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CARE HEALTH: *Caring in the New Normal*

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Executive Summary

Care health is a sector in the healthcare industry in which care health workers perform the service of caring for patients with existing vulnerabilities and illnesses, whether it be children, adults, and the elderly. The demand for care health workers has been rising due to the climate change crisis, the COVID-19 pandemic, and other minor factors as the world calls for the need of care health workers, who are called as the most trusted frontliners with the responsibility of taking care of an endless flow of patients affected by both climate change and COVID-19. However, there has been a mismatch between the supply and demand of skills required for care health workers, thus calling for the need to increase the value and perception of the care health industry. Provided the skills gap in the care health sector, the opportunities, and the challenges the sector has been facing, this study will provide data on the list of emerging skills, soft skills, and the list of TVET programs related to care health, which will pave the way to ways forward that will make care health education and training programs strengthen and adapt themselves in the face of a newer normal while taking advantage of the emerging and soft skills.



I. Background

Care health refers to a portion of healthcare covering the service or care of patients with existing vulnerabilities and ailments (including those with serious illnesses, physical injuries, chronic disorders), children, and even the elderly. It is a part of a larger category called “care work”, which is a wider sphere comprising both medical and non-medical care jobs and skills. What differentiates care health from other forms of care work is that it is focused on care work in healthcare matters. Care health covers healthcare patients at home, primary care health facilities (clinic or family doctors), and hospitals as long as the work involves serving and caring for ill and vulnerable patients, as well as children and the elderly.

According to the International Labour Organisation (ILO), there are 381M care health workers in the world as of today, but the number of care workers is expected to rise by 94-95M in the year 2030 during a post-pandemic world. However, the demand for care health workers is rising and overtaking the supply, with the number of people in need of care expected to rise from 2.1B (in 2015) to 2.3B (in 2030). Two main events play a role in contributing to the supply-demand gap of care health workers, which are: the climate change crisis and the current COVID-19 pandemic (ILO, n.d.).

In this way, care work under the care health sector can also be considered as “green work” or “climate work” as they are “more trusted” than doctors in the transition to sustainability and adaption to climate change because (1) unlike other forms of work, the care health sector is low-carbon work as the sector's jobs require less extraction of polluting materials, which will help care health workers contribute to decarbonization and climate change-reduction efforts, (2) the care health sector is resilient to external shocks like pandemics, (3) it involves caring for people victimised and displaced by climate change-induced



disasters, and (4) care work involves caring for the environment to mitigate climate change, especially through cleaning, segregating, and recycling food and medical waste while caring for their patients (Feminist Green New Deal Coalition, n.d.).

First, according to a webinar from the World Health Organization on nursing and midwifery dated November 18, 2021, the climate change crisis led to the rise in demand for care health workers because (1) the rising trend of extreme weather events (e.g. flash floods, droughts, heat waves, etc.) led to the overstretching of health services as care health workers (i.e. nurses) have to take care of the increasing number of people needing rescue and assistance from climate change-induced disasters, (2) the effects of the climate change crisis such as rising temperatures and extreme weather led to the destruction of natural resources, which led to increased chances of malnutrition, thus requiring more care health workers to attend to nutritional needs of the people, (3) rising temperatures due to climate change led to increased chances of attaining water-, land-, food-, and air-borne diseases (e.g. malaria, dengue, etc.), which would require a lot of care health workers to attend to the caring of people sickened by these diseases, (4) the effects of climate change to mental health (i.e. stress, anxiety, and depression caused by the overstretching of hospitals attempting to deal with the effects of climate change) require more care health workers (i.e. caregivers) willing to attend to the mental health issues of both patients and doctors, and (5) rising temperatures (combined with the scarcity of resources, mental health effects, and the overstretching of hospitals) increase the risk of premature births, stillbirths, low birth weights, stillbirths, and breastfeeding problems in pregnant women, thus leading to the increasing demand for midwives willing to attend to pregnant women experiencing these issues (World Health Organization, 2021, November 18). In this way, care work under the care health sector can also be considered as "green work" or "climate work" as they are "more trusted" than doctors in the transition to sustainability and adaption to climate change because (1) unlike other forms of work, the care



health sector is low-carbon work as the sector's jobs require less extraction of polluting materials, which will help care health workers contribute to decarbonization and climate change-reduction efforts, (2) the care health sector is resilient to external shocks like pandemics, (3) it involves caring for people victimised and displaced by climate change-induced disasters, and (4) care work involves caring for the environment to mitigate climate change, especially through cleaning, segregating, and recycling food and medical waste while caring for their patients (Feminist Green New Deal Coalition, n.d.).

Second, the current COVID-19 pandemic has led to a rise in demand for healthcare workers, especially when they are “frontliners” who need to attend and take care of patients who are infected with COVID-19 while cases are rising. This covers care health because there is already an increasing demand to attend and take care of a constant flow COVID-19 patients (whether they are children, adults, or the elderly), especially those who are undergoing both facility and home quarantines, while the future of the pandemic is still uncertain with the rise of new COVID-19 variants (TESDA, 2020). Moreover, the COVID-19 pandemic has placed a strain on the workload of the caregivers, especially when they are doing unpaid care work, in which they are pressured to perform more domestic work for family members, children, and even the elderly while they are struggling to survive economically and physically during the pandemic (this situation worsens if important members of the family are infected with COVID-19 or on home or facility quarantine), thus leading to the increasing demand of care health workers needed to deal with the affected families (Oxfam, 2020).

Besides the climate change crisis and COVID-19, other factors such as globalisation, the rising aging population, population dynamics, and even geopolitical factors can also play a role in the rising demand of care health workers (ILO, 2019).



Moreover, the rising demand for care health workers due to the aforementioned events has resulted in a mismatch between care health skills demanded by the healthcare industries and the existing care health skills being offered by current TVET institutions, which has been an issue even before the pandemic, as the supply of care health workers continued to be lower than the demand (Jones-Renaud, Silva, et. al, 2020). This supply-demand gap of care health workers is caused by the undervaluing of vocational education and skills requirements necessary for care work, thus leading to the perception of care work jobs (particularly care health jobs) by workers as “temporary, low-skilled work” even if they actually require a set of technical, vocational, and soft skills for efficient operation (“What is care work?”, n.d.).

Services involving care health as care work can include caregivers, carers for persons with disabilities (PWDs), carers of children, and even carers of the elderly. Moreover, examples of occupations for care health workers can include nurses, nursing assistants, hospital, in-home, and personal caregivers (i.e. caregivers for children, elderly, incapacitated patients, and PWDs), midwives, physical therapists, physical therapy assistants, radiation therapists, medical assistants, medical equipment preparers, respiratory therapists, medical transcriptionists, exercise physiologists, recreation workers, fitness and wellness trainers, occupational health and safety technicians, and healthcare support workers. (Charlton, 2021).

II. Relevant Policies

A. Republic Act 11223 or the Universal Health Care Act

In 2019, the Universal Health Care Act was institutionalized in the Philippines. This act makes all Filipino citizens eligible for the National Health Insurance Program (NHIP), which provides “immediate eligibility and access to preventive, promotive, curative, rehabilitative, and palliative care for medical,



dental, mental, and emergency health services, delivered either as population-based or individual-based health services” (Chapter II, Section 6a). Its implementation will require the delivery of health services by care workers, necessitating provisions for human resource development. Section VI of the UHC Law addresses "Human Resources for Health," mandating the establishment of a National Health Workforce System and the formulation and implementation of National Health Human Resource Master Plan to assist local public health systems in meeting their human resource needs. Scholarship and training program provisions are critical to ensuring that these care health workers are well-equipped with knowledge and abilities, with the Commission on Higher Education (CHED), Technical Education and Skills Development Authority (TESDA), Professional Regulation Commission (PRC), and the Department of Health taking the lead. Specifically, TESDA together with these other government agencies shall “develop and plan the expansion of existing and new allied and health-related degree and training programs including those for community-based health care workers and regulate the number of enrollees in each program based on the health needs of the population especially those in underserved areas” (Chapter VI, Section 25a).

- Human Resources for Health Master Plan (HRHMP) 2020-2040
The HRHMP 2020-2040 is intended to guide the management and development of the Philippines' human resources for health (HRH) in accordance with UHC goals by outlining policies and strategies and building on previous efforts in HRH policy making and reform. Aside from the UHC Act, this master plan is also aligned with global and national plans and framework, including Global Strategy on Human Resources for Health: Workforce 2030, Ambisyon Natin 2040, and PDP 2017-2022 (DOH, 2021).



B. Administrative Order No. 2015-0052

The DOH issued Administrative Order 2015-0052, titled "National Policy on Palliative and Hospice Care in the Philippines," in 2015, which is in line with the goals of Universal Health Care to include palliative and hospice care in the hospitals or health facilities, community, and households. This will serve as the overarching policy direction, establishing the roles and functions of the DOH, its offices, and partner agencies in providing the aforementioned services (AO No 2015-0052, 2015).

Moreover, the DOH, in collaboration with other sectors and disciplines, shall lead in the training of health professionals, while PRC, through the health professional regulatory boards, shall ensure that health professionals meet the standards for training and practice of palliative and hospice care (AO No 2015-0052, 2015).

C. Administrative Order No. 04 Series of 2010

In response to the legislation governing senior care, the Department of Social Welfare and Development released Administrative Order No. 04 Series of 2010, or the "Guidelines of Home Care Support Services for Senior Citizens." According to Article XV, Section 4 of the 1987 Philippine Constitution, it is the responsibility of the family to care for their older members, while the government may develop a social security program for them. As such, through mobilization and capability building activities, a community-based program called as the "Home Care Support Services for Senior Citizens" engages family members, older people, and the community/neighborhood in taking efficient steps to improve their ability to care for the sick, frail, bedridden or disabled, as well as abandoned and neglected senior citizens (AO No. 4 s. 2010, 2010).

One of the activities in the pre-implementation phase (social preparation) is the formation of a Core Group/Project Advisory Committee who will provide technical assistance and monitoring, with the Project Advisory Group chaired by the Provincial/City/Municipal Social Welfare and Development Office



(P/C/MSWDO) and implemented by its members, including TESDA (AO No. 4 s. 2010, 2010).

During its implementation, the Regional Health Office or the Provincial, City, or Municipal Health Unit, as well as the TESDA and the Academe, will work together for capability building through volunteer training which will focus on (1) “understanding the needs and dynamics of the senior citizen; and (2) acquiring basic knowledge and skills on the proper care and management of elderly, including home safety and proper hygiene.” A Certificate of Completion on Caregiving shall be given to volunteers who were able to successfully complete the 6-month training program and have successfully passed the assessment/proper evaluation (AO No. 4 s. 2010, 2010).

Moreover, TESDA shall be coordinated in terms of licensing/accreditation as home care volunteers, which shall be facilitated by DSWD Field Office in close cooperation with the department's Standards Bureau (AO No. 4 s. 2010, 2010).

D. Republic Act No. 10410

Republic Act No. 10410, also known as the “Early Years Act of 2013” directs the state in promoting children's rights to survival, development, and special protection, with full recognition of the nature of childhood and its special needs; and assisting parents in their roles as primary caregivers and first teachers for their children through establishing a National System for Early Childhood Care and Development (ECCD) (Republic Act No. 10410, 2013).



III. Care Health in Other Countries

A. Care Health in Australia

According to a 2016 Australian Bureau of Statistics report, the Health Care and Social Assistance industry, which includes care health, is Australia's largest industry by employment, accounting for around 12.6% of the Australian workforce. In 2017, 13% of the 400,000 jobs created during that year consisted of care health roles such as caregiving, nursing, and midwifery (TESDA, 2018). Then, according to the Australian Midwifery and Nursing Federation (AMNF), 252,600 more Health Care and Social Assistance workers are expected to be added to the Australian workforce by the year 2024, with 150,400 care health workers (i.e. 41,000 registered nurses and midwives, 3,000 enrolled and mothercraft nurses, and 106,400 personal carers and assistants), which comprise 59% of the workers to be added during that year. However, demand for care health workers in the country rose, threatening to outpace the supply due to the country's rising aging population along with the effects of the COVID-19 pandemic, which forced Australians to rely on care health workers to address the recently rapid COVID-19 surges in 2021 as well as the number of people needing to undergo quarantine. In this way, the AMNF suggested that during this time of pandemic, Australia should provide effective support of the attraction, transition, and retention of local care health workers so that it will not depend on importing care health workers from other countries to attend to the country's rising demand of care health workers. Hence, the AMNF called for the country to: (1) form partnerships between Australian care health organisations and Australian local governments, particularly in performing workforce assessment and planning of the care health sector, (2) form partnerships between healthcare, education, and training providers, healthcare researchers, and care health bodies to reinforce the country's recruitment and retention of the care health workforce, (3) increase



employment opportunities for care health workers by investing on efficient funding and resources to the country's own technical-vocational training programs related to care health, and (4) provide accurate analyses on the trends pertaining to the enrollment, completion, recruitment, and retention of care health workers in the country. (Australian Nursing and Midwifery Federation, 2021).

B. Care Health in the United States of America

According to the American Bureau of Labor Statistics in 2018, five out of the ten fastest-growing jobs in the US for the 2020s decade will be in health care, particularly in jobs related to care health, with the two fastest-growing occupations in the care health sector, personal caregivers and home-health caregivers, accounting for one in every ten jobs. Moreover, the Federal Health Resources and Services Administration predicted that 3.4M care health workers will be demanded by the American people by the year 2030. Factors contributing to this include: the rising COVID-19 cases in the country, the increasing levels of income and wealth among American people, the advancing of American healthcare technology, the rise of automation, the influence of globalisation, the subsidising of American health care, and the rising aging American population (TESDA, 2018). Hence, the American College of Nurse-Midwives recommended the US to increase the number of care health education programs, especially in US States without proper programs, invest in federal, state, and private funding in the development of new care health education programs and the diversifying of care health workers, exercise full practise authority among certified care health workers in all fifty states, provide equal pay for care health workers, and create an interprofessional education model that can support education and workforce-strengthening for care health workers in the country (American College of Nurse-Midwives, 2019).



IV. Care Health in the Philippines

According to the National Human Resources for Health Master Plan 2020-2040 by the Department of Health (DOH), there are 854,253 licensed healthcare professionals as of 2020. In terms of the care health sector, 59% of the 854,253 are nurses, 9% are midwives, and 9% are physical therapists and occupational therapists (Department of Health, 2021).

However, there is a shortage of supply of care health workers in the Philippines, which meets the increase of demand of care health workers in the country. For example, only nurses have at least an adequate supply production, with a nurse-to-population ratio of 48-58 per 10,000 while the midwife-to-population ratio stands at 8-9 per 10,000. To make matters worse, the ratios are decreasing (Department of Health, 2021). Moreover, the demand for caregivers in the Philippines is rising provided that the country is known for being a major hub for caregivers (TESDA, 2008).

Factors contributing to the demand overtaking the supply of Philippine care health workers can include: (1) the rising COVID-19 cases in the country, which raised the demand for care health workers to attend to people affected by the pandemic, especially those undergoing home or facility quarantine, (2) an inadequate distribution of care health workers across the country, in which the highest density of care health workers is in the National Capital Region (NCR) (with 146 per 10,000) while the lowest density is in Region IV-B (with 29 per 10,000) and the BARMM (with 8 per 10,000), (3) an inadequate number of well-paying jobs in the care health sector, (4) unclear career paths for care health workers, (5) a lack of support for care health workers' safety and well-being, (6) not all licenced healthcare professionals, especially care health workers, are actively practising their professions or working inside the country, (7) the Philippine government's promotion of "medical check-up tourism", as well as its reputation as a retirement haven with low medical costs, and (8) the



propping up of "bogus caregiver training centres" threatening to compete against legitimate ones (Department of Health, 2021).

To settle the aforementioned issues, the National Human Resources for Health Master Plan 2020-2040 recommends the Philippines to (1) engage key stakeholders related to the care health sector (including public, private, and international stakeholders) in research, assessment, policy scoping, and review of data to be used for intervention of the Philippine care health sector, (2) communication with the legislative branch, as well as international organisations, for the advancing of the development of the care health sector, (3) investment of funds and resources for the improvement of technical-vocational education and employment of care health workers, and (4) the promotion of public outreach and advocacy programs supporting the development of the care health sector (Department of Health, 2021).

V. Opportunities in Care Health

A. Investment and Employment Opportunities

Care Economy as an emerging professional cluster

There are seven key emerging professional clusters: (1) Data and AI, (2) Engineering and Cloud Computing, (3) People and Culture, (4) Product Development, (5) Sales, Marketing and Content, (6) Care Economy, and (7) Green Economy, with the care economy experiencing the most growth. More employment opportunities (e.g. personal care aides, medical assistants) in the care sector are being created as a result of the growing importance of human interaction, as evidenced by the emerging professions (World Economic Forum, 2020). Figure 1 shows the number of new opportunities in these emerging professional clusters for every 10,000 available positions in the labor market, calculated as a compound average annual growth rate (ILO, 2019).



Professional Cluster	Number of opportunities (per 10,000)	
	2020	2022
figures extrapolated from data for 20 economies (LinkedIn)		
Data and AI	78	123
Engineering and Cloud Computing	60	91
People and Culture	47	58
Product Development	32	44
Sales, Marketing and Content	87	125
figures extrapolated from data for the United States (Burning Glass)		
Care Economy	193	260
Green Economy	9	14
ALL CLUSTERS	506	715

Figure 1. Emergence of clusters of professions of the future, 2020 - 2022.

Social infrastructure investments

Social infrastructure investment in the care sector provides long term benefits to the society as it yields a more educated, healthier, and better-cared-for population (Womens Budget Group, n.d.). A study by the UK Women's Budget Group for the International Trade Union Confederation (ITUC) (n.d.) shows a comparison on the impact of investing in care services and construction to employment. According to the study's findings, which were consistent across seven high-income countries (e.g., Australia, USA, etc.), although investment in the construction and care industries boosts employment and growth, investment in the caring sector generates more jobs overall than a comparable level of investment in the construction industry. This will not only affect employment in men, but would also raise the employment rate of women. This is not to undermine the significance of the construction industry, but countries may consider allocating a larger portion of their budget to health-care services. In the Philippines, the



Department of Public Works and Highways (DPWH) was given the second-largest portion of the 2021 budget, accounting for PhP695.7 billion, whereas, the Department of Health received PhP210.2 billion (Department of Budget Management, 2020). This is also the case for the approved 2022 Budget (Philippine News Agency, 2021).

According to a report on “The Jobs of Tomorrow” from the World Economic Forum (2020), the care economy will account for 37% of projected job opportunities in emerging professions between 2020 to 2023.

Philippines as a source country

From 2010 to 2014, the Philippines was a major source country for domestic care and healthcare workers, with nurses and caregivers being the most common workers sent to these countries. Other care workers who have been deployed abroad include physicians, physical therapists, occupational therapists, speech pathologists, radiologists, medical technicians, and laboratory workers (Philippine Overseas Employment Administration, n.d.; WorkAbroad.ph, n.d., as cited in de la Vega et.al., 2021).

This year, the annual deployment ceiling for health care workers was raised from 5000 to 6500, providing more opportunities for Filipino health care workers to work abroad.

B. Capacity building and capability development

Having a sufficient and skilled health workforce in delivering “safe, competent, and ethical health care services” is important in attaining the Sustainable Development Goals and goals of UHC. This would imply the need for (1) education and training programs which will align the supply and skills of health workers to the country’s needs, capacities, and development priorities, (2) clear and recognized standards in HRH production, and (3) an efficient and harmonized health workforce production planning and management. Both the government, national and local government units,



and the private sector (e.g. private institutions) are critical stakeholders to maintain the HR retention within the country's health sector which may be supported by one of the HRH Master Plan's identified strategies, that is expanding scholarship and training programs in accordance with UHC Law. Figure 2 shows the various government agencies that offer scholarships, loans, and other financial assistance. Training and educational opportunities should also be available in light of the fact that this is one of the reasons many health workers leave their jobs (DOH, 2021).

Furthermore, not only will these capability programs help to retain care health workers, but they will also result in wage increases, which will influence the quality of care, particularly for people with specific types of needs.

<i>Institution</i>	<i>Services</i>
<i>CHED</i>	Scholarship programs, grant-in-aid programs, student loan programs, and Cash Grants to Medical Students enrolled in State Universities and Colleges (CGMS-SUC)
<i>TESDA</i>	Technical and Vocational Education and Training (TVET) scholarships and other educational assistance through different TESDA programs including Private Education Student Financial Assistance (PESFA) program, Training for Work Scholarship Program (TWSP), Special Training for Employment Program (STEP) and Universal Access to Quality Tertiary Education Act (UAQTEA)
<i>DOH</i>	Pre-Service Scholarship Program (PSSP) for medicine and midwifery
<i>Department of Science and Technology-Science Education Institute (DOST-SEI)</i>	Science and technology scholarship programs

Figure 2. Government Agencies Providing Various Financial Assistance.

Source: DOH HRHMP 2020-2040

VI. Issues and Challenges

A. Skilled Labour Migration

Although the Philippines being a country source of care workers may mean



additional employment opportunities, opportunity to integrate into the global economy (Alburo and Abella, 2002), and intensification of the domestic economy through remittances (Dimaya et.al., 2020), it may also pose an issue or challenge. According to the DOH's most recent health facility survey in 2019, only 90 percent of rural health units or primary healthcare facilities in the country have at least one medical doctor, with a considerable number of primary healthcare facilities lacking a nurse or a midwife (Ulep, Uy, & Casas, 2020; DOH, 2019; as cited by Ulep & Casas, 2021), despite the fact that the Philippines remains the leading exporter of nurses and doctors (Dayrit et al., 2018[3], as cited by OECD/WHO, 2020). This skilled labour migration may worsen previously existing shortages and imbalances in the distribution of health workforce, as well as raise workloads for remaining health professionals in understaffed regions and institutions (ILO, 2019).

B. Demographics

Demographic factors, such as aging populations and population growth, have a substantial influence on the health sector. As the population ages, there will be a shift toward care-based and end-of-life services. By 2050, the world's population is anticipated to reach 9.8 billion, with people aged 60 and above predicted to quadruple to 2.1 billion, while people aged 80 and up will reach 425 million, rising at a faster rate (United Nations, Department of Economic and Social Affairs, 2017, as cited by ILO, 2019). However, a majority of elderly individuals do not have access to long-term care, worsened by the lack of competent long-term care workers and infrastructure for the delivery of such services. If the attention given to care work continues to be inadequate, the inequalities for the elderly will worsen which may lead to poverty and exclusion.

While in terms of population growth, by the beginning of 2021, the Philippine population has increased gradually by 1.31% (POPCOM, 2021).



The demographic challenges, and an added strain of epidemiological challenges are aggravated by worldwide inequalities in access to effective health care, with low-income nations bearing a disproportionate share of the burden. Critical health workforce shortages, uneven health worker distribution, and skill mismatches characterize this disparity (ILO, 2019).

C. Technological Advances

Breakthroughs in technology such as robotics and artificial intelligence, brought about by the Fourth Industrial Revolution (4IR), is influencing the daily work of professionals (Paris, OECD, 2017, as cited by ILO, 2019). The delivery of care services in nontraditional settings (e.g. home) can be facilitated by technology, which can also increase access to healthcare in rural and remote areas. However, it is still debatable whether technology will eliminate or it will increase the need for workers. According to ILO (2019), technology and automation may lead to the abolition of a variety of low-skilled jobs, such as material transport in hospitals and highly technology-based specialized jobs.

D. Environmental Developments

Environmental issues, such as climate change and air pollution, have a wide range of effects on the demand for health-care services (Washington, D.C., Island Press, 2005, as cited by ILO, 2019). As previously stated, there is an increase in the number of people needing rescue and assistance from disasters, malnutrition, mental health disorder, and pregnancy complications (e.g. premature births, stillbirths, etc.) which were a result of climate change, a rising trend of extreme weather events, destruction of natural resources, rising temperature, among others. This then led to the rise in demand for care health workers (WHO, 2021).



VII. Skills Needed

A. Technical Skills

After extracting data from sources from the World Health Organization, TESDA, and the Center for Workforce Information & Analysis, this study has identified various technical skills for care health workers like nurses, caregivers, midwives, auxiliary hospital carers, therapy-based carers, mental health carers, and nutrition carers, which are indicated in Table 1 below. Here are the scope of works for some of the technical skills listed:

- Home Health Aides - Assisting and guiding elderly, disabled, and seriously ill patients in their residences in daily living activities such as hygiene, feeding, cooking, changing bed linen, as well as housekeeping, transportation, and performing health care activities such as checking for vital signs, administering medication, performing medical procedures, and operating medical equipment (Unlike Personal Care Aides/Home Care Aides, this is more medically-intensive in the household setting)
- Hospital Health Aides - Assisting and guiding elderly, disabled, and seriously ill patients in their residences in daily living activities such as hygiene, feeding, cooking, changing bed linen, as well as housekeeping and performing health care activities such as checking for vital signs, administering medication, performing medical procedures, and operating medical equipment (Unlike Home Health Aides, this is more medically-intensive in the hospital setting) .
- Assistant Nurse - Performing nursing tasks (under the supervision of a Practical Nurse) such as (but not limited to): assisting hospital patients with hygiene and toiletries, assisting hospital patients in eating, cleaning patient's areas together with hospital beds, checking for vital signs, assisting patients with exercise and mobility, and even assisting hospital patients with medications and other medical procedures when needed



- Elderly Assistant - Providing support and assistance to the elderly, especially in both medical or non-medical daily tasks and procedures, whether it be at home or at a health care facility
- Domiciliary Carers - Assisting elderly or disabled people in their daily, household tasks, with the goal of teaching them to live independently despite their condition(s)
- Family Carer - Constantly monitoring elderly, seriously ill, and disabled people living in their residences for their conditions relevant to their health-, disability-, and mental health-related issues
- Kinship Carers - Caring for children or dependents in daily routines, whether medical or non-medical, while their parents or guardians are not present
- Kinship Care Coordinators - Providing support to kinship carers caring for children or dependents in daily routines while parents or guardians are not present
- Hospital Caregivers - Providing assistance to patients confined in the hospital in daily routines, whether medical or non-medical, such as (but not limited to): hygiene, mobility, preparing and eating food, providing and administering medications, performing basic medical procedures, and even attending to urgent matters related to the condition of the hospitalised patient
- Home-based Personal Care Workers/Personal Care Providers - Caring and assisting daily routines of persons in residences needing care due to old age, illness, injury, and disability through providing them assistance in feeding and hygiene, providing them assistance in physical mobility and communication, assisting them with medications, providing them emotional and psychological support, maintaining hygienic standards of their living areas (e.g. changing bed linen, etc.), assisting them in performing medical procedures and even visitations to the doctor, feeding, cooking, and doing the laundry, housekeeping, and teaching the patient's family members about the patient's medical conditions,



medications, and procedures

- Personal Care Aides/Home Care Aides - Assisting and guiding elderly, disabled, and seriously ill patients in their residences in daily living activities such as hygiene, feeding, cooking, changing bed linen, as well as housekeeping, transportation, and performing medical procedures and checking for vital signs when needed (Unlike Home Health Aides, this is less medically-intensive)
- Personal Assistant - Assisting and guiding elderly, disabled, and seriously ill patients in basic daily activities, even non-medical ones
- Emergency Medical Technician - Providing front-line emergency care to people experiencing medical emergencies (e.g. accidents, assaults, illnesses, etc.), including first aid, CPR, and life support, reporting the medical emergency to the hospital, and assisting in transporting people from the medical emergency site to the hospital via ambulance, as well as maintaining ambulance equipment
- Medical Equipment Preparers - Assisting or helping in preparing, maintaining, and cleaning medical equipment, assisting and helping in sterilising and disinfecting medical equipment, as well as disposing medical waste
- Call Taker - Screening and Directing incoming calls to a hospital emergency dispatch center
- Dispatch Officer - Coordinating with emergency calls, coordinating with other dispatch crews the location of the medical emergency, and then deploying ambulances to the emergency site
- Ambulance Care Assistant - Collecting patients from the emergency site to the ambulance, driving the ambulance en route from emergency site to hospital, cleaning and maintaining the ambulance and other relevant equipment in the ambulance, administering first aid, whether in the emergency site or in the ambulance
- First Aid Attendant - Administering first aid to patients in medical emergency sites once they are called



- Medical First Responder - Providing life-saving interventions in medical emergency sites while waiting for the EMS personnel to arrive
- Hospital Attendant - Transporting of Patients (especially to different wards and surgery rooms), assistance in changing hospital bed linen, assistance in giving patients meals, cleaning hospital wards, applying and changing bandages and ointments, checking for vital signs, assisting physicians in caring for critically ill inpatients, informing physicians if the patient's condition deteriorates, and giving medicines to patients (emphasises more on patient care logistics, less on trying to medically treat the patient)
- Ward Attendants/Patient Care Assistants - Assisting the registered nurse in caring for patients who are seriously ill through transporting of patients in stretchers and wheelchairs to different hospital wards, Maintaining medical equipment stock, cleaning patient hospital rooms, cleaning medical equipment, transporting medical equipment, responding to serious medical emergencies from patients when needed, preparing patient's position for surgery, taking vital signs, helping in patient hygiene, helping patients stand and walk, feeding patients, assists patients in medical equipment, and assisting patients with medications (emphasises on both patient care logistics and trying to medically treat the patient unlike hospital attendants)
- Healthcare Support Workers - Assisting patients in hygiene activities, providing medication to patients, taking vital signs to patients, collect, store, label, and sterilise medical equipment, disposing medical waste, and assisting healthcare professionals in caring for patients
- Medical Support and Assistant - Performing administrative work, record keeping, and scheduling patient appointments
- Clinical Assistant - Assisting medical professionals with patient management, performing basic medical diagnostic tests to patients, and patient record-keeping



Furthermore, some technical skills (e.g. Dialysis Nurse, Professional Nurse, etc.) require at least a degree from a higher education institution. Meanwhile, the “Medical Transcription NC II” TR covering the technical skill of “Medical Transcriptionist” was promulgated last Oct. 2006, but it still needs to be reviewed as it is deferred by the Healthcare Information Management Association of the Philippines (HIMAP) for the time being since there are only a few BPOs now engaged in medical transcription.

Table 1. Equivalent Qualifications/Training Regulations for the Technical Skills/Job in the Care Health Industry.

Occupational Group		Technical Skills	Equivalent Training Regulation
Nurses	Nurses	Staff Nurse*	No Available TR
		Dialysis Nurse*	No Available TR
		Nursing Attendants	Health Care Services NC II
		Home Health Aides	Health Care Services NC II
		Hospital Health Aides	Health Care Services NC II
		Professional Nurse*	No Available TR
		Specialist Nurse*	No Available TR
		Nurse Practitioner*	No Available TR
		Clinical Nurse*	No Available TR
		Operating Theatre Nurse	No Available TR
		Public Health Nurse*	No Available TR
		Nurse Anaesthetist*	No Available TR
		Home Nursing Aides	Health Care Services NC II
		Hospital Nursing Aides	Health Care Services NC II
		Assistant Nurse	Health Care Services NC II
Practical Nurse*	No Available TR		
Caregivers	Elderly Care	Elderly Assistants	Caregiving (Elderly) NC II
		Respite Services Home Care Coordinator/Volunteer	No Available TR
		Physical Fitness Program Coordinator/Volunteer	



		Palliative Care Coordinator/Volunteer	
	Child Care	Childcare Personnel*	No Available TR
		Child Development Service Providers*	
		Day Care Worker*	
		Child Development Teacher*	
		Child Development Teacher Aide*	
		Child Psychologist*	
		Parent Effectiveness Service Volunteer*	
		Family Day Care Provider*	
		Social Workers*	
	Family/Kinship Care	Shared Lives Carers	Caregiving (Elderly) NC II Caregiving (Clients with Special Needs) NC II
		Domiciliary Carers	
		Family Carer	
		Kinship Carer	Caregiving (Grade Schooler to Adolescent) NC II Caregiving (Elderly) NC II
	Kinship Care Coordinator		
	Hospital and Home Care	Hospital Caregivers	Caregiving (Clients with Special Needs) NC II
		Home-based Personal Care Workers/Personal Care Providers	Caregiving (Elderly) NC II Caregiving (Clients with Special Needs) NC II
		Personal Care Aides/Home Care Aides	
		Personal Assistants	
Midwives and Pregnancy Care	Midwives	Midwives*	No Available TR
		Rural Health Midwives*	
		Midwifery Professionals*	
		Assistant Midwives	
	Birth Assistants	Hospital-based Birth Assistant	
		Home-based Birth Assistant	



Auxiliary Hospital Care Support	Emergency Care Support	Emergency Medical Technician	Emergency Medical Services NC III
		Medical Equipment Preparers	No Available TR
		Medical Transcriptionists	Medical Transcription NC II
		Call Taker/Communications Officer	No Available TR
		Dispatch Officer	
		Ambulance Care Assistant	Emergency Medical Services NC II
		First Aid Attendants	
		Medical First Responder	
	Auxiliary Hospital Care Support	Hospital Attendants	Health Care Services NC II
		Ward Assistants	
		Healthcare Support Workers	
		Patient Care Assistants	
		Medical Support and Assistant	
		Clinical Assistants	
		Barangay Health Worker	Barangay Health Services NC II
Contact Tracer	Contact Tracing NC II		
Care via Therapy	Physical Therapy	Physical Therapists*	No Available TR
		Geriatric Physical Therapist*	
		Orthopaedic Physical Therapist*	
		Physical Therapy Assistants	
		Physical Therapy Technician	
	Radiation Therapy	Radiation Therapists*	
		Radiation Therapy	



		Assistants	
	Respiratory Therapy	Respiratory Therapists*	
		Respiratory Therapy Assistant	
	Occupational Therapy	Occupational Therapist*	
		Occupational Therapy Assistant	
Mental Health Care	Psychology and Mental Health Care	Psychiatric Aides	
