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Health, Wellbeing, and Sustainable Development in the United Kingdom: A Critical Examination Report

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Introduction

The global imperative of sustainable development is now at the forefront, addressing various challenges like environmental degradation, social disparities, and economic inequalities. Increasing international awareness of these issues, along with concerns about poverty, inequality, and future generations' well-being, has propelled sustainability to the forefront (Javanmardi, Liu and Xie, 2023). The United Nations' 17 Sustainable Development Goals (SDGs) provide a roadmap for collective action towards a fairer, more resilient, and more

sustainable world. Health is central to SDG 3, which aims to ensure healthy lives and promote well-being for all ages, with nearly all other goals either directly related to health or contributing to it indirectly (WHO, 2024). Despite widespread stakeholder support and numerous initiatives, challenges persist in fully implementing this transformative agenda due to political influences, power dynamics, and resistance to change (Fukuda-Parr, 2022).

Tasked with examining the current state of health, well-being, and sustainable development within the United Kingdom's healthcare sector, this report aims to unravel the intricate relationship between these essential components and propose pathways for transformative change. Health and well-being extend beyond the mere absence of illness, encompassing physical, mental, and social dimensions (NHS, 2021). The COVID-19 pandemic has highlighted the interconnectedness of individual health, societal resilience, and global interdependence, emphasising the need for improved healthcare system preparedness and resilience (Pescaroli et al., 2021). In light of these challenges, this report explores sustainable development in detail, questioning existing paradigms, and proposing strategies to promote positive health outcomes and inclusive prosperity.

Brief Discussion of the 17 Sustainable Development Goals

A concise overview of the 17 Sustainable Development Goals (SDGs) underscores the multifaceted nature of sustainability, encompassing the preservation of present and future values in both human societies and the environment (Becker, 2023; Javanmardi, Liu and Xie, 2023). Introduced in 2015 as part of the 2030 Agenda for Sustainable Development, the SDGs serve as a comprehensive roadmap for global initiatives. Addressing a wide spectrum of issues ranging from poverty alleviation to climate action, these goals advocate for an integrated approach to sustainable development, recognizing the interplay between economic, social, and environmental dynamics (United Nations, 2017). Despite inherent compromises, the SDGs represent a forward-looking mandate for societal transformation, fostering a collective commitment across all sectors toward achieving impactful and enduring change (Fukuda-Parr, 2023).

Central to the SDGs is a commitment to inclusivity and equity. Goal 1 focuses on eradicating poverty, providing social protection for the vulnerable, and ensuring support for those affected by conflicts and disasters (United Nations, 2017). Similarly, Goal 2 targets hunger eradication

and sustainable agriculture, aiming for equitable access to land, technology, and markets (United Nations, 2017). Goal 3 addresses a range of health issues, including maternal and child health, infectious diseases, and mental health, striving for universal health coverage and the prevention of substance abuse (World Bank, 2017). Education, highlighted in Goal 4, is crucial for skill development and societal contribution (United Nations, 2017). Gender equality (Goal 5) aims to eliminate discrimination and violence against women, ensuring access to employment and reproductive health (Our World in Data team, 2023). Goal 6 targets clean water and sanitation, recognising their role in health and poverty reduction (United Nations, 2017). Energy access (Goal 7) and economic growth (Goal 8) are essential for sustainable development (UNICEF, 2024).

Infrastructure resilience and industrial sustainability are emphasised in Goal 9 (United Nations, 2017). Goal 10 addresses income and societal inequalities (United Nations, 2017). Urban sustainability is crucial to Goal 11, given the growing urban population (United Nations, 2016). Sustainable consumption (Goal 12) aims to reduce waste and promote efficient resource use (The World Bank Group, 2017). Climate action (Goal 13) is imperative for combating climate change's adverse effects (UNOOSA, 2024). Goal 14 focuses on marine conservation, while Goal 15 targets terrestrial ecosystem preservation (Virto, 2018; UNODC, 2024). Promoting peace, justice, and inclusive institutions is essential in Goal 16 (United Nations, 2016). Lastly, Goal 17 recognises the need to address unsustainable consumption and production patterns to combat environmental degradation (RTF, 2022). These goals collectively strive for a more equitable, resilient, and sustainable future.

