# THE IMPLICATIONS OF ECONOMIC DEGROWTH ON HEALTH AND HEALTHCARE SYSTEMS

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# Abstract

This thesis researched the implications of economic degrowth on health and healthcare systems. The research was conducted through a literature review finding papers that analysed the impact of degrowth on healthcare. Degrowth is a new concept introduced in the 1970s by André Gorz and describes a new economic model where social, environmental and economic well-being are prioritised over perpetual economic growth. The findings have indicated that there are both positive and negative implications for healthcare when implementing the degrowth model. In light of the findings there are recommendations suggested. These include a shift in mentality from profit-driven over-consumption to prioritising well-being and healthy lifestyles. Challenging the prevailing capitalistic mindset of constant production and focus on resource reduction and a low-carbon economy. Redefining economic indicators to incorporate comprehensive measures of well-being, inequality, and sustainability is crucial. Integrating degrowth policies into government governance through environmental, circular economy, resource use, and health and healthcare policies ensures a holistic approach to address social, environmental, and economic challenges. Lastly, emphasising preventative and proactive care can contribute to reducing healthcare costs and promoting long-term financial sustainability and improved health outcomes. By implementing these policy recommendations, societies can pave the way towards the degrowth model and a more sustainable future.

Keywords: economic growth, degrowth, healthcare, well-being

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#### The implication of economic degrowth on health and healthcare

Economic growth is a paradigm this capitalistic society rotates around. Economic growth is defined as the phenomena of an increase in supply and demand over a period of time in a country. This is calculated by the Gross Domestic Product (GDP) and Gross National Product (GNP) (Kaldor, 1957). There are multiple factors that economic growth takes into account such as income, profit, wages, savings, investments and capital. Moreover, the evaluation of economic growth in a country necessitates consideration of additional factors such as the expansion of innovations, investments, productivity growth, and technological advancements. Positive economic growth is identified and measured through GDP per capita, unemployment levels, poverty levels and the level of inequality (Helpman, 2009). Economic growth plays a central role in the capitalistic society created over time. The dependence of growth has become a constant in daily lives and a goal for economies to achieve. Most countries strive for economic growth whether that is through technological advances, health and healthcare developments, high levels of innovations, low levels of unemployment and poverty, etc (UN, 2015). With every passing year, nations strive for more powerful and larger economies. This however raises the question of where and when the limit to this growth is, as well as what the consequences of constant economic growth can have on a country. Economic growth has been found to be a motivator for rises in social inequalities, significant environmental declines and a depletion in resources (OECD, 2014). One of the issues at hand is trying to decouple economic growth from the environmental degradation and social implications. The priority of this is highlighted by making sustainable economic growth a priority and a focus of the Sustainable Development Goals developed by the United Nations. Goal 8 of the Sustainable Development Goals (SDGs) encompasses various targets that address the decoupling of economic growth from environmental degradation, employment levels, social injustices, and education. These aspects reflect concerns raised regarding the potential adverse effects of high levels of economic growth (UN, 2015). By making economic growth one of the 17 sustainable goals of the UN makes the statement and emphasises that the importance of sustainable growth is of great importance for the economies of the world

Economic degrowth is a newly introduced concept that appeared in the 1970s by André Gorz. Degrowth comes from the French word "décroissance" which means to "decrease" or "decline". Gorz associated this term with the concept of slowing down economic growth and

its compatibility with capitalistic societies as well as challenging the concept of continuous growth (Kallis et al., 2010). The term was however only introduced more widely in 2008. Degrowth is an economic theory that advocates for reducing economic output and consumption in order to achieve ecological sustainability and social justice. Advocates of degrowth argue that the current issue at hand is the economic system being mainly based on unsustainable growth as well as there being a pressing need to develop a new economic model based on ecological limits and social well-being (Schneider, 2010). Degrowth advocates for a shift away from consumerism and materialism towards a more sustainable way of life from the use of resources to the sustainable society and economies. Supporters of degrowth argue that it is necessary to address the social and ecological crises facing humanity and that it offers a more equitable and sustainable future for all. Degrowth also argues that reducing consumption and focusing on community and cooperation could lead to improved mental health outcomes and social well-being, which are important aspects of overall health and well-being of a population (Kallis et al., 2012). While the concept of degrowth promotes a very sustainable and social outcome, it highlights not only the benefits of sustainability but also the urgency of its implementation. Degrowth advocates argue that a shift towards a more sustainable way of life could have positive impacts on public health. Some examples of the benefits of the implementation of degrowth are the decrease in air pollution and increased physical activity through alternative modes of transportation like walking and cycling. Critics argue that the model is unrealistic, would lead to economic decline and social upheaval and is too similar to austerity. They argue that the term fails to include the less developed countries and financial aspects (Buchs, 2019). Degrowth is often associated with negative languages such as the words decline, diminish. Leading many to believe that the degrowth concept can do more harm than good (Liegey & Nelson, 2020). Degrowth entails a departure from capitalist and neoliberal ideologies, aiming to establish an alternative socioeconomic system that goes beyond merely halting the pursuit of constant growth. Its primary objective is to move away from the capitalist ideologies that prevail in society. Even so, there are also criticisms on how the reduction of economic activity could have negative impacts on the availability and quality of healthcare, as well as medical research and development (Van de Pas, 2022).

