

Issue Paper



Cultivating Asia-Pacific Talent

The World at the Crossroads: Reshaping Future Trends

- Shunyo Liao, Research Fellow, CTPECC

Asia-Pacific Health Workforce and Health System Strengthening

- John, Ta-yu Lee, Associate Professor, Institute of Health Policy and Management,
National Taiwan University

The Impact of AI on Human Resource Development

-Alex Hsu, Director General, CTPECC



Issue Paper

CTPECC holds a number of forums and seminars annually based on current issues in the global political economy. Inspired by these events, the *CTPECC Issue Paper* seeks to address opportunities and challenges in future regional development. *Issue Paper* also provides valuable information and perspectives, delivering the insightful views of experts.

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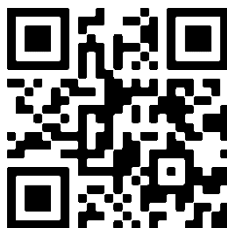
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Editorial

The World at the Crossroads: Reshaping Future Trends

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With the recent conclusion of European elections and the 20th National Congress of the CCP consolidating Xi Jinping's position at the top of China's political food chain, the overall stances and policies of these two major economic blocs have become relatively certain. The European elections have shown that right-wing parties and coalitions are a force to be reckoned with, and they now hold more influence than ever before. On the other hand, while China is relatively flexible on trade issues, it leans conservative on most political issues. With two of the three major economic blocs shifting towards the right, the outcome of the 2024 U.S. presidential election is not only a battle of domestic politics but will also determine whether America will continue to promote the international liberal world order it helped to create or switch to a more right-leaning, isolationist foreign policy.

Five Trends to Observe

The global trade and economic landscape will likely fluctuate around five key issues: regional integration, immigration and refugees, energy policy, labor relations, and import tariffs. Regional integration is rooted in neoliberal IR theory and is often associated with liberal values. Liberals view regional integration as a tool for peace and cooperation, believing that the institutions and rule of law resulting from regional integration create order, increase transparency, and promote goodwill amongst participating states. Conversely, those on the right often assess regional integration from the perspective of relative gains, focusing not on whether "everyone benefits," but rather on "who benefits more." This perspective was encapsulated by Trump's "America First" slogan and was implemented during his term. Throughout his four years, the U.S. withdrew from the TPP and renegotiated NAFTA as foreign policy shifted towards prioritizing U.S. national interests.



With the continuous stream of refugees and illegal immigrants crossing into both Europe and the U.S., immigration has become one of the most divisive topics in the current political landscape. The left views immigration and refugees as a humanitarian and human rights issue, arguing that the West should help the impoverished and downtrodden, granting them rights and a chance to participate and flourish in Western democracy. On the other side of the political aisle, many argue that states should prioritize helping their veterans and homeless before securing the rights of illegal immigrants and refugees.

Additionally, some contend that immigration is the cause of rising crime levels and social unrest, and places an extensive strain on social welfare. Similar to the issue of immigration, the left in prioritizing human rights also places a large emphasis on workers' rights, which include advocating for a universal minimum wage, unionizing workers, and breaking up large conglomerates. Conservatives, on the other hand, generally embrace free market principles, believing they will help promote market competition and benefit the economy. As a result, they often advocate for less regulation and view unions negatively.¹

Regarding energy policy, while both parties support renewable green energy such as wind and solar, a 2019 report by the Pew Research Center showed that Republicans in the U.S. are more inclined to expand the production of fossil fuels (37%) in comparison to their counterparts on the left (9%).² Furthermore, Republicans are more open to nuclear energy and seem less staunchly opposed to traditional energy methods. On the topic of tariffs, liberalists are strong advocates of free trade, believing that it helps promote economic growth and fosters interdependence which can help stem conflict. While conservatives are by no means entirely against free trade, they place national interests as a priority and thus are willing to implement tariffs when free trade seems to be more beneficial to rival states than to the U.S. For example, while the U.S. throughout the past decades has served as a beacon for free trade, under President Trump, the U.S. saw that trade with China was creating an ever-increasing trade deficit and thus implemented tariffs.