Detailed Discussion of Selected SDGs

Among the 17 SDGs established by the United Nations, three key goals which stood out were chosen: SDG 3, which focuses on ensuring good health and well-being for all; SDG 4, which aims to ensure inclusive and quality education for all (United Nations, 2017); and SDG 13, which targets urgent action to combat climate change and its impacts (Fuso et al., 2019).

Goal 3: Good Health and Wellbeing:

Goal 3, "Good Health and Wellbeing," endeavours to ensure universal access to healthcare and promote overall well-being across all demographics (United Nations, 2017). As a cornerstone of

sustainable development, it recognizes health as a fundamental human right crucial for societal progress. The World Health Organization (WHO) asserts that every person deserves the highest possible standard of health (WHO, 2017). SDG 3 addresses a wide range of health issues, including maternal, newborn, child, and adolescent health, along with communicable and non-communicable diseases. It emphasises the importance of universal health coverage and affordable access to essential medicines and vaccines. By prioritising key health objectives, the goal aims to reduce suffering and prevent premature deaths, particularly in regions burdened by diseases and among marginalised populations (UNICEF, 2024).

Targets of Sustainable Development Goal 3 include:

Sustainable Development Goal 3 encompasses various targets aimed at improving global health and well-being. These targets include reducing maternal mortality rates, decreasing neonatal and child mortality rates, combating infectious diseases, addressing noncommunicable diseases, tackling substance abuse, enhancing road safety, ensuring access to sexual and reproductive health services, promoting universal health coverage, and fostering environmental health (WHO, 2024).

Goal 4: Quality Education:

Goal 4, "Quality Education," holds a pivotal role in sustainable development, recognizing education as a driver of social and economic advancement (United Nations, 2017). A well-educated populace is better equipped to tackle challenges, spur innovation, and participate actively in societal matters. Education serves as a powerful tool for bridging disparities in access and quality, with broad-reaching effects across various demographics. It advocates for universal access to high-quality education, especially targeting marginalised groups like impoverished children, rural dwellers, individuals with disabilities, indigenous communities, and refugee children. The significance of Goal 4 lies in its transformative influence on other SDGs, as education is fundamental to breaking the poverty cycle and empowering individuals to contribute positively to their communities (UNICEF, 2024).

Targets of Sustainable Development Goal 4 include:

Sustainable Development Goal 4 encompasses a range of targets aimed at enhancing education worldwide. These targets include ensuring universal access to primary and secondary

education, providing free, equitable, and quality education, investing in early childhood development and pre-primary education, promoting equal access to technical and vocational education, facilitating the acquisition of relevant skills for decent work and entrepreneurship, advancing gender equality in education, achieving universal youth literacy, and promoting education for sustainable development and global citizenship (UNESCO, 2021).

Goal 13: Climate Action:

Goal 13, "Climate Action," acknowledges the pressing need to tackle climate change and its broad-reaching effects on health and well-being (United Nations, 2017). With climate-related health risks on the rise, Goal 13 is vital for bolstering resilience, reducing adverse health impacts, and preserving the environment for future generations. Climate action is intricately intertwined with other SDGs, supporting endeavours for energy security, clean air and water, sustainable urban development, and responsible food production. Moreover, it contributes to biodiversity conservation and national security (Fuso et al., 2019). Goal 13 calls for immediate measures to combat climate change, integrate climate considerations into national policies, and enhance education and awareness on climate-related issues (United Nations, 2016).

Targets of Sustainable Development Goal 13 include:

Sustainable Development Goal 13 outlines several key targets aimed at addressing climate change and its impacts. These targets include strengthening resilience to climate-related hazards and natural disasters, integrating climate change measures into national policies and planning, and enhancing education, awareness, and institutional capacity for climate change mitigation and adaptation (United Nations, 2017).

United Kingdom Initiatives in meeting these 3 SDGs

Goal 3: Good Health and Wellbeing:

To achieve the targets under Goal 3, the United Kingdom has to take several actions, including measures for tobacco control, ensuring access to medicines and vaccines, strengthening health financing and workforce, and enhancing emergency preparedness (WHO, 2024).

