

S5. Is cancer prevention ever going to be profitable?

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The increasing cancer burden (incidence and prevalence), together with an increasing demand and offer of modern diagnostic and therapeutic technology implies a dramatic increase in health expenditure for oncology. In several countries, national health services are no longer capable of sustaining the increasing costs of oncology.

Before addressing the main question, of whether cancer prevention might be profitable, it is worthwhile to define *profitability*.

Profit generally is the making of gain in business activity for the benefit of the owners of the business. The word comes from Latin meaning “to make progress”, is defined in two different ways, one for economics and one for accounting.

Pure economic profit is the increase in wealth that an investor has from making an investment, taking into consideration all costs associated with that investment including the opportunity cost of capital. Accounting profit is the difference between price and the costs of bringing to market whatever it is that is accounted as an enterprise in terms of the component costs of delivered goods and/or services and any operating or other expenses. A key difficulty in measuring either definition of profit is in defining costs.

An economic profit arises when its revenue exceeds the total (opportunity) cost of its inputs, noting that these costs include the cost of equity capital that is met by “normal profits”. A business is said to be making an

accounting profit if its revenues exceed the accounting cost the firm “pays” for those inputs. Economics treats the normal profit as a cost, so when deducted from total accounting profit what is left is economic profit (or economic loss).

So what does this mean in the context of cancer prevention?

There are several reasons why we might be able to answer this question with a clear yes. Firstly, almost obviously, the prevention programme has to demonstrate that it works, i.e. clinical effectiveness. Secondly, the effectiveness should translate in to meaningful economic benefits. This second task is certainly more critical. The economic benefit will depend heavily on the magnitude of the clinical effectiveness and on the potential reduction of downstream costs. Such downstream costs are reflected by the extent of costly procedures and treatments. Given that many cancers are increasingly transforming themselves into chronic disease entities, we can expect that the costs of long-term treatments will increase considerably. This development is enhanced by longer and more costly (targeted) therapies. In addition, cancer treatment is getting better from year to year. On the other side, diagnostic procedures will become more powerful, enabling the diagnosis of tumours at an earlier, less costly stage.

Hence, it is conceivable, that cancer prevention will, in the long run become increasingly profitable.