INTERNATIONAL NURSES DAY 2024

The economic power of care

OUR NURSES.
OUR FUTURE.
International Council of Nurses

Lead author: David Stewart, Deputy Chief Nursing Officer.
Contributors: Dr Gill Adynski, Dr Katherine Bertoni, Howard Catton, Dr Mickey Chopra, Dr Damien Contandriopoulos, Stephen Duckett, Gaetan Lafortune, Dr Jeremy Lauer, Amanda McClelland, Dr Jack Needleman, Colin Parish, Dr Geordan Shannon, Dr Joanne Spetz, Dr Roy A. Thompson, Dr Laura M. Wagner.
Editor: Lindsey Williamson

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Cover photo caption: *Investing in the nursing workforce, not only improves the well-being of populations, but also boosts economic growth by enhancing workforce productivity; strengthening health care systems; alleviating poverty; improving gender equality; and contributing to social cohesion, peace and prosperity.*

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Foreword

Nurses are the most trusted professionals in the world, and it is fair to say that patients and their family members know that, as do the communities that benefit from nurses' contributions to their overall health care.

But the full value of nurses, beyond their expert and compassionate care, is not often recognised by governments, most of which continue to run their health systems without enough nurses and fail to create the number of new registered nurses that they need to provide the universal health coverage and essential benefits to which everyone deserves to have free access.

In this year's International Nurses Day report, *Our Nurses, Our Future: the economic power of care*, we have asked nursing experts, academics and economists to reveal the true, full value of nursing to societies everywhere.

What they have told us is what we already knew: that investing in nursing jobs, education and leadership results in an excellent return on investment that means every dollar spent pays for itself many times over.

Unfortunately, the opposite of that is also true: where there is a lack of investment, health care systems break down, people get sick, they are unable to work, and the effect is that the economies in the countries where they live do not flourish.

Right around the world there are examples which show that where nurses have additional training, are highly educated and able to work autonomously at the full scope of their practice, they can provide high-quality care that is equal to or better than that provided by other professionals, at a lower cost.

All nursing needs to achieve these benefits for societies is for nurses to be allowed to develop in safe environments where they have enough colleagues and the support and guidance they need to be the best they can possibly be.

The global nursing shortage is holding the world back, not just in terms of Health for All, but wealth for all. What is needed is for governments to see the bigger picture, invest in nursing and reap the rewards that will surely follow.

I would urge all nurses to use this report to increase their influence on policy makers, employers and politicians so that everyone can benefit from the power of nurses and the economic returns that will ensue.

Dr Pamela F. Cipriano
President
International Council of Nurses

Executive Summary

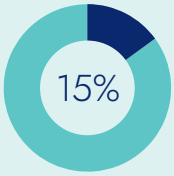
Today, about half of the world's population, 4.5 billion people, are not covered by essential health services. In addition, poor quality care leads to high levels of morbidity and mortality, contributing up to 15% of all deaths in some countries, many of which are preventable (WHO, 2020a). Alongside the human rights imperative to address this, there is an enormous economic incentive. Each year, poor health reduces global GDP by 15% (Remes, et al., 2020). As countries strive to rebuild and strengthen their health care systems and economies, strategic investment in nursing emerges as a pivotal pathway to achieving sustained growth and resilience. This International Nurses Day report (IND) reveals the economic power of nursing, presenting an in-depth analysis of how elevating the nursing profession can catalyse transformative improvements in health care delivery, economic development, peace and societal well-being.

Investments that increase the productivity of the health workforce result in:

1. ***Good health***
2. ***Economic growth***
3. ***Job creation***
4. ***Productive gains in other sectors***

In LMIC, the return on investment in the health care workforce is estimated to be 10 to 1. (Asamani et al. 2022)

KEY INSIGHTS



Poor health costs the global economy 15% of GDP

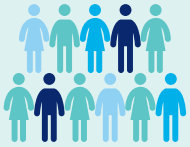
which is two to five times greater than the expected loss from COVID-19 (Remes, et al., 2020). Estimates by the World Health Organization (WHO) suggest that inadequate quality of care costs between USD 1.4 and 1.6 trillion each year in lost productivity in low- and middle-income (LMIC) countries alone (WHO, 2020a).

Realizing the potential of nurses working in primary health care (PHC)

to support the delivery of essential Universal Health Coverage (UHC) interventions could contribute to the saving of up to 60 million lives and increase global life expectancy by 3.7 years by 2030 (WHO, 2023a).

The economic return could be between USD 2 and USD 4 for each USD 1 invested in better health.

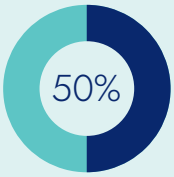
The costs of strengthening health systems can be offset by productivity gains (Remes, et al., 2020). Investment in nursing across the care continuum ensures that people receive the care they need at the right time to achieve their highest attainable standard of health and live productive lives. Delays to health care may lead to lost productivity, more costly care and greater negative impacts on health.



Creating decent jobs in nursing supports the alleviation of poverty and addresses gender equality in the global workforce.

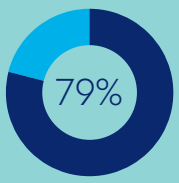
Improving pay, working conditions and career advancement opportunities in nursing can empower women, providing them with decent jobs and lifting them out of poverty. It contributes to closing the stubborn gender pay gap that is holding back global economies. According to the World Bank, in some countries, the potential earning gains for women with tertiary (degree-level) level education, as is required in nursing, is 323.4% (Wodon, et al., 2018).

WHO has called on countries to increase spending on primary health care by at least 1% of their gross domestic product (GDP) in order to close glaring coverage gaps and meet health targets agreed in 2015.



The realization of effective UHC, as indicated by a score of 80 out of 100 globally, is heavily reliant on investing in the nursing workforce.

Currently, there are 29 million nurses around the world, making up 50% of all health care professionals. There is evidence (Haakenstad, et al., 2022) that an additional 30.6 million nurses (70.6 nurses per 10,000 people) are required around the world to achieve effective UHC. To achieve a performance target of 90 out of 100 on the UHC effective coverage index requires 114.5 nurses per 10,000 people, or almost **60 million more nurses** (Haakenstad, et al., 2022).



Prioritizing investments to enable people to work to their full scope of practice, including Advanced Practice Nurses, improves health system efficiency and effectiveness.

Seventy-six percent of doctors and 79% of nurses reported being over-skilled for the roles they were performing in their day-to-day work. Given the cost and length of education programmes for doctors and nurses, this represents a huge waste in human capital (OECD, 2019a). Planning for the future, investing in nurses' work environments, having adequate nurse staffing and allowing nurses the autonomy to work to their full scope of practice will create the most effectively run health systems at the lowest cost, while still delivering the highest quality of care.

Ensuring the safety of nurses should be considered an imperative for sustainable and resilient health systems.

The COVID-19 infection rate among health care workers was up to nine times higher than the general population, costing health systems millions of dollars — up to USD 30,000 per nurse infection (see Chapter 7). Nurses are not expendable: rather they should be seen as the lynchpin of global health systems. Stemming the increase in violence against nurses and other health workers in all settings is also needed to protect this valuable resource and retain the workforce.

Investing in nursing engenders a cascade effect that culminates in the cultivation of healthier societies and economic and social prosperity.

Nursing serves as not only the backbone of health care systems, but also as the cornerstone that sustains the overall functioning of our societies. The Organisation for Economic Co-operation and Development (OECD) estimates that, on average, countries need to allocate additional funds equivalent to 1.4% of their GDP for health system improvements, compared to pre-pandemic levels. At least half of this investment should focus on the education, recruitment and enhancement of workforce conditions to address global health challenges (OECD, 2023b). A study by McKinsey (Remes, et al., 2020) (see Chapter 4) found that "better health could add USD 12 trillion to global GDP in 2040, an 8 percent boost that translates into 0.4 percent faster growth every year." The majority of these gains in economic benefits come from having a larger and healthier workforce.

Investing in safe care saves money.

On average, 1 in 10 hospital stays in high-income countries leads to a safety issue or adverse event. In these countries, the cost of treating harm caused during care is around 13% of total health spending, equating to USD 606 billion annually, or just over 1% of the combined GDP of OECD countries. Strong return on investment strategies in health care focus on preventing infections, blood clots (venous thromboembolism), pressure sores and falls. Improving these issues through safe staffing and the right skill mix of nurses is key. Focusing on these harms offers large financial savings. For instance, for every USD 1 spent on preventing health care-related infections there can be a return on investment of USD 7 (Slawomirski & Kazinga, 2022).

Nurses contribute to peace.

The precursors to tensions and conflict diminish when people are healthy and well, able to work, and feel that they are living fulfilled lives, engaged in their societies, valued and respected. Nursing contributes to peace by reducing inequalities and promoting human rights and the delivery of social justice (see Chapter 6).

The path to achieving quality UHC and realizing the economic and social benefits that entails, are intricately linked to the empowerment and expansion of the nursing workforce. By prioritizing investments in nursing, societies can make significant strides towards a healthier, more prosperous global community. This IND report provides numerous economic arguments by leading experts that can be summed up in the following four key themes that continue to build on each other:

1. Creating decent jobs to contribute to societal good.
2. Building the workforce to achieve UHC.
3. Optimizing the use of resources to improve health system effectiveness and efficiency.
4. Investing in health for economic and social prosperity.

Approaches to achieve economic and social prosperity

1. JOB CREATION

Stimulate investments in creating decent nursing jobs.

Take urgent action to stimulate growth in the nursing workforce and address the systemic issues that result in significant health labour market failures. This includes the allocation of resources and funding for the development of quality nursing positions. Such action emphasizes the importance of creating nursing roles that offer fair wages, safe working conditions, opportunities for professional growth, and respect within the health care sector. The goal is to attract and retain skilled nurses by ensuring that their jobs are both rewarding and sustainable, ultimately improving health care outcomes and enhancing the overall health care system.

2. OPTIMIZE ROLES AND RESPONSIBILITIES

Invest in the right number of nurses, with the right skills, in the right places.

Ensure adequate staffing levels to meet health care demands, equip nurses with the necessary skills and competencies for high-quality care, and deploy nurses effectively across various health care settings to maximize their impact on patient care and health systems. This approach aims to enhance the quality, accessibility, and efficiency of health care services.

3. HEALTH SERVICE DELIVERY AND ORGANIZATION

Empower the provision of high-quality, affordable, integrated, people-centred care across the care continuum, paying special attention to underserved areas.

Transform current health care systems with a focus across the entire continuum of care, rather than just hospitals, with a focus on boosting primary health care to achieve UHC. This includes harnessing the role of nurses in health promotion and preventive measures and the delivery of comprehensive, high-quality care that is affordable and accessible outside of hospital settings, particularly in primary and ambulatory care. Emphasis is placed on ensuring that care is integrated and patient-focused, with special consideration for reaching underserved communities. The goal is to create a more efficient, equitable health care system that better meets the needs of the population while reducing reliance on hospital care.

4. EDUCATION AND SKILL DEVELOPMENT

Expand and enhance high-quality education and continuous professional development opportunities to ensure that nurses possess the competencies required to meet the evolving health needs of communities, enabling them to work to their full potential.

Invest in nursing education to improve and increase access to quality education and ongoing learning for nurses. The goal is to equip nurses with the necessary knowledge, skills, and attributes to effectively address the current and future health challenges faced by populations, ensuring they can utilize their full scope of practice and education.

5. HEALTH AND WELL-BEING

Implement strategies dedicated to ensuring and enhancing the physical, mental and emotional wellbeing of nurses.

Ensure the health and well-being of nurses by actively developing and enforcing policies, practices, and a supportive work environment that promotes their overall health. This includes mental health support, stress management, physical safety and emotional wellness programmes. The aim is to create a health care environment where nurses can thrive professionally and personally, thereby optimizing patient care and enhancing the efficiency and sustainability of health services.

6. RESOURCES AND EQUIPMENT

Equipping nurses with the right resources necessary to meet the demands of their roles.

Support nurses with the right resources and equipment by allocating the necessary physical and technological assets that enable nurses to deliver optimal health care services. This includes everything from protective clothing and medical devices to efficient patient record management systems. The goal is to empower nurses to work more effectively and reduce the risk of errors and occupational hazards to provide better care to patients. This approach benefits patient health and contributes to the job satisfaction and professional development of nurses.

7. CRISES AND HUMANITARIAN SETTINGS

Ensuring the safety and security of nurses in all settings including those operating in crisis and humanitarian aid settings.

Implement robust measures to protect nurses from physical harm, psychological stress, and occupational hazards prevalent in high-pressure working environments, including those affected by conflicts, natural disasters or pandemics. By prioritizing the protection of nurses in such challenging conditions, health care systems can maintain the continuity of care and support, and the resilience and well-being of these essential health care providers.

THE ENORMOUS COST

Poor health and inadequate health systems are extremely costly:

4.5 billion people
do not have access to essential health services

60 million lives
are lost because of poor health and lack of access to high quality health care

15% reduction of GDP
i.e. between 2 and 5 times the cost of the COVID-19 pandemic

Lost productivity of $1.4 and $1.6 trillion
each year in low- and middle-income countries

INVEST TO SAVE

Investing in nursing is an important strategy to support:

Realization of effective UHC
Access to safe, affordable, quality health care

Nurses make up nearly 50% of the health care workforce. Every $1 invested in better health brings a return of between $2 and $4.
Stronger health systems equal better health, and healthier populations bring significant returns on investment.

Increased global life expectancy
by 3.7 years

Investment in the health workforce in low- and middle-income countries guarantees a massive **return on investment at a ratio of 1:10.**

HIGH RETURNS

The benefits of investing in nursing and nurses:

- Improves health and quality of life
- Boosts economic growth by enhancing workforce productivity
- Strengthens health care systems which is critical for ensuring preparedness and effective response during public health emergencies
- Helps alleviates poverty and improve gender equality
- Contributes to social cohesion, peace and prosperity

This report sets forth actionable recommendations that will recalibrate the mindset on the value of nursing, strengthen health systems, and ultimately result in greater economic and social prosperity. It builds on ICN's Charter for Change that advocates for the implementation of 10 policy actions that governments and employers must take to create and sustain health care systems that are safe, affordable, accessible, responsive and resilient, and that shift the focus from nurses being invisible to invaluable.

ICN's call to action for global health leaders and policymakers

- **Empower nurses**: Support comprehensive policies that allow nurses to practice to the full extent of their education and training. Encourage further development of leadership roles and participation in policy development.
- **Invest in education and workforce development**: Increase funding for nursing education and create more opportunities for career advancement within the nursing profession.
- **Enhance working conditions**: Implement measures to improve the work environment for nurses, including adequate staffing levels, access to resources, safe work environments and support for mental health and well-being.
- **Acknowledge and compensate fairly**: Ensure that nurses receive competitive wages that reflect their skills, responsibilities and the critical nature of their work.
- **Promote nursing's role in society**: Highlight the contributions of nurses to health and well-being through public awareness campaigns and inclusion in decision-making processes.

Introduction

This International Council of Nurses (ICN) report brings together evidence from leading academics from around the world about the impact of nursing and the economic power of care. While nurses have known all along about the crucial importance of nursing to individuals, families and the societies they live in, in this report we have gathered the evidence to support what we instinctively knew: that funding nursing is never a cost - it is an investment in the peaceful, social, psychological and economic stability of societies everywhere.

A CALL TO REIMAGINE THE VALUE OF NURSING

As we commemorate International Nurses Day (IND) on 12 May 2024, the world has an unequivocal chance to redefine and elevate nursing's place in the global health care narrative. This year's IND report is more than just a celebration; it is a call for a dramatic shift in how everyone perceives and values the nursing profession. This report, *Our Nurses, Our Future - The Economic Power of Care* exemplifies the untapped potential and critical value that nurses provide to our world.

Need for a shift in perspective

In the wake of the COVID-19 pandemic, economic challenges and financial crises, sectors across the board face budget cuts and stringent resource allocations. Health care and nursing are no exceptions.

Nursing is the cornerstone of health care systems worldwide, but the economic value that it adds to health care and societies at large remains unacknowledged. Investment in nursing is often viewed as a drain on resources rather than a catalyst for economic stability and growth. This viewpoint diminishes the quality of health care and ignores the significant positive economic impacts that can be generated through prudent investments in nursing.

This report seeks to ignite a paradigm shift, to shine a light on the immense economic and societal contributions that nurses make every day. It is a call to recognize that investing in nursing is investing in all of our collective futures.

With that objective in mind, this IND report aims to demonstrate the substantial economic benefits that can be realized through strategic investments in the nursing sector. The report provides robust evidence that underscores the financial and economic significance of nursing.

Bridging the knowledge gap

Today a glaring gap overshadows our understanding of the true economic value of nursing. This gap exists not just in the academic literature, but in the very fabric of our societal consciousness. Policymakers, health care leaders, and communities often fail to grasp the profound return on investment that nursing brings, especially during times of financial upheaval.

Seizing the moment

The time to act is now. We are at a critical juncture, where the world's attention is keenly focused on health care. Nurses everywhere have an opportunity to push this crucial dialogue into the mainstream and advocate for a re-evaluation of policies and perceptions. It is an opportunity to shift the dominant logic from cutting costs to investing for greater value which in turn lowers costs. *Our Nurses, Our Future - The Economic Power of Care* is more than just a report; it is a movement to empower and elevate the nursing profession, reshaping the future of health care and societies everywhere.

About the report

The theme *Our Nurses, Our Future — The Economic Power of Care* encapsulates a powerful message that emphasizes the intrinsic relationship between the overall well-being of a community and the nursing profession that serves it. This theme can be unpacked into several critical aspects:

1. Interdependence of well-being and nursing

Health care is not just about acute care, medication, surgeries or diagnostic tests; it is fundamentally about supporting the highest attainable standard of health, and nurses are at the forefront of delivering the care that makes that happen. If we value health and aim for a society that is not just disease-free, but emphasizes positive well-being, the role of nurses is indispensable.

2. Economic implications

Valuing nurses is not just an ethical requirement, but also an economic necessity. Investment in the nursing workforce has been shown to yield high returns in several areas, including improved patient outcomes, reduced hospitalization times and fewer patient safety errors. When nursing is undervalued and underfunded, health care systems are inefficient and cost more in the long term.

3. Quality of health care

Nurses are involved in everything from patient assessment and treatment to post-care evaluation. The quality of health care services is directly proportional to the quality of nursing care provided. To deliver the highest value and most economically efficient health care, nurses need the resources to provide the highest quality of care to prevent errors and achieve the most optimal patient outcomes.

4. Community and public health

Nurses often play a crucial role in community health programmes. They are the pillars of public health initiatives and are integral in reducing the societal burden of disease. If public health is a valued asset, nurses should be recognized for their contributions to its achievement.

5. Crisis management

The importance of nursing becomes particularly apparent in times of crisis - be it a pandemic, natural disaster or financial downturn. Nurses are working on the front lines stabilizing health care systems and communities. Valuing them is not just a one-time initiative: it requires a long-term investment to safeguard societies during times of peril.

6. Holistic approach to health

Modern health care increasingly recognizes the importance of a holistic approach that includes mental, emotional and social well-being, in addition to physical health. Nurses are educated to provide this multifaceted care, engaging with patients on a human level that goes beyond medical treatment.

7. Policy and governance leadership

The true economic value of care must be included in policymaking at all levels, influencing how resources are allocated, how health care objectives are set, and how the success of health care programmes is measured. Nurses' expertise extends beyond clinical care into policy, research and leadership in the health sector and beyond. The voice of nursing needs to be heard and included in all legislation and governance that affects health care.

8. Nurses and peace

It is clear that there is a strong connection between the work of all nurses and peace. Through their work, nurses address the root causes of ill health and the risk factors that lead to conflict. Nurses are rightly regarded as the most trusted professionals, with 28 million of them working for patients within a professional code of ethics all around the world. When nurses support people's health needs, they see the connections to other issues, such as political conflicts, family breakdowns, loss of jobs, poverty and mental health crises. These issues and the social breakdown that ensues can lead not only to poor health: they can result in tensions and conflict in individual's lives, in communities and societies, creating divisions from which resentment, conflict and separation can grow. With their trusted position within communities, nurses can play a critical role in bringing people together, building bridges and the wider partnerships and relationships that are the foundations of peace and community cohesion. ICN's #NursesforPeace campaign is a concrete example of how nurses are contributing to peace efforts around the world.

The key insights provided by economists and health experts will provide the spark to ignite the passion in nurses to be inspired and empowered to make real a future where the nursing profession is not just appreciated but revered as a key driver of our health, our economies and the societies we live in.

