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The impact of health care this century

It is a noteworthy fact that within the last 100 years mankind's life expectancy in developed countries, and indeed in some developing countries too, has gone up from around 40-50 years to around 70-80 years. This increase in life expectancy might be interpreted by many people as due to technological success in the field of health care.

But they would be under a delusion, since only perhaps 15-20% of this increase over the whole population can be attributed to the diverse interventions performed in the fields of preventive, diagnostic, therapeutic and rehabilitative health care. Recent estimates have revealed that health care interventions which are today accepted as being scientifically proven and valid, when considered at a whole-population level, i.e. including both sick and well individuals, contribute very little towards the increase in life expectancy for the population as a whole.

Some examples of preventive interventions (the type which provide the greatest average gain in lifespan at the populational level) can be cited, such as immunization against diphtheria, which provides an average gain of 10 months of life at the populational level; immunization against tetanus or poliomyelitis, an average gain of 3 months each; screening for detection of arterial hypertension, an average gain of 2 months; screening for detection of uterine cervical cancer, an average gain of 2 weeks of life. It must be emphasized that, in all these examples, the average gain in life provided by that particular intervention is estimated at a whole-population level, or in other words, if all of a population of children was vaccinated against tetanus, the average gain in life at a populational level would today be estimated as 3 months.

Likewise, in the field of therapeutics it is estimated that the gains in life expectancy over the whole population

for the most diverse interventions now recognized as efficacious or effective are also small. By way of illustration, it is worth mentioning cancer of the colon or rectum and peptic ulcers, whose treatment each provides an average gain in life at the populational level of 2 weeks, considering both sick and well individuals; arterial hypertension, an average gain of 4 months; chronic renal insufficiency, an average gain of 3 months.

In the case of therapeutic interventions it needs to be stressed, and it is extremely important to do so, that at an individual level (or even within a population of sick individuals) these interventions provide considerable and large gains in survival, although this is diluted when distributed among the whole population. It also has to be considered that at a global level those interventions recognized as efficacious or effective do not even come close to having the desired coverage. In addition, the frequent improper prescription of interventions without scientifically valid evidence to justify their widespread day-to-day use has to be considered.

Putting together all the preventive and therapeutic interventions accepted today, backed up by all the sophisticated technology available, it is believed that these interventions would not be responsible for more than 15-20% of the gain in survival of the population at a global level. Although there is no solid data available, it is believed today that the remaining 80-85% of the gain in survival of the population this century, amounting to 30-40 years gained (a life expectancy of 40-50 years at the beginning of the century increasing to 70-80 years today in some developed countries), has been the result of simple and basic actions (but which are extremely complex to implement) in the most diverse sectors of society, such as education, basic sanitation, housing and adequate alimentation.

These facts, albeit estimates, require serious reflection on how a responsible society should prioritize the allocation of its resources and investments to minimize social inequality and promote actions which are in the interests of society as a whole.

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