1. <https://www.pewresearch.org/politics/2024/02/01/labor-unions/>

2. <https://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/>



Parallel Futures in the Asia-Pacific Region

For members in the Asia-Pacific community, three of the above issues are of particular importance: regional integration, energy policy, and tariffs. If Trump wins the 2024 presidential election and steers the U.S. back into an era where foreign policy is dictated solely on U.S. interests, two major effects on regional integration are likely to emerge. Firstly, traditional U.S. allies in the region will likely grow disillusioned with U.S. guarantees that are renounced every election cycle. This may achieve the results that Mr. Trump so desperately desires, for states in the Asia-Pacific to address their own challenges and bolster their own power to combat an increasingly assertive China.

However, it may also lead countries that traditionally followed a hedging foreign policy such as the Philippines and Vietnam to switch to bandwagoning with China, which they may perceive as a more geographically proximate and politically stable ally. Secondly, regional integration in the Asia-Pacific may grow more “Asia-centric” as states in the region take the reins in shaping regional integration efforts, as in the case of the Japanese-led CPTPP and the ASEAN-led RCEP. Bargaining power can come from coalitions or international institutions, without U.S. presence in the region, these two methods will be essential if states want to deal with China on equal terms.

Regarding tariffs, Trump’s “Tariff Man” moniker may very well prove accurate. It seems unlikely that Trump will lower import tariffs on goods from China; in fact we may see a significant increase on nearly all import tariffs, as Trump has vowed to raise tariffs to 10 or even 20 percent on all foreign goods, with a 60 percent tariff on Chinese imports.³ While China will take the brunt of the blow, traditional U.S. allies may also see their tariffs increase. This, in combination with the U.S. growing ever more isolationist and assertive in trade matters, China could seize the opportunity to claim itself as the new champion of free trade, as it did in 2017⁴, and thus gradually position itself as the region’s economic center.

3. <https://www.theatlantic.com/politics/archive/2024/08/trumps-consumer-tariff-plan/679468/>

4. <https://www.theguardian.com/business/2017/jan/17/china-xi-jinping-china-free-trade-trump-globalisation-wef-davos>



If Harris wins the 2024 elections, then we might see an increase in U.S.-led multilateralism in the region. Under Biden, the U.S. has reembraced its traditional allies in the Asia-Pacific while strengthening ties through both bilateral and multilateral means such as formally elevating key partnerships with Vietnam and Indonesia, expanding the number of U.S. military bases in the Philippines, and proposing the Indo-Pacific Economic Framework for Prosperity.⁵ In regards to tariffs, while there may not be an increase in import tariffs on goods from other countries, the ongoing U.S.-China rivalry makes it more than likely that Harris will follow in the footsteps of her both predecessor and Trump by maintaining the tariffs on Chinese EVs, solar panels, and semiconductors.

Another possible aftereffect of a democrat win would be the U.S. policy towards clean energy and its resulting chain effect on global energy policy and imports. As one of the major economic centers, the U.S. often serves as a global trendsetter. If it were to take a strong stance on green energy, carbon taxes and carbon-intensive goods, other countries are likely to adjust their policies accordingly. As the world's largest importer and second largest energy consumer⁶, if the U.S. were to adopt a CBAM-like approach and regulate emission-intensive imports, many manufacturing hubs across the Asia-Pacific would be forced to change how they produce goods and start to truly take climate change more seriously.

Existing Middle Ground and Plan C

Despite the drastically different possible outcomes and the current growing polarization between the left and the right in American politics, one should remember that the views and ideals of both sides might not be a zero-sum game. Few individuals stand on the same party lines for every issue and not every debate can be separated into two completely contradictory stances. Furthermore, there still exists middle ground that can promote discussion and bipartisan cooperation. The existence of differing viewpoints is not a negative thing, but a necessary condition of constructive dialogue and a healthy democracy. While they have differing views on some aspects of energy policy and free trade, both Democrats and Republicans support renewable energy and agree that tariffs should be implemented against Chinese imports.

5. <https://www.rand.org/pubs/commentary/2024/02/the-good-and-the-bad-for-biden-in-southeast-asia.html>

6. <https://worldpopulationreview.com/country-rankings/energy-consumption-by-country>



With Europe teetering towards conservatism, the U.S. as it stands, serves as the last remaining bastion of the international liberal order and traditional liberal values. As the world tips toward the right, the 2024 U.S. presidential election serves as the deciding factor for the global political trend in the coming years, with far-reaching effects on a wide range of issues. Amongst these issues, import tariffs, regional integration, and green energy play a crucial role for the future of the Asia-Pacific.