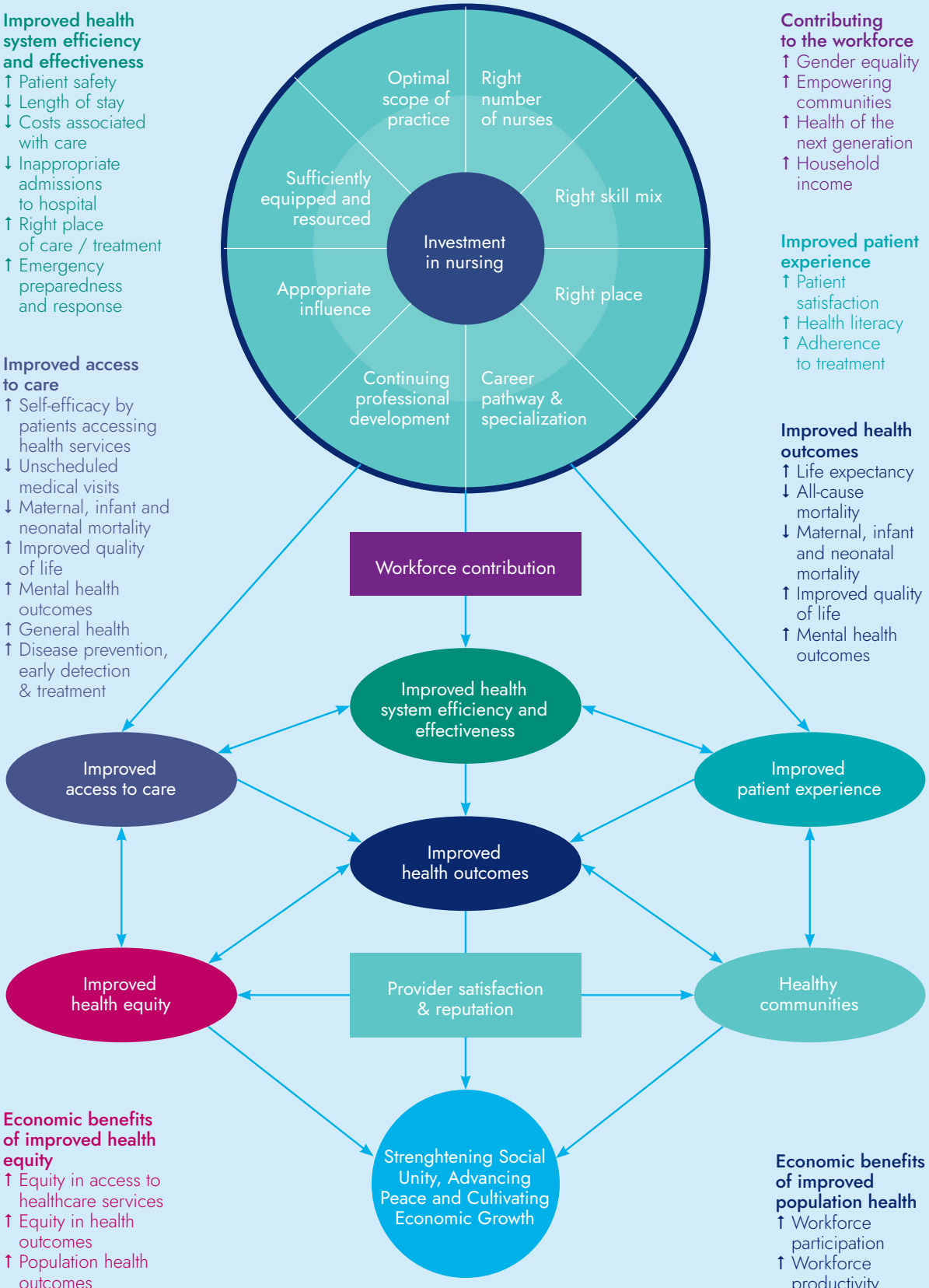
'The Nurse Investment, Prosperity and Peace Chain'

'The Nurse Investment, Prosperity and Peace Chain' (Figure 1 below) graphically demonstrates how effective investment in nursing goes beyond health care: it is a foundation for better patient outcomes, thriving communities, stronger societies and healthier economies. It shows how thoughtful investment in nursing yields a cascade of societal benefits, all of which combine to strengthen social unity, advance peace and cultivate economic growth, because effective investment in nursing is the bedrock of a resilient and prosperous society.

This holistic approach requires key actions from governments and policy makers, including:

- empowering nurses to practice to the full extent of their abilities, education and scope of practice;
- implementing funding models that support nurse-led services as well as advanced practice and interprofessional care;
- assembling a workforce that is sufficient in quantity with diverse skills;
- ensuring that every community, regardless of location, has access to nursing care;
- building robust educational and career advancement pathways;
- opening doors for nurses to step into leadership roles;
- providing continuous professional growth opportunities;
- supplying the necessary resources and tools for optimal patient care.

Figure 1: 'The Nurse Investment, Prosperity and Peace Chain': linking a pathway to enhanced health care and economic benefits



CHAPTER

1

Investing in nursing — a key to creating decent jobs and alleviating poverty, particularly for women and girls

Our Nurses.

Our Future.

© Ana Argotte, ICRC

Tabasco state, Tenosique, Mexico. Investing in nursing is vital for economic recovery and growth. It is essential for building healthy, equitable societies and offers a path out of poverty, particularly for women and girls.

The health sector, and nursing in particular, is not just a growing source of employment: it is a crucial area for economic and social development, especially for women and girls. The growth in health and social work employment contrasts starkly with declines in other sectors. It offers an opportunity to address gender disparities and the undervaluation of nursing roles, which are crucial in uplifting women from poverty.

The average projected growth in need for health care workers from 2020 to 2030 was 29%, which was three times faster than the projected population growth rate of 9.7% (Boniol, et al., 2022). Health workers, including a substantial number of nurses, are a significant portion of the global labour market.

76%
of unpaid care
work is performed by women;
when care work is paid,
it is characterized by low wages.
(WEF, 2023)

The opportunity

Nursing plays a crucial role in driving economic growth and tackling poverty, particularly for women and girls. The sector faces a significant demand for nurses, with an anticipated deficit of 30 million new positions, predominantly in low- to middle-income countries (Haakenstadt, et al., 2022). This prospective surge is propelled by numerous factors, including:

- a shortage of nurses to achieve universal health coverage;
- challenges posed by ageing populations;
- changing disease patterns;
- rising expectations for health care services.

Approximately 90% of nurses are women, highlighting the profession's potential impact on gender equality in the global workforce.

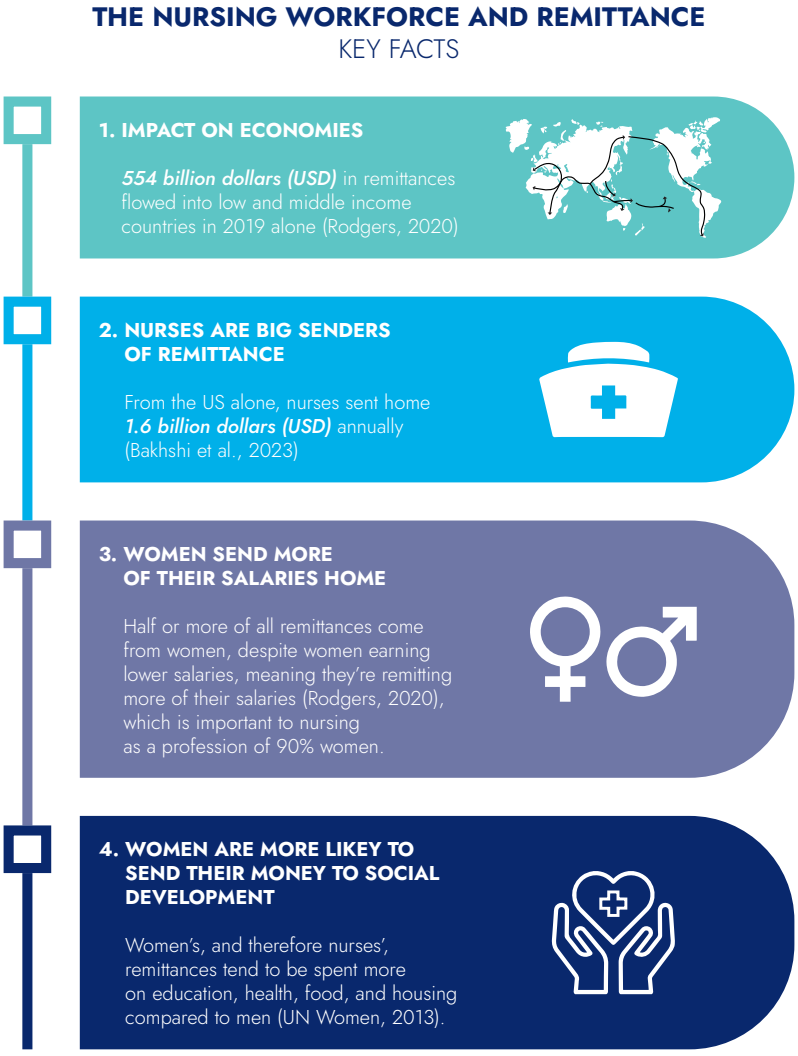
Addressing gender disparities

Currently, a significant gender gap exists in the care economy. Women perform 76% of unpaid care work and are often employed in low-wage, undervalued care roles. Investing in nursing and the broader care economy is crucial for closing these gender gaps. Improving pay, working conditions and career advancement opportunities in nursing can empower women, providing them with decent jobs and lifting them out of poverty.

Economic implications

Investment in the health sector, particularly in nursing, is not just a matter of providing jobs; it is about stimulating broader economic growth (see Figure 2). Nurses and other health workers, spend their income across various sectors, creating a cascade effect that benefits the economy at large. For example, it is estimated that foreign-educated nurses send USD 54 billion in remittances to low middle income countries. Better care systems and recognizing and redistributing unpaid care work can significantly contribute to closing gender gaps in labour markets, which also benefits the economy. According to the International Monetary Fund (Georgieva, Sayeh & Sahay, 2022), "in countries with greater gender inequality just closing the gap in women's labor force participation could increase economic output by an average of 35 percent".

Figure 2: The nursing workforce and remittances



Decent pay for nursing jobs: a call for fair compensation and conditions

Essential to the health care system, nurses and midwives often face the challenges of long working hours, leading to burnout, staff shortages and compromised care quality. The issue of overwork is particularly acute in low and lower-middle-income countries, with many reporting excessive work hours for nurses, defined as working more than 48 hours per week. Despite the demanding hours, long shifts do not equate to higher wages. In fact globally, low pay is a significant concern for at least one-third of essential workers, including nurses and midwives.

Analysis by the International Labour Organization (ILO) across 31 countries highlights that low pay is a widespread issue, affecting health care professionals in both low- and high-income settings (ILO, 2023).

When examining monthly earnings, data from 49 countries reveal that nurses and midwives earn below the average salary of high-skilled workers in 34 countries and less than the average health sector worker in nearly half of these nations (ILO, 2023). This disparity in compensation underscores the urgent need for equitable pay structures.

Addressing the overwork and underpayment of nurses and midwives is essential if health care systems worldwide are to be sustainable. Fair wages and decent working conditions are not only crucial for retaining and attracting health care workers, but they also acknowledge their indispensable contributions to societal well-being.

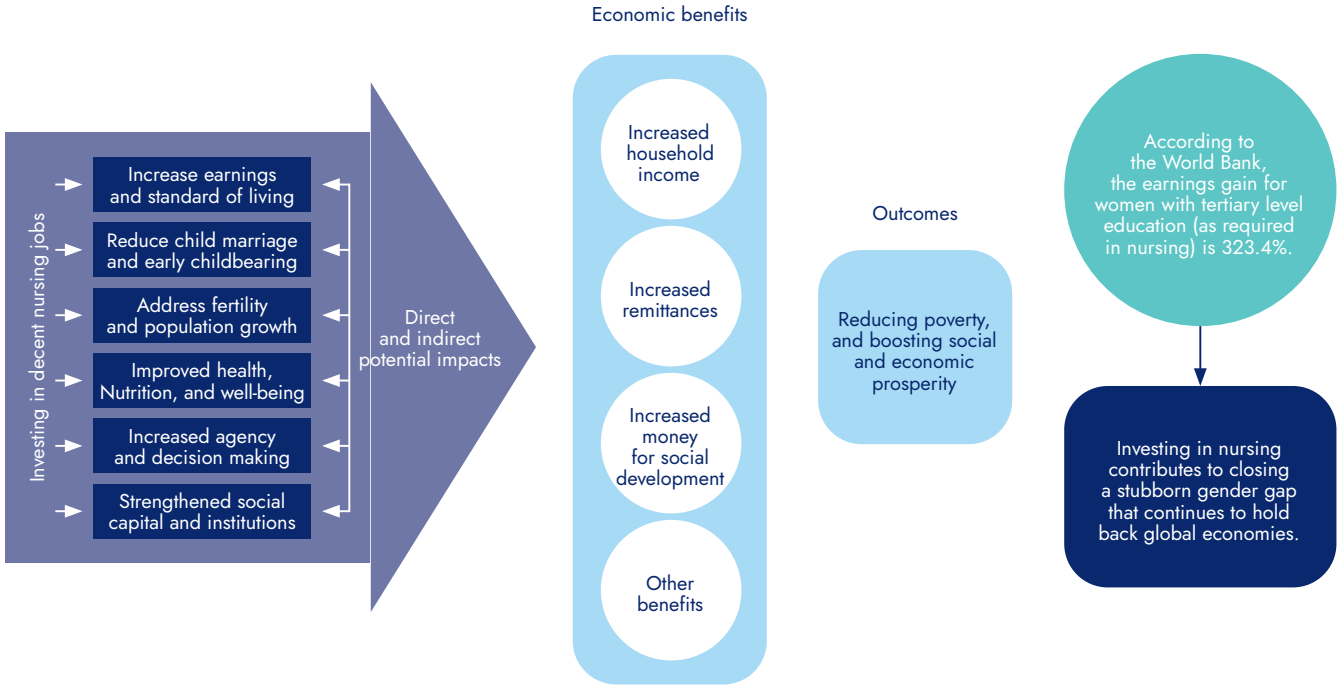
Strategic levers to create decent jobs

1. **Enhanced investment in nursing education and workforce**: Increasing funding for nursing education and creating more nursing jobs can address the workforce shortages and meet the growing demand for health care services.
2. **Valuing nursing work**: Properly valuing the work of nurses, including fair remuneration and recognition of their critical role in health care, is essential. Ensuring fair wages and decent working conditions is critical to retaining and attracting nurses. ICN calls for the support and implementation of the principles of the 1977 ILO Nursing Personnel Convention (No. 149), and its Recommendation (No. 157), focusing on the welfare of nurses and midwives globally.
3. **Gender equality in care work**: Policies must aim to reduce the gender disparity in care work, including better support for unpaid care work and creating more equitable opportunities in paid care roles.
4. **Improving working conditions**: Enhancing working conditions for nurses, including work-life balance, safe working environments and opportunities for professional development, can make nursing a more attractive and sustainable career choice.
5. **Intersectoral collaboration**: Strengthening collaboration between the health sector and other economic sectors, such as education, transport and infrastructure, can maximize the economic benefits of investing in nursing.

Chapter summary

Investing in nursing is vital for economic recovery and growth. It is essential for building healthy, equitable societies and offers a path out of poverty, particularly for women and girls. The need for long-term investment in nursing is clear – it is not just a health care imperative, it is a socioeconomic necessity.

Figure 3: Potential societal benefits through investing in nursing
(adapted from Wodon, et al., 2018)



CHAPTER

2

Investing in nursing to improve access to care and advance universal health coverage [and essential services]

Our Nurses.

Our Future.

Hassan Wesonga Kassim, Nurse In-Charge at Magodzoni Dispensary, Kenya, is truly dedicated to his job despite its numerous challenges. Hassan remains an agent of change in this small, rural dispensary.

Investing in nursing is a strategic lever to improve health care access and advance Universal Health Coverage (UHC). The correlation between the density of the health workforce and health outcomes is well-documented (Haakenstad, et al., 2022; Liu & Eggleston, 2022), with a higher density of nursing and midwifery personnel associated with significantly better health outcomes, including lower maternal and infant mortality rates. An increase in the number of nurses directly contributes to the expansion of service delivery, which is essential to efforts to deliver UHC.

The impact of nursing on health service delivery

Nurses are at the forefront of patient care, offering essential services that cover a broad spectrum of health care needs. By increasing the number of nurses, health care systems can:

- **Expand primary care**: Nurses often serve as the first point of contact in the health system, playing a crucial role in primary care. An increase in their numbers ensures more patients receive basic health care services.
- **Enhance maternal and child health**: Nurses are vital in maternal and child health care. Greater nurse density has been linked to reductions in maternal mortality ratios, under-five mortality rates, infant mortality rates and neonatal mortality rates.

In relation to a UHC effective coverage index of 80 out of 100, in 2019, the minimum required number of nurses is 70.6 per 10,000 population. This is current a **shortfall** of

30.6 million nurses

(Haakenstad, et al., 2022).

To achieve a performance target of 90 out of 100 on the UHC effective coverage index requires 114.5 nurses per 10,000 people or almost

60 million more nurses

(Haakenstad, et al., 2022).

The global COVID-19 coronavirus pandemic had severe negative impacts on the global economy. During 2020, the world's collective gross domestic product fell by 3.4% or over USD 2 trillion (Dyvik, 2024).

- **Improve chronic disease management**: The prevalence of chronic diseases necessitates continuous care, which nurses are well positioned to provide, thereby improving management and patient outcomes.
- **Respond to public health emergencies**: The COVID-19 pandemic has underscored the importance of a robust nursing workforce in managing health crises and reducing excess mortality rates. Inadequate protection for nurses and other health care workers led to significant increase of costs leading to between 2% and 8% of total health care expenditure (see page 53)

1%
increase in the density of nurses
would increase life expectancy at birth by 0.02% and at 65 years by 0.08% (Liu & Eggleston, 2022).

Nursing and Universal Health Coverage

UHC aims to ensure everyone has access to the necessary health services without financial hardship. Nurses are critical to achieving UHC for several reasons:

- **Accessibility**: Nurses often work in community settings, making health care more accessible geographically, especially in rural or underserved areas.
- **Comprehensiveness**: The broad roles and responsibilities of nurses allow them to provide a wide range of services, contributing to the comprehensiveness of UHC.
- **Cost-effectiveness**: Nurses deliver many interventions more cost-effectively than other health care providers, which is essential for the sustainability of UHC.

Increasing life expectancy or the adult survival rate by one year corresponds to a

2.4%
increase in economic growth
(Ridhwan, et al., 2022).

- **Preventive care**: Nurses play a key role in preventive care, health education and promotion, which are essential components of UHC.

Strategies to promote nursing for better UHC and the achievement of the SDGs

- **Champion** the integration of nursing into the heart of health system planning and policymaking. This includes highlighting the pivotal role of nurses in primary health care delivery and advocating for better access to high-quality nursing and midwifery care.
- **Develop, implement and finance** national nursing workforce plans with the objective of self-sufficiency in the supply of future nurses. Align resources to support a robust nursing workforce to deliver essential health services, reverse unemployment and retain talent. When international migration takes place, ensure it is ethical, transparent, monitored and delivers equal mutual benefits for sending and receiving countries, and respects the rights of individual nurses. Undertake system workforce planning and monitoring across the care continuum.
- **Invest** in high-quality, accredited nursing education programmes to prepare more new nurses and advance career development for existing nurses. Design curricula so that nurses graduate with the right skills, competencies and confidence to respond to the changing and evolving health needs of communities. Support career progression from generalist to specialist and advanced practice.
- **Optimize** nursing workforce data. Establish and maintain a detailed national nursing workforce database that adheres to international standards. Regular data collection and analysis should be mandated to guide both national and global nursing workforce planning and policy development.

Chapter summary

The role of nurses is indispensable in improving health service delivery and expanding services for UHC. There is clear evidence that greater investment in the nursing workforce leads to better health outcomes. To achieve the health-related Sustainable Development Goals (SDGs), particularly in low- and middle-income countries, scaling up the nursing workforce must be a priority. This investment is not merely a health sector concern but a broader socioeconomic imperative, essential for the achievement of UHC and the overall improvement of global health resilience.

CHAPTER

3

Investing in nursing to improve health system efficiency and effectiveness

Our Nurses.

Our Future.

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Tegucigalpa, Hospital Escuela, Honduras. At the new triage wing, a hospital nurse trained by the ICRC on triage classification is checking and filling a triage form.

Health systems, which are a significant expenditure in most countries, require strategic restructuring towards value-based care to ensure health outcomes are achieved at the lowest possible cost (Lewis, et al., 2023). This restructuring is essential for optimizing resource allocation and achieving the best outcomes for patients and communities. A critical strategy for enhancing health system efficiency and effectiveness involves nurses having supportive work environments and policies and procedures that enable them to perform their jobs effectively (Buchan & Catton, 2023). Adequate staffing and access to necessary resources are vital for nurses to deliver high-quality care, reducing long-term costs associated with poor patient outcomes. Additionally, allowing nurses to work to their full scopes of practice prevents the waste of valuable human capital, particularly in a profession dominated by women, where their skills are often underused (ILO, 2023).