The United Kingdom has demonstrated notable advancements towards achieving Goal 3, as evidenced by improvements in life expectancy, reductions in maternal mortality rates, and increased accessibility to healthcare (Public Health England, 2020). Over time, there has been a steady increase in life expectancy, with figures rising from 78.5 years for males and 82.5 years for females in 2021 to 79.0 years for males and 82.9 years for females in 2022. Moreover, maternal mortality rates have seen a decline (ONS, 2024). Key to this progress is the robust healthcare system, notably the National Health Service (NHS), which emphasises preventive care, widespread immunisation, and effective management of communicable diseases. NHS reforms target the optimization of healthcare delivery, aiming to reduce waiting times, enhance efficiency, and improve patient outcomes. The 10-year plan sets ambitious goals such as preventing 150,000 heart attacks, strokes, and dementia cases and improving access to mental health services for both adults and children (Department of Health and Social Care, 2019). Through the integration of technology and service efficiency enhancements, the NHS ensures timely healthcare access, thereby contributing to improved health and well-being outcomes (NHS, 2007).

However, despite the successful COVID-19 vaccination campaign, vaccination coverage rates in the United Kingdom remain concerning. The country failed to meet the WHO's target of achieving 95% coverage for routine childhood immunizations for the third consecutive year in 2020/21, as outlined in Target 3.b (Medicines and vaccines) of SDG Goal 3. The closure of schools and suspension of school immunisation programs during the pandemic led to a significant drop in the second dose coverage of the HPV vaccine among females aged 13–14. Efforts to recover coverage levels have not fully restored pre-pandemic rates (UN Global Compact Network United Kingdom, 2024).

The following are initiatives introduced in the UK for this goal

Mental Health Awareness Campaigns:

Efforts like the "Time to Change" campaign aim to combat mental health stigma. Launched in 2009, Time to Change is a social marketing initiative striving to alter perceptions and encourage dialogue on mental health issues. It seeks to raise awareness about common mental health problems and promote public involvement in addressing these issues (González-Sanguino et al., 2019).

Public Health Education Programmes:

Public health education initiatives, both within educational institutions and communities, are crucial for empowering individuals to make informed health choices. Public Health England collaborates with national and local government, the NHS, and the public, emphasising service delivery, public health leadership, and workforce development (Department of Health, 2011). Programs like "Change4Life" offer resources and guidance on healthy living, contributing to preventative measures and overall health enhancement. "Change4Life," England's inaugural national social marketing campaign against obesity, leverages academic and commercial expertise, behaviour change theories, and successful campaign strategies to address rising childhood obesity rates (The NSMC, 2024). Despite these endeavours, childhood obesity rates persist, with a notable portion of children in England being overweight or obese (Target 3.4) (UN Global Compact Network United Kingdom, 2024).

Goal 4: Quality Education:

Three methods to achieve this goal include creating effective learning environments, offering scholarships, and supporting teachers and educators (UNESCO, 2021).

The following are initiatives introduced in the UK for this goal

Education for Sustainable Development (ESD) Initiatives:

The United Kingdom showcases its dedication to Education for Sustainable Development by integrating sustainable principles into school curricula (UNESCO, 2013). ESD teaches decision-making with regard to the long-term economy, ecology, and equity. Initiatives like the Sustainable Schools Programme and Eco-Schools promote environmental education, fostering students' sense of responsibility and sustainability (Higgins et al., 2013).

Access to Digital Learning Resources:

The United Kingdom's government prioritises digital learning resources such as online platforms and educational technologies to address educational disparities (Department for Education, 2019). Programs like the "EdTech Strategy" strive to enrich learning opportunities, promoting equitable access to quality education across socio-economic groups. EdTech is crucial in a robust national technical and vocational education and training system, particularly underscored during the COVID-19 pandemic (The World Bank Group, 2021).

Inclusive Education Policies:

Inclusive education policies, as outlined in the "SEND Code of Practice," prioritise meeting diverse learning needs. The code asserts every child's entitlement to a suitable education, necessitating schools to identify and address Special Educational Needs and Disabilities (SEND) by fostering inclusive learning environments (Department for Education, 2015).