Public or private, healthcare systems are at the heart of countries' economic and social systems. In many, if not most counties, the healthcare system falls under the jurisdiction of the government. For instance, in the United Kingdom (UK), healthcare and health policies

fall under the responsibility of the central government. However, there are organisations that have great influence on the healthcare systems in countries. The World Health Organisation (WHO) and National Health Service (NHS) are separate from countries' healthcare systems. Nonetheless, they influence the general healthcare system, notably the NHS in the UK with programs in place and high levels of expenditure (Grosios et al., 2010). While the degrowth model has become a more pressing topic and the future of every country and its economy relies on sustainable development, it is important to observe and study how the degrowth concept will impact different sectors. From the justice system, to the economical systems to healthcare. There are still many uncertainties around the implications of degrowth on the healthcare system that are principal to know. With this this paper will aim to shed some light on this gap in knowledge and literature with the research question: what are the implications of an economic degrowth model on health and healthcare systems?

# Method

This thesis has been carried out through a scoping literature review as well as a systematic literature review.

A systematic search was conducted to identify the papers published on google scholar that are relevant to the topic at hand. The search started on March 22<sup>nd</sup> 2023 and resulted in 21 000 results. Filters were then added to refine the results. This was done by limiting the publishing date from 2019 to 2023 and selecting only English written papers. This reduced the results to 12 900 results, 1 000 papers. The search was mainly conducted on Google Scholar with a short search of PubMed which only resulted in 9 results with the chosen search string. The search string was finalised on the 16th of March as such:

((degrowth) OR (post-growth)) AND ((healthcare) OR (health care) OR (health system\*)). The results included papers, journals, articles, books and reviews. However, there were some exclusion criterias established to ensure more refined and tailored results.

#### The exclusion and inclusion criteria

In order to find papers and tailor the results to the research question fully, key terms are to be established as well as the terms that are to be excluded from the search. The search included the following inclusion criterias: health, healthcare, degrowth, care, post-growth, green-growth and sustainab\*. The search did result in several papers that initially suited the topic however do not correspond correctly to the search. Therefore papers were excluded if they focused on: wellbeing, environmental health, Covid19, planetary health, food, colonial, agriculture, tourism and femini\*. Additionally, philosophical papers were excluded as well as book and book chapters.

After a screening of the papers on Google Scholar, the relevant papers were exported to an excel sheet. There were a total of 40 papers from Google Scholar and 1 paper from Pubmed. The process required the identification of the key words listed priorly. The abstracts were assessed for the inclusion criterias, additionally, the text was searched for key terms to clarify any uncertainties on the text's stance. This allowed a rapid but still detailed analysis of the texts.

This process was conducted over the course of a week. Once the results were sorted, a second screening of the 41 results was conducted to reduce the quantity of results as well as to

confirm that these results were in fact relevant for this study. This second round of exclusions was based on several factors which determined whether or not they were to be included. Firstly, if the papers did not mention healthcare sufficiently or did not go into depth on degrowth and healthcare's relation. Some of the papers were too medical or technical. Lastly, if the context of the healthcare section in a paper was not related to economic degrowth but rather food insecurity for example, the paper was excluded. A total of 32 papers were excluded in the second round. The final number of papers extracted from this search amounted to 7. This process is illustrated in *Figure 1*.

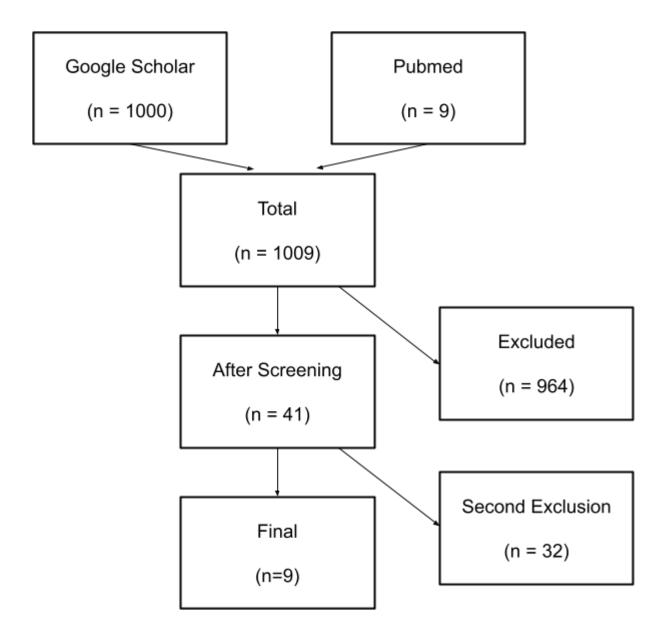


Figure 1: Flow chart

Once the initial process was completed the remaining papers were thoroughly read, to extract the key topics. The information derived from the texts were the author, published date, the direct potential effects on health and healthcare, the indirect potential effects on health and healthcare, the direct existing effects on health and healthcare, the indirect existing effects on health and healthcare, the indirect existing effects on health and healthcare, the indirect existing effects on health and healthcare, the challenges, the implication, the links to recession and any additional information that is relevant to the research question. An additional snowballing process was conducted on the remaining 7 papers. This resulted in 2 papers in addition that had not been seen previously as they are from outside the publishing date limits, published in 2015 and 2019. These two new papers were also included in the table and analysed to provide additional information and insight on the topic.

All this information has been assembled into a table that facilitates the general overview of the data extracted. The data was separated into the corresponding columns to showcase the information in an efficient and simple manner. This table can be found in the appendix. In order to make the reading of this thesis easier for the reader, a synthesised version of this data extraction table has been made with the positive and negative impact of de/growth on healthcare separated into three themes: social, financial and organisational.