Improving efficiency and patient safety

There is a pressing need to improve the efficiency and effectiveness of health systems, especially concerning patient safety and health outcomes. Overburdened and under-resourced health systems struggle with preventable errors, patient harm in primary and outpatient care, and inefficiencies that lead to unnecessary expenditures and poor health outcomes. By investing in nursing, through education and continuing professional development, staffing levels, skill mix and leadership roles, health systems can address these challenges head-on. Strengthening nursing competencies and leadership can lead to significant reductions in preventable harm and deaths (See Table 1). Advanced practice nurses, used to their full potential, can save billions in health care costs by providing high-quality care without the need for physician oversight (Zangaro, 2019).

Ensuring nurses have access to essential resources and are supported in their health and well-being can dramatically improve the safety, efficiency and effectiveness of health care delivery, leading to better patient outcomes and more sustainable health systems.

76%
of doctors and 79% of nurses
reported being over-skilled for the roles they were performing in their day-to-day work, across OECD countries. Given the time it takes to educate doctors and nurses, this represents a waste in human capital (OECD, 2019a).

Human Capital Index

The World Bank's Human Capital Index (HCI) measures how any human can contribute to society based on their education and health (Pennings, 2020). As a person moves through life and gains experiences and education and develops technical skills, their human capital increases. Nurses are a highly skilled profession, with advanced practice nurses going through even higher levels of education and skill development. When nurses are unable to find work, when they leave jobs or the profession due to poor conditions, or when they are not being used for all the skills they have developed, their human capital is wasted. Women's human capital, on average, tends to be used less than men's due to the underestimation of their skills in the workforce (Pennings, 2020).

The opportunity

Using nurses optimally by providing them with adequate resources at work to do their jobs well will get the most out of each nurse, leading to better patient outcomes and higher-quality care. Governments and health systems should invest in appropriate nurse staffing levels and the correct resources for nurses to do their jobs well. Furthermore, they should develop policies to allow nurses to work autonomously to the full extent of their skills, training and education. Together, these will lead to the highest possible quality of care at the most efficient cost.

Economic implications

Nurse turnover rates remain between 15.1% and 36% (Roche, et al., 2015; ICN, 2021a; Nelson-Brantley, Park & Bergquist-Beringer, 2018), costing health systems large sums of money – estimated at USD 36,918 per nurse each year, or higher (Roche, et al., 2015; Jones, 2005; Kim, 2016; North, et al., 2013; Ruiz, Perroca & Jericó, 2016). (See Chapter 8).

Meanwhile, poor staffing levels lead to increased mortality, with tragic consequences compounded by increased costs (Lasater, et al., 2021). In a study of 87 hospitals, it was found that if nurse staffing was at a minimum of four patients per nurse, 1,595 lives would be saved and an estimated USD 117 million dollars, an average of approximately USD 1.34 million per hospital (Lasater, et al., 2021).

Many nurses, especially advanced practice nurses, are recruited into positions that only use a fraction of the knowledge and skills they have developed in their education and career experiences. This creates a loss of human capital that can amount to millions of dollars a year. One study in the United States found that using nurse practitioners to their full scope of practice resulted in saving USD 45.5 billion a year annually from US public health expenditure costs, by not having to pay physicians to oversee their work while still maintaining the same health outcomes (Zangaro, 2019).

Figure 4: Cost savings from nurse staffing ratios (Lasater, et al., 2021)

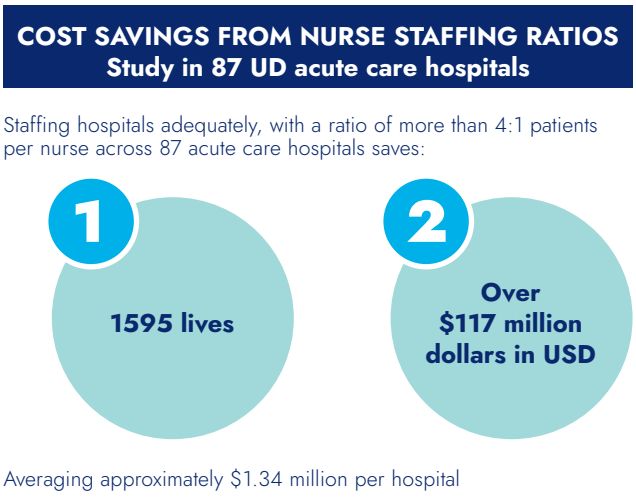

Table 1: The impact of nursing on key global health challenges

	ISSUE	POSSIBLE STRATEGIC INVESTMENTS	OUTCOME
	80% of basic maternal and child health services cannot be provided in 57 countries (WHO & UNICEF, 2018).	Increase investment in nursing education.	Improved maternal and child health services, leading to reduced maternal and infant mortality rates. Nurse-family partnerships have been found to have three times better outcomes than those not receiving nursing visits (Nurse-Family Partnerships, 2014).
	58 million people in high-income countries live in areas with shortages in primary health care (PHC) staffing (WHO & UNICEF, 2018).	Implement policies to enhance recruitment and retention of nurses in underserved areas.	Increased access to PHC, resulting in improved population health outcomes. For example, Nurse Practitioners have improved access to PHC including the most vulnerable populations (Htay & Whitehead, 2021).
	1 million premature deaths across EU countries could have been avoided through better prevention and health care interventions in 2017 (OECD, 2021).	Invest in nurse-led prevention and intervention programmes.	Reduction in premature deaths through effective management and prevention of chronic diseases. Nurse-led service models have reduced hospitalisations by 2-9% and re-admissions by 15-51% (Davis, et al., 2021).
	26% of patients suffering from chronic conditions in OECD and European countries did not receive any of the recommended tests in 2018 (OECD, 2019a).	Strengthen nursing roles in chronic disease management and care coordination.	Increased adherence to treatment guidelines and improved management of chronic conditions.

	ISSUE	POSSIBLE STRATEGIC INVESTMENTS	OUTCOME
	"Poorly managed transitions can diminish health and increase costs. Researchers have estimated that inadequate care coordination, including inadequate management of care transitions, was responsible for USD 25-45 billion in wasteful spending." (Burton, 2016).	Develop and implement nursing-led patient engagement and education programmes.	Nursing care coordination roles lead to earlier treatment and treatment initiation, improved time to diagnosis, lowered admission rates and reduced hospital visits. All of these contribute to lower health care costs (Budde, et al., 2021).
	75% of doctors and nurses reported being over-skilled for the roles and responsibilities that they have in their daily life (OECD, 2020).	Redefine nursing roles to use full scope of practice and introduce advanced practice nursing roles.	Improved job satisfaction among nurses and more efficient use of health care workforce skills. Having more Advanced Practice Nurses has favourable effects on patients, staff nurse satisfaction, and efficiency. APNs add value to existing labour resources (Aiken, et al., 2021a).
	40% of patients are harmed in primary and outpatient health care (Kuriakose, et al., 2001; Michel, et al., 2017).	Implement nursing-led safety and quality improvement initiatives in primary care settings.	Reduced incidence of patient harm in primary and outpatient care. Improved skill mix, staffing levels and education have a direct correlation to patient safety (McHugh, et al., 2021).
	15% of the hospital's expenditure goes towards the additional tests and interventions needed to treat the direct effects of harm (OECD, 2019b).	Invest in nurse education on evidence-based practices and patient safety.	Lower health care costs through reduced unnecessary tests and interventions, and improved patient safety.
	Five million deaths per year in low-middle income countries (LMIC) are attributed to poor quality of care. Poor quality is a major driver of deaths amenable to health care across all conditions in LMICs, including 84% of cardiovascular deaths, 81% of vaccine preventable diseases, 61% of neonatal conditions and half of maternal, road injury, tuberculosis, HIV and other infectious disease deaths (Kruk, et al., 2018).	Strengthen nursing leadership and governance in health systems to focus on quality of care.	Significant reduction in deaths due to improved quality of care in LMICs. 1% increase in the density of nurses would increase life expectancy at birth by 0.02% and at 65 years by 0.08% (Liu & Egglestone, 2022).
	12% of preventable patient harm causes permanent disability or patient death and is mostly related to drug incidents, therapeutic management and invasive clinical procedures (Panagioti, et al., 2019).	Enhance nursing competencies in pharmacology, therapeutic management and procedural safety.	Decrease in preventable harm, disability and death, improving overall patient safety (McHugh, et al., 2021; Aiken, et al., 2021b).

	ISSUE	POSSIBLE STRATEGIC INVESTMENTS	OUTCOME
	1 in 10 patients continue to be harmed from safety lapses during their care. The health burden of harm is estimated at 64 million Disability Adjusted Life Years (DALYs) a year, similar to that of HIV/AIDS (Slawomirski & Klazinga, 2022).	Invest in higher staffing levels with the right skill mix to improve patient outcomes.	The economic and social costs stemming from unsafe care extend beyond direct impacts, significantly hindering productivity and growth. When evaluated through the lens of societal willingness to pay, these social costs are estimated to range between USD 1 and 2 trillion annually. Furthermore, adopting a human capital perspective indicates that eradicating patient harm could enhance global economic growth by more than 0.7% each year (Slawomirski & Klazinga, 2022).
	The direct cost of treating patients who have experienced harm during their care is significant, approaching 13% of health spending. In monetary terms, this equates to approximately USD 606 billion annually, representing just over 1% of the combined economic output of OECD countries. This highlights the substantial financial impact of patient harm on health care systems (Slawomirski & Klazinga, 2022).	Invest in quality nursing care and monitor nurse sensitive indicators.	In the clinical setting, the most compelling evidence supports strategies to reduce harm, and economic costs are aimed at addressing infections, venous thromboembolism (VTE), pressure ulcers, and falls. Focusing on minimizing these specific types of harm offers the highest return on investment. For instance, each dollar spent on established methods to prevent health care-associated infections yields a return seven times the initial investment (Slawomirski & Klazinga, 2022).
	Violence against health workers, burnout, and musculoskeletal disorders are common issues in overstressed health care settings, further strained by critical staff shortages. These challenges not only lead to higher absenteeism and turnover but also jeopardize care quality. The estimated economic impact of poor health of health workers is approximately 2% of health expenditure (Klazinga, 2022).	Protect the health and safety of nurses.	Improving worker well-being has intrinsic value, but it also lowers the costs of occupational harm and contributes to minimizing patient harm (estimated at up to 13% of health spending) (Klazinga, 2022).

Strategic levers to improve health system efficiency and effectiveness

1. Enable nurses to work to their full scope of nursing practice by strengthening and modernizing regulation and investing in advanced nursing practice and nurse-led models of care. Reorientate and integrate health systems to public health, primary care health promotion and prevention, community, home-based and person-centred care.
2. Urgently address and improve support for nurses' health and well-being by ensuring safe and healthy working conditions and respecting their rights. Put in place systems to ensure safe staffing levels. Ensure protections against violence and hazards in the workplace and implement and enforce international labour standards on the rights of nurses to work in safe and healthy supportive environments, ensuring physical as well as mental health protections.
3. Advance strategies to recruit and retain nurses to address workforce shortages. Improve compensation for nurses to ensure fair and decent pay and benefits, and uphold positive practice environments that listen to nurses, and provide them with the resources they need to do their job safely, effectively and efficiently. Fund professional governance, recognition and development activities across career trajectories.
4. Ensure nurses have access to essential resources needed to deliver high-quality care efficiently and safely. Ensure nurses have the resources they need to provide evidence-based care, such as access to high-speed internet or reference guidelines.

CASE STUDY

NURSING COLLABORATION IN LOCAL GOVERNMENT AND CLINICAL SETTINGS TO PREVENT DIABETES AGGRAVATION.

(Japanese Nursing Association)

In Japan, facing an ageing population and shifting disease patterns, the Saga prefectural government launched an initiative aimed at preventing the aggravation of diabetes. This initiative, part of the 'Stop Diabetes Project' since 2016, involves a comprehensive network including the Prefectural Health and Welfare Department, public health centres, insurers, Saga University and medical institutions, along with educating nurses to coordinate care across medical settings. The 'Diabetes Coordination Nurse Development and Support Project' trains nurses to facilitate the transition of patients with diabetes from specialized hospital care back to primary care providers, ensuring continuity and effectiveness of treatment and diabetes management. This collaborative approach has led to significant health outcomes, including a reduction in the number of new patients requiring dialysis due to diabetic nephropathy from 150 per year in 2012 to 95 in 2021, and a delay in the age of dialysis initiation.

Chapter summary

Investing in nursing is required for effectively run health systems. Nurses are the key to delivering high-value cost-effective care. Adequate nurse staffing, investing in nurse work environments, and allowing nurses to have the autonomy to work to their full scope of practice will allow for the most effectively run health systems at the lowest costs while still delivering the highest quality of care.

CHAPTER

4

Investing in nursing to improve societal and economic prosperity of communities and societies

Our Nurses.

Our Future.

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Senegal. Kouram village health centre. Nurses strengthen economic prosperity and social prosperity, working towards eliminating health inequities and fostering a healthier, more equitable society for all.

The health sector and the economic sector are interrelated, and it is well known that healthy people are needed for strong and growing economies. Nursing is the backbone that strengthens the health sector and therefore a key to strong economies. Nurses strengthen economic prosperity and social prosperity, working towards eliminating health inequities and fostering a healthier, more equitable society for all.

The last element of 'The Nurse Investment, Prosperity and Peace Chain' emphasizes social and economic well-being. While we typically focus on fostering prosperous societies globally, we sometimes overlook the pivotal role of health in economic growth and employment. 'The Nurse Investment, Prosperity and Peace Chain' underscores the crucial links between a robust nursing workforce and the overall health, peace and vitality of societies everywhere.

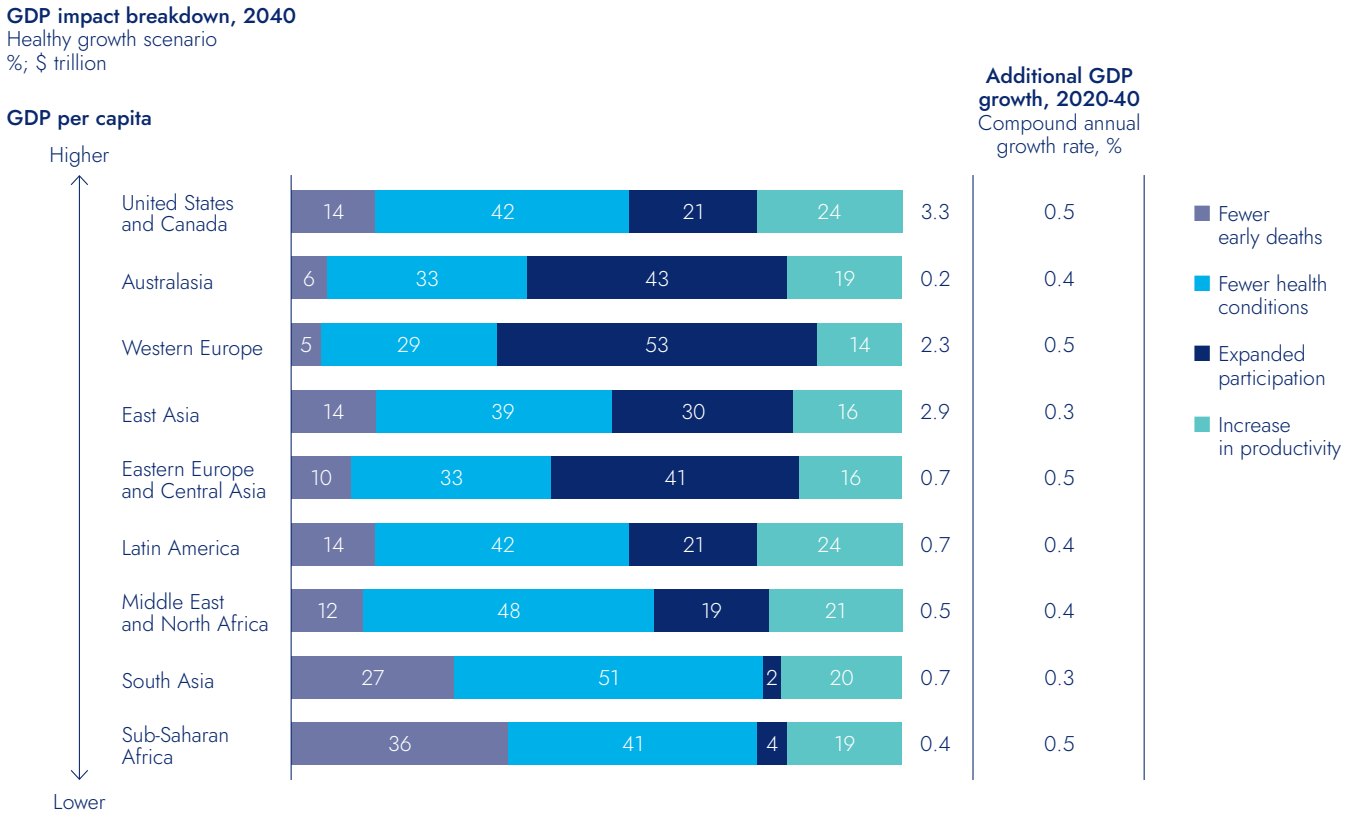
Nursing, population health and economies

A higher density of nursing and midwifery is associated with several key population health outcomes, including higher life expectancy, lower maternal and infant mortality and other population health outcomes (Haakenstad, et al., 2022; Liu & Eggleston, 2022). The societal benefits of nursing extend beyond health outcomes and, to fully grasp the profound impact of nursing, we must delve deeper and recognize that population health, strengthened by nursing. also correlates with robust economies.

In short, healthier populations mean healthier economies. A report by McKinsey Global Institute (Remes, et al., 2020) found that "better health could add USD 12 trillion to global GDP in 2040, an 8 percent boost that translates into 0.4 percent faster growth every year." The majority of these gains in economic benefits come from a larger and healthier workforce.

Figure 5: Economic return of better health across different regions

Across regions, the economic benefits of better health are driven by differences in the underlying disease burden and labour market structures of countries (Remes, et al., 2020).



Impact on socioeconomic welfare

Investing in nursing, particularly in community and primary health care settings catalyses social welfare, with childhood care as a cornerstone. High-quality nursing boosts children's cognitive and social development, laying a foundation for academic success and future financial stability. This investment paints a hopeful picture for future generations, promising completion of education at a higher level and increased potential earnings.

Furthermore, investing in nursing is a key to disrupting the corrosive effects of poverty. Programmes like nurse-led home visits have proven successful in improving health and economic independence for families with young children. Addressing health disparities from the start of a person's life can prevent a host of related social issues, ultimately reducing poverty's long-term impact on education and health. Research (California Department of Social Services, 2018) highlights the broad benefits of these investments, which extend beyond health improvements to significant savings in public spending.

> **The economic return could be $2 to $4 for each $1 invested in better health. In higher income countries, implementation costs could be more than offset by productivity gains in health care delivery. Low-income countries continue to need more investment in basic health infrastructure. (Remes, et al., 2020)**

Children in poverty frequently suffer health issues stemming from inadequate maternal prenatal care and the ongoing stressors of impoverishment. These issues not only hinder children's ability to learn, but they also lead to a cascade of social, emotional and behavioural challenges. The repercussions of an impoverished start in life are far-reaching, with increased likelihoods of remaining in poverty, dropping out of school and entering parenthood during the teen years.

Yet, these cycles can be broken. Decades of research (California Department of Social Services, 2018) underscore the efficacy of nursing-led interventions in producing significant progress, including reducing preterm births, enhancing child health and school readiness, and curbing child abuse and juvenile crime. Beyond the immediate health benefits, these programmes yield substantial cost savings in medical care, child welfare, special education and criminal justice systems.

The aged care sector, much like other areas of health care, stands to gain significant social and economic benefits when proper investments are made. Inadequate resources, understaffing and a lack of skills in the workforce have resulted in far-reaching consequences, including heightened instances of human rights abuses, substandard care, deteriorating health outcomes and inflated health care spending.

A poignant example of this is evident in the findings of the Royal Commission into Aged Care in Australia. This investigation brought to light the critical inefficiencies and shortcomings within the sector. The Australian Medical Association (2021), in response to the Commission's findings, noted that an investment in long-term care, specifically focusing on ensuring an adequate number of appropriately skilled nurses and implementing evidence-based care models, could result in significant cost savings. They estimated that around AUD 21 billion could be saved from avoidable hospital admissions.

This figure underscores the potential for substantial economic benefits through strategic investment in the aged care sector. Not only does it suggest a reduction in unnecessary health care costs, but it also implies an improvement in the quality of life for older people. With the right number of skilled nurses and the application of proven care models, the aged care sector could ensure that the elderly receive the respect, dignity, and quality of care they deserve. This approach reduces the strain on hospital systems and upholds the rights and well-being of one of the most vulnerable segments of the population.

As an exemplar, the case of the Australian aged care sector highlights a broader truth applicable globally: investing in long-term care, especially in terms of human resources and care practices, is not just a moral imperative — it is an economically prudent strategy. Such investments would transform the aged care landscape, leading to better health outcomes for some of our most vulnerable populations, and more efficient use of health care resources.

