119(3), pp.340-348.

Snowsill, T.M., Ryan, N.A., Crosbie, E.J., Frayling, I.M., Evans, D.G. and Hyde, C.J., 2019. Cost-effectiveness analysis of reflex testing for Lynch syndrome in women with endometrial cancer in the UK setting. *PloS one*, 14(8), p.e0221419.

Yuan, S., Carter, P., Vithayathil, M., Kar, S., Giovannucci, E., Mason, A.M., Burgess, S. and Larsson, S.C., 2020. Iron status and cancer risk in UK Biobank: a two-sample Mendelian randomization study. *Nutrients*, 12(2), p.526.

Wells, H., Hayes, M.C., O'Brien, T. and Fowler, S., 2017. Contemporary retroperitoneal lymph node dissection (RPLND) for testis cancer in the UK—a national study. *BJU international*, 119(1), pp.91-99.

Luo, S., Schooling, C.M., Wong, I.C.K. and Au Yeung, S.L., 2020. Evaluating the impact of AMPK activation, a target of metformin, on risk of cardiovascular diseases and cancer in the UK Biobank: a Mendelian randomisation study. *Diabetologia*, 63(11), pp.2349-2358.

Liu, Z., Alsaggaf, R., McGlynn, K.A., Anderson, L.A., Tsai, H.T., Zhu, B., Zhu, Y., Mbulaiteye, S.M., Gadalla, S.M. and Koshiol, J., 2019. Statin use and reduced risk of biliary tract cancers in the UK Clinical Practice Research Datalink. *Gut*, 68(8), pp.1458-1464.

Dodwell, D., Jauhari, Y., Gathani, T., Cromwell, D., Gannon, M., Clements, K. and Horgan, K., 2020. Treatment variation in early breast cancer in the UK. *bmj*, 371.

Elwood, P.C., Whitmarsh, A., Gallacher, J., Bayer, A., Adams, R., Heslop, L., Pickering, J., Morgan, G., Galante, J., Dolwani, S. and Longley, M., 2018. Healthy living and cancer: evidence from UK Biobank. *ecancermedicalscience*, 12.

Yaghjian, L., Rich, S., Mao, L., Mai, V. and Egan, K.M., 2018. Interactions of coffee consumption and postmenopausal hormone use in relation to breast cancer risk in UK Biobank. *Cancer Causes & Control*, 29(6), pp.519-525.

Feng, R.M., Zong, Y.N., Cao, S.M. and Xu, R.H., 2019. Current cancer situation in China: good or bad news from the 2018 Global Cancer Statistics?. *Cancer communications*, 39(1), pp.1-12.