The United Kingdom shows commitment to quality education through curriculum enhancements, teacher training, and technology integration (Department for Education, 2019). However, challenges persist, including educational disparities due to socio-economic factors, regional differences, and evolving workforce demands. Child labour rates in the UK rose by 34% in the past year, exacerbating the educational attainment gap, particularly worsened by Covid-19 (Targets 4.2) (UN Global Compact Network United Kingdom, 2024).

Goal 13: Climate Action:

Challenges like extreme weather, air pollution, and infectious diseases significantly affect public health. The United Kingdom's Climate Change Act of 2008 set pioneering carbon emission reduction targets, aiming for a 34% cut by 2020 and at least 80% by 2050 (Foxon and Pearson, 2014). These commitments, coupled with efforts to transition to renewable energy and implement green infrastructure, directly improve health outcomes by enhancing climate resilience (UKHSA, 2021). Implementation of targets includes mobilising \$100 billion annually by 2020 for developing countries and enhancing climate planning in vulnerable nations (UNEP, 2024).

The following are initiatives introduced in the United kingdom for this goal

National Clean Air Strategy:

The United Kingdom's National Clean Air Strategy prioritises combating air pollution, which is vital for health and climate action. By setting ambitious emission reduction goals, the strategy aims to safeguard public health and mitigate climate-related risks (Department for Environment, Food and Rural Affairs, 2019). Yet, projections suggest the United Kingdom may exceed upcoming carbon budgets, necessitating more cohesive approaches to climate action (Target 13.2) (UN Global Compact Network United Kingdom, 2024).

Sustainable Transportation Policies:

Promoting cycling infrastructure and public transport reduces carbon emissions and encourages active lifestyles. Initiatives like the "Cycling and Walking Investment Strategy" offer eco-friendly transportation options, positively impacting climate and public health (Department for Transport, 2017). Bicycles, being human-powered, emit no pollution, cutting back on fuel consumption compared to vehicles (Hallisey, 2022).

Climate Resilience in Healthcare Infrastructure:

In October 2020, the NHS pledged to achieve net zero carbon emissions, launching the National Programme for a Greener NHS. With staff support, the NHS Net Zero Strategy outlines actions to tackle climate change and enhance resilience in healthcare infrastructure (UKHSA, 2021). Sustainable building standards and resilient infrastructure, as per the "Climate Resilience in Health and Care Framework," ensure healthcare services remain robust amid climate change impacts.

Introduction to the Selected City: Manchester

Manchester, a bustling city located in the northwest of England, has been chosen for its historical significance, dynamic urban environment, and diverse population makeup. Renowned for its industrial heritage and cultural contributions, Manchester offers a compelling case study due to its unique socio-economic characteristics and ongoing endeavours towards sustainable development. As a prominent city and metropolitan borough within Greater Manchester, it boasts a population of approximately 514,414 residents as of 2013, situated in the second-most populous urban area of the United Kingdom, with around 2.55 million inhabitants (Rodgers, 2024). The city's demographic diversity mirrors global migration trends, presenting both challenges and opportunities in addressing health, education, and environmental sustainability (Janker and Thieme, 2021). Moreover, Manchester's dedication to innovation, evident in its flourishing technological and cultural sectors, positions it as a potential leader in realising the Sustainable Development Goals (SDGs). Manchester's demographic makeup reflects a blend of various socio-economic backgrounds, encapsulating the broader issues encountered by urban areas striving for sustainable development. The city's commitment to tackling these challenges through localised policies and initiatives offers a valuable perspective for assessing the efficacy of sustainable development goals within a practical context (Manchester City Council, 2021).

Reviewing the Status, Local Policies and Statistics of Manchester in meeting the 3 SDGs

Goal 3: Good Health and Wellbeing:

Manchester's healthcare system is recognised for its comprehensive range of social and welfare services, with particular emphasis on health services and medical education (Rodgers, 2024). The city has spearheaded public health campaigns, such as "Healthy Manchester," engaging communities to address health inequalities through promoting healthy lifestyles and mental well-being (NHS Manchester, 2020). Various initiatives, including adult social care, learning disabilities, mental health support, and health and care integration, highlight Manchester's commitment to holistic well-being (Manchester City Council, 2018). The "2020-2025 Healthy Weight Strategy" targets unhealthy weight patterns prevalent in Manchester, where rates of overweight and obesity exceed the national average (NHS Manchester, 2020). By fostering community involvement, these efforts foster a health-conscious culture in line with Goal 3's objectives.