Strategic levers to improve societal and economic prosperity of communities and societies

1. Prioritize investment in adequate and safe staffing levels throughout the entire spectrum of health care services, with a special focus on primary and community health care. This investment is essential for ensuring that health care facilities are not only well-equipped but also adequately staffed with skilled professionals to meet the diverse needs of patients in different care settings.
2. Recognize and value nurses' skills, knowledge, attributes and expertise. Respect and promote nurses' roles as health professionals, scientists, researchers, educators and leaders. Involve nurses in decision-making affecting health care at all levels. Promote and invest in an equitable culture that respects the nursing profession as leading contributors to high quality health systems.

3. Appoint nurse leaders to executive positions of all health care organizations and government policy making. Strengthen nursing leadership throughout health systems and create and sustain nursing leadership roles where they are most needed.
4. Protect vulnerable and at-risk populations, uphold and respect human rights, gender equity and social justice. Place and uphold nursing ethics at the centre of health systems' design and delivery that so all people can access health care that is equitable, non-discriminatory, people-centred and rights based, and without the risk of financial hardship.

Chapter summary

'The Nurse Investment, Prosperity and Peace Chain' describes the extensive ramifications of directing resources towards the nursing workforce. While it may be tempting to solely perceive the immediate benefits of such investments, such as enhanced staffing resulting in improved unit outcomes, the broader impact is great. Investing in nursing engenders a cascade effect that culminates in the cultivation of healthier societies, robust economies, and enhanced social welfare. Nursing serves as not only the backbone of the health care system but also as the cornerstone that sustains the overall functioning of our society.

Our Nurses.

The following eight chapters have been written by external authors. The opinions expressed are the authors' own and do not necessarily reflect the views of the International Council of Nurses.

Our Future.

CHAPTER

5

The challenge of workforce planning in the future – the need to plan for full scope of practice working

Dr Stephen DUCKETT,
AM PhD DSc FASSA FAHMS, Economist, Honorary Enterprise Professor,
School of Population and Global Health,
and Department of General Practice, The University of Melbourne

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McGrath Foundation, Australia. Nurses are increasingly working as specialists while still providing the holistic care they have for generations.

Health workforce planning requires a paradigm shift. Too often it is stuck in silos: planning separately for aged care and hospital care, when the same staff can work in either setting, or planning for a particular profession, when the future is for care provided by multidisciplinary teams (Sutton et al., 2023; Weston, 2022). Too often planning is for the health system of a decade or two ago, rather than for a system a decade or two in the future. Too often it 'plans' for working styles of previous generations, ignoring the changed aspirations, motivations and priorities of new generation staff (Stevanin, et al., 2018). The transformative potential of artificial intelligence, in supporting evidence-based practice, is almost uniformly ignored.

The rhetoric of health policy has remained unchanged for the last few decades, pointing to a different future – one where a patient is managed more holistically, where there is more continuity of care, and where the complexities of multi-morbidity do not require a person to be ping-ponged between multiple 'partialists', professionals who specialize in only part of the complexity of a whole person. Unfortunately, there has been little change in the reality to match this rhetoric, but 'green shoots' are emerging.

The problem of past workforce planning approaches, and the mismatch between policy rhetoric and reality, are exemplified in policy inertia about workforce reform, particularly about using the full skills of the most numerous health profession, nursing (Duckett, 2005).

Despite nurses becoming increasingly educated, the authority to 'diagnose' is often reserved for those medically qualified, even though other professionals equally must make judgements in the course of treatment about what is wrong with the patient, can interpret a diagnostic test or image report equally well, and well understand the choices in a care path, and can just as competently recognize and adjust when a patient does not fit the standard path.

Role paralysis, which occurs when improved skills and knowledge in a profession do not lead to changes in roles, is unfortunately widespread. Over-skilling, or the lack of ability for a health worker to work to their full scope of practice, is endemic with more than five out of every six health professionals reporting that they had the skills to cope with more demanding tasks in their jobs; the rate for nurses is slightly less but still very high at 79% (Schoenstein & Lafortune, 2016). Nurses with master's degrees were almost twice as likely to report being over-skilled compared to those with a bachelor's degree or sub-bachelor qualification. This over-skilling unfortunately

exists simultaneously with under-skilling – nurses and other professionals feeling that they need additional training for some aspects of their work.

Although there is still resistance to nurses taking the lead in decision making about patients' readiness for discharge from hospital (Pethybridge, 2004), it is often the nurse who is most aware of the patient's home situation and their clinical readiness for discharge. In a primary care setting, a significant proportion of a doctor's time is allocated to patients who may be well known to the practice, have a single presenting problem, and whose treatment could be appropriately managed by a primary care nurse (Duckett, Breadon & Farmer, 2014; Duckett, Breadon & Ginnivan, 2013).

The opportunity cost of failing to use any professional to their full scope of practice quickly adds up. Quantifying the dimension of this cost has proven elusive (Goryakin, Griffiths & Maben, 2011; Caird et al., 2010; Chan, et al., 2018; Lopatina, et al. 2017; Marshall, et al., 2015), but the obviously large disparity between the average remuneration of medical and nursing professionals means substituting the former by the latter, assuming equivalent productivity, would have a significant impact both on workforce satisfaction and efficiency.

CASE STUDY

INNOVATIVE NURSE-LED ANGIOGRAPHY SERVICE AT BUCKINGHAMSHIRE HEALTHCARE TRUST.

The introduction of a nurse angiographer role at Buckinghamshire Healthcare Trust's Cardiac Day Unit and Catheter Laboratory represents a transformative approach to managing increasing demands and reducing waiting times for cardiac catheter laboratory services (NHS England, 2018). Historically, cardiologists, often stretched thin with multiple responsibilities, were the only professionals performing angiograms. The Consultant Nurse identified an opportunity for change: by training nurses to perform certain low-risk angiograms, the efficiency of the service could be significantly improved.

Nurse angiographers underwent two years of additional study to perform angiograms and manage their own caseloads, eliminating waiting lists and freeing up cardiologists. The implementation process was thorough, including indemnity, legal considerations, and Trust Board approvals. An audit of 300 angiograms quality assured the new practice, evidencing the impact of this innovative role through high patient satisfaction and better resource utilization. The nurse-led initiative challenged traditional roles in health care and paved the way for further nursing development in the Trust.

One can frame the health policy challenge as *the right member of the health care team enabling the right care in the right setting, on time, every time.* It is not about medicine, nursing, or allied health, but about a team. It is not simply about providing care itself, but about enabling care, including enabling self-management. This framing highlights a more complex future for all professions, including nursing. The challenge for legislators and policy makers is to provide a policy environment in which health professionals can flourish and nurses and other health professionals can work to their full scope of practice within the health care team.

Working to full scope of practice will be different for different nurses. Nurses are increasingly working as specialists while still providing the holistic care they have for generations. The policy challenge is ensuring that all nurses have the potential to self-actualise and allow them to work to their full scope of practice.

In ensuring this shift, the nursing profession must avoid creating the same dysfunctional hierarchies and silos that beset the medical profession: that the narrower the expertise, the higher the status, with turf wars endemic.

Patients certainly accrued benefits from the specialization in medicine in the 20th Century, but the hyper-specialization in the late 20th Century may be an example of what economists called diminishing marginal returns. With more and more specialists involved in the care of a single patient, more communication problems occur, and the needs of the whole patient might be missed. Nursing needs to continue to value its holistic approach, its strong emphasis on the whole patient, and communicating with and observing the patient doing ordinary things to pick up vital clues.

So, what is the pathway to using the skills of nurses better?

- Nurses need to be supported to develop their skills, including through credentials acquired in the course of their employment but recognized in the education system.
- Employers must conduct regular workplace assessments to ensure that roles reflect contemporary education, training and skills of staff (OECD, 2018). They need to ensure that nurses can work to their full scope of practice and are not held back by role paralysis, interprofessional jealousies and turf wars.
- Payers have to ensure that skilled nurses are remunerated in the same way as medical and other professionals, so new business models for nursing care become viable.
- Nurses need to collect and publish information about what they are doing to demonstrate that working to full scope of practice is welcomed by patients and staff, is safe and efficient.
- Policy makers need to recognize that nursing and other health professions evolve and ensure that the restrictions of yesteryear do not inappropriately constrain today. Such constraints inhibit evolution of new roles and are hangovers from times past, often maintained as part of turf protection to the detriment of efficient patient care.
- Other health professionals need to welcome these changes. Health needs are increasing and the increase in workload in the future means that changing roles now should not be a threat to any profession.

The way all professionals work will need to change with an emphasis on multidisciplinary teams, and shared leadership. Meeting the health needs of the future will require all members of the team contributing to support the patient. Continuation of the old practice rigidities, and the old ways of working, will not be possible in the future if emerging health needs are to be met in an efficient way.

CASE STUDY

TACKLING NON-COMMUNICABLE DISEASES IN ZIMBABWE: LESSONS FROM THE MSF NURSE-LED MODEL.

In response to the Sub-Saharan Africa non-communicable disease (NCD) crisis, Médecins Sans Frontières (MSF) collaborated with Zimbabwe's Ministry of Health to implement a nurse-led model for Diabetes Mellitus (DM) and Hypertension (HTN) in Chipinge district. Launched in 2016, the programme mirrored successful Antiretroviral Therapy (ART) approaches, emphasizing decentralization and a welcome delegation of interventions to nurses. Despite challenges like medication availability and system overload, the initiative effectively integrated DM and HTN care into existing services, showcasing the viability of nurse-led models in resource-limited settings (WHO, 2020b). Operating in 11 health facilities, the programme offered comprehensive care, featuring simplified protocols, staff mentorship, and integration with primary health services. Despite obstacles, such as high medication demand, adaptive strategies and decentralized approaches successfully navigated challenges. This integration of NCD care with primary health services addresses Zimbabwe's dual HIV and NCD burden, providing insights for similar initiatives in low- and middle-income countries.

CHAPTER

6

Nurses deliver on critical social objectives — but who cares about the carers?

Geordan SHANNON,
PhD MPH (Hon) Bachelor of Medicine (Hon) DRANZCOG,
Lecturer UCL Institute for Global Health, Centre for Gender and Global Health
and Centre for Global Health Economics

Jeremy LAUER,
AB, MA, MSc, PhD, Economist, Professor Strathclyde University, United Health Futures

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Rita Dominic Kiyawa, Wau teaching hospital, South Sudan. The social contract of unconditional care on which nurses have built their profession is being continually undermined.

The nursing profession sits at the intersection of multiple critical societal objectives. Although nursing care can be deeply rewarding for those who give or receive it, the value to society of this work is typically drastically under-articulated.

The onset of COVID-19 signalled a new era of escalating polycrises cutting across health, livelihoods, peace, equity and the environment. COVID-19 highlighted the importance of nursing, but also revealed how undervalued it is. Poor working conditions, low pay, violence and health risks have taken a toll on the nursing workforce and the health care system. As a result, the exodus of experienced nurses from the profession further compounds global health workforce shortages (ICN, 2021b); nurses constitute the world's largest profession (Lazenby, 2020), make up over half the global health workforce (WHO, 2020b), and represent over half of the current shortage in health workers globally (WHO, 2022). In few settings we can observe, as former Director-General of Health in New Zealand, Dr Ashley Bloomfield, noted on 25 October 2023 in Auckland, New Zealand, that "over the past five years there has been a nearly 23 percent increase in the number of nurses employed by [district health boards,] ... a 35 percent increase in graduate nursing salaries and a 43 percent increase in the top step salaries for registered nurses since 2017" (Bloomfield, 2023). Such cases are 'exceptions that prove the rule', since even in the rare areas where trends have been positive in such terms, many challenges remain.

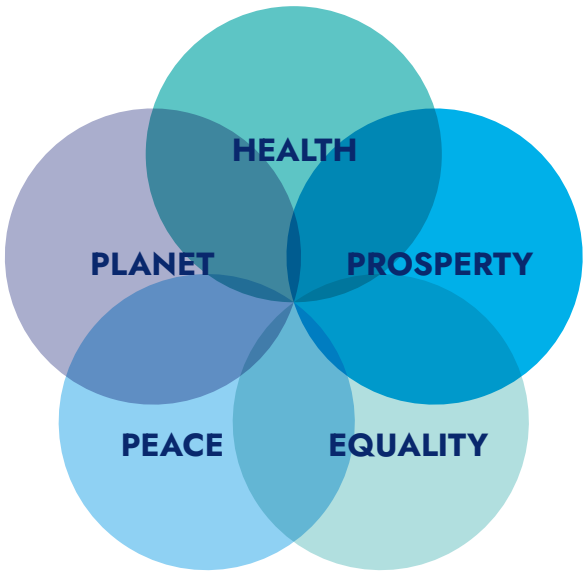
Nursing and other forms of care work act as a 'shock absorber,' picking up additional slack during economic and other crises (Jones, 2020). This work is often performed by women, particularly by those who experience multiple forms of marginalization (Wenham, 2020). It is often done without adequate pay or social protection (Flor, et al., 2022). Providing over 80% of hands-on care, nurses are central to delivering universal health coverage (Kennedy, 2019). The International Council of Nurses recognizes that "the need for nursing is universal" (ICN, 2021c).

This chapter attempts to shift the frame to position nursing work as the type of care work that builds good societies (Lazenby, 2020), not merely the type of work that is valuable in a crisis. In this piece, we flip the narrative to outline the ways that nursing and care work can be the foundation from which we build our *best-case* society: a prosperous, robust, safe, equitable, and environmentally sustainable future.

The WHO Council on Economics of Health for All calls for a fundamental rethink of our local, regional, national and global economies to support rather than undermine human and planetary health (WHO, 2023b). Increasingly, social and economic policies are being re-designed to promote human and ecological well-being, while addressing key societal economic and equity issues (Wellbeing Economy Alliance, 2022). Since, as a caregiving profession, nursing sits at the juncture of overlapping societal objectives, our policies and practices with respect to nursing should be uniquely positioned to be able to realize, simultaneously, effectively and cost-effectively, the kind of best-case future we want to build. In other words, rather than being paralyzing, the recognition of current health and care work challenges should spur us even more towards resolute and purpose-driven action.

Nursing work supports critical societal objectives with people's health and the planet at its core. Like many forms of health and care work, nursing is performed in homes, communities and institutions, and is either paid or unpaid. Appreciating the different ways that nursing work is done allows us to see a fuller picture of its value to society.

Figure 6



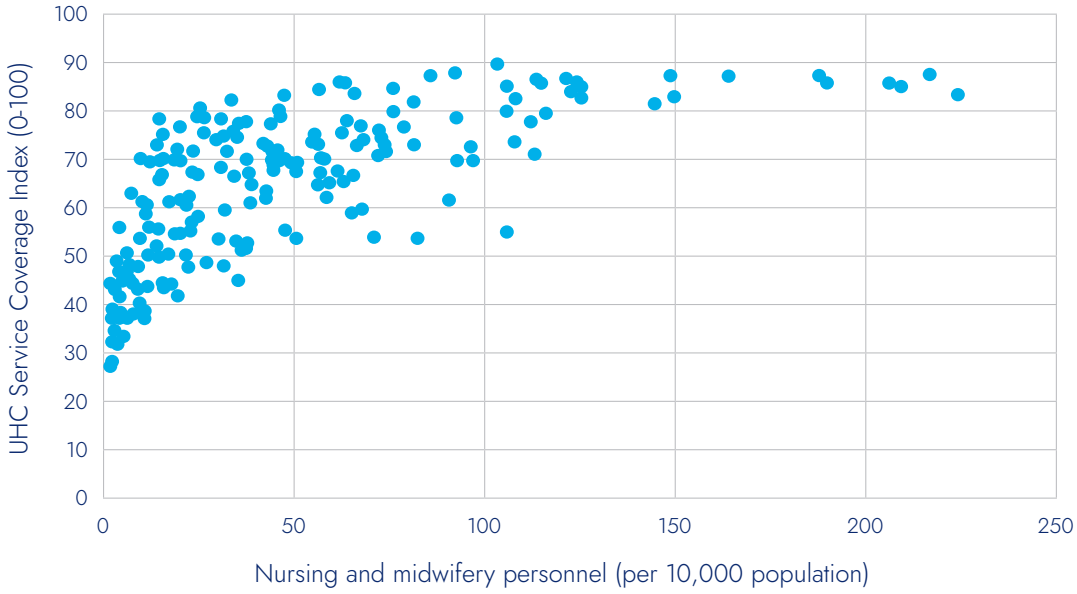
Nursing supports health

Without nurses, it would be difficult for most if not all core health systems functions to be performed. Health systems support improved population health and productivity, economic prosperity and diversification (WHO, 2017)., global security, social cohesion and social innovation (Commission on a Global Health Risk Framework for the Future and National Academy of Medicine, Secretariat, 2016).

Globally, there is a significant association between the density of nursing and midwifery professionals and improved health outcomes, including reduced maternal mortality, under-five mortality, infant mortality, neonatal mortality, excess COVID-19 deaths and life expectancy (Figure 7) (Lui & Eggleston, 2022). Nurses and UHC also go hand in hand: there is a positive correlation between nurse and midwife density and UHC service coverage (Figure 8).

Figure 7: Association between nurse and midwife density and life expectancy at birth

Figure 8: The relationship between national nursing and midwifery density and UHC service coverage



Nursing supports economic prosperity

Nurses support the economic prosperity that ensues when a population is healthy and productive. While economic growth has been a widely used term to reflect societal economic objectives, there is a need to move beyond Gross Domestic Product as a measure of progress. Highly relevant to this, nurses' contributions stretch beyond growth and have the potential to support inclusive economic prosperity and a broad range of social goals.

That said, nurses do have a measurable impact on labour force productivity as measured in market terms. In unpublished analysis performed by United Health Futures for the WHO Health

Workforce Department, a greater density of nurses was associated with the faster growth of value-added in labour-intensive sectors such as manufacturing. Interestingly, this association was not found for physicians. It is worth noting that the positive productivity differential generated by nurses was found to be mitigated in countries that do poorly in terms of gender equality, suggesting, unsurprisingly, that gender inequality hinders economic growth.

Nursing supports gender equity

As a majority-female profession, the gender equality challenges that nurses face both reflect and can amplify wider gender equality issues facing the health workforce (Morgan, et al., 2016). This includes gendered occupational segregation (WHO, 2019), gender pay gaps (WHO, 2022b), and gendered violence and other occupational hazards (Addati, et al., 2018). As a result, nursing also provides a pathway of greatest impact for achieving gender equality objectives in the health system and beyond.

Inside the health system, the gender balance of the nursing workforce may be a factor influencing population health outcomes. For example, cross-sectional analysis performed for WHO for the recently published *Fair Share in Health and Care* report (WHO, 2024) suggests that, at a national level, a greater proportion of female nurses is correlated with improved population health outcomes, such as longer life expectancy, and reduced infant and maternal mortality.

Beyond the health system, nurses support wider societal equity objectives. First, as one of the largest professions in the world, nursing employment is a leading source of decent work. Decent work refers to quality employment that is safe and secure, fairly compensated and upholds the dignity and rights of those involved (ILO, 2024). Second, nursing employment can provide entry and career progression opportunities preferentially to women and to those from rural and otherwise marginalized backgrounds (WHO, 2017a). Third, when women health care workers are fairly compensated, evidence suggests that they will re-invest their pay in their families and communities, supporting intergenerational equality and wider community cohesion (Clinton Global Initiative, n.d.). Fourth, nursing work may alleviate unpaid care work which is borne largely by women and is one of the primary barriers to gender-equitable labour-force participation globally.

Forthcoming work done for WHO suggests that improvements in the availability and wage conditions of health and care professionals is correlated with lower overall levels of unpaid care performed by women, and better gender balance in unpaid care between women and men. In society at large, removing gendered barriers to labour force participation, such as unpaid care, and achieving gender parity in the labour market, has the potential to unlock up to USD 28 trillion of value to society per year (Woetzel, et al., 2015).

Nursing supports peace

While nurses on the frontline of conflict experience tremendous challenges, nursing work can build peace through nurturing "relationships that value the inherent worth and dignity of others" (Srof, Lagerwey & Liechty, 2023) and upholding a social contract that extends to all humanity (Lazenby, 2020). It has been argued that "the profession of nursing, in its radically equal treatment of all people, breaks down boundaries. Nursing thus calls people to a social contract that is unbounded" (Lazenby, 2020). With increasingly intricate patterns of internal and international migration through nursing employment, global 'care chains' and remittances from nurses spread across the whole planet (Orozco, 2009).

Although nursing work has been performed for millennia, the nursing profession as we currently know it was founded on the frontlines of conflict: Florence Nightingale's efforts to systematize best practices in health care for wounded soldiers during the Crimean War served as a blueprint for modern institutional nursing practice (Wooton & Davidson, 2023).

