

The limits of prevention: 50 years of Hart's Law

Os limites da prevenção: 50 anos da Lei de Hart

Los límites de la prevención: 50 años de la Ley de Hart

Alessandro da Silva Scholze¹ 

¹Universidade do Vale do Itajaí – Itajaí (SC), Brazil.

Abstract

In 1971, Hart published an article proposing the Inverse Care Law, suggesting that “The availability of good medical care tends to vary inversely with the needs of the population served.” Over the past 50 years, the article has been cited with increasing frequency in the literature. The present article provides a perspective about how Hart's reflections connect with the changes in health prevention during this period, especially in relation to primary health care.

Keywords: Health services accessibility; Primary health care; Socioeconomic factors; Prevention.

Corresponding author:

Alessandro da Silva Scholze
E-mail: alescholze@gmail.com

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Resumo

Em 1971, Hart publicou um artigo propondo a Lei dos Cuidados Inversos, segundo a qual “a oferta de cuidados médicos de qualidade tenderia a variar inversamente às necessidades da população atendida”. Ao longo dos últimos 50 anos, o texto foi citado com frequência crescente na literatura. Apresentamos aqui uma perspectiva de como as reflexões de Hart se articulam com as mudanças na Prevenção ao longo desse período, especialmente no que toca à Atenção Primária em Saúde.

Palavras-chave: Acesso aos serviços de saúde; Atenção Primária de Saúde; Fatores socioeconômicos; Prevenção.

Resumen

En 1971, Hart publicó un artículo proponiendo la Ley de Atención Inversa, según la cual “la provisión de atención médica de calidad tendería a variar inversamente a las necesidades de la población atendida”. Durante los últimos 50 años, el texto se ha citado con una frecuencia cada vez mayor en la literatura. Presentamos una perspectiva de cómo las reflexiones de Hart se articulan con los cambios en Prevención durante este período, especialmente en lo que respecta a la Atención Primaria en Salud.

Palabras clave: Accesibilidad a los servicios de salud; Atención Primaria de Salud; Factores socioeconómicos; Prevención.

THE INVERSE CARE LAW

What became known as Hart's Law was stated in the abstract of Julian Tudor Hart's article titled The Inverse Care Law, published in the *Lancet* in 1971: “The provision of quality medical care tends to vary inversely with the needs of the population served”.¹

The text begins by discussing the inequities in the access and quality of health services in the United Kingdom with the creation of the National Health Service (NHS) in 1948. Attempts to reverse them via financial incentives, such as lower payments to doctors in areas with greater concentration of professionals or hiring foreign professionals to places where doctors are difficult to establish, proved to be insufficient. The limitation to overcome would be the working conditions with very numerous patient lists and inadequate physical structure. Still, medical training at the time did little to prepare the student for Primary Health Care (PHC), which was frowned upon by the preceptors who worked in hospitals and unattractive from the point of view of a traditional “career”.

Perhaps not coincidentally, this description is very similar to a summary of the current situation in Brazil, suggesting that both represent moments of consolidation of PHC in universal health systems, keeping the proportions of number of inhabitants and economic conditions.

The body of knowledge in the midst of which Hart's Law was conceived has changed widely, and its conclusions were based on the author's experience, reflecting the discussions of the time, rather than a systematic search for studies relating access and quality of health services to morbidity and mortality outcomes. From 1971 until today, the impact of social determinants on health outcomes has become increasingly evident, preventive actions have expanded and PHC-based health systems have spread, such as the NHS and the Brazilian Unified Health System (SUS). However, a literature study showed that the article was cited 528 times until 2010, with 268 citations only in the first decade of the 2000s, suggesting a progressive diffusion of the text in view of its relevance.²

The reflection proposed here is devoted to understanding how these aspects involved in the enunciation of Hart's Law are perceived today, especially with regard to secondary prevention, due to the impact of screenings in PHC services.

THE FLOOR OF PREVENTION

It was not until 1976 that Leavell and Clark proposed primary, secondary and tertiary levels of prevention;^{3,4} therefore, such distinctions were not even considered by Hart when he pointed out that “medical services are not the main determinant of mortality or morbidity; these depend most upon standards of nutrition, housing, working environment and education, and the presence or absence of war”.