Examining healthcare access and outcomes reveals disparities within Manchester. The city exhibits some of England's lowest life expectancy rates, with significant gaps between deprived and affluent areas. Children and adults in deprived areas face higher risks of obesity and chronic conditions like COPD, heart disease, stroke, or diabetes (Regan, Ofori, and Bendel, 2021). Mental illness prevalence surpasses national averages, with a substantial portion of Manchester adults relying on antidepressant medication (Manchester City Council, 2022). Manchester's healthcare infrastructure, anchored by institutions like the Manchester University NHS Foundation Trust, plays a crucial role in delivering accessible and quality healthcare services (Manchester University NHS Foundation Trust, 2024).

Goal 4: Quality Education:

Manchester's dedication to quality education is apparent through its localised education policies, such as "Education for a Fairer Manchester." This initiative prioritises inclusivity, aiming to diminish educational disparities and enhance opportunities for all students. The 'Our Manchester' Strategy underscores the city's vision for global excellence by 2025, highlighting the importance of supporting its citizens, especially children, young people, and families, to realise their potential amidst improving economic, cultural, and social landscapes. This strategy outlines interventions and services to ensure early identification and effective addressing of the

needs of all children and young people, promoting attendance and minimising exclusions whenever feasible. It aims to facilitate individual success in education, emotional, or personal domains, aligning with Goal 4's principles of equitable and inclusive education (Manchester City Council, 2021).

According to Manchester City Council's (2021), statistical insights further illuminate educational dynamics in Manchester. Fallowfield boasts a significant student population at 54.7%, while Ardwick leads with 9,411 students, comprising 47.3% of its residents. Conversely, Didsbury West, Ancoats and Beswick, Chorlton, and Didsbury East have predominantly non-student populations, with over 80% in each ward. Notably, Didsbury West stands out with 85.2% of non-students (Manchester City Council, 2021). Educational attainment statistics reveal variations across wards, with over 70% having at least one qualification. However, disparities persist, as evidenced by Miles Platting and Newton Heath, where 29% lack qualifications. Didsbury West excels in higher qualifications, reflecting 9,396 individuals with level 4 qualifications and above (Manchester City Council, 2021). Despite competitive literacy and graduation rates, Manchester faces challenges aligned with national education goals. Data from the January 2021 school census indicate that 17.6% of pupils have Special Educational Needs and Disabilities (SEND), comprising 13.4% supported at the SEN Support level in mainstream schools and 4.3% with an Education, Health, and Care (EHC) plan. Of those with an EHC plan, 52.7% attend mainstream settings, while 47.3% are enrolled in special schools (Manchester City Council, 2024).

Goal 13: Climate Action:

Manchester demonstrates proactive engagement in global climate action through various initiatives aimed at mitigating environmental impacts. The "Manchester Climate Change Framework (2020-2025)" establishes ambitious targets, including achieving net-zero emissions by 2038 and reducing direct emissions by 50% by 2025. These efforts align with the urgent need emphasised in Goal 13 to combat climate change (MCCP, 2020). The city envisions a greener environment with walkable neighbourhoods, clean air, employment opportunities, affordable energy, safe cycling routes, and accessible public transport for all.

Assessing the effectiveness of Manchester's climate initiatives requires a close examination of statistical data concerning air quality and environmental impacts. In 2021, Manchester reported that air pollution contributed to approximately 5.9% of deaths, slightly exceeding the national

average of 5.5%. However, the significance of this disparity remains uncertain due to data limitations (Manchester City Council, 2023). The 2021 United Kingdom Climate Change Risk Assessment highlights flooding as a significant challenge for climate adaptation, with certain Manchester postcodes, such as M1, M3, M4, M8, M12, M19, M14, M20, and M22, deemed high-risk areas. Approximately 10,000 homes are considered vulnerable to flooding (CRA, 2021). Despite Manchester's efforts, persistent issues such as air pollution and climate change's impact on vulnerable communities necessitate ongoing attention and strategic interventions. While fatalities and severe injuries from floods are rare in the United Kingdom, the health consequences extend beyond immediate physical trauma, as indicated by the United Kingdom Health Security Agency's (UKHSA) evidence base (Manchester City Council, 2023).