Nurses continue to be on the frontline of conflicts worldwide (Wooton & Davidson, 2023). Conflicts have a dual meaning for many nurses, who respond in a professional capacity while often being impacted personally. For example, nurses and other health care workers during the war in Yemen (2014-current) took on a double-burden of providing health care work (Elnakib, et al., 2021), which was itself a target of multiple attacks (McKernan, 2020), while simultaneously navigating challenges of living their personal lives in a crisis zone. In the Ukraine war, nurses

were displaced from their homes yet stayed on to provide vital health care for those impacted by hostilities (WHO, 2023c). In Gaza, 229 health care workers including 73 nurses and midwives were killed in the line of their work between 7 October and 19 November 2023 (Healthcare Worker Watch-Palestine, 2023). During conflicts, international cohorts of nurses mobilize within the humanitarian response network directly and indirectly, and they use political advocacy and other forms of mobilization to speak out against conflict.

CASE STUDY

NURSE-LED ALLIANCE FOR CHILDREN IN TRAFFICKING: A PUBLIC HEALTH APPROACH TO COMBAT HUMAN TRAFFICKING.

The Alliance for Children in Trafficking (ACT), initiated by the National Association of Nurse Practitioners (NAPNAP) Partners for Vulnerable Youth (NNPVY), addresses global human trafficking with a nurse-led care model. Shifting from a criminal justice to a public health approach, ACT aims to improve awareness and identification within health care systems. Operating on standard setting, replication and dissemination, it collaborates with 23 organizations, training over 10,000 clinicians and contributing to U.S. federal guidelines on trafficking response. Despite historical gaps in professional training, ACT educates health care professionals on trafficking victim identification and support. Challenges include limited nursing perspectives in national forums and health care resistance, but the nursing profession's trust aids programme acceptance. This initiative highlights nursing organizations' vital role in addressing public health threats, emphasizing the ongoing need for advocacy and policy engagement on complex issues like human trafficking.

Nursing supports planetary health

Human destruction of natural environments combined with the climate crisis means that the life sustaining systems of the planet are increasingly precarious, impacting human health. Nursing work can respond directly to the health impacts of climate change and environmental degradation, while simultaneously advocating for planetary health (European Federation of Nurses Associations, 2022). Furthermore, it has been argued that nurses, through their ethic of care, have a moral obligation to respect and care for Earth as a living thing (Lazenby, 2020).

The ICN Code of Ethics recognizes nurses' role in planetary health, calling on nurses to "collaborate and practise to preserve, sustain and protect the natural environment and [be] aware of the health consequences of environmental degradation, e.g. climate change" (ICN, 2021c).

Practical ways that nursing supports planetary health include through advancing planetary health research, through advocating for planetary health policy and action, by leading change in the community and in clinical practice, and by education for planetary health (Glauberman et al., 2023). At the health facility level, nurses can directly support the Healthy Hospitals, Healthy Planet, Healthy People initiative through a systems-based approach to promote greener care environments (WHO, 2009).

CASE STUDY

TRANSFORMING HEALTH CARE WASTE INTO LIFESAVING RESOURCES.

Nurse Claire Lane founded Save Our Supplies Australia to tackle medical waste in hospitals. Recognizing the discard of clean, unused supplies for trivial reasons, she redirects these items to communities in need, preventing usable wastes from filling landfills. The organization has delivered AUD 5 million worth of supplies to countries like Papua New Guinea, Solomon Islands, Cambodia and Fiji. Notably, they aided in establishing a maternity unit in Papua New Guinea and distributed 10,000 bottles of hand sanitizer during the COVID-19 crisis in Fiji. Annually saving 20 tonnes of medical waste, they benefit both the environment and communities. In Australia, the organization supports wildlife charities, provides essentials to health care charities for the homeless, and aids clinical simulation training at universities. Partnering with major Brisbane hospitals, Save Our Supplies demonstrates success in repurposing medical resources for diverse needs, creating positive impacts on global health, environment and economics.

So, who cares about the carers?

Concerningly, the social contract of unconditional care on which nurses have built their profession is being continually undermined: by political choices, by privatization, by unsustainable 'business models', and by lack of adequate financing. This vicious cycle culminates in a crisis of care: where individuals and organizations that provide care are undermined and weakened, while at the same time the conditions in which care is required are exacerbated, such as in growing and ageing populations faced with intersecting polycrises (UN Women, 2021). The moral foundation of nursing is thus exploited by systemic factors that both depend on, yet take for granted nursing work, while simultaneously creating conditions that are unsustainable.

Turning this around is not only possible, it is vital for the future of our planet and its people. Policy levers to support high quality nursing work and care about the carers include:

- Greater investment in health and social infrastructure, including through domestic resource mobilization, with a focus on universal health coverage, primary care and human resources for health.
- Ensuring decent work for all health and care workers through safe work, adequate wage conditions, prevention of workplace violence and harassment, appropriate contractual arrangements, adequate worker representation, collective bargaining, employment opportunities, social security, and family and personal life balance WHO, 2022c).
- Closing the pay gap through legislation, pay transparency, freedom of association and collective bargaining, and diversity and inclusion in the workplace.
- Removing barriers to workforce participation, including by recognizing, reducing and redistributing unpaid care work, strengthening labour rights and antidiscrimination laws, providing adequate, gender balanced family leave, ensuring safe and free family planning, and improving the leadership of nurses in decision-making.
- Supporting better and more inclusive data on nursing work in all its forms across all contexts.

CHAPTER

7

Investing in and protecting nurses – a healthy workplace matters

Amanda McCLELLAND,
Master of Public Health and Tropical Medicine, BNRN, Senior Vice President, Resolve to Save Lives

Dr Mickey CHOPRA,
MD, MPH, PhD, Global Solutions Lead for Service Delivery in the Health Nutrition and Population global practice, World Bank

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Rakhine State, Pauk Taw, Myanmar. Health workers should not need to choose between caring for themselves and caring for patients.

Around the world, workplace safety is a number one priority, and many high-risk industries have implemented measures to make sure that doing your job doesn't cost you your life. But this is not the case in health care work. Instead, it's expected that nurses and other health workers will be altruistic, putting their lives on the line to protect their patients and the communities they serve. But this is a false choice – health workers should not *need* to choose between caring for themselves and caring for patients, and any situation that forces health workers to make this choice in 2024 is simply unacceptable.

Nowhere is this choice more salient than during infectious disease outbreaks, and we all know the many harrowing examples from recent years. The Western African Ebola virus epidemic killed hundreds of health workers battling to contain the spread of the virus. The COVID-19 pandemic claimed over 100,000 health worker lives in its first year alone – and nearly half were nurses. In these, and other, instances, after much initial enthusiasm for "celebrating frontline heroes", things quickly returned to normal, and health workers were again expected to get on with their jobs in hazardous conditions.

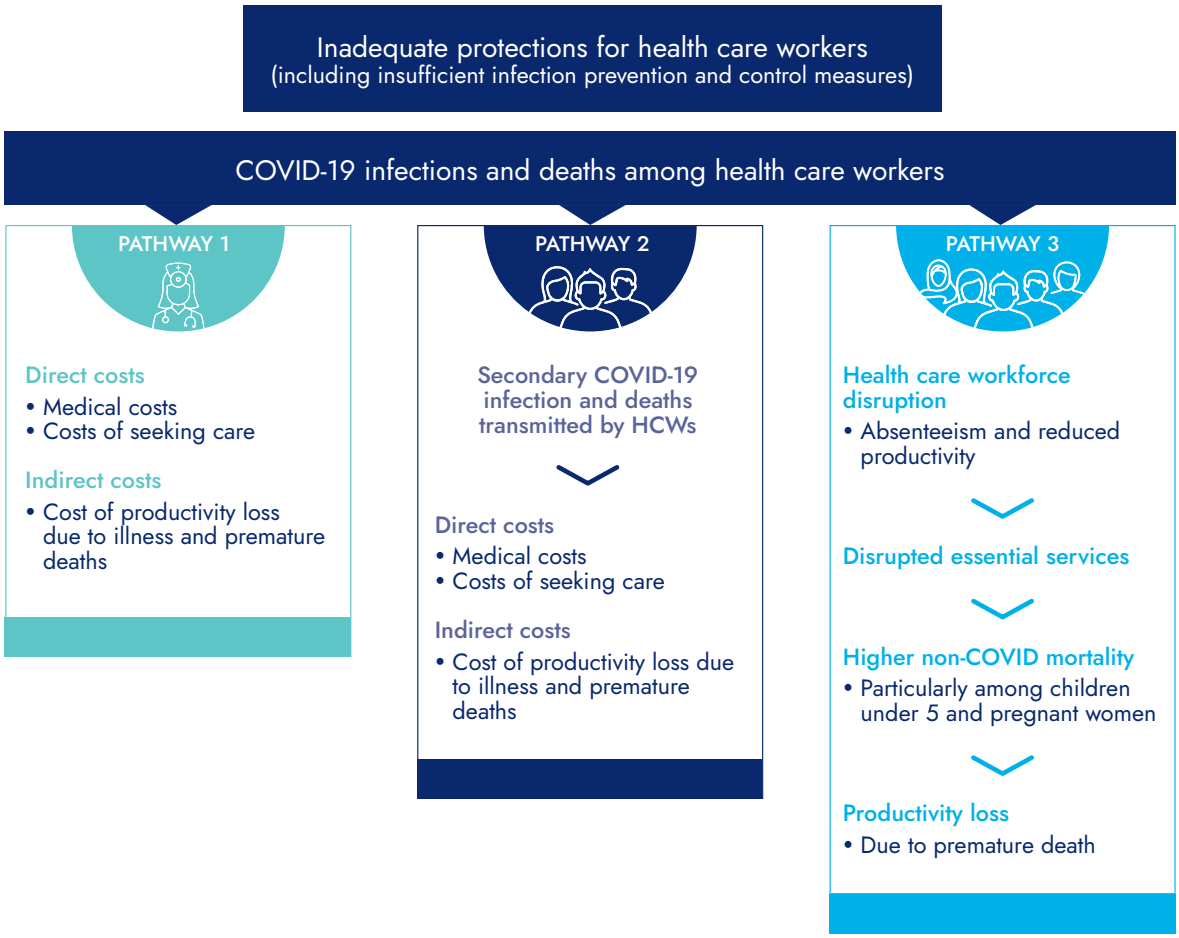
While these situations are tragic for health care workers and their families, they also put a financial strain on the health system, affecting patient care and recruitment. For the first time, the World Bank and Resolve to Save Lives joint study (Wang et al, 2023) has calculated the cost of health worker infections and deaths using data from the first year of the COVID-19 pandemic.

The staggering costs of health worker infections

Our report , *The economic burden of SARS-CoV-2 infection amongst health care workers in the first year of the pandemic in Kenya, Colombia, Eswatini, and South Africa*, estimates the economic costs associated with COVID-19 in health workers in five study sites – three countries (Colombia, Eswatini, and Kenya) and two provinces of South Africa (Western Cape and KwaZulu-Natal). When estimating the true economic costs, it is important to look beyond the individual cost and include the impact on the health system and society more broadly.

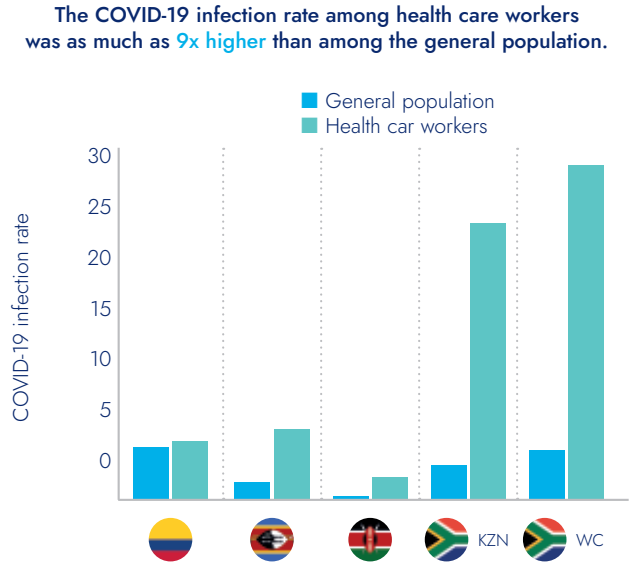
We estimated the full economic cost of COVID-19 infection by considering three areas: 1) costs associated with primary infections and deaths among health workers; 2) costs of secondary infections and deaths in the general population caused by transmission from infected health workers; and 3) costs of non-COVID-19 excess maternal and child deaths related to disruptions in health service delivery (Figure 9).

Figure 9: Pathways (Wang et al., 2023)



Our study showed that COVID-19 incidence among health workers was up to 10 times higher than in the general population. Mortality rates were higher among health workers in four of the study sites. And in all study sites, COVID-19 mortality among contacts was five to 15 times higher than in health workers themselves.

Figure 10: Infection rate (Wang et al., 2023)



Every site experienced millions of dollars in costs – and sometimes hundreds of millions. The total cost in all three areas exceeded USD 30,000 per health care worker, except in Colombia, where the relatively stronger health system resulted in a lower risk of health workers transmitting COVID-19 to their close contacts. The total economic burden as a share of annual total health expenditure ranged from around 2% in Colombia to around 8% in South Africa-Western Cape.

Figure 11: Cost per infection (Wang et al., 2023)

	Cost Per Health Care Worker Infection*	Ratio of Cost Per Health Care Worker Infection to GDP/Capita in 2020	Total Economic Loss
Colombia	$10,105	1.54x $6,549 GDP	$423.86 MILLION
Eswatini	$35,659	9.05x $3,941 GDP	$16.19 MILLION
Kenya	$33,619	17.98x $1,870 GDP	$113.20 MILLION
South Africa, KwaZulu-Natal	$34,226	5.77x $5,931 GDP	$544.64 MILLION
South Africa, Western Cape	$33,781	5.70x $5,931 GDP	$337.91 MILLION

* All figures in USD

While these deaths are tragedies, understanding these staggering economic costs does raise awareness of the true impact of COVID-19 and can help prioritize interventions. Ultimately, we hope this data will galvanize national decision-makers and the global health community to move beyond the cycles of panic and neglect – beyond celebrating health workers as "heroes" before quickly forgetting all about them – and towards building a resilient and adequately protected health workforce.

COVID-19 infections in health workers resulted in enormous societal costs, calling for increased infection prevention and control (IPC) measures, and in resilient health systems more broadly. There is now a window of opportunity for countries to begin investing in and prioritizing health system resilience, especially in lower-income countries that may have lower baseline capacities.

Although the cost of health worker primary infections and deaths is significant, the costs related to onward transmissions and disruption of maternal and child health services are far higher. Excess deaths among mothers and children reverse decades of work to improve mortality rates and fundamentally undermine the nurse-patient relationship. Dictated measures to safeguard the health of mothers and children, a high-risk population in public health emergencies, are critical.

It's worth noting that these costs are likely underestimates. Infections and deaths are often underreported, creating challenges during COVID-19. Health worker infections and deaths may have longer-term impacts, including loss of workforce. Considering excess deaths from other causes would substantially increase economic costs. This shows the need to closely monitor health worker infections and deaths during outbreaks, and to assess the economic costs of health worker infections beyond costs incurred to health workers themselves.

How to keep frontline workers safe

Overall, our study shows that the economic costs associated with preventable health worker infections and deaths are too great to bear. Preventions through IPC measures, addressing compensation, enhancing health worker care, and reimagining the role of nurses in our global health systems are needed to protect health workers.

IPC is an evidence-based (WHO, 2022d, WHO, 2022e), cost-effective approach that saves lives both during and outside of outbreaks (Luangasanatip et al., 2018). It is therefore critical that every country establishes and maintains a comprehensive national IPC programme to incorporate IPC across all levels of the health system.

Compensation, meanwhile, is one of the main factors driving migration of nurses from places where they are needed the most, and even into other professions. During some of the most high-profile outbreaks of the last decade, many nurses have gone for months without pay – an inexcusable reality that has its roots in gender (Raven et al., 2018). In addition, health workers need ongoing psychological support, which is rarely, if ever provided.

Our economic analysis shows that nurses are not expendable: they are the lynchpins of our global health systems. The essential role of nurses at every level of these systems – from the bedside to hospital management, to policymaking – needs to be recognized and supported, so that we can demand the changes needed to protect the profession. By the time the next International Nurses Day comes around, we hope the conversation has moved away from making the case that nurses and other health workers need to be protected – to ensuring their ongoing safety remains a priority in countries throughout the world through programmes and interventions.

CASE STUDY

NURSES' RESILIENCE AMID MYANMAR'S CRISIS.

In the aftermath of Myanmar's military coup on 1 February 2022, nurses in the Civil Disobedience Movement (CDM) face dire challenges. Despite the constant threat of arrest, torture and death, over a hundred nurses and doctors have sacrificed everything to continue providing care amidst the turmoil.

One nurse states, "We are not politicians, soldiers, or fighter pilots; we are nurses who just want to care for our patients." Tragically, junta soldiers accused a nurse of criminal activities, leading to her arrest, torture and ultimately being burned alive in June 2022. Many nurses are now in flight, seeking refuge in neighbouring countries. The military's disruption of health care services has dire consequences, with children succumbing to easily treatable diseases and immunisation efforts neglected.

Despite these challenges, Myanmar's nurses exemplify resilience, highlighting the critical need for international support to protect health care workers, especially those in the most extreme and dire situations.

CHAPTER

8

The economic and non-economic impacts of nurse turnover in hospitals — a global perspective

Gillian ADYNSKI,
Nursing and Health Policy Analyst, International Council of Nurses

David STEWART,
MHM, BNRN, Deputy Chief Nurse, International Council of Nurses

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Introduction

In mid-2023, an extensive survey of nurses in Finland was conducted to assess their well-being, workload, and propensity to change careers (Helsinki Times, 2023). Each month, 42% of participants reported contemplating leaving the nursing field, with an alarming 82% of nurse ward leaders considering exiting the profession. The primary reasons identified were insufficient pay, consistently high workloads and frequent changes in their work environment.

The issue of nurse turnover, evidenced by nurses departing from their roles or from the profession, remains a critical challenge worldwide. Recent studies by Winter et al. (2020), Tang & Hudson (2019) and ICN (2019) underscore its ubiquity and the substantial impact it has on health care systems. It is important to acknowledge that, in some contexts, nurse turnover can introduce fresh perspectives and innovations into a team, potentially leading to improvements in patient care and operational efficiencies. However, there are also substantial challenges which significantly impact financial costs associated with hiring and training replacements as well as the loss of valuable expertise and productivity.

Turnover includes both voluntary and involuntary movements of nurses within and outside hospitals (Park et al., 2014). Annual turnover rates vary considerably across countries: 15.1% in Australia (Roche et al., 2015), 25% in Egypt (ICN, 2021a), 27.65% in the USA (Nelson-Brantley et al., 2018), 36% in the UK (ICN, 2021a) and 23% in Israel (Kerzman, et al., 2020).

Economically, the repercussions of nurse turnover are profound because of direct and indirect costs. Direct costs include expenses related to recruitment, orientation and training of new staff. Indirect costs are equally impactful, encompassing the loss of productivity during the vacancy period and the time it takes for newly hired nurses to reach full proficiency. Turnover costs millions of dollars creating a universal economic strain on health care systems.

The loss of experienced nurses also leads to a depletion of intellectual capital. Experienced nurses hold invaluable tacit knowledge about patient care, hospital protocols and efficient work processes. Their departure not only signifies a loss of skills but also of mentorship capabilities. This erosion of expertise can lead to a decrease in the overall quality of care and an increase in the likelihood of patient safety incidents.

On a broader scale, high turnover rates can lead to staffing shortages, putting additional pressure on remaining staff and potentially leading to a vicious cycle of burnout and increases in staff turnover. This not only increases the workload of existing staff, but it also affects their morale and job satisfaction, contributing to a deteriorating work environment.

The non-economic impacts of high turnover, though harder to quantify, are equally significant. High turnover rates disrupt work group processes, leading to a lack of cohesion and continuity within teams. When new members join a team, they often require existing staff to adapt to new dynamics and to mentor the incoming personnel. The psychological impact on the remaining nurses is notable: they may experience increased job demands and pressure, leading to burnout, decreased job satisfaction and mental health issues, and decreases in well-being, which all can lead to further increases in turnover.

From the patient's perspective, the consequences are equally concerning. High nurse turnover has been linked to decreased patient satisfaction, increased patient falls and medical errors. The continuity of care is disrupted, and the therapeutic relationship between patient and nurse is often compromised. According to a new study on the effect of nurses' intention to leave and nurse-patient workload on in-hospital patient mortality in Italy, "a 10% increase in intention to leave and an increase of one unit in nurse-patient workload increased likelihood of inpatient hospital mortality by 14% (odds ratio 1.14; 1.02–1.27 95% CI) and 3.4% (odds ratio 1.03; 1.00–1.06 95% CI), respectively." (Catania, et al., 2024)

Given these extensive impacts, it is clear that addressing recruitment and retention is not just an organizational issue, but a fundamental component of health care policy and practice. Strategies to increase recruitment and mitigate high turnover typically focus on improving the work environment, offering competitive compensation, providing opportunities for professional development, and supporting nurses' mental health and well-being. Future research should explore these strategies in detail, providing a roadmap for health care institutions and policymakers to tackle this global challenge.