# Results

The outcome of the research has led to a total of nine papers. The papers have been published between the years of 2015 and 2022 intentionally as the concept is still fairly new. The majority of the papers are theoretical with the exception of one, have based their findings on economic theories and hypotheses rather than empirical, which aligns with the lack of literature on degrowth and healthcare. The papers all discuss the relation between health and economic growth, more specifically degrowth and/or post-growth. The data extracted has been illustrated in Figure 3, found in the appendix, and categorised into 5 separate topics: direct potential effects of degrowth on healthcare, indirect potential effects of degrowth on healthcare, direct existing effects of degrowth on healthcare, indirect existing effects of degrowth on healthcare, challenges and Additional Information. An abductive approach was taken for the coding strategy, which allowed the discovery and new codes being added as the thematic analysis progressed. The search of the multiple papers has led to a string of themes throughout the results: Social, Financial and Organisational. Figure 2, shows a synthesised version of the data extraction of the papers (see Appendix A for full version). It illustrates the similar themes of the findings by positive and negative impacts on healthcare as well as by general theme. The themes have been selected to represent the main ideas found in the literature, the social column includes marginalised groups, social implications and universal healthcare. The financial aspects include Gross Domestic Product, expenditures and growth impacts. Lastly, the organisational aspects mostly include resources, availability of services, colonialism and policies.

	Social	Financial	Organisational
Positive	<ol> <li>Focusing on human needs, shifting the healthcare systems to person-centric rather than growth and profit making</li> <li>Universal healthcare can reduce reliance on economic growth however is being hindered by politics struggles</li> <li>Giving marginalised groups their power back to take back control of managing their own well-being.</li> </ol>	1. Decrease in GDP can lead to decrease in mortality rates and enhancement of the overall health of the population, quality of life 2. An increase in healthcare expenditure can increase the life expectancy in a nation	<ol> <li>Environmental policies can improve health and reduce mortality</li> <li>Advancements in hygiene and medicine have led to an increase in life expectancy</li> <li>Technological advancements have enabled the development of proactive and preventative healthcare</li> </ol>
Negative	1. Economic growth health tourism has seen an increase which hinders the attention given to the health services for the residents	<ol> <li>Without the correct social policies, a rise in GDP does not correlate with higher health averages.</li> <li>Growth measurement tools such as GDP are unsuitable for measuring healthcare.</li> <li>By decommodifying healthcare systems and reducing expenditure, it can negatively impact overall healthcare, GDP, and the growth of a country.</li> <li>Expenditure on health is growing faster than the GDP of many countries.</li> <li>Expenditure cuts to the social and health sectors have caused an increase in poverty in large economies.</li> </ol>	<ol> <li>Political and economic changes are necessary to reduce reliance on growth.</li> <li>The ineffective use of human, technological, and monetary resources is impacting the availability and the cost of healthcare.</li> <li>The geopolitical and economic power that the Global North has over the Global South calls for an end to resource extraction, which has been linked to colonial foundations.</li> <li>Commodification and the expropriation of natural resources and human labour encourage continuous growth, which is related to colonial tendencies.</li> <li>Industries are largely responsible for overconsumption and unhealthy habits, which negatively impact health.</li> </ol>

Figure 2: Results summary

### Social aspects and justice

A prominent thread that is found in the table and results mostly showcase that universal health care, improved healthcare services and a sufficient system are all reliant on correct policies and a change in the current political and economical systems. As written by Van de Pas (2022) and Walker et al. (2021), universal health care can reduce reliance on economic growth however is limited by political challenges and struggles. This has been reinforced with the findings of Missoni (2015) that without the correct policies an increase in GDP does not correlate to a higher or better health and healthcare system. This is because the relationship between economic growth and health is not direct or automatic. In order to achieve better health and a well-functioning healthcare system, specific social policies are required. Such as social inequalities and environmental factors. Pirgmaier & Steinberger (2019) echo what Van de Pas (2022) mentioned in his writings about the importance of changing the current political structures that are creating a barrier to the implementation of degrowth and how it will impact the health sector. Bliss and Kallis (2022) have made the statement that providing universal health care can allow a country to reduce its dependency and need for growth. They argue that one cannot be carried out without the other. In order to achieve degrowth in the current economic system, there are policies that need to be implemented of which universal healthcare is a must. Implementing these policies would allow economies to decelerate growth and deliver higher well-being levels. As Hickel (2020) writes, if we were to eliminate the market-oriented nature of the healthcare system and ensure universal access, it would lead to a decrease in the GDP of the healthcare sector. However, there would be a significant improvement in the accessibility of healthcare services, in turn benefiting the social aspects of growth. Our economies are still largely based on the institutional and structural system economic growth relies on, based on the capitalistic systems present today. This system encourages production, consumption and promotes inequalities.

#### **Financial aspects/resources**

Political and economical changes are a necessity to reduce the reliance on growth thus implementing the degrowth model. Missoni (2015) wrote how the fluctuations in expenditure cuts are significant when observing the impact of economic degrowth on healthcare. Expenditure cuts in the health sector have resulted in increases in poverty as well