Thus, he anticipated the Lalonde Report,⁵ launched by the Canadian Minister of Health in 1974, one of the first milestones of Health Promotion, which proposed the concept of the Field of Health, consisting of four elements: human biology, environment, lifestyle and organization of health services. The last one, the health system as such, was the target of most investments aimed at improving the health conditions of the population, but environment and lifestyle showed more potential to bring about such improvements, because together with human biology, they were the elements responsible for the greatest amount of morbidity and early mortality. This perception was quantified shortly afterwards in an American survey, showing that health services received 90% of federal investments in health and influenced only 11% of mortality.⁶

Health Promotion recognized in the Social Determinants of Health (DSS) the foundation on which to base all other actions aimed at truly generating health, since preventive actions act on the disease, keeping the conditions that favor its emergence unchanged, that is, the DSS. Health Promotion, on the other hand, seeks to empower individuals and communities to recognize and modify their DSS in a sustainable way, generating health as a right rather than a consumer good. It is essential to recognize how DSS direct lifestyles, established in the social networks of which each person is a part in a given socioeconomic context. Thus, simply demanding a healthy lifestyle from someone immersed in an unfavorable social condition constitutes victim blaming. Health Promotion is oriented towards global well-being, requiring coordination of actions between different sectors of society, transcending health services, to guarantee peace, housing, education, food, income, a stable ecosystem, natural resources. sustainability, social justice and equity.⁷

Here, the first limit of prevention is identified, its “floor”, in the living conditions of people who are the target of any preventive action. Hart identified them as social inequalities with health consequences that can be overcome, at least in part, by the equitable distribution of health services resources. In addition to income or equity in health alone, the greater or lesser social justice present in a society, in the sense of social inequality, has been demonstrated by epidemiology in recent decades as directly related to a series of results in morbidity and mortality.⁸

Thus, the lower limit or “floor” of prevention can be overcome by Health Promotion, to the extent that investments are aimed at improving living conditions related to the environment and the context that guides lifestyles, with special attention to the reduction of income inequalities.

THE CEILING OF PREVENTION

In 1995, Jamoulle proposed a new perspective for the levels of prevention in health, adding Quaternary Prevention and relating it to the other levels previously considered (Chart 1). This update met the criticisms directed at the questionable results not only of the medicalization of life situations, but also of expanding preventive measures, providing benefits in some cases, but which are accompanied by eventually unsustainable costs, both financial and personal. It is therefore proposed to identify people who are vulnerable to iatrogenic events, to offer them ethically acceptable alternatives.⁹

Chart 1. Prevention levels in health.⁹

		Physician point of view	
		Absence of disease	Presence of disease
Patient point of view	Feels sick	Prevention I Intervention prior to disease - Health information - Genetic counseling - Vaccination - Decreasing the incidence	Prevention II Avoiding false negatives - Screening - Early diagnosis - Decreasing the prevalence
	Feels well	Prevention IV Avoiding false positives - Avoiding overmedication - Avoiding unnecessary care - Protecting the patient	Prevention III Treatment and prevention of complications - Acute and chronic treatment - Prevention of complications - Rehabilitation - Palliative care

Overdiagnosis and overtreatment are currently one of the most discussed aspects of the limits of prevention, either because of the risk of iatrogenic events or because of the unnecessary costs for health systems. Overdiagnosis differs from a false positive insofar as the detected problem actually exists in its medical definitions, just as overtreatment is not a wrongly indicated therapy. The difficulty in identifying them arises precisely because they are correct diagnoses and adequate treatments, but without benefits for the treated person even in the absence of adverse events. This, however, is only visible in long-term population statistics, never at the individual level or in the present time. Thus, preventive screening interventions that generated positive expectations at the beginning of their implementation proved to be ineffective in recent decades.¹⁰

Here, we can trace the second limit of health prevention, a “ceiling” from which preventive actions not only cease to be useful but become potentially harmful both for individuals and for society.

Although Hart analyzed Inverse Care before describing the levels of prevention and before the technologies that today allow a great diversity of screenings, he considered the role of the market as counterproductive in health, exacerbating the condition in which quality medical care is offered in inverse ratio to one's needs. The situation of excessive care was not, therefore, studied in depth by Hart, becoming a growing problem due to disease mongering: the stimulus to overmedicate in different areas of medicine to expand the market for products from the medical-pharmaceutical industry, whether for diagnostic or therapeutic interventions.