CASE STUDY

NURSING TURNOVER CRISIS IN FIJI: CHALLENGES AND STRATEGIC IMPERATIVES.

(Alisi Talatoka Vudiniabola, President, Fiji Nursing Association)

Fiji, like many Pacific Island Countries (PICs), grapples with a severe health care challenge: a high nursing turnover exacerbated by health worker burnout and nurses seeking opportunities abroad. Over one-third of nurses at Fiji's main referral hospital resigned, reflecting a trend across the region. In 2022 alone, 800 nurses resigned, depleting the workforce by over a fifth. By 2024, the number of nurses on the number of front lines is 2003 leaving approximately 1,650 nursing positions vacant. In fact, many hospitals have less than 40% of their established Registered Nurse positions. This poses a threat to the stability and quality of health care services, as nurses constitute 74% of Primary Health Care (PHC) services in PICs [105]. Urgent action is needed to address this crisis. While the WHO Global Code discourages active recruitment from countries facing shortages, targeted strategies are crucial. Transparent career pathways, improved working conditions, and competitive incentives can help retain health care workers. Without prompt intervention, Fiji's health care system and similar PICs face a precarious future, impacting the well-being of their populations.

To enhance nurse retention, investment strategies can be aligned with several key categories. Each of these categories contains elements crucial to the well-being and satisfaction of nursing professionals, and strategic investments in these areas can lead to improved retention rates.

- **Work-life balance:** Strategies include flexible working hours, adequate policies for vacations and time off on leave, and support for family needs. Investment in these areas can lead to an improved balance between professional and personal life, which is highly valued by nurses. Facilities that offer childcare, flexible shifts and generous leave for family emergencies are often successful in retaining staff. The return on investment (ROI) from these investments is seen in reduced absenteeism and a more engaged and productive workforce.
- **Work environment:** Factors such as responsive leadership, job satisfaction, workload, autonomy, minimal interruptions, adequate staffing levels, high-quality patient care, and access to quality resources are crucial. Investments could include improving staffing ratios, offering better quality equipment and providing a supportive environment that minimizes stress including access to full range of mental health services. The ROI here is multifaceted, including improved patient outcomes, higher job satisfaction and lower turnover costs.
- **Work context:** This includes remuneration, organizational culture, management and leadership quality, and workplace health and safety. Investments to improve remuneration packages and to cultivate a supportive organizational culture can be particularly effective. The ROI from enhancing the work context is reflected in higher retention rates, which leads to cost savings in recruitment and training, and a more stable workforce, which can drive better health outcomes.
- **Professional context:** The public image of nursing, labour market conditions, job security, personal satisfaction, opportunities for education and professional development and the potential for advancement are key factors. Investment in continuous professional development and clear career pathways can help retain nurses. The ROI includes better patient care, more innovation and improvement in processes, and a reputation for excellence that attracts high-quality staff.
- **Demographics:** Understanding the demographics, such as gender, age, family status and educational level of the nursing workforce helps tailor retention strategies. For example, offering part-time positions or career breaks could be attractive to those with young families or who are pursuing further education. The ROI from investing in demographic-specific strategies is a more diverse and flexible workforce that can better meet the changing demands of health care (Almalki et al., 2012).

Investing in these strategies not only improves nurse retention but also contributes to a more efficient, effective health care system. The ROI is not only financial but also includes intangible benefits, such as increased staff morale, improved patient outcomes and satisfaction, and overall higher quality of care.

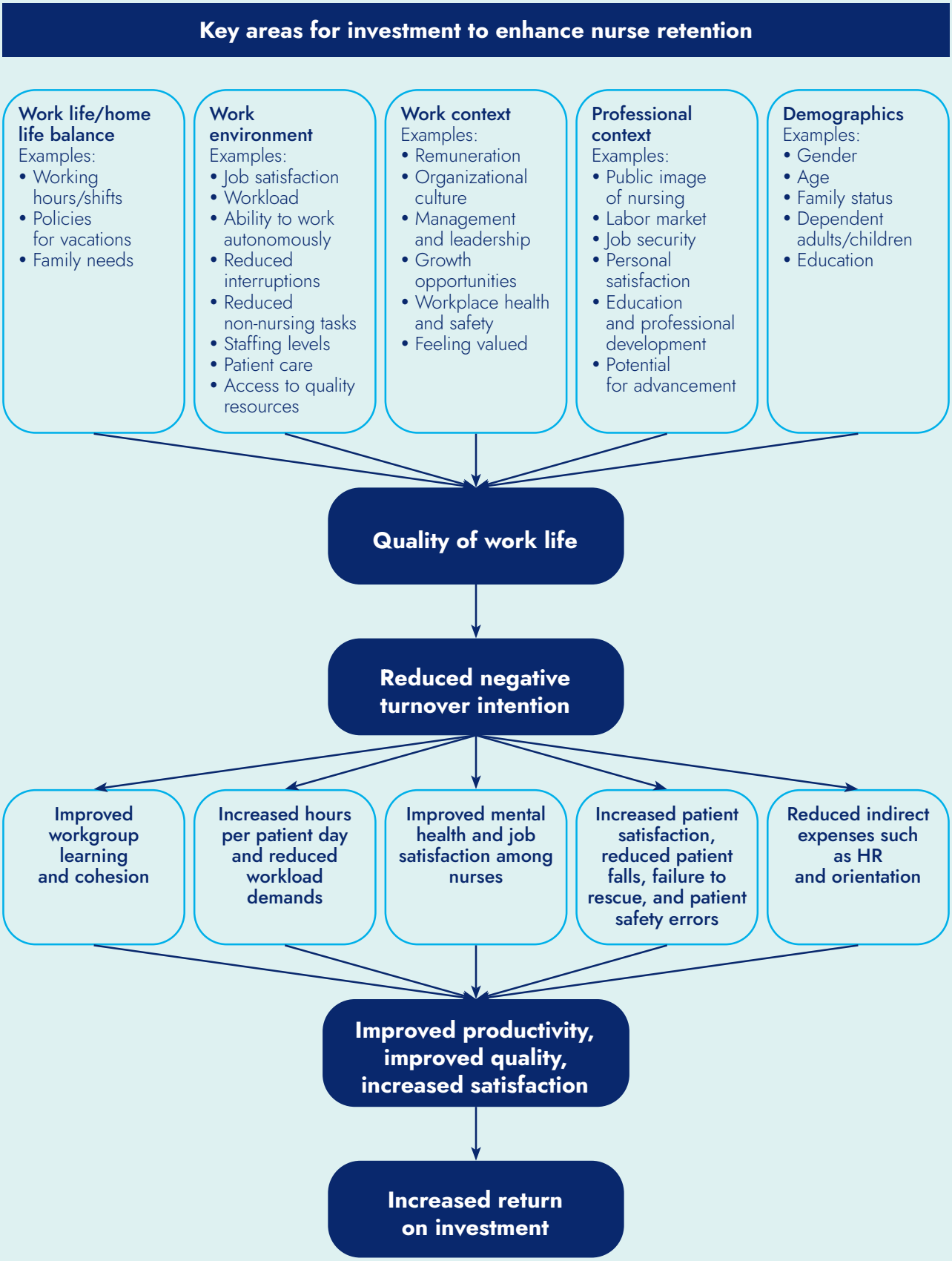
CASE STUDY

INVESTING IN NURSE MANAGERS: A COST-SAVING STRATEGY IN HEALTH CARE.

Press Ganey undertook a study (Warshawsky, 2023) into the development of nurse leaders, particularly nurse managers. They found that health care organizations frequently face high nurse turnover, particularly when nurses are promoted to management roles without proper education. This gap leaves many nurse managers, who usually have less than four years of leadership experience, unprepared for their new responsibilities. The lack of managerial skills among these individuals, who are crucial in leading the front-line nursing staff, can lead to decreased team performance and satisfaction.

However, investment in nurse managers can significantly enhance both staff and patient outcomes. High-performing nurse managers not only foster a higher intent to stay among their staff, reducing turnover, but also improve the overall quality of care. This improvement is reflected in fewer falls, bloodstream infections, and urinary tract infections in their units. Economically, the savings are substantial. For a unit of 50 RNs, effective nurse management can lead to an estimated savings of USD 837,000, alongside considerable cost reductions in patient care complications. This case illustrates the compelling need for health care organizations to prioritize and invest in comprehensive leadership training for nurse managers, emphasizing that such investments are not just beneficial but essential for both quality patient care and financial sustainability.

Figure 12: Key areas for investment to enhance nurse retention



CHAPTER

9

Unlocking economic benefits in long-term care through strategic investment in nursing

Joanne SPETZ,
PhD, FAAN, Professor, Institute for Health Policy Studies, University of California, San Francisco

Roy A. THOMPSON,
PhD, MSN, RN, Postdoctoral Fellow, University of Missouri

Laura M. WAGNER,
PhD, RN, FAAN, Professor, School of Nursing, University of California, San Francisco

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Nurse-led interventions in LTC facilities can improve management of conditions like diabetes and dementia, which improve residents' quality of life and cut costs for the facility.

Rapid population ageing is exerting significant pressure on long-term care (LTC) systems worldwide. As life expectancy increases and birth rates decline, more of the global population is entering their senior years (WHO, 2015). It was estimated that 142 million older people required assistance to meet their basic needs in 2022 (WHO, 2022f) and the number in need of support is projected to increase by 100 million between 2015 and 2030 (ILO, 2019). There will be variation in the rate of growth across nations, and countries that are experiencing greater improvements in life expectancy will also face the most rapid increase in their older population, including China (OECD, 2023a) and nations in Latin America and the Caribbean (PAHO, 2019). While family, neighbours and friends provide support to older people worldwide, population ageing is generating a rising demand for quality LTC services. This increasing demand will strain health care systems globally, challenge health care budgets, and necessitate the recruitment and training of more health care professionals to meet the unique needs of older adults.

Nurses are indispensable and vital to LTC systems. LTC nurses provide essential nursing care, emotional support and advocacy for residents or patients with complex health challenges. Their compassionate approach is instrumental in improving the well-being and dignity of those in LTC.

Innovative nursing models that encourage leadership and collaboration contribute to better health outcomes. Nurse-led interventions in LTC facilities can improve management of conditions like diabetes and dementia, which improve residents' quality of life and cut costs for the facility. Nurse-led care programmes and interventions have positive economic and clinical benefits, largely through avoiding hospitalization costs (Grabowski, O'Malley & Barhydt, l., 2007). One study of a nurse-led intervention, INTERCARE, reduced hospitalizations and improved care outcomes of nursing home residents in Switzerland (Bartakova et al., 2022) by training nurse leaders who implemented the programme; these quality improvements generated positive economic returns to the health system as a whole. Furthermore, enhancing the training of registered nurses and assistants in nursing care facilities can generate economic benefits. One training programme in New York that focused on fall reduction risks reported significant decreases in falls alongside net cost savings(Teresi et al., 2013).

It is crucial to have adequate numbers of registered nurses in LTC. Numerous studies have documented that better nurse staffing in LTC impact patient outcomes, which ultimately results in cost savings to care for residents. Greater staff hours per resident day are associated with better

care quality for registered nurses and nursing assistants internationally, including in Canada (Boscart et al., 2018), South Korea (Shin and Hyun, 2015), China (Kwong et al., 2009) and the United States (Shin & Bae, 2012). Better staffing in LTC facilities leads to fewer falls, decreased aggression and less deterioration of range of motion among residents. Increased registered nurse staffing confers benefits to residents, including lower rates of pressure injuries, infections and pain (Jutkowitz et al., 2023, Perruchoud et al., 2021). Staffing instability, on the other hand, contributes to higher rates of emergency department visits, worsening mobility among residents and increased support required with activities of daily living (Mukamel et al., 2023). The cost savings associated with improving resident outcomes are significant; an economic analysis that focused on the costs of pressure injury treatment, hospitalizations and urinary tract infections found that more registered nurse time per resident day led to a net financial benefit for society (Horn, 2008, Dorr et al., 2005). By optimizing nurse staffing and knowledge in LTC, facilities can achieve cost-efficiency while providing higher-quality care, benefiting both patients and health care systems.

Nurses help improve health and reduce costs by caring for older adults in communities instead of transferring them to LTC facilities and hospitals (Tappenden et al., 2012). Nurses in the Buurtzorg "neighbourhood care" programme in the Netherlands cost more per hour than traditional care approaches, yet analyses show that fewer hours are needed with these expert nurses, thus saving money. Older adults served in this model, which has now been adapted globally, are highly satisfied and less likely to use emergency hospital services. Similarly, nurses working in the United States-based CAPABLE programme develop person-centred interventions to keep patients at home through goals around pain, medication, depression, and physical function, leading to financial savings from reductions in hospital and nursing home admissions (Szanton et al., 2021).

Direct investment in LTC nursing staff through higher wages is associated with better care quality and paradoxically generates an economic benefit. Research reports a positive association between higher hourly wage of assistive staff and nursing home quality ratings (Allan & Vadean, 2023), and lower nursing assistant turnover (Sharma & Xu, 2022). Policies that support higher wages for staff, like minimum wages, are associated with greater nursing assistant hours per resident day, likely due to the wage growth pulling more people into long-term care jobs (Sharma & Xu, 2022). Cost-effectiveness analysis indicates that longer average registered nurse tenure in nursing homes results in lower net expenditures when considering cost savings from lower rates of hospitalizations and deaths (Uchida-Nakakoji et al., 2016).

Many sub-Saharan African nations are experiencing faster growth of their older populations than the global average growth rate and, although some community and residential care models are emerging, services are limited (WHO, 2017b). Investment in workforce development, including nurses and assistive staff, is needed to support families facing financial burdens to care for older adults (Essuman et al., 2018).

Investing in nursing is not only good for the dignity of the profession, but also a sound economic decision. Nurses are essential caregivers and key players in the financial sustainability and efficiency of health care systems worldwide. These investments are essential because they:

- **Increase nurses' knowledge of gerontology and LTC**. Nurse training in the development and implementation of interventions that support optimal health for older adults benefit the people served and the health system that reaps lower downstream costs. Governments and health care systems should enhance funding for gerontological nursing education.
- **Improve nurse staffing in LTC**. Extensive research shows the importance of adequate, stable employment of registered nurses and assistants and optimal nurse-to-patient ratios. This will improve the quality of care and increase economic savings by reducing adverse events, hospital readmissions, lengths of stay, and dignity of LTC facility residents (Oosterveld-Vlug et al., 2013).
- **Support nursing leadership and research**. Investment in nursing leadership development programmes can empower nurses to lead changes in practice that improve LTC quality, and support the development of innovative, cost-effective, patient-centred care models.

- **Increase nurse wages in LTC**. Globally, nurses who work in LTC are paid lower wages than those who work in hospitals. This is detrimental to both nurses and LTC patients, and results in higher costs to address rampant turnover and lapses in the quality of care.
- **Develop and expand nurse-led interdisciplinary care models**. Encouraging interdisciplinary collaboration with nurses enhances care coordination, improves patient outcomes, and prevents unnecessary expenditures associated with fragmented care.

To ensure the sustainability and efficiency of LTC systems, it is imperative that policymakers, health care administrators, and stakeholders consider the far-reaching implications of nursing investments. These investments will pave the way for a future where high-quality LTC is inextricably linked to economic gain and will secure a better health outlook for the aging population.

CASE STUDY

COST-EFFECTIVENESS OF NURSE PRACTITIONERS IN SIX LONG-TERM CARE FACILITIES IN QUEBEC.

As the global elderly population surges, there's an unprecedented demand for long-term care services. The proportion of those aged 65 and older is expected to double by 2050, particularly impacting individuals over 75, the fastest-growing demographic with heightened care needs (WHO, 2015). Ontario, Canada, reflects this trend, experiencing a significant rise in requirements for daily living assistance among seniors. This demographic shift has triggered a reassessment of care quality and patient safety in long-term care facilities. In Québec, a groundbreaking study introduced nurse practitioners into six facilities, focusing on cost-savings analysis tied to the reduction of nurse practitioner sensitive events (NPSEs). The results were striking: the presence of nurse practitioners reduced the incidence of falls, pressure ulcers, time to care and the need for short-term transfers, which all translated into cost savings between CAD 1.9 to 3.3 million (Tchouaket, Kilpatrick & Jabbour, 2020). These outcomes not only enhance care quality but also emphasize the cost-effectiveness of expanding the role of nurse practitioners in long-term care.

CHAPTER

10

Valuing hospital-based nursing services

Jack NEEDLEMAN,
PhD FAAN, Department of Health Policy and Management,
Fielding School of Public Health University of California, Los Angeles

Switzerland: The nursing service is complex and, in many hospitals, it is the largest service.

Health care is delivered through a complex network of services, from primary and preventive services at the neighbourhood level to highly specialized tertiary services at technology-complex hospitals. These services require a broad and diverse workforce, including physicians, nurses and other health care providers and staff, including technologists, community health workers, traditional healers and others. Nurses are core staff in virtually all health settings, and especially in hospitals, assessing patients, delivering ordered care, coordinating and facilitating access to care from other providers and providing patient education and support, among other activities. Yet their contribution and the significance of the services they provide are often undervalued.

One of the reasons for this undervaluing is focusing on nurses as a personnel category or cost centre. Yet nursing is better thought of as a core service of hospitals. Patients are admitted to hospitals rather than treated on an outpatient basis because they need nursing services, and that need extends to overnight care and across multiple days. Hospitals are configured as they are to provide nursing services.

The nursing service is complex and, in many hospitals, it is the largest service measured by cost or personnel. Included in the patient care provided by that service is delivery of ordered drugs and care, assessment and monitoring of patient status and initiation of appropriate interventions when needed, psychosocial support of patients and their families, patient education, care coordination with other services, physical care and assistance in activities of daily living, and patient and family preparation for discharge (Kitson et al., 2014, Needleman et al., 2006). The most complex of these services, those requiring substantial knowledge, education and training, are provided by professional or registered nurses. The care these professionals provide has to be coordinated with the care of others employed on the unit, including licensed vocational nurses, nurse supportive staff, and clerks, and with physicians, pharmacists, therapists, dieticians and other personnel who attend or otherwise provide services for patients on nursing units. The cognitive and managerial demands on professional nurses required to successfully deliver these services are high (Ebright et al., 2003, Sitterding et al., 2012).

In many countries, there have been active efforts to shift treatment to outpatient settings, often employing professional nurses in these settings as well, and to reduce length of stay or shift convalescent days from the hospital. These efforts have the effect of increasing the nursing acuity of patients who remain hospitalized as inpatients; those who remain as inpatients have a higher need for the services professional nurses and nursing staff provide.

The expectations for nurses in inpatient settings are exacerbated in low- and middle-income countries by shortages of both nurses and physicians. Shortages of physicians have led to widespread task-shifting, often to nurses, of tasks usually carried out by physicians, including diagnosis and prescribing. There is a growing literature that suggests that task shifting can be effective, increasing effective capacity within constrained budgets, and WHO has promulgated a set of recommendations to assure effective and safe delivery of care that is shifted to nurses and other non-physician staff (WHO, 2008). This task shifting further increases the central role of nurses and the nursing service in delivering inpatient care (Munga et al., 2012).

Framing nursing as a core service, rather than a personnel category, may increase the value attributed to it, raising the issues of how to assess the value of that service and how that valuation should influence the resources provided for nursing services. In economic terms, value is often measured by the price consumers are willing to pay. For hospital care and for nursing services, this may not be a useful metric, as many payment systems obscure the services nurses provide and their value to patient care and outcomes.

In many countries, hospitals are funded by all-encompassing budgets, sometimes from public sources, sometimes from insurance pools. These budgets may be negotiated around rough measures of sufficiency to deliver services, but often the 'global' budget is rolled over from year to year with minor adjustments for inflation or anticipated volume changes without assessment of the adequacy of the budget for any specific service within the hospital.

In countries and systems in which insurance is the vehicle for purchasing health services, we observe two basic approaches to payment other than global budgets. The first is payment for each admission or day, sometimes adjusted for patient acuity, but not providing funding for specific services. The US Medicare system of Diagnosis-Related Groups (DRGs) is an example of this form of payment. In this system, allocation or attribution of payment to specific services, whether they are nursing, radiology, laboratory, or operating room, does not occur.

The second system is payment for individual services or supplies – drugs, laboratory services, time in operating rooms, and so forth. Nursing services have often been subsumed in a daily room charge that includes food, linens, and housekeeping, and is labelled by the type of room or unit (e.g. Medical, Surgical, Step-Down Unit, Critical Care Unit). The differences in these room types are differences not only in the kinds of patients and intensity of their service needs, but in the level of nursing care required to meet those needs. But these labels hide the fact that the room types reflect levels of nurse staffing and organization provided by nursing services to patients in those units. Subsuming nursing into a room category that includes both supplies and untrained labour is, in and of itself, devaluing professional nurses and the services they provide.