Recommendations

Strengthening Mental Health Support in Schools: To address mental health challenges effectively, it is crucial to bolster support within schools, adopting a holistic approach that encompasses not only academic progress but also emotional, social, and psychological well-being (Wiedermann et al., 2023). Enhancing access to mental health professionals, conducting awareness campaigns, and providing targeted training for educators can cultivate a supportive environment. Training staff to promote mental health, prevent mental illness, and address suicide risk is explicitly recommended in the NHS Five Year Forward View for Mental Health and Public Health England's framework for public mental health leadership and workforce development (Public Health England, 2016). These efforts align with national initiatives emphasising mental health in educational settings (Department for Education, 2017).

Enhancing Community Engagement in Climate Action: Community engagement plays a pivotal role in effective climate action. Engaging communities helps individuals, organisations, and governments understand the local impact of climate change and collaboratively develop strategies that are both acceptable and effective (Yavo-Ayalon et al., 2023). Manchester should explore expanding outreach programmes, involving residents in sustainable practices, and establishing platforms for community input in climate initiatives. This collaborative approach ensures that climate policies resonate with local needs and foster a sense of shared responsibility (Grosseck, Tîru and Bran, 2018).

Investing in Sustainable Transport Infrastructure: To address climate-related issues, Manchester should prioritise investments in sustainable transport infrastructure. Measures such as expanding cycling networks, enhancing public transportation, and promoting electric vehicles can help reduce carbon emissions and encourage active, eco-friendly lifestyles (Department for Transport, 2020). Greater Manchester is among the cities that have received funding for cycling initiatives, indicating progress in sustainable transport efforts. However, there is still work to be done to raise awareness and adoption of electric vehicles (Department for Transport, 2018).

Fostering Collaboration Between Healthcare and Educational Institutions: Promoting collaboration between healthcare and educational institutions is crucial for comprehensive development. Manchester should encourage partnerships that merge health and education services. Collaborative efforts, such as promoting physical activity, integrating preventive healthcare in schools, and sharing resources, can enhance outcomes in both education and health (Kolbe et al., 2015). Involving parents, families, and communities in health education initiatives supports a holistic approach to reducing disparities. A health-literate population can engage in community health efforts and advocate for policies that bolster public well-being, nurturing a healthier and more resilient society overall (TCPDCS, 2023).

Conclusions

In conclusion, this report offers a critical examination of the healthcare sector's status regarding health, well-being, and sustainable development in Manchester, United Kingdom. It encompasses various indicators, policies, and initiatives, revealing several significant insights. Firstly, health and well-being extend beyond physical aspects to include mental and social dimensions, as evidenced by the COVID-19 pandemic's effects on healthcare systems and disparities in access and outcomes (Pescaroli et al., 2021). Secondly, the United Nations' Sustainable Development Goals (SDGs) provide a comprehensive framework, with Goals 3, 4, and 13 particularly pertinent to Manchester (United Nations, 2017). Education plays a pivotal role in societal progress, demonstrated by Manchester's endeavours to ensure fair access and address disparities through initiatives like "Education for a Fairer Manchester." Nevertheless, challenges persist, including those related to special educational needs and achievement gaps, necessitating targeted interventions (Manchester City Council, 2021). Climate action is crucial for mitigating environmental impacts, evident in Manchester's Climate Change Framework and

initiatives like the National Clean Air Strategy. However, challenges such as air pollution require sustained community engagement (Department for Environment, Food and Rural Affairs, 2019).

Assessing the impact of policies and initiatives reveals concerted efforts to address these challenges. The NHS's 10-year plan, mental health campaigns, education for sustainable development, and climate action frameworks demonstrate commitment to health, wellbeing, and sustainability (Department of Health and Social Care, 2019; González-Sanguino et al., 2019; UNESCO, 2013). Moving forward, advancing sustainable development in Manchester's healthcare sector requires strengthening mental health support in schools, enhancing community engagement in climate action, and investing in sustainable transport. Collaboration between healthcare and educational institutions is essential for promoting holistic wellbeing, inclusive prosperity, and environmental sustainability, fostering a fairer and more resilient society for generations to come.

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