Yet, no one knows what the future truly holds, and as history has proven, elections are far from certain. Members of the Asia-Pacific community should not only make preparations for a possible Democrat or Republican win but should also have a Plan C. Such a plan should take into consideration a third moderate approach, a scenario where neither candidate pushes their policies to their party's ideological extremes. It envisions a future where Trump does not impose high tariffs on all nations, a future where Harris does not restrict traditional energy expansion. With the U.S. current political climate, it is natural to plan for the worst. However, history shows that after periods of high tension, moderation often prevails.



1. Introduction

In a rapidly changing world, the Asia-Pacific region finds itself at the forefront of global transformation, presenting both challenges and opportunities in the realm of talent development. This issue delves into the complex dimensions of nurturing talent across the region, offering insights from three significant articles that explore geopolitical dynamics, healthcare workforce issues, and the role of artificial intelligence in shaping human resources.

The first article, “The World at the Crossroads: Reshaping Future Trends” by Shunyo Liao, a Research Fellow at CTPECC, sets the stage for understanding the geopolitical environment that influences talent cultivation. Liao examines the effects of political developments, such as recent European elections and events in China, on the global economy and trade. The article emphasizes the importance of integrating geopolitical awareness into talent development strategies, noting how regional integration, immigration policies, and trade relations influence the flow and development of skilled labor in the Asia-Pacific.

Next, John Ta-yu Lee, Associate Professor at the Institute of Health Policy and Management, National Taiwan University, addresses the healthcare sector in “Asia-Pacific Health Workforce and Health System Strengthening.” Lee analyzes the challenges facing the region’s healthcare systems, including demographic shifts and uneven distribution of healthcare professionals. The article highlights the need for innovative solutions in health workforce planning and governance to build resilient healthcare systems that can adapt to the changing needs of populations and global health crises.

Finally, Alex Hsu, Director General of CTPECC, explores “The Impact of AI on Human Resource Development.” Hsu discusses how artificial intelligence is transforming industries, reshaping skill requirements, and affecting employment patterns. While AI holds the promise of boosting productivity, it also presents challenges for workforce development and job security. Hsu suggests that collaboration between governments and businesses is key to equipping workers with the necessary skills for an AI-driven economy, ensuring both job opportunities and wage growth.

Together, these articles provide a comprehensive view of the factors shaping talent cultivation in the Asia-Pacific, offering crucial insights for policymakers and business leaders in an evolving global landscape.



2-1. Asia-Pacific Health Workforce and Health System Strengthening

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Health workforce is the foundation of a resilient, effective, and sustainable healthcare system.^{1,2} The Asia-Pacific region, the most populous on the globe with rapidly aging populations, presents complex challenges due to its diverse economic conditions and healthcare needs.³ This vast region stretches from the bustling economies of East Asia to the developing nations of Southeast Asia and the Pacific islands, offering significant opportunities for international partnerships and collaboration.

This article explores the multifaceted challenges of health workforce planning in the Asia-Pacific, a region characterized by significant contrasts in healthcare delivery and access.⁴ It examines the governance structures that guide health workforce planning, the methodologies available for projecting workforce needs, and the critical role of data intelligence in achieving essential health workforce goals. These goals include:^{3,5}

Availability	Maintaining an adequate number of healthcare professionals to meet the demand across various settings.
Distribution	Ensuring healthcare workers are equitably placed across different geographic and socio-economic regions to guarantee universal health access.
Productivity	Enhancing the efficiency and effectiveness of healthcare services provided by the health workforce
Optimal Skill Mix	Ensuring a balanced range of healthcare skills to effectively meet the diverse health needs of the population.
Safety	Creating safe working conditions to protect healthcare workers and enable them to perform their duties effectively.
Diversity	Promoting a diverse range of cultural, ethnic, and gender representations within the health workforce to improve the cultural competence of care.

1. World Health Organization. (2024a). *Essential public health functions: a guide to map and measure national workforce capacity*.
2. World Health Organization. (2020). *Global strategy on human resources for health: Workforce 2030*.
3. World Health Organization. (2024b). *Regional framework to shape a health workforce for the future of the Western Pacific*.
4. OECD, & World Health Organization. (2020). *Health at a Glance: Asia/Pacific 2020*. <https://doi.org/10.1787/26b007cd-en>
5. Lee, J. T., Crettenden, I., Tran, M., Miller, D., Cormack, M., Cahill, M., Li, J., Sugiura, T., & Xiang, F. (2024). Methods for health workforce projection model: systematic review and recommended good practice reporting guideline. *Human Resources for Health*, 22(1), 25. <https://doi.org/10.1186/s12960-024-00895-z>