as impacts on life expectancies. This highlights the importance welfare expenditures can have in this sector, potentially in other industries equally reliant on the expenditures. Additionally, the current inefficient use of resources whether that be human, technological or monetary resources, are all impacting the availability and cost of healthcare (Missoni, 2020). This can be due to or lead to a risk of staff shortages, inflated prices of care and improper diagnostics. The expenditure inefficiencies are at play here as well as the political and economical challenges mentioned above. Expenditure is experiencing a faster growth rate compared to the GDP of numerous countries as mentioned by Walker et al (2021). The effect of a decrease in expenditure has also been found to impact the GDP of a nation. Three papers have expressed the potential impact of changes in expenditures on health and healthcare. Missoni, Hallegatte & Hickel and Walker et al., have discussed the importance of how fluctuations in expenditure can impact health whether this is an increase in expenditure, investment or funding, which are life expectancies and health level within a population. The demand for a decrease in welfare expenditures allows to redirect resources towards more sustainable and equitable initiatives, which align with the values of degrowth and are necessary in order to achieve a degrowth model. However, as mentioned by Missoni (2015), cuts to the healthcare system funding will have negative repercussions on the sector, leading to a reduction of not only the quality of the services but equally the resources available in order to continue supplying the sector with the necessary materials to guarantee high quality care. However, Walker, Druckman and Jackson (2012) argue that the healthcare systems that prioritise profit and high turnovers are not to be assumed to be equal to a healthier population. They insist that more funding or investments are not always correlated to better care or health. The importance of the prioritise of the healthcare systems and the staff are of equal significance in order to achieve higher health averages.

Five papers have linked GDP, growth or decline, to health and healthcare. The common thread throughout the papers is how a decrease in the GDP can have positive impacts on health and healthcare systems. Hickel and Hallegatte (2020) contend that a reduction in GDP of a nation can lead to a decrease in mortality and the general improvement of the population's health. As the ideal of the standard of health changes, health becomes more of a priority. This entails a positive impact on the correlation between economic degrowth and healthcare as shown in Figure 2. While Hickel and Hallegatte's (2020) paper has highlighted the positive impact a decrease in GDP can have, they have also brought forward that when healthcare systems are not driven by profit and are made more affordable or accessible the

general well-being of the population rises. This can have a significant impact on the overall organisation of healthcare systems, by concentrating spending and effort on proactive care and the general health of patients. On the other hand, it has been found in Missoni's paper that without proper regulations, redistribution of resources, an increase in GDP would not naturally become an advantage to the health of a population.

This category highlights the potential impacts the degrowth can directly have on health and healthcare. Walker, Druckman and Jackson (2021) have illustrated the financial barriers and aspects that involve an economic degrowth and how this would impact a healthcare system. The accumulation of wealth and resources come into conflict with the welfare programs and redistributive measures governments must take when addressing social inequalities and ensuring the well-being of the population. This tension between economic priorities, social considerations reflects the current growth paradigm and the degrowth model put forward (Walker et al., 2021). It was additionally highlighted how the healthcare sector faces expectations and demands which require constant development, large investments for better care, efficiency and productivity (Walker et al., 2021). The Austerity Policy recently introduced in the United Kingdom (UK) was used as an example that shows how the financing of this sector has impacted both the quantity and quality of care provided. The government was faced with the need to provide the same level of care however with a restricted budget which led to an increase in deaths that year. Van de Pas (2022) included in his writing how the implementation of post-growth thinking will impact technologies, pharmaceuticals, and infrastructure which are all relevant to the healthcare systems, saving that they will become rare commodities. This threatens the healthcare system and would become a severe drawback of degrowth if not mitigated properly.

#### Organisational and healthcare provision

Three papers discuss the correlation between economic growth and colonial tendencies. Hickel & Hallegatte (2020), Van de Pas (2022) and Bliss & Kallis (2022), have made the connection between the need for degrowth to the lack of decommodification of human labour and natural resources perpetuated by high income countries (HIC). This is reflected in the growth patterns of HICs. There are demands to halt resource extraction by the Global North (GN) in the Global South (GS). The GN currently holds geopolitical and economical power over the GS, which can be linked with colonial tendencies according to Hickel and Hallegate (2020). This power is reflected in the resource and labour organisation present in the GS. The constant push towards growth encourages commodification and the expropriation of goods, resources and human labour. Van de Pas (2022) has found that this has colonial traits similar to Hickel and Hallegate (2020).

Pirgmaier and Steinberger (2019) have taken a more social approach, presenting the importance of integrating marginalised groups in decision making regarding their well-being and health. Without taking into account this aspect there cannot be any advancements made in an economy. As degrowth advocates for a more equitable society, the integration of ostracised groups becomes relevant to the implementation of degrowth. Technological advancements have progressed in medicine but come with significant challenges including security and privacy issues (Missoni, 2020). This is linked to the findings of Bliss & Kallis (2022), who discussed how the cost of growth in high income countries is now higher than its benefits. However, despite increases, advancements in hygiene and medicine have led to an increase in life expectancies, illustrated as a positive impact in Figure 2. This is linked to other factors that have been found to influence the life expectancy of a population such as expenditures in the healthcare system (Bliss & Kallis, 2022).

Missoni (2020) has stated that while there is an increase in the demands for healthcare services there are no appropriate services to meet the increasing demand. The cost of healthcare increased making healthcare less accessible conflicting with degrowth parameters. In another paper, he wrote that the high expenses and inefficiencies within the healthcare systems have led to excessive utilisation of healthcare services (Missoni, 2015). This reiterates the importance previously mentioned of the implementation of proper policies in order to have high quality and sustainable healthcare systems. Similarly, the constant increase in production and consumption, according to Bliss & Kallis (2022), has led to a decrease in the well-being of the population. In line with this, Missoni (2015) mentions how an increase in chronic illnesses is linked to the deterioration of the environment which is linked to the constant economic growth fueled by the increasent increases in consumption.

Indirectly, industries have significant responsibilities for promoting excessive consumption and unhealthy behaviours, which subsequently exert a detrimental influence on public health. Notably, industries such as the food and tobacco sectors play significant roles in this regard. The food industry, for instance, has been found to have the responsibility of

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contributing to the high counts of obesity, which in turn increases the risk of conditions like diabetes. Similarly, the tobacco industry specifically targets vulnerable groups, making the negative impacts of smoking on public health even worse (Missoni 2015). This promotion of consumerism is affecting the health of the population contradicting the aim of the healthy and equal society degrowth promotes. By encouraging individuals to consume harmful products not only is the habit of over-consuming favoured but the health of the population is significantly impacted.