In some countries, there has been discussion of how to make the nursing services provided in these units more visible and thus more valued. In the United States, for example, a privately organized Commission for Nurse Reimbursement is working to promote changes in hospital payment systems to improve the current model of valuing and paying for nursing services (Commission for Nurse Reimbursement, 2024). Among the options being discussed by the Commission are dividing diagnostic-related group payment rates to separate the nursing component from other components of care, and in fee-for-service payment systems, creating separate charges for nursing services, either average charges at the unit-type level, or acuity-adjusted charges at the patient level. While these and similar efforts may make nursing services more visible, the presence of public funding of budgets and insurance reimbursement for overall care will continue to separate the consumer from the decisions on how much care to purchase or what an acceptable price or valuation of nursing services would be.

If price or payment levels are not useful metrics for assessing the value of nursing care, what are the alternatives? One approach would begin with a clear model of what the nursing service should accomplish, and how its performance should be measured against these expectations. Let us use as a definition of an effective, high value nursing service, a service in which ordered care is delivered in a timely manner, patients and their families are adequately prepared for discharge, patients are kept safe from hospital acquired injury and errors, appropriate, timely treatment is initiated for adverse complications, whether due to normal disease processes or

lapses in care, and that care is delivered efficiently, avoiding delays in and thus reducing length of stay and time in the hospital. Can this definition shape a definition of value, and can it be used to shape measurement of the quality of care and to assess whether the nursing service is staffed and organized to assure safe, appropriate and efficient care?

The literature on the economics of nursing begins in the middle to try to assess this. Since hospitals cannot operate their inpatient services or inpatient units without nurses, no one has tried to assess the value of the nursing service from a zero baseline. Instead, the leadership in individual facilities creates unit-specific staffing based on their professional judgment, revenue and budget projections, availability of professional nurses and other staff to be hired. The initial professional judgement may incorporate assessments of value or judgements of what constitutes adequate staffing. These plans may be modified in response to regulatory or accreditation mandates. Affordability and workforce availability can further modify decisions on the staffing levels that are put in place. Across hospitals, we observe substantial variation in both judgments of value and actual observed staffing levels.

Economists and other researchers have exploited the differences across facilities in staffing to measure value at the margin, and specifically to try to answer the question: What would be gained by increasing staffing in facilities with low nurse staffing levels? The measures used in this research have been extensive, including overall patient deaths or deaths among patients with avoidable or hospital-acquired complications (often called failure to rescue), complication rates for a wide range of infections, shock and cardiac arrest, readmissions, length of stay and overall costs per admission. Analyses of length of stay have found that days associated with treating hospital-acquired complications account for only a portion of longer lengths of stay, suggesting that delays in care or preparation for discharge are a substantial contributor to variations across hospitals in length of stay, making this a measure of the efficiency of care as well as of quality.

In this research, variations in risk adjusted rates, length of stay, or costs are regressed on a patient level risk adjustment model that accounts for patient-level factors that can contribute to the outcome, institutional measures such as teaching status or level of technology that might influence the risks or cost of care or length of stay, and measures describing the nursing service, including staffing levels and skill mix. The measures used to characterize the nursing service vary from study to study but have included hours of professional/RN time per patient, overall hours per patient provided by all nursing staff including professional nurses and nursing assistive personnel, the proportion of nursing hours provided by professional nurses, average number of patients assigned to each nurse, and deviations from targeted hours per patient for professional nurses and assistive personnel. The targeted hours have sometimes come from formal systems that take individual patient data and use a proprietary system to generate estimated hours of care needed by that patient, or that rate a patient based on a holistic assessment of their need for nursing care, or that have used mean or median hours on the unit as an informal norm. The research has been conducted across the globe, including in the United States, Europe, Thailand and Australia, among other countries.

Across the range of outcomes and settings studied, and across the wide range of measures of nurse staffing and unit organization, the results of this research have been consistent, and the findings should be considered robust (Dall et al., 2009). Key among these findings are adverse events and length of stay are higher in the hospitals with lower hours of nursing, lower hours of professional nurses per patient, and a lower proportion of the nursing staff comprised of professional/registered nurses.

Implicit in these findings is that whether or not the staffing levels in higher staffed hospitals are adequate to assure safe, reliable and efficient nursing care, there are substantial numbers of hospitals in which safety, reliability and efficiency would be improved by raising the hours of professional nursing per patient.

The value question is whether the additional costs of raising professional nursing hours is justified by cost savings associated with reduced adverse events and reduced admissions, and with the additional value to patients of better care. There are several well-designed and implemented studies using several different methods that address the cost saving question (Needleman et al., 2006, Dall et al., 2009, Martsolf et al., 2014, Griffiths et al., 2016). Additional studies assessing

the cost and cost-effectiveness of improved staffing are summarized in a systematic review by Griffiths and colleagues (Griffiths et al., 2021).

The findings on cost savings or offsets associated with efforts to use assistive nursing personnel or less well-trained nurses as substitutes for professional nurses or registered nurses, lowering the skill mix, are clear. These staffing and organizational strategies reduce costs, but the cost of increased length of stay and adverse events exceed the cost savings. Hospitals lose money when they deskill the workforce.

With regard to nursing hours per patient, particularly professional or registered nurse hours, increasing hours reduces adverse events and length of stay. The offsetting cost savings from these avoided events and costs vary widely with some studies finding net cost savings, and others finding only partial cost recovery at levels approximately one-half to two-thirds the cost of the additional hours.

Considering only the net cost to hospitals does not capture the value to patients of reduced risk of death, injury, or extended length of stay. The Griffiths and colleagues review of cost and cost-effectiveness uses the data in nine studies to estimate the net cost per life saved for studies that do not find full cost recovery (Griffiths et al., 2023). The estimates vary widely but the median estimate is USD 21,016 per life saved, well within the standard range of acceptable costs for cost-effectiveness studies. The focus on mortality also underestimates the value of nursing care as it ignores the additional value patients would ascribe to avoiding infections and timely discharge from the hospital.

Looking across the range of studies, there is a strong case that staffing nursing services at levels that assure safe, reliable and efficient care deliver value to patients that matches or exceeds their cost. Given this is the case, how can appropriate staffing levels be set and how they can be achieved on a day-to-day basis?

The first challenge is establishing baseline staffing for the forecasted number of future patients as well as the average patient acuity for each hospital unit that will achieve safe, reliable and efficient care. There are several mechanisms for doing this. Staffing levels and models from better staffed hospitals with better outcomes can serve as a benchmark or reference point for adequate staffing.

There are commercial or public staffing frameworks and programmes that have been used. The Irish health financing agency has adopted a Framework for Safe Nurse Staffing and Skill Mix, which is described as "a systematic, triangulated, evidence-based approach to determine nurse staffing (including both the nurse and health care assistant roles) and skill mix, based on patient acuity and dependency" (Government of Ireland, 2024). The staffing model relies upon an adapted version of a commercial staffing projection system, TrendCare, which applies patient level information to generate nursing intensity weighted estimates of hours needed on a given unit and shift.

Other systems that have been adopted that use an explicit rubric to manually classify patients, and then uses a standardized estimate of hours of nurse staffing needed for patients in each classification to provide an estimate of hours needed on a given unit and shift. The UK National Health Service Safer Nursing Care Tool is an example of this type of system. Adoption of these types of systems often requires tweaking to accommodate local nursing models. Because they focus on patient acuity in estimating hours, shift-to-shift staffing levels may need to be further adjusted to reflect variations in professional nurse levels of education and experience that might influence how many patients a less experienced nurse can be expected to care for on a shift.

Staffing standards that are adopted need to be monitored to assure they are achieving the goal of safe, reliable, and efficient care, that is, assuring that the nursing service is delivering the value patients should expect. Monitoring systems need to evaluate data in near real time to review the adequacy of shift level staffing, and also need to operate over a longer time period to assess whether the underlying staffing model is sufficient. Among the measures that have been proposed for this modelling are length of stay and delayed discharges, adverse events, particularly red flag events, such as failure to deliver needed pain medications within a 30-minute window,

and nurse shift-to-shift reports of missed or delayed care, or unusually high levels of effort required to meet patient needs on a shift. The initial design of acuity-based systems, their fine tuning for local caseloads and nursing models, and the implementation of monitoring regimes require drawing on the expertise and professional judgment of professional nurses.

There are two additional challenges in assuring staffing is at levels to deliver value to patients and assure safe, reliable and efficient care. One is developing systems that allow flexing up, bringing in additional nurses to accommodate increases in census, unusually high nursing acuity among patients on a unit, or absences from scheduled staff. There are several models for achieving this. One is budgeting staff at levels above the expected target, essentially creating a buffer that can absorb shift-to-shift increases in workload (Griffiths et al., 2021). A second is building a pool of nurses that can be called in at short notice, whether they are nurses from another unit who have been cross-trained for multiple units and can be shifted as census varies, a hospital-employed pool of nurses on call for shifts as needed, or ongoing relationships with external agencies that can provide nurses on call. Choice among these options will depend on budget and managerial capacity and the availability of nurses in communities to take on any of these roles.

A third challenge to assuring that the nursing service is providing safe, reliable and efficient care is equitable assignment of patients to nurses. Systems such as TrendCare or the NHS Safer Nursing Care Tool underscore that the nursing acuity of individual patients on a given unit and shift can vary. Given that the dominant model of nursing care is a primary nursing model with a panel of individual patients assigned to a nurse on each shift, to allow nursing staff adequate time to meet the needs of the patients they have been assigned, the assignments need to take into account both patient nursing acuity and the experience of the nurse. Equitable assignment that equalizes workload might result in one nurse being assigned two or three higher acuity patients, while another is assigned five or six low acuity patients. Some nursing models are moving away from a strict primary nursing model through the use of virtual nurses on a shift, floating nurses with no fixed patient assignments, and other models of care. There needs to be experimentation and adequate testing of these models to assure they are as effective in delivering quality, high value care, and the systems for organizing nursing services and estimating needed hours need to be revised to accommodate these alternative models.

The nursing service is the largest service in hospitals, with complex workloads and high cognitive and managerial demands on each member of the nursing staff. Research demonstrates that for these services to be delivered safely, reliably and efficiently, that is, for patients to receive the full value they should expect when inpatients, the nurses delivering care need to have adequate time, training and support to carry out this work. Budgets need to support the appropriate level of staffing, organizations need to adopt management strategies for nursing services that allocate these resources effectively and allow for flexing to accommodate day-to-day and shift-to-shift variations in census, acuity, and staff absence. They also need to monitor the care provided by the nursing service to identify when the care delivered falls short of the care to which patients are entitled.

CHAPTER

11

Measuring the economic benefits of nurse-intensive primary care models

Our Nurses.

Our Future.

Damien CONTANDRIOPOULOS,
MSc PhD, Professor, University of Victoria

Katherine BERTONI,
MN, NP-F, CDE, PhD(c), Associate Teaching Professor, University of Victoria

Davao Oriental, municipality of Baganga, Philippines in the afaha. Adding nurse-based primary care services enhances accessibility and meets unmet care needs.

Introduction

In the 1960s, the forecast of an impending medical doctor shortage cast a shadow over North America. The fear of an impending health care crisis was the starting point of a deep transformation of the primary care landscape worldwide: the first Nurse Practitioner (NP) programmes were created, new nurse-led clinics opened their doors and, more generally, nurses were reclaiming their central position on the front lines of primary care delivery (WHO, 2020). By the 1970s, a steady stream of scientific publications (Flynn, 1974, Chambers et al., 1977) described and evaluated the pivotal role that nurses could play in the delivery of primary care.

In 2020, the Canadian province of British Columbia introduced a new model of nurse-led primary care clinics. Our own research showed the substantial improvement this model has brought to patients' care experience as well as its positive impact on their physical health (Contandriopoulos et al., 2023a). It also revealed that the model was slightly more cost-effective compared to the traditional provision of similar care by physicians (Contandriopoulos et al., 2023b).

The last two decades have ushered in primary care as a mainstay of health care systems (Starfield et al., 2005) and transformed into a team-based effort. Within the new primary care teams, nurses have been the most central group of professionals. We use the term "nurse-intensive" to describe primary care delivery models where nurses play a central role. This includes models where nurses are part of doctor-led (Delamaire & Lafortune, 2010, Loussouarn et al., 2019) as well as nurse-led (Laurant et al., 2009, Martinez-Gonzalez et al., 2014) multidisciplinary teams.

Throughout this time span, there have also been consistent calls for future research to centre on the cost-effectiveness and efficiency of these new models to further support the escalation of nurse-intensive models. Over the years, the strength of the evidence supporting the safety, quality, and desirability of nurse-intensive primary care models has become indisputable (Bonsall & Cheater, 2008, Horrocks et al., 2002, Laurant et al., 2009, Laurant et al., 2018, Martinez-Gonzalez et al., 2014, McMenamin et al., 2023, Morilla-Herrera et al., 2016, Newhouse et

al., 2011, Randall et al., 2017). The economic impact of nurse-led primary care, on the other hand, remains comparatively underexplored (Checa et al., 2022, Laurant et al., 2009, Martínez-González et al., 2015, Randall et al., 2017, Tsiachristas et al., 2015, McMenamin et al., 2023).

Measuring the savings: a challenging task

In its 2020 report on the State of the World's Nursing, WHO (2020) called on governments and regulatory bodies to strengthen and expand the role of nurses in the delivery of primary care. This call aligns with the international literature (Delamaire & Lafortune, 2010, National Academies of Sciences et al., 2021), which demonstrates that increasing the number of nurses in primary care and expanding their scope of practice can enhance accessibility, improve the quality of care, boost patient satisfaction, and lower costs, either directly or by lowering the demands on the acute care sector (Newhouse et al., 2011, Randall et al., 2017).

However, measuring the economic benefits of nurse-intensive primary care models comes with many complex conceptual and methodological challenges. To start with, involving more nurses in primary care, along with the broadening of their responsibilities, can take two forms. One is the substitution of other professionals by nurses, often discussed as "task shifting" (Martínez-González et al., 2015) or "skill-mix" optimization (Kernick & Scott, 2002). The other is an augmentation of the overall volume of care or the introduction of new services.

Nurses can substitute for physicians in certain situations, such as the nurse-led model of care. Adding nurse-based primary care services enhances accessibility and meets unmet care needs. Well-documented examples of the addition of new services include early National Health Service experiments in the UK that introduced same-day phone consultations with nurses (Campbell et al., 2014), or the establishment of nurse-case manager roles in primary care teams to support patients dealing with chronic conditions (Checa et al., 2022, Crowe et al., 2019).

Economic analysts must determine if substitution or addition drives the impact of nurse-intensive primary care models on efficiency. However, in reality, the distinction between substitution and addition is generally blurry. For instance, a newly opened NP-led primary care clinic that intakes new patients can be viewed as both substitution - nurses taking over services that used to be offered only by physicians - and addition - nurses introducing new services to address previously unmet patient care needs (Contandriopoulos et al., 2023a). In the same way, such a clinic can simultaneously improve accessibility by offering additional services, and reduce emergency room visits, which would constitute a form of substitution (Chambers et al., 1977, National Academies of Sciences et al., 2021). This blending of substitution and addition is particularly pronounced and intricate in the context of established medical clinics evolving into interprofessional models (Loussouarn et al., 2019).

Costs, outputs and outcomes

Assessing the costs and benefits of new nursing-intensive primary care models is challenging due to the complex links between the models and their outcomes.

There are some very robust studies comparing the cost of care provided by nurses – generally NPs – to the cost of care provided by physicians. This literature generally reports similar (Delamaire & Lafortune, 2010, Liu et al., 2020, Hollinghurst et al., 2006, Venning et al., 2000) or marginally lower (Dierick-van Daele et al., 2010, Fall et al., 1997, Anthony et al., 2019, Perloff et al., 2016, Roblin et al., 2004) costs for nurse-led services. Unfortunately, most of these cost savings are due to nursing wages being less than their medical counterparts. Overcompensating doctors and undercompensating nurses is not a viable solution.

Within the context of substitution, another challenge involves assessing how comparable the care provided by nurses is to that previously delivered by physicians. In summary, measurable clinical outcomes are systematically found to be equivalent (Clarke et al., 2004, Dierick-van Daele et al., 2009, Fall et al., 1997, Horrocks et al., 2002, Kinnersley et al., 2000, Laurant et al., 2018, Bonsall & Cheater, 2008, McMenamin et al., 2023, Mundinger et al., 2000), though patient satisfaction tends to be higher for services provided by nurses (Clarke et al., 2004, Fall et al., 1997, Horrocks et al., 2002, Kinnersley et al., 2000, Laurant et al., 2018, Martinez-Gonzalez et al., 2014, Randall et al., 2017, Shum et al., 2000, Venning et al., 2000). The challenge here is

that head-to-head cost comparisons only make sense for reasonably substitutable services, when the care provided still differs. To tweak the proverbial saying, the price of oranges is of little help when determining how many apples to purchase.

Introducing new services invariably increases short-term costs (Chambers et al., 1977) even though those costs are likely to be offset by long term gains in health and wellbeing. Nevertheless, it is still common to focus economic evaluations exclusively on direct costs (Chambers et al., 1977, Fall et al., 1997). Ideally, assessment efforts should encompass both direct costs, such as nurse compensation, and indirect costs, including expenses related to hospital stays, diagnostics, prescriptions, referrals, and so forth. Studies should also adopt a return-on-investment lens to consider long-term savings that may be accrued by offering preventive care, which ultimately averts the use of more costly services at a later date (Chambers et al., 1977, Benmarhnia et al., 2017, Brousselle et al., 2016). But the toughest challenge is about accounting for hard-to-measure elements, like individual and community wellbeing and health. Several indicators, such as Quality-Adjusted Life Years (QALYs), were designed to offer more comprehensive measures of the impact of health interventions. A few studies in the field have relied on those metrics to evaluate nurse-intensive care models (Checa et al., 2022, Ndosi et al., 2014) with mixed results.

The need for policy action

A major challenge in assessing the economic benefits of nurse led primary care pertains to assessing the ultimate outcomes (Marmot, 2007, Brousselle et al., 2016). Much of the research has centred on outputs, such as average costs per visit, per patient, or per episode, paying scant attention to what the ultimate outcomes might be (Evans et al., 2010, Kernick & Scott, 2002). In our view, the aim should be to design primary care models that produce the best achievable outcomes for people and their communities, not simply seeking the cheapest option to deliver services in the short term (Benmarhnia et al., 2017, Brousselle et al., 2016).

Delaying the widespread adoption of these models until further evidence becomes available is not a wise course of action. The existing body of evidence already strongly indicates that more primary care nursing is a sound and cost-effective avenue to explore. How big the potential savings or efficiency gains are going to be, however, is fully contingent on a multitude of intertwining factors, and the effectiveness of a particular model and how it was designed.

Our review of the evidence on the economic benefits of having more nurse-intensive primary care models aligns with the WHO's call (WHO, 2020) on stakeholders to act, and to do so with a focus on accessibility and quality for healthier people and communities.

- Existing evidence shows that having more nurses provide a broader scope of primary care services is an effective and efficient way to enhance access to high-quality care.
- Nurse intensive models can be designed to be more cost-effective than purely medical models.
- The return-on-investment analyses from implementing nurse-intensive models of primary care should include longer-term impacts such as avoided illnesses and improved wellbeing.

CASE STUDY

PIONEERING HEALTH CARE TRANSFORMATION – THE PROGRESS OF NURSE PRACTITIONERS IN ISRAEL.

(Dr Shoshy Goldberg, Dr Hilla Fighel, Dr Rivka Hazan-Hazoref)

Israel's health care system has embarked on a transformative journey with the integration of Nurse Practitioners (NPs) into its fabric, driven by a pressing need to cater to an aging population and a surge in chronic illnesses. The Ministry of Health recognized that nurses are a quality resource that can be used more significantly in the health system if granted a greater range of authority and actions. This led to an expansion of the scope of practice, acknowledging the unique capabilities of Nurse Practitioners in providing specialized and high-quality care. This strategic move acknowledges the unique contributions of NPs in delivering specialized care, enhancing service availability, and responding to patient needs with personalized care approaches.

The recent amendment to the Pharmacists' Ordinance, empowering NPs to prescribe initial medications, has been a game-changer, positioning NPs as independent clinicians and lightening the load on the health care system. With this change, which officially commences in August 2024, approximately 700 NPs across Israel are poised to take on an expanded role, with continuous efforts to grow their practice in alignment with technological progress and health care demands. This initiative reflects Israel's dedication to a patient-centric health care model and provides a global exemplar of how strategic planning and legislative support can successfully integrate NPs into the national health care system.

CHAPTER

12

Increasing the attractiveness of the nursing profession is key to strengthening health systems

Gaetan LAFORTUNE,
Senior Economist in the OECD Health Division

© Stephen Gerard Kelly, ICRC, Lebanon

Beirut, Rafik Hariri University hospital. To attract a sufficient number of new recruits in nursing and retain existing nurses in the profession, they must be sufficiently rewarded.