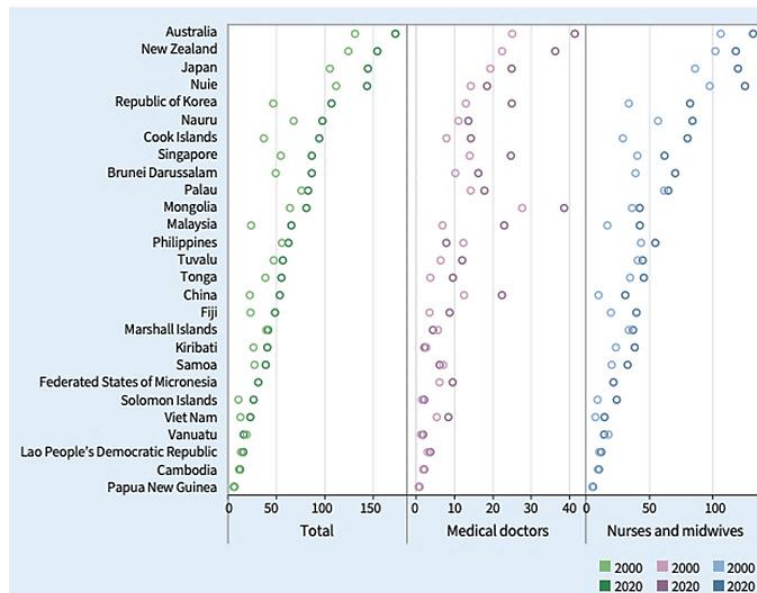
Demographic and Epidemiological Transition

The Asia-Pacific is experiencing profound demographic and epidemiological shifts that greatly impact health workforce requirements. Advanced economies like Japan and Singapore are grappling with an aging population, increasing the prevalence of chronic diseases such as cardiovascular diseases, diabetes, and dementia. This demographic shift demands a larger, more specialized healthcare workforce focused on geriatric care and chronic disease management. Conversely, lower-income countries but also with rapidly rising population such as Thailand and Vietnam face resource constraints that hinder effective health workforce planning, compounded by limited financial resources, inadequate educational infrastructure, and a lack of comprehensive health service and public health data.

Capacity and Capability for Increasing the Number of Skill Health Workers

An adequate number of skilled health workers is essential for population health. The numbers of the health professionals in the Asia-Pacific Countries varies significantly. Trend analysis from the Western Pacific Region countries (Figure 1) shown that while the density of medical doctors has improved remarkably. Securing financial resources is essential in the Asia-Pacific, where funding constraints often impede healthcare development. Effective financial planning and management, including innovative financing models like public-private partnerships and international funding collaborations, are crucial. Ministers should advocate for increased domestic funding, aligning investment with overall health system strengthening goals.

Figure 1- Health worker densities between 2000 and 2020 in selected countries



Source: WHO, Regional framework to shape a health workforce for the future of the Western Pacific, 2024.⁶



Hospital and Specialty Centric

The region's focus on hospital and specialty-centric healthcare models often overshadows primary care services. Underinvestment in primary care can lead to fragmented care, especially in the management of chronic diseases. Balancing this focus could alleviate pressure on hospitals and ensure a more comprehensive healthcare system. Enhancing community health centers, promoting interdisciplinary specialties, and improving rural and remote healthcare accessibility are vital steps

Private Sector and Dual Practice

The private sector significantly supplements the Asia-Pacific healthcare landscape. However, dual practice, where healthcare providers work in both public and private sectors, can present challenges. Clear policies and equitable workload distribution are needed to manage these risks and enhance collaboration between sectors. Interventions are needed to enhance job satisfaction of health workers employed at the public sector. This may include competitive salaries, subsidies, and improved working conditions aim to remain current health workers and attract new talents.

Equitable Geographic Distribution

Achieving equitable distribution of healthcare professionals is a significant challenge, particularly in rural and remote areas. Strategies include financial incentives, career development opportunities, and leveraging telemedicine to extend the reach of healthcare services. Financial incentives are necessary to attract health professionals to underserved areas and address distribution imbalances. For example, Australia has implemented programs such as the Rural Health Multidisciplinary Training (RHMT) program,⁷ which offers financial support and training opportunities to healthcare workers in rural regions. Similarly, Indonesia has introduced the Nusantara Sehat Team-based Deployment program (NST), which support multi profession of health workers at the Primary Health Care in remote areas.

