

The impact of education and social capital on treatment outcome for patients with colorectal cancer

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Abstract

The purpose of this paper is to study social inequality in the treatment of colorectal cancer and in colorectal cancer survival. We know that socio-demographic and socio-economic factors have an impact on health status. The framework developed by Grossman has been used to explain that a high level of education, high income and wealth are all related to good health and long life. The amount of social capital, measured by having a partner or spouse, number of friends and memberships in organisations, also has an impact on health. Individuals invest in social capital because it increases the individual's utility and well being and not directly as an investment in health. But, by being together with friends, the individuals derive knowledge, which can influence investment in health. In addition friends take care of each other and take responsibility in each others life, thus the well being of an individual's friends will be a part of the individual's utility function. Because a person's life is valued by others, an individual with a high stock of social capital reduces the number of risky activities.

Colorectal cancer is categorised according to stage of advancement when diagnosed. Given a stage of advancement, there are two opposite effects of socio-economic status on the amount of treatment received: Individuals with a high level of education are likely to live longer after the time of diagnosis. Increased survival implies the opportunity to receive more treatment. On the other hand, since high socio-economic status is related with good general health condition, we would expect a decline in the intensity of treatment; like number of re-hospitalization, complications and co-morbidity. In this study we define socio-demographic and socio-economic status according to age at the time of diagnosis, gender, income, wealth, education and labour market participation. In addition, marital status will be included as one measure of social capital.

The data set contains information on colorectal cancer diagnosis and stage of advancement from the Cancer Registry of Norway, socio-demographic and socio-economic variables from Statistics Norway and treatment costs from the National Patient Register. Data on colorectal cancers diagnosed are collected in the period 1999 to 2004, while time of death and treatment intensity data are collected in the period 1999 to 2004.

Data are analysed by means of linear and non linear regression techniques.

Preliminary findings indicate that colorectal cancer survival decline with stage of advancement and increases with level of education. Working and being married or having a partner tend to increase survival. There are also some indications that the amount of treatment varies according to socio-economic characteristics. Hence, if policy makers aim at reducing social inequality in health, measures should be taken. Possible measures are discussed in the paper.