# Discussion

#### Summary of key findings

The following section presents the analysis of the results and findings obtained from the literature review of degrowth's correlation to healthcare, shedding light on the implications and outcomes of implementing a new model that challenges conventional notions of growth and development. The data extraction has led to the finding of GDP's relation to society as a whole and in turn healthcare. An increase in the Gross Domestic Product (GDP) does not inherently imply an automatic improvement in the quality or accessibility of healthcare within a nation. However, findings suggested the decrease in GDP leads to a decrease in mortality rates. This suggests that as the economic output of a nation declines, there is a notable impact on reducing the number of deaths occurring, potentially attributable to factors such as reduced healthcare conditions, improved public health measures, or even clean water (IMF, 2018). It is important to keep in mind that the GDP measurements severely lack the proper measures to include aspects that pertain to healthcare, making this tool for growth measurement inaccurate within healthcare. Literature found that the lack of policies currently in place are a drawback to the implementation of degrowth as it would severely impact the healthcare system as well as the other sectors concerned. An additional barrier to the implementation of degrowth are the technological advancements the healthcare systems are heavily reliant on, as they increase life expectancy and ensure a more proactive healthcare system.

GDP does not provide a measurement of a country's overall standard of living or well-being, life expectancy or enrollment levels (Callen, 2008). Additionally, healthcare generates numerous externalities (diseases, costs, inequalities, etc.) that have significant social and economic implications that are not measured in GDP. GDP does not provide insights into the distribution of healthcare resources and services within a population, which are important as they play a role in the accuracy of the tool and highlight the inequalities. The tool does not capture the quality and effectiveness of healthcare services, environmental aspects such as pollution or inequalities in income (Kapoor & Debroy, 2019). Decommodifying the healthcare system and ensuring universal access is an important factor, although the GDP of the healthcare sector may decrease, there will be a

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significant enhancement in the availability of healthcare services (Hickel & Hallegate, 2020). On the other hand, literature found that expenditure cuts are a threat to the healthcare system as these cuts have already been the cause of increases in poverty (Missoni, 2015).

#### De/Growth and health & healthcare

Economic growth has long been regarded as a positive force, fostering innovation and progress in various fields, including technology and education. It has presented our world with numerous opportunities and advancements. However, it is crucial to acknowledge that relentless and unchecked growth has its drawbacks, resulting in severe consequences for both society and the planet. Despite its benefits, growth has historically facilitated practices such as slavery, land grabbing, and colonisation. Moreover, it has led to an unprecedented level of urbanisation, and accelerating social and environmental challenges. The rapid growth of economies has led to significant increases in income and wealth disparities, resulting in alarming levels of inequality. Growth has changed the mentality from a more caring society mentality to endless profit making, feeding the fatal addiction we have to growth. It is essential to understand the drawbacks and potential harm caused by uncontrolled growth. There is an urgent need for a shift towards a more sustainable and equitable approach to development, where considerations for long-term environmental sustainability, social well-being, and fairness are prioritised.

#### **Degrowth in the current model**

The implementation of a degrowth model, in its current state, poses substantial risks to the quantity and quality of health and healthcare systems. According to the definition of degrowth, in order to fulfil the model, the focus of implementing and relying on GDP has to change as well as a decrease in consumption and production becomes of utmost importance. Although experts advocate for this approach as having the most potential for the desired outcomes, the lack of suitable policies, governmental plans, and structural frameworks are significant challenges that need to be rectified in order to prevent the potential collapse of the healthcare system. Reducing resources, financial and other, from a sector that is so heavily reliant on financial support, jeopardises and puts the lives of patients at risk. Implementing a degrowth model in a healthcare system would necessitate reevaluating resource allocation strategies, ensuring optimal utilisation, reducing waste, and prioritising essential services while potentially scaling back unnecessary or

unsustainable practices. The ineffective use of human, technological, and monetary resources collectively undermines the availability and affordability of healthcare, making it essential to address these inefficiencies to improve the overall functioning of healthcare systems.

Welfare expenditures are a recurring result that was extracted from the literature. The argument that the impact of expenditure fluctuations would have on health and the healthcare sector would be of negative consequence has been brought forward. Missoni (2015), argued that by reducing expenditure in this sector, it would ultimately lead to a decrease in quality and quantity of the healthcare provided. Therefore, establishing policies designed to protect potential repercussions of degrowth such as expenditure cuts or a lack of resources available are important (Evroux et al., 2023). This standpoint can be reasonably justified due to the substantial dependence of this sector on funding and investments, which are essential for delivering adequate care to the affected population. However, healthcare is a public domain, so should be publicly funded in order to maintain it accessible and universal for all. As mentioned by Missoni (2015), an increase in healthcare expenditure is linked to an increase in life expectancy and overall health. This highlights the importance of protecting the healthcare sector from these financial fluctuations as it is one of the most susceptible sectors to these changes. While the vulnerability is notable, it is important to keep in mind the implementation of a degrowth model does not imply a direct cut to fundings to sectors that are the foundations of economies (Evroux et al., 2023).