Migration to Foreign Countries

The migration of healthcare professionals to more affluent countries, driven by better career prospects and higher salaries, results in a “brain drain” that can deplete local health resources. Addressing this requires improving local job satisfaction and facilitating temporary migration to allow for skills exchange.

7. Australian Government Department of Health and Aged Care. (2024). Rural Health Multidisciplinary Training (RHMT) program. Retrieved 29 July from <https://www.health.gov.au/our-work/rhmt>



Impact of COVID-19

The COVID-19 pandemic has underscored the need for adaptable, resilient health systems in the Asia-Pacific. The crisis highlighted the importance of robust infection control, emergency response strategies, and a flexible workforce. Evidence from the US shows that while the number of most health professionals dropped significantly after COVID-19, these numbers have gradually returned to pre-COVID levels – except for nurse practitioner. This ongoing shortage has placed significant strain on already stretched healthcare systems.⁸ To mitigate similar challenges, Asia-Pacific nations should proactively invest in strengthening key health occupations through targeted education, training and retention strategies, ensuring resilience in their health systems against future public health crisis.

Geopolitical and Political Economic Factors

Geopolitical stability, international relations, and economic policies significantly influence health workforce planning in the region. These factors affect everything from professional mobility across borders to the allocation of healthcare funding, with political unrest and economic sanctions often complicating staffing and care quality.

Country-Specific Challenges in Health Workforce Planning:

Taiwan

Taiwan's healthcare system encounters several significant challenges that impact the effectiveness of its services and the wellbeing of its health workforce:

1. **Workforce Shortages:** Taiwan faces a critical shortage of healthcare professionals in key areas. This is particularly acute in nursing and specialized fields such as surgery, geriatrics, and care professionals, where the demand far outstrips the supply. These shortages can lead to increased wait times for surgeries and other medical procedures, affecting patient care across the healthcare continuum.

2. **Geographic Disparities:** The distribution of healthcare resources in Taiwan is uneven, with rural and mountainous regions suffering the most. These areas often have fewer medical facilities and healthcare professionals, which compromises the quality of care for populations residing in these regions. The challenge is compounded by difficult terrain and limited accessibility, which can delay emergency medical responses and routine healthcare delivery.

8. Peterson-KFF Health System Tracker. (2024). *Insurer strategies to control costs associated with weight loss drugs*. Retrieved 29 July from <https://www.healthsystemtracker.org/>



3. **Workforce Burnout:** The high-pressure environment in healthcare, characterized by long hours and intense stress, particularly during medical emergencies and outbreaks, leads to significant burnout among healthcare workers. Nurses and frontline staff, who face the brunt of these challenges, report higher levels of job dissatisfaction and mental health issues. Efforts to mitigate these problems include enhancing mental health support, creating more supportive workplace environments, and revising work schedules to allow for better work-life balance.

Challenges in Other Asia-Pacific Countries

1. **Indonesia:** The archipelagic nature of Indonesia presents unique challenges in distributing healthcare resources evenly across its thousands of islands. This leads to pronounced disparities in healthcare access between urban centers and remote islands, often exacerbated by logistical challenges in delivering medical supplies and maintaining staff in less accessible areas.

2. **The Philippines:** While the Philippines is one of the largest exporter of nurses and other health workers, domestically, there is a shortage of healthcare professionals, including nurses. Many Filipino nursing graduates continue to pursue their career aspirations in the United States and other foreign labour markets due to underpayment at home. Additionally, the frequent natural disasters such as typhoon that the Philippines face exacerbate the challenges of delivering consistent healthcare services. These events require a highly flexible healthcare workforce that can quickly adapt to emergent needs, a challenge further compounded by the country's geographic complexity.

3. **Australia:** In Australia, particularly in remote Outback areas, there is a significant challenge in both attracting and retaining healthcare professionals. The vast distances and isolated communities create barriers to healthcare delivery and professional support, leading to high turnover rates among healthcare staff. Innovative retention strategies, such as increased incentives and support for remote healthcare workers, are crucial to addressing these issues.

4. **Island Nations:** Countries like Fiji and Papua New Guinea face challenges related to their limited local capacity for training healthcare professionals. The reliance on international aid and the migration of trained professionals abroad exacerbate the workforce challenges. Strengthening local educational institutions and providing clear career pathways are essential steps toward building a self-sustaining healthcare workforce in these nations.