Abstract

The COVID-19 pandemic and rising inflation and the cost-of-living crisis have brought further attention to the income of nurses, raising concerns that the remuneration may not be sufficient to attract and retain nurses in hospitals, nursing homes or in the community. *Health at a Glance 2023* showed that, on average across OECD countries, the remuneration of hospital nurses in 2021 was 20% above the average wage of all full-time employees, but there are wide variations across countries. Whereas in some countries nurses earn 50% more than the average worker, in others their income was less than the economy-wide average. While the remuneration of nurses in real terms has increased significantly over the past decade in some OECD countries, it has stagnated or even decreased in several others (OECD, 2023a). Ensuring that the wage growth of nurses at least keeps pace with inflation and the wages of other workers in professions with similar levels of education and training is critical to maintain the attractiveness of the nursing profession.

Introduction

The COVID-19 pandemic exposed serious challenges in the health workforce in many OECD countries, revealing that it was understaffed, under pressure and undervalued. Health workforce shortages were the biggest constraint in the capacity of countries to respond effectively to the pandemic – even more so than the availability of equipment or hospital beds. Health workforce shortages were one of the factors that determined the extent of lockdowns and disruptions in economic and social activities, as health and long-term care systems became quickly saturated. Nurses and other health and long-term care workers showed remarkable dedication and resilience during the pandemic, providing frontline services in hospitals and nursing homes, but many have emerged from the pandemic exhausted and demotivated. Valuing frontline health care staff – particularly nurses and health care assistants – is vital to avoid a large exodus of health and long-term care workers following the pandemic.

As pointed out in the OECD report, "*Ready for the next crisis? Investing in health system resilience*," greater investments are needed to strengthen health workforce capacity and flexibility to be better prepared to deal with other health crises of similar magnitude. OECD estimates have suggested that OECD countries would, on average, need to mobilise additional funds equivalent to around 1.4% of their GDP for targeted investments to strengthen health systems compared to pre-pandemic (2019) levels. At least half of these investments should be allocated to training, recruitment and improving the working conditions of the workforce to respond to shocks and strains arising from population ageing (OECD, 2023b).

While several aspects of working conditions affect the recruitment and retention of nurses, such as flexible working hours and workload, remuneration is a key component in determining the attractiveness of the profession. Pay may influence the decisions of young people to enroll into nursing education programmes, to look for a job as a nurse after graduation and to remain in the profession afterwards. However, taken as a whole the salaries of nurses also represent a significant cost for hospitals and other health care facilities, as nurses are the single most numerous category of health workers in nearly all OECD countries. Hence, there is a need to achieve a proper balance between ensuring sufficient financial attractiveness of the profession to avoid shortages, while keeping costs affordable in order to not endanger the financial sustainability of the health system.

This chapter presents key findings of the most recent OECD data collection on the remuneration of nurses. It is important to bear in mind that the collection of comparable data on the remuneration of nurses across countries is challenging for a number of reasons, including that the available data sources may not cover all types nurses (e.g. they may only cover those working in public hospitals), they may not cover all revenue sources (e.g. any COVID-19 bonus payments in 2020 and 2021 may be missing) and may include both full-time and part-time workers. Box 1 summarizes the OECD data collection approach and some of the main data comparability limitations.

Box 1. Definitions and limitations in data comparability on the remuneration of nurses

The OECD collects data on the remuneration of nurses based on the average gross annual income, including social security contributions and income taxes payable by the employee. In most countries, the data relate specifically to nurses working in hospitals, although in some countries (e.g. Canada) the data cover nurses working in other settings. In some countries (e.g. Portugal), the data cover only nurses working in public hospitals. Self-employed nurses are generally not included.

The data cover only registered nurses in several countries (e.g. Canada, Chile, Ireland and United States), but in some countries (e.g. Australia, New Zealand and Switzerland) the data also cover lower-level nurses (resulting in an under-estimation compared to other countries).

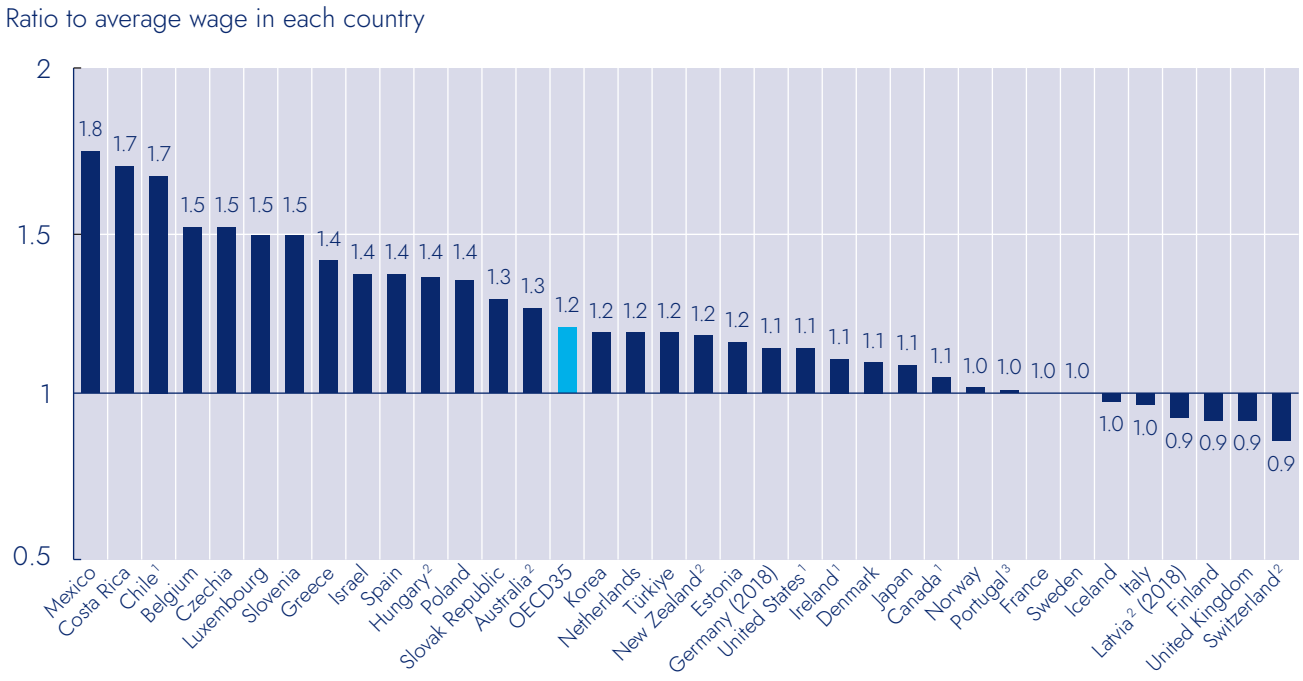
The data in most countries relate to nurses working full time, although the definition of full-time workers may vary across countries.

The data for some countries do not include additional income such as overtime payments and in nearly all countries (with a few exceptions) they do not include any COVID-19 bonuses during the pandemic. Informal payments, which can represent a significant part of total income in some countries, are not reported.

Nurses earn about 20% more than the average worker across OECD countries, but there are wide variations across countries

On average across OECD countries, the remuneration of hospital nurses in 2021 was 20% above the average wage of all employees in the economy. However, there are huge variations across countries. In Mexico, Costa Rica, Chile, the Czech Republic, Belgium, Slovenia and Luxembourg, the income of hospital nurses in 2021 was at least 50% higher than the economy-wide average. In Slovenia, this was partly due to the inclusion of COVID-19 bonuses during the second year of the pandemic. On the other hand, in Switzerland, the United Kingdom, Finland and Latvia, nurses earned less than the average worker (Figure 13).

Figure 13: Remuneration of hospital nurses in OECD countries, ratio to average wage, 2021 (or nearest year)
(OECD, 2023c)



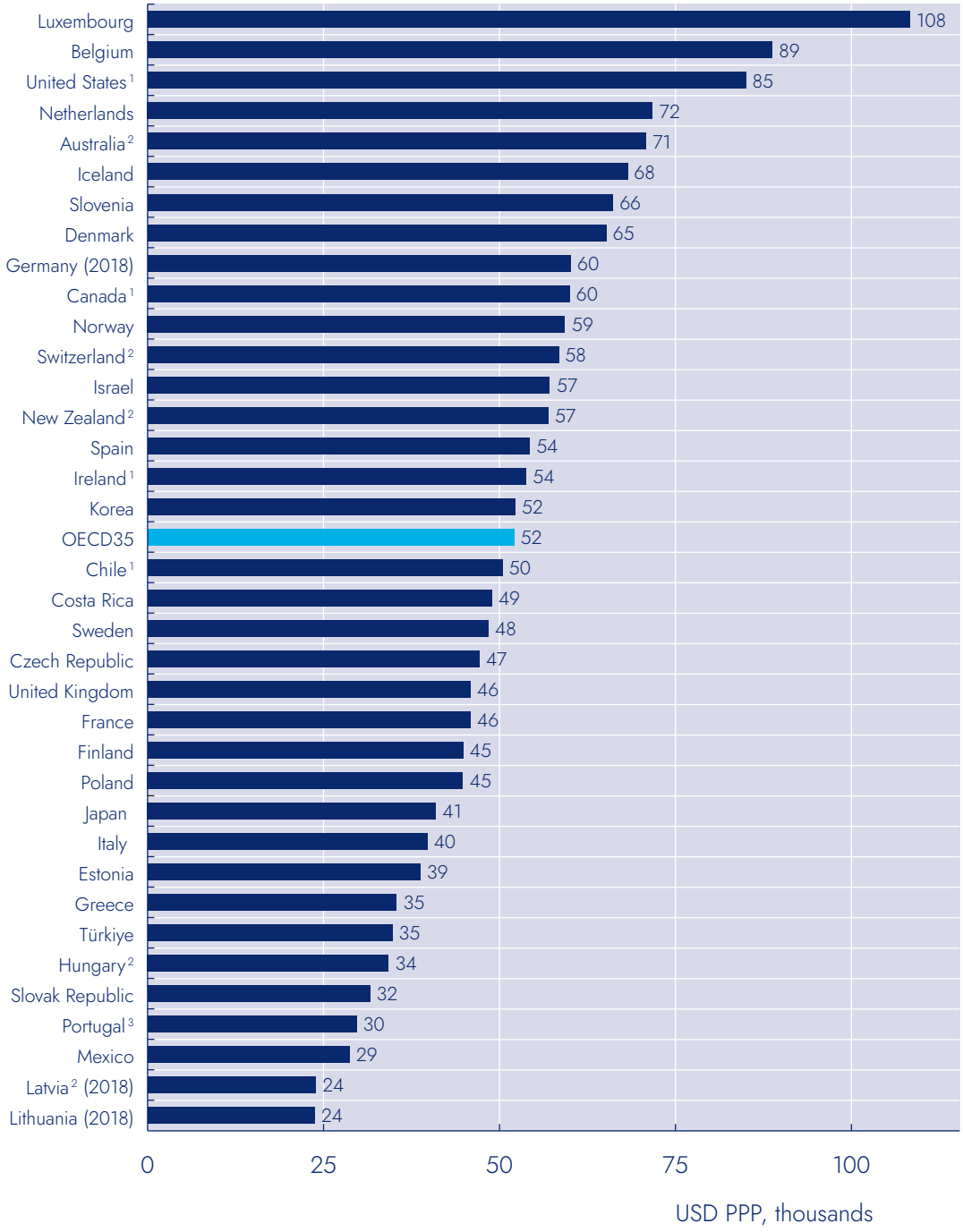
1. Data refer to registered nurses only in the United States, Canada, Ireland and Chile (resulting in an over-estimation).
2. Data for Australia, Hungary, Latvia, New Zealand and Switzerland include "associate professional" nurses who have lower qualifications and revenues.
3. Data for Portugal include only hospital nurses working in the National Health Service (public sector).

If a nurse's salary in a country is 0.9 relative to the average wage of all workers, a 11% increase in pay rate would be needed to reach the average wage of all workers (assuming that the average of all workers remains constant) and a 33% increase to reach the OECD average of 1.2 in 2021 based on data from 35 countries.

The remuneration of nurses varies four-fold across OECD countries even after taking into account differences in the cost of living

Health at a Glance 2023 also compares the remuneration of nurses across countries based on a common currency (the US dollar) and adjusting for differences in purchasing power, to provide an indication of the relative economic well-being of nurses across countries and to see whether there are any financial incentives to consider moving to another OECD country to obtain a higher salary. Figure 14 shows that in 2021, the income of nurses in Luxembourg was at least four times higher than those working in Lithuania and Latvia (although the latest data in these two countries relate to 2018 only). In general, nurses in Central and Eastern European countries had the lowest remuneration levels across OECD countries, explaining at least in part why many choose to migrate to other EU countries. Measures have been taken in many of these countries to increase the remuneration of nurses over the past decade.

Figure 14: Remuneration of hospital nurses, USD PPP, 2021 (or nearest year)
(OECD, 2023c)



1. Data refer to registered nurses only in the United States, Canada, Ireland and Chile (resulting in an over-estimation).
2. Data for Australia, Hungary, Latvia, New Zealand and Switzerland include "associate professional" nurses who have lower qualifications and revenues.
3. Data for Portugal include only hospital nurses working in the National Health Service (public sector).

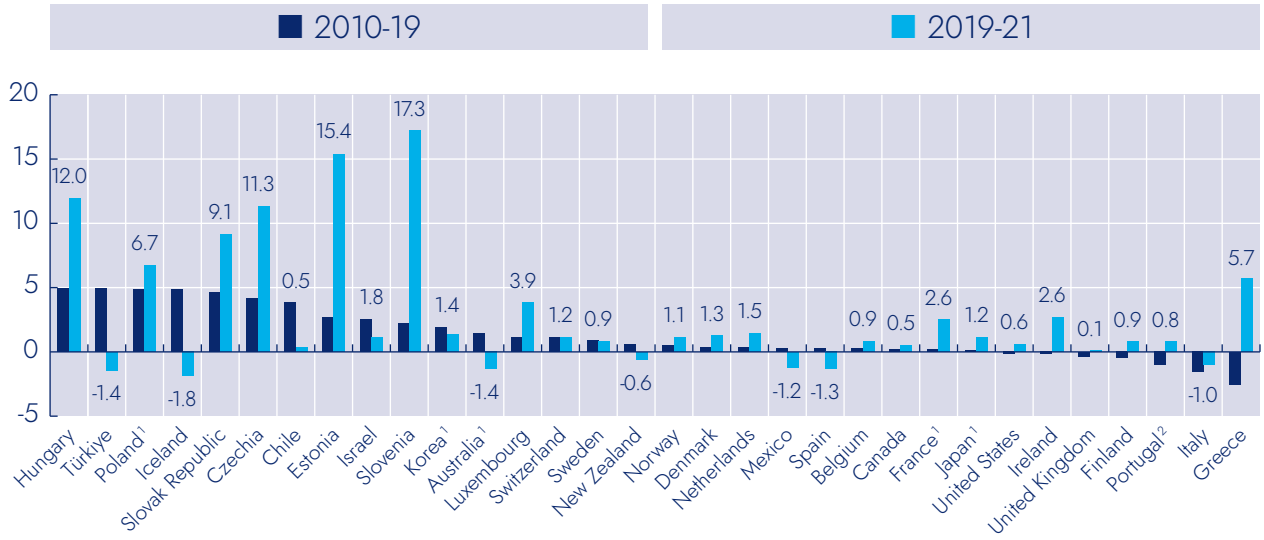
The remuneration of nurses has increased considerably over the past decade in some OECD countries, but not in others

In the decade leading up to the pandemic, the remuneration of nurses increased in real terms in most OECD countries, as was also the case for all workers. The growth rate in nurse remuneration was particularly strong in many Central and Eastern European countries (such as Hungary, Poland, the Slovak Republic and Czechia), where nurses obtained pay rises averaging 4-5% per year in real terms between 2010 and 2019, thereby narrowing the gap with other EU countries. Nurses in Türkiye, Iceland and Chile also obtained substantial pay rises between 2010 and 2019 (Figure 15).

In contrast, the remuneration of nurses decreased in real terms between 2010 and 2019 in several Southern European countries (e.g. Greece, Italy and Portugal), Finland and the United Kingdom. In the United Kingdom, nursing income increased in nominal terms, but it fell by over 3% in real terms between 2010 and 2019 mainly due to public sector pay policies implemented between 2011/12 and 2017/18.

In an attempt to better value the efforts of frontline health workers during the first two years of the pandemic, nurses in some countries obtained substantial pay rises in real terms in 2020 and 2021, notably in Slovenia, Estonia, Hungary, Czechia and the Slovak Republic, continuing to reduce the gap with other EU countries. In Greece also, the remuneration of nurses increased substantially in real terms, offsetting at least partly the reduction in the previous 10 years. However, real wage growth of nurses stagnated or even decreased in some countries in 2020 and 2021, as high and rising inflation eroded wage growth. Nurses were not the only category of workers affected by this phenomenon. In many countries, average real wages of all workers could not keep up with inflation in 2021. Preliminary evidence for 2022 indicates that real wage growth of workers in the health sector declined more than the average wages in all sectors in 2022 across 24 OECD countries, but these findings do not relate specifically to nurses (OECD, 2023d).

Figure 15: Average annual growth in the remuneration of hospital nurses (real terms), 2010-19 and 2019-21 (or nearest years)
(OECD, 2023c)



1. The latest growth rate covers only 2019-20.
2. Data include only hospital nurses working in the public sector.

Conclusions

Investing in the health workforce generally and in nurses in particular is key to improving the resilience of health systems to future shocks and to responding to ongoing strains related to population ageing. To attract a sufficient number of new recruits in nursing and retain existing nurses in the profession, they must be sufficiently rewarded.

Some OECD countries have taken steps before the pandemic and after the pandemic to increase the pay rates of nurses, although the real wage growth of nurses in several countries has stagnated or even decreased following the pandemic, mainly due to rising inflation. Nurses were obviously not the only category of workers whose purchasing power stagnated or fell in the years after the pandemic. The nominal wage growth of all employees on average in OECD countries lagged behind inflation in 2022, thereby resulting in a reduction in real wages. While there remain considerable uncertainties about the inflation rate in 2024 and 2025, inflation was expected to fall gradually in most OECD countries according to the November 2023 OECD Economic Outlook (OECD, 2023e). This should help restore some real wage growth for nurses, although this may not be sufficient to raise the attractiveness of the profession compared to others. Better pay and working conditions are crucial to attract and retain nurses.

Disclaimer: The opinions expressed in this chapter are those of the author and do not necessarily reflect those of the OECD or its Member countries. The author assumes the entire responsibility for any errors.

Conclusion and ICN's call to action

As we reflect on the insights from economists and other experts in this report, it is evident that the role of nursing extends far beyond the bedside. Nurses are pivotal in driving the health outcomes and economic stability of societies across the globe. It is time for a global acknowledgment of nursing not just as a profession but as an essential investment in our collective future. This report underscores the undeniable impact of nursing on both health systems and economies, and the peaceful world we all want to live in. However, recognizing this impact is only the first step. What is needed now is a global commitment to actionable change to support and expand the nursing workforce.

Nursing is the backbone of health care systems worldwide contributing to better health outcomes, economic savings and more stable societies. The call for a reimagined valuation of nursing is timely and urgent. As we face global health challenges, including aging populations, chronic diseases, increasing numbers of violent conflicts and pandemics, the role of nurses has never been more critical. To secure a healthier future, we must invest in the nursing workforce and nurses' education, provide competitive remuneration, ensure better working conditions, and recognize nurses' contributions at all levels of health care and policymaking.

The economic benefits of nursing, highlighted through improved patient outcomes, reduced hospitalization times and overall health care savings, are a testament to the value of this profession. Nurses are not just health care providers; they are educators, leaders, and advocates for the health and well-being of individuals and communities. The future of health care is intrinsically linked to the future of nursing. As such, supporting the nursing workforce is not optional; it is indispensable.

ICN's call to action for global health leaders and policymakers

- **Empower nurses**: Support comprehensive policies that allow nurses to practice to the full extent of their education and training. Encourage further development of leadership roles and participation in policy development.
- **Invest in education and workforce development**: Increase funding for nursing education and create more opportunities for career advancement within the nursing profession.
- **Enhance working conditions**: Implement measures to improve the work environment for nurses, including adequate staffing levels, access to resources, safe work environments and support for mental health and well-being.
- **Acknowledge and compensate fairly**: Ensure that nurses receive competitive wages that reflect their skills, responsibilities and the critical nature of their work.
- **Promote nursing's role in society**: Highlight the contributions of nurses to health and well-being through public awareness campaigns and inclusion in decision-making processes.

Taking action on these recommendations enables nurses to strengthen health care systems, drive economic growth, contribute to world peace, and enhance the health and well-being of individuals and communities. The time to act is now. Let us invest in nursing and, by extension, in the health and prosperity of our global community.

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International Council of Nurses
3, Place Jean-Marteau
1201 Geneva, Switzerland
+41229080100
icn@icn.ch
www.icn.ch