While fluctuations in GDP and economic growth are inherently linked to healthcare, it is possible for them to undergo independent changes, whether positive or negative. The healthcare system can rely on both public and private funding. The healthcare system is highly reliant on economic factors. Whether this is for resources, research or employment. If reliant on private funding not only does it make healthcare a commodity but also less accessible to all increasing inequalities. On the other hand, public healthcare systems, while more accessible and affordable, become at risk that fluctuations in economic growth can heavily impact its welfare and funding. To address this issue, governments must adopt strategies that, while decelerating growth, simultaneously decrease subsidies in other sectors to ensure that the expenditure in the healthcare sector is not significantly impacted or at risk. It is imperative to thoroughly consider and evaluate the less apparent yet potentially consequential adverse consequences when formulating and implementing

supportive policies for industries. Furthermore, directing government support towards the same activities poses a certain degree of risk for overcapacity in crucial technological sectors (OECD, 1991).

Increase and prioritising funding would enable healthcare providers to not only expand the scope of care but also maintain and enhance its quality to a superior standard. Funding the healthcare sector should be a priority for governments and ensure its stability, quality and quantity. Furthermore, this would facilitate the necessary research efforts aimed at combating illnesses, as well as the maintenance of state-of-the-art medical machinery for healthcare facilities. Industries are constantly promoting consumption and increasing their production. This not only encourages growth but also incites it. Going against the parameters of the degrowth concept, these industries and corporations are liable and are an additional barrier to the implementation of degrowth. Moreover, considering the health consequences directly associated with these industries, it not only raises ethical concerns but also presents a significant obstacle to addressing the imperative of improving population health.

### Reprioritization

Cutting expenditure, investments or spending in sectors such as the healthcare system poses a significant threat, one that would be detrimental to not only the system but also the economic sector. The importance of this topic has been recently discussed at an EU conference in May 2023 titled: Beyond Growth. The conference addressed how the current structure promotes the mindset as well as guiding economic thinking with the thinking that infinite growth is always possible. This instigated financial instability, spurred the climate crisis and legitimised austerity. Austerity here, refers to a period of fiscal discipline characterised by governments implementing substantial reductions in public expenditure with the aim of mitigating public debt (Cooper & Whyte, 2017). In short, austerity helps bring financial health back to governments. Tim Jackson, Professor at University of Surrey and Director of CUSP, was a speaker who addressed the relation between economic growth and healthcare, more specifically a post-growth society and its influences on healthcare systems. He highlighted how healthcare is the foundation of prosperity and the "blueprint" for a post-growth world (Jackson, 2023). Jackson also addressed the importance of how capitalism has prioritised profit over well-being and health. Pirgmaier & Steinberger and

Missoni have discussed this aspect of growth and how the current system is obstructing the operation of healthcare systems. The current misplacement of priorities and skewed mindset present a hindrance to the implementation of a degrowth model. Consequently, a fundamental change and shift of these priorities and the establishment of an appropriate support system are necessary.

There is a discussion amongst politicians, economists and degrowth advocates about the relation between degrowth and austerity. It is often suggested that austerity and degrowth are linked and similar in some characteristics. However, the notion of austerity aligns with the mentality of pursuing economic growth. There is a discourse about the effects of decreasing consumption in order to achieve a higher surplus and therefore produce more. This is in line with the growth patterns as well as austerity which is frequently used when discussing economic growth. Degrowth is often confused with austerity. While austerity focuses on economic stability, welfare cuts and short-term solutions, degrowth prioritises a more equitable distribution of resources, social equality and questioning the growth mind-set (Schmelzer & Vansintjan, 2022). As the degrowth model suggests, the prioritisation of well-being can be largely beneficial to healthcare systems.

Given the unfamiliarity of the degrowth concept and the limited examples of its implementation in contemporary society, it remains more of a hypothesis at present. Considering the current heavy dependence on economic growth, expansion, consumption, and production, the practical application of degrowth in current society is not realistic. Implementing degrowth principles in the healthcare system within today's economy would potentially jeopardise the well-being and health of the population. Consequently, degrowth exists as more of an idea or hypothesis until the necessary measures, such as generating and implementing appropriate policies, are undertaken to ensure degrowth can be executed without detrimental consequences. It is crucial to develop public policies across all sectors with careful consideration of their implications for health (Missoni, 2015). Nonetheless there have been instances where the degrowth model was applied. The Netherlands applied the donut economics after the Covid19 pandemic in its capital Amsterdam in order to recuperate from the economic and health crisis of the pandemic. Another example is the four working day week. Countries such as Australia, Ireland and Spain trialed this experimental working model and found improvements in working efficiency as well as their general wellbeing (Rosane, 2023).

#### **Policy recommendations**

In order to facilitate the implementation of degrowth models there is an urgent need to make adjustments in our society, in order to avoid detrimental consequences. For this there are several policy recommendations that can be suggested to not only facilitate the implementation of degrowth but potentially accelerate the fulfilment of degrowth. Firstly, there is an urgent need to shift the mentality from profit and over-consumption to prioritising well-being and promoting healthy lifestyles. By promoting the importance of well-being and a more balanced lifestyle it can aid in the shift of measuring growth from participation in the workforce to the quantity of leisure time. Another recommendation is the overarching capitalistic mindset that prevails in societies. Changing the mindset of constant production and consumption can help facilitate the implementation of degrowth, as it aligns with the notion of reducing resource use and a low carbon economy. Redefining economic indicators, as mentioned previously, is an important recommendation as the Gross Domestic Product (GDP) indicators do not currently include many aspects of health and well-being. This can be achieved by incorporating broader indicators of well-being, inequalities and sustainability. Changing the parameters of growth can accelerate the implementation of degrowth. Integrating degrowth policies into government governance. This includes, environmental policies, circular economy policies, resource use policies and health and healthcare policies. This ensures that the social, environmental and economical challenges are taken into account and addressed, laying the foundation for a more sustainable governance structure. Lastly, a policy recommendation that should be implemented is emphasising preventative and proactive care. This can help reduce the overuse and expense healthcare imposes on economies and be beneficial in the long run financially, sustainability and health wise.