Health Workforce Governance, Data Intelligence, Planning, and Policies

Health workforce governance involves the effective management of healthcare personnel and resources to ensure optimal service delivery and patient care outcomes. Effective governance is crucial in the Asia-Pacific, where varied political, economic, and cultural contexts pose unique challenges and opportunities for health system management.

1. **Policy Formulation and Implementation:** Strong governance frameworks start with clear policy formulation that aligns with national health objectives and the realities of local healthcare needs. In the Asia-Pacific, countries need to develop policies that address not only the quantity of healthcare workers but also the quality and distribution of these workers across urban and rural areas. For instance, Singapore has implemented rigorous training programs and continuing education requirements that ensure high standards among healthcare professionals. Meanwhile, countries like Indonesia are focusing on decentralizing healthcare services to improve access in more remote parts of the archipelago.

2. **Regulatory Oversight:** Effective governance also requires robust regulatory systems to ensure that health workforce policies are properly implemented and that the practices of health professionals meet national and international standards. In Australia, the Australian Health Practitioner Regulation Agency (AHPRA) plays a critical role in the accreditation, monitoring, and regulation of health practitioners, ensuring a consistent standard of care across the country.

3. **Stakeholder Engagement:** Engaging a wide range of stakeholders, including healthcare providers, patients, educational institutions, and professional associations, is vital for responsive health workforce governance. In the Philippines, for example, the government collaborates with local universities and international partners to ensure that nursing education meets both local needs and global standards, preparing graduates for both domestic and international healthcare markets.

4. **Adaptation and Flexibility:** Given the dynamic nature of global health challenges, as evidenced by the COVID-19 pandemic, health workforce governance in the Asia-Pacific must also be adaptable and flexible. This involves continuous monitoring and evaluation of health workforce policies and practices to ensure they remain effective and relevant. The ability to quickly scale up training and deployment of healthcare workers in response to emergencies is particularly important in this region, known for its vulnerability to both health crises and natural disasters.

Despite these frameworks, many Asia-Pacific countries face governance challenges due to limited resources, bureaucratic inefficiencies, and sometimes, lack of political will. Issues such as corruption, insufficient data for planning and decision-making, and resistance to policy changes can also hinder effective governance. Addressing these issues requires not only internal policy reforms but also external support and collaboration, including technology transfer, shared learning, and funding from international agencies.

Data intelligence is crucial for effective health workforce planning in the Asia-Pacific region, where diverse economic conditions and healthcare needs present unique challenges. Robust data systems enable policymakers to make informed decisions, optimizing resource allocation and enhancing service delivery. These systems collect, analyze, and monitor health workforce metrics, facilitating strategic planning and operational adjustments in real-time. Countries across the region are increasingly investing in digital infrastructure to improve data collection and analysis capabilities. This includes the implementation of electronic health records and data sharing platforms that support cross-border collaborations and policy synchronization. Enhancing data intelligence not only aids in addressing immediate healthcare challenges but also in anticipating future needs, ensuring that health systems are adaptive and resilient.

Long-term health workforce planning is crucial for preventing workforce crises. An essential component of this planning is the use of health workforce projection models. Over the past decade, these models have become increasingly sophisticated, particularly in aligning workforce projections with population health needs and the requirements of various health service delivery models. At least seven distinct models incorporate demand, supply, and financial planning components, as detailed in Lee et al. (2024)⁵. To ensure effective planning, Asia-Pacific countries should simultaneously enhance data intelligence and adopt advanced health workforce projection models.

Policy Responses

Effective regulation and long-term national planning are essential for ensuring a sustainable and equitable health workforce capable of meeting growing population demands. Addressing the challenges faced by the Asia-Pacific region requires coordinated policy responses and a commitment to innovation and continuous improvement.