BETWEEN THE FLOOR AND THE CEILING: A SUSTAINABLE PREVENTION

Borrowing a representation created by economist Kate Raworth for sustainable economy in the 21st century, we can visualize the limits of prevention. The representation known as “Doughnut Economics”, shows infinite growth as an illusion potentially harmful to human life, since it is unsustainable and unrelated to the well-being of the people the economy is supposed to serve. The inner boundary of the donut represents our social foundations, determined by basic living conditions such as housing and access to water and food, while the outer boundary of economic development is defined by the environment, such

as air pollution or climate change. When society manages to stay within such margins, it is possible for everyone to prosper safely.¹¹

Transposing the limits of prevention to a similar model, as shown in Figure 1, we would have an area of a green circle in which preventive actions are effective in achieving what Gervaz and Péres called the task of prevention: reducing health-preventable morbidity and early mortality.¹² Beyond the limit of the circle, prevention is incapable of overcoming unfavorable social determinants when unequal living conditions make preventive measures lose their potential, or even result in the medicalization of living conditions, basically sensitive to the actions of Health Promotion. Meanwhile, beyond the limit of the circle, preventive actions lose effectiveness due to excess. When extrapolating the “ceiling” of prevention, there are risks of iatrogenics and the loss of financial sustainability of health systems with an increase in inequities. In both extremes, the Law of Inverse Care is validated: in the first, because of the lack of results, and in the second, because of excess preventive care, compromising the quality of these actions.

Finally, Hart reflects on the last item found in the summary as a corollary of the Inverse Care Law: “Market distribution of medical care by the market is a primitive and historically outdated social form, and any return to it would further exaggerate the maldistribution of medical resources”.

He acknowledged the positive results in access to quality medical services as a result of the NHS decision to withdraw PHC from the market.

This controversial proposal was initially defended by a few general practitioners (GPs), while the majority defended the doctor-person relationship should as remaining based on a financial transaction.

Prevention Excess:

- ✓ Overdiagnosis
- ✓ Overtreatment
- ✓ Overutilization
- ✓ Overmedicalization
- ✓ Diagnostic error
- ✓ Abusive use
- ✓ Disease Mongering
- ✓ Low value care

Quaternary Prevention



Figure 1. Limits of effective and sustainable prevention.

However, the abolition of this relationship qualified this relationship, and the work began to be thought and planned around the attention to a defined population, overcoming the unfair and irrational distribution of resources in the consumption relationship regulated by the market.

What he pointed out as a predictable worsening of social conditions at the time due to changes in the economic matrix is also present today with new technologies and the reduction of rights in the “uberization” of work, with a consequent loss of income and social support for families. What exacerbates the current difficulties regarding the historical moment of Hart’s article is that he wrote during the expansion of welfare states, known for the economic orientation of providing quality public services to guarantee rights such as education, health and housing and to reduce inequalities; while the present moment results from a deconstruction of these initiatives from the 1980s onwards, with the neoliberal search for a minimal state in which services in general must be offered by the private sector in consumer relations.

In this sense, Hart concluded about the NHS that:

The benefits of the health service stem for the most part from the simple and clear principles on which it was designed: a comprehensive national service, available to all, free at the time of use, with no individual contribution, and financed by taxes.

This was another observation that was later confirmed in practice, even in Brazil, where the Family Health Strategy (ESF) was recognized as a factor in reducing inequities in access to and use of health care, with improvement in the quality and satisfaction of users in relation to both traditional basic health care units and private services. In addition, the expansion of ESF reaching lower-income municipalities led to the overcoming of inequalities in health with a reduction in infant mortality, cardiovascular deaths and hospitalizations for PHC-sensitive conditions.¹³

Thus, in addition to the entire theoretical framework that started to support the premises of the Inverse Care Law, revisiting Hart’s statements serves us today, especially in Brazil, as a warning to recognize the importance of health achievements arising from its conception as a right and not a consumer good, without which the social and health inequalities still present would never be overcome, no matter how much resources are drained by ineffective and eventually harmful preventive actions.

CONFLICT OF INTERESTS

Nothing to declare.

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