What field of Medicine has the biggest impact on society?

- by Lucrezia Cerulli

The origins of Medicine are extremely remote: since ancient times human beings have always exploited natural sources as herbs, scents in order to ensure health and vitality[1].

Over the centuries, through medical studies and discoveries of Hippocrates, Galen, Etruscans and several scholars and civilizations, medical art has developed to the point of not only treating the symptoms of a diagnosed disease, but also of preventing pathologies and diagnosing them promptly. In the light of this, Preventive Healthcare was formed, becoming one of the fields with the greatest impact on society.

In fact, this new field of medicine impacts vigorously on the welfare of society: is not only focused on survival but also on improving the way we survive and the quality of our life.

This Preventive Healthcare contrasts the natural selection: with a leap back in the past we would notice that the quality of life and life expectancy were really lower than today, because people did not have the opportunity of making the necessary prevention that developed gradually in later ages. Natural selection took its course and only healthier people survived.

Instead, nowadays, progress and civilization have prevailed and even the most fragile individuals are supported by detecting diseases, before they can become major. Due to screening protocols, the annual number of sick people has decreased: people live longer and with an improved quality of life.

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[1] A. Cornelii Celsi. "Prooemium*". De Medicina*. Eds. Loeb Classical Library editi, MCMXXXV, "*Ut alimenta sanis corporibus agricultura, sic sanitatem aegris Medicina promittit. Haec nusquam quidem non est siquidem etiam inperitissimae gentes herbas aliaque promta in auxilium vulnerum morborumque noverunt"*.

Suffice it to think that in the UK, before the 19th century, life expectancy fluctuated between 30 and 40 years, while today it doubled and is higher than 80 years[2].

Preventive Medicine, through measures as annual check-ups, immunizations, vaccines, screenings and other preventive strategies, not only impacts on the single person, ameliorating the health conditions, but also on the entire society, reducing the health costs and social security contributions of government.

Analyzing the data provided by the World Health Organization, Preventive Medicine saves millions of lives per year. The WHO reports that between 2010 and 2015 at least 10 million deaths were avoided thanks to vaccines[3], immunization still prevents 2-3 million deaths every year[4] and an estimated 2.4 billion people are currently living with health through rehabilitation (tertiary prevention)[5].

However in recent times the Covid has slowed down the evolution of research also in Preventive Medicine.

In fact both for the fear of contracting the virus and for organizational problems of hospitals, a lot of people avoid going to the hospital for medical check-up and therefore the average health status of the population is declining.

The gravity of this situation is highlighted in a report published by WHO on 3 September 2020. According to it, COVID-19 pandemic impacted profoundly on health services. For instance, on cancer

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[2] M. Roser, E. Ortiz-Ospina and H. Ritchie. Life Expectancy. *Our World In Data*, 2013, [https://ourworldindata.org/life-expectancy]

[3]WHO, M. Chan, "The power of vaccines: still not fully utilized". *Ten Years in public health 2007-2017.* Geneva: World Health Organization; 2017. [www.who.int/publications/10-year-review/en/]

[4] WHO, "Immunization". World Health Organization, 2019, [https://www.who.int/news-room/facts-in-pictures/detail/immunization]

[5]WHO, "Rehabilitation". World Health Organization, 2020, [https://www.who.int/news-room/fact-sheets/detail/rehabilitation]

screening, leading to a significant decrease in cancer diagnoses, and on the number of admissions to hospitals of patients affected by acute coronary syndrome, causing a considerable rise in out-of-hospital deaths and long-term complications of myocardial infarction[6].

Therefore, especially in this period we realize the importance of Prevention: the less attention to it will cause harmful effects that we will face in the years to come, since many diseases have not been detected in time. This could be mitigated if, from the beginning, greater importance had been given to the "primary prevention" in measures to contain the spread of the virus (masks, social distancing, etc.).

[6]WHO, "The impact of the COVID-19 pandemic on noncommunicable disease resources and services: results of a rapid assessment". Geneva: World Health Organization; 2020. [https://apps.who.int/iris/rest/bitstreams/1299882/retrieve]

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