Data Gaps	Inadequate data systems hinder effective workforce planning. Action: Enhance data infrastructure and standardize collection methodologies to support strategic decision-making.
Geographical Imbalances	Healthcare professionals are unevenly distributed, with rural areas experiencing shortages. Action: Implement targeted incentives and programs to attract professionals to underserved regions.
Economic Constraints	Limited financial resources in LMICs restrict workforce training and retention. Action: Increase health budgets and explore innovative financing solutions, including public-private partnerships.
Regulatory Barriers	Rigid regulations impede adaptive workforce planning. Action: Reform regulatory frameworks to enhance flexibility and responsiveness.
Human Resource Misalignment	Misaligned human resources create service delivery gaps. Action: Align human resources with primary healthcare systems and integrate multidisciplinary teams.
Continuous Professional Development	Ongoing training is critical to meet evolving healthcare demands. Action: Establish frameworks for continuous learning and skill enhancement. Action: Clearly define and enhance the private sector's role in public health goals.
Remote Area Workforce Shortages	Remote regions face severe shortages of healthcare workers. Action: Deploy digital health technologies to extend healthcare access in remote areas.
Education Models	Traditional education systems may not meet modern healthcare needs. Action: Adapt education and regulatory systems to support innovation and expand practice scopes ⁹ .
Clinical Effectiveness	There is a need to leverage modern technology for improved clinical outcomes. Action: Integrate AI to enhance clinical decision-making and support higher-quality care.
Health Worker Migration	Persistent migration trends impact domestic health systems. Action: Advocate for ethical mobility and pursue bilateral agreements to ensure fair and equitable workforce movement.
Accountability and Monitoring	Lack of accountability can undermine workforce strategies. Action: Establish robust monitoring mechanisms and focus on key indicators such as worker density and education capacity to drive progress.

9. NHS England. What is advanced clinical practice? Retrieved 29 July from <https://tinyurl.com/w5gw6s7>



Conclusion

Effective health workforce planning in the Asia-Pacific requires a nuanced approach that considers the unique characteristics of the region. This article highlights the role of strategic governance, sophisticated planning, and the leveraged use of data are crucial for optimizing the health workforce in a region as diverse as the Asia-Pacific.



2-2. The Impact of AI on Human Resource Development

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According to the McKinsey Global Institute, the value of AI will reach 13 trillion US dollars in 2030, to create 1.2% annually for global GDP. Such rapid growth will not only bring a niche to the industry, but also change the work patterns of laborers.

The development of science and technology is one of the main reasons for the changes in production patterns and employment patterns in recent years, among which the application of AI has attracted attention. As many studies have shown, the application of AI can help improve the industry's productivity. But there are also concerns that the functions and applications of AI could cost workers in certain industries jobs. Therefore, as enterprises promote production transformation and efficiency improvement, it is a lesson that needs to be paid attention to enable workers to learn AI-related skills to ensure job opportunities and then increase labor wages.

AI Will Have an Impact on Laborers' Work Patterns

There will be 97 million new-type jobs while many traditional-type jobs disappear by 2025, as predicted by the World Economic Forum. According to the WEF's Enterprise Survey Report, 75% of enterprises expect to adopt big data, cloud computing, AI, and other emerging technologies in the next five years. This will create new-type jobs for the emerging technologies mentioned above, and of course, some traditional-type jobs will no longer require manpower due to the introduction of these technologies. Of these, 50 percent of companies expect to create more new-type jobs, while 25 percent expect to cancel the traditional-type jobs. The WEF report also shows that the fastest decline in the number of jobs due to skills demand factors such as technology and digitalization includes administrative roles such as cashiers, ticket clerks, data entry clerks, accountants, bookkeepers, and payroll clerks. The job categories with the new positions are mainly those with analytical and creative thinking.

1. McKinsey Global Institute, "Generative AI and the future of work in America." July 26, 2023.
2. World Economic Forum, "Future of Jobs Report 2023- Insight Report." May, 2023.



The International Labour Organization (ILO) also released a report in August 2023 titled “Generative AI and Employment”, to predict the impact of generative AI on global employment. The study assesses the extent to which occupations around the world have a potential impact on generative AI, especially GPT-4. According to the analysis, the jobs on paperwork were more affected, while only 24% of paperwork jobs were highly affected, and 58% of paperwork jobs were only moderately affected. According to the report, the biggest impact of generative AI technology should be “workload”. In other words, generative AI can assist with some of the work items in the jobs, which in turn gives workers more time to finish their tasks. In this way, traditional-type jobs are not completely affected by the AI and disappears.

To help workers meet the employment challenges posed by this emerging technology, the WEF recommends that priority areas in skills training include analytical skills, creative skills, leadership, and social impact skills. Enterprises should adopt on-the-job training and coaching to cope with the impact of technological developments such as AI on job changes. However, many companies believe that company-led training programs are more in line with their corporate development goals, including prioritizing the Diversity, Equity, and Inclusion Program (DEI). The program is aimed at women, young people under the age of 25, and people with disabilities.