#### Limitations

It is important to acknowledge the limitations of the findings and discussion. Firstly, the term degrowth has only recently been created and its implementation is still on a hypothetical level. This means that the amount of knowledge on the actual implementation of degrowth on society and economies is still unclear and lacks proper support and evidence. There are many examples and papers written on how degrowth can impact the world, yet there is still a lack of attention on if it is currently a plausible solution. Furthermore, the link between healthcare and degrowth is still under-researched. There are few papers that discuss this correlation which could lead the discussions and conclusions drawn, weak in their claims. The date limitations set are a potential barrier to the research. The dates are during and post-pandemic which changed society, economies and cultures significantly in itself, meaning the pandemic could have impacted the information on degrowth's application the papers wrote. Lastly, there are many additional recommendations that can be made to ensure the degrowth model becomes a custom in economies in the future which were not listed. This aspect holds immense potential for future research, particularly as degrowth literature and research expands.

It is foreseeable and anticipated that, within a span of a few years, as the imperative for implementing degrowth-like models becomes urgent, substantial evidence will emerge concerning the impacts of degrowth on various sectors, particularly the healthcare system and society in general.

# Conclusion

It is evident that the relationship between economic growth and healthcare outcomes are complex and nuanced. Economic growth serves as an important factor for development and progress, driving innovation, job creation, and improved living standards, but it must be pursued with careful consideration for its environmental impact, social equity, and long-term sustainability. While economic growth has brought about advancements and opportunities, it is important to recognize its negative consequences, such as inequality, environmental degradation, and social challenges. The relentless pursuit of growth has historically enabled harmful practices and shifted societal focus towards profit over well-being (Hickel & Hallegate, 2020). To address these issues, a shift towards sustainable and equitable development is urgently needed, prioritising long-term environmental sustainability, social well-being, and fairness. The concept of perpetual growth and over consumption and production brought to light the need for a new model: degrowth. Degrowth is an economic and social concept that advocates for reducing overall resource consumption and challenging the pursuit of endless economic growth. It aims at prioritising well-being, equity, and ecological sustainability (Kaldor, 1957). However, before implementing degrowth, it is important to assess the impact this model can have on different sectors from the financial, to the social. Notably, the healthcare sector, which relies significantly on economic growth and input. This brought to light the research question: What are the implications of economic degrowth on health and healthcare systems? Literature highlighted the many nuances between degrowth and healthcare. The implementation of a degrowth model in healthcare systems poses risks to health and healthcare due to the need to change the parameters on GDP and economic growth, decrease consumption and production, and the lack of suitable policies and frameworks. There is a need for resource allocation strategies and addressing inefficiencies to ensure availability and affordability of healthcare (Missoni, 2015). Degrowth emphasises the importance of social equality and equity which are currently not ensured in healthcare systems. Rising levels of production and consumption have adverse effects on well-being and the preservation of healthy environments (Bliss & Kallis, 2022). The need to mitigate the constant growth and capitalistic mentality is directly linked to the social well-being and health of the population. However, it was illustrated in the findings that implementing a

degrowth model on society today, would pose a substantial challenge but especially a risk to the health and well-being of the population. The healthcare system has become very reliant on economic growth. This is also relevant for economic growth as healthcare is the backbone to an economy and would potentially collapse without it (Boyce & Brown, 2019). In order to successfully implement the degrowth model on an economy without risking the health of the population or the collapse of the economy, policies have been brought forward. Firstly, shifting societal values from profit-driven over-consumption to prioritising well-being and healthy lifestyles can aid in measuring growth based on leisure time rather than workforce participation. Thus in turn aligning with degrowth and prioritising health and well-being. Additionally, challenging the prevailing capitalistic mindset of constant production and consumption in order to achieve the goal of reducing resource use and promoting a low-carbon economy as the degrowth model suggests. Another policy identified is redefining economic indicators to incorporate broader measures of well-being, inequality, and sustainability. Integrating degrowth policies into government governance, encompassing environmental, circular economy, resource use, and health and healthcare policies. As well as addressing social, environmental, and economic challenges present in the society. Lastly, emphasising preventative and proactive care can reduce healthcare costs and promote long-term financial sustainability and improved health outcomes. The implications of economic degrowth on health and healthcare are significant however with initiative, and the proper support and policies the degrowth concept can prevail and benefit the healthcare system in the long-run.

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# Appendix A

Name	Author(s)		Indirect potential effects		Direct existing effects	Indirect existing effects	Challenges	Additional Information
					1. There is a constant increase in demand for			
		1			healthcare as well			
		1			as inappropriate			
		, 1	1	1	offers of health			
		, 1			services available			
		, 1			2. Advanced			
		, 1			nations are			
		1			experiencing a			
		, 1			revolution in			
		, 1			healthcare through		1. The systemic nature	
		, 1		1	novel methods and		of continued economic	
		, 1		1	technologies that		0	1. The unsustainable
		, 1			shift from a		1 21 1	nature of healthcare is
		, 1			reactive,	Technological	0	often linked to the
		1			hospital-based			disproportionate focus on
		, 1			model towards a	- creating proactive and	-	specialised medical care,
Health workers		, 1			proactive,	preventative healthcare	1 5	the ineffective use of
and sustainable		, 1			preventive, and	- health comes with	÷	human, technological and
systems for health		, 1			person-centric	many challenges	· ·	monetary resources all
1 0	Eduardo				approach that	(security, privacy,	*	impacting the availability
society	Missoni	2020		<u> </u>	emphasises	efficiency, etc.)	oversight.	and cost of healthcare.

l								
/		- , (	ſ!		well-being over			
1	1	1	1	1	illness.			
Welfare systems without economic growth: A review of the challenges and next steps for the field	Christine Corlet Walker, Angela Druckman , Tim Jackson		1. Welfare expenditure more specifically expenditure on health is growing faster than the GDP of many	<ol> <li>The financing of healthcare systems can impact quality and quantity of healthcare (eg: austerity policy in UK) (resources/financing)</li> <li>Healthcare systems that aim to achieve a more optimal balance between social and financial factors, address market failures, and leverage the innovative and socially-oriented investment capabilities of government agencies and public research centres, could present a successful future</li> </ol>			<ol> <li>Become imperative to promote 'just transition', which is in other words international solidarity</li> <li>To eliminate the structural and institutional reliance on economic growth, a significant political and economic change is necessary</li> </ol>	
limits and still	Jason Hickel, Stéphane Hallegatte		<ol> <li>By decommodifying healthcare systems and reduce expenditure it can impact the overall healthcare arrangement</li> <li>Environmental policies can improve health and reduce mortality</li> </ol>		1. The decrease of GDP could lead to a reduction in mortality and improvement of the population's health		1. By decommodifying healthcare systems and reduce expenditure it can impact the overall healthcare arrangement as well as it impacting the GDP and growth of a country	capitalism, we would be able to bring resource use back within

								economical power. The degrowth pressure on the GN is then also based on anti-colonial foundations 3. Degrowth scholars and activists call for an end to extractivism in the Global South, otherwise put degrowth can be seen as a demand for deocolonialism
The Need for Transformation to a Post-Growth Health and Economic System	Remco van de Pas		solidarity 2. To eliminate the structural and institutional reliance on economic growth, a significant political	<ol> <li>Post-growth could have the following impacts: technologies, pharmaceuticals, and infrastructure will be less available (UHC)</li> <li>Resource limits can mean that healthcare systems become less convoluted (resources)</li> </ol>			1. Growth measurement tools such as GDP are unsuitable measurement tools for healthcare	1. The term 'growth' has transformed into a form of propaganda this is due to the increase elites, commodifications and the expropriation of natural resources and human labour. This can be linked to colonial tendencies
Degrowth	Sam Bliss and Giorgos Kallis	2022			1. An increase in production and consumption will lead to a decrease	1. Life expectancies have increased with improvements in hygiene and medicine		<ol> <li>Increasing income does not equal to higher happiness in nations</li> <li>Degrowth advocates are</li> </ol>

					in well-being and healthy environments 2. Providing universal health care will reduce a country's dependency on growth	2. Ecological economists say that the cost of growth in high income countries is now higher that the benefits it can produce		pushing for environmental justice and to reduce extraction in the Global South→ decolonialism
U			humans directly rather than through growth and profit-making 2. By shifting from biophysical drivers and complicated growth towards changing the	and nutritious food, is crucial in guiding research and establishing alternative institutions. This approach shifts the focus	1. The political struggle between those who lack power or resources and require more, and those who currently possess power, control resources can influence the achievement of universal well-being		<ol> <li>Healthcare is not structurally inclined towards growth (expansion)</li> <li>The issue in this capitalistic environment is not the lack of alternatives to provisionments but more that there is an absence of help and authority to execute them.</li> </ol>	
5	Jean-Philip pe Boussemart	2020			1. Health, quality of life and productivity all impact and add to		1. Health has been found to play a role in the human development	1. It has been argued that while health impacts economic results, economic

sustainability	, Hervé Leleu, Zhiyang Shen & Vivian Valdmanis			the country's GDP growth		capital	outcomes are also significant for health
Degrowth and health: local action should be linked to global policies and governance for health	Eduardo Missoni	<ol> <li>It is necessary for social movements that span over multiple nations to come together and advocate for the prioritisation of health and equity objectives in policy-making across all sectors and at every level</li> <li>It has been found that an increase in healthcare expenditure can increase the life expectancy in a nation</li> </ol>	<ol> <li>Reducing production and consumption can increase health and well-being</li> <li>Trade liberalisation can impact health through: environmental deterioration, separation of public wealth, lowered human security and privatisation of healthcare</li> <li>Enhancing the efficiency of healthcare systems can be achieved by adopting a more mindful and prudent approach towards the use of the technological resources and the</li> </ol>	the environment, which stems from unchecked economic expansion fueled by the constant	<ol> <li>A rise in GDP without proper social policies and just distribution among the population does not have any health advantages</li> <li>With economic growth health tourism has seen an increase which hinders the attention given to the health services for the residents</li> <li>Industries are largely responsible for the over-consumption and unhealthy habits: such as the food and tobacco industries. The former being responsible for high rates of obesity which can lead to diabetes</li> </ol>	<ol> <li>Achieving good health will necessitate the collaboration of transnational social movements in advocating for the prioritisation of health and equity objectives in policy-making across all sectors and at every level</li> <li>It seems unlikely that post-growth concepts can be implemented solely by changing individual behaviour without proper policies at both national and international levels</li> </ol>	

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	, '	1	1	3. Excessive	and the latter for	
	· '		1	utilisation of	targeting vulnerable	
	· '		l l	healthcare services	groups	
	· '		1	plays a significant		
	· '		1	role in the		
	· '		1	exorbitant		
	· '		1	expenses and		
	· '		1	inefficiencies		
	· '		1	within healthcare		
	<sup> </sup>			systems		