The report of “Employment Outlook 2023” by the Organization of Economic Cooperation and Development (OECD) also notes that there is no evidence that the development of AI has a significant impact on employment. Companies may be adjusting the balance between AI or automation and the workforce as they make industrial transitions. Through the adoption of AI technology, they will improve labor participation and workplace safety. Therefore, the OECD believes that in addition to the talent development mechanism of the education system, governments should incentivize employers to run training programs through public policies and legislation. The OECD also recommends ensuring workers’ needs through collective bargaining and social dialogue.

3. ILO, “Generative AI and Jobs: A global analysis of potential effects on job quantity and quality.” August, 2023.
4. OECD, “OECD Employment Outlook 2023.” July 11, 2023.



The Cases of Government's Response

In Germany, for example, the government continues to secure a sufficient skilled labor force through Continuing Education and Training (CET). Through the CET, all workers are also provided with the skills necessary to maintain their employment, and to sustain Germany's innovation and competitiveness. In 2018, Germany proposed a National AI Strategy to promote Germany's economic growth and industrial competitiveness. In line with the National AI Strategy, the Federation, Länder, businesses, trade unions, and the Federal Employment Agency work together to promote education and training to achieve Germany's goal as a leading European center for AI.

Under the National AI Strategy, the German government has proposed several CET initiatives, including expanding AI learning platforms (e.g.: AI Campus website), launching the National Skills Strategy to promote vocational training in digital or AI, establishing the Helmholtz Information & Data Science Academy, promoting the Digital Platform for Continuing Vocational Training (INVITE), and establishing the regional Centres of Excellence for Labour Research.

In Indonesia, in 2020, the government proposed a National AI strategy from 2020 to 2045, focusing on AI research and research, health services, food security, smart cities, and public sector reform. According to the Access Partnership, generative AI has the potential to generate US\$243.5 billion of GDP in Indonesia, which is one-fifth of GDP in 2022. According to the Access Partnership, generative AI will transform the production process of Indonesian industries in three ways: unleashing creativity, accelerating research discovery, and improving efficiency. The report recommends that cross-competency skills in operational monitoring, coordination, and material resource management should be assessed. and to close the digital skills gap for Indonesian workers by continuing to focus on digital literacy and improving AI capabilities.

5. Federal Ministry of Labour and Social Affairs and the Federal Ministry of Education and Research, "National Skills Strategy." June, 2019.
6. Access Partnership. "The Economic Impact of Generative AI: The Future of Work in Indonesia." August, 2023.



Conclusion

In general, AI and its derived emerging technologies, such as generative AI, chat-generated pre-trained converters (ChatGPT), or related technologies to promote the rapid development of AI, such as big data and cloud technology, will be an important trend to integrate with the industry. Among these technologies, generative AI will have a more direct impact on job opportunities and skill demand in the labor market. As reported above, the impacts of AI-related technology developments on the job market are not substantially clear yet. Many of these international organizations believe that the most likely impact of AI technology on employment should be to enhance the effectiveness of jobs, rather than impact the number of job opportunities.

Therefore, how governments can ensure the employment of workers through policies and legislation at the time of AI development will be the main lesson to prevent workers from being impacted by AI and losing their jobs. In addition, enterprises can also plan self-training courses to assist their workers with the skills required for AI. Enterprises also need to work with their government to avoid workers being unemployed due to technological developments. In this way, it could reduce the impact of AI development on society through the Corporate Social Responsibility of enterprises.

3. Conclusion

The Asia-Pacific region is at a pivotal moment in addressing its workforce needs, as it strives to cultivate and retain talent to support its diverse economies and healthcare systems. Home to the world's largest population, the region faces unique challenges, including rapidly aging societies and varying levels of economic development.

In the healthcare sector, many countries struggle to maintain a well-distributed workforce. From Indonesia's islands to rural areas in Australia, ensuring access to quality healthcare remains difficult. The COVID-19 pandemic has further highlighted the need for resilient healthcare systems that can respond to crises while continuing essential services.

Meanwhile, artificial intelligence (AI) is transforming industries, creating both opportunities and challenges. While AI can boost productivity, it also risks displacing workers and demands significant reskilling. Countries must adapt their education and training systems to prepare workers for an AI-driven future.

Geopolitical tensions and shifting economic centers also influence talent flows, impacting migration, education, and investment. To nurture talent, governments must develop strategies that promote workforce planning, public-private partnerships, and inclusive policies that offer equitable access to opportunities. By doing so, the Asia-Pacific can emerge as a leader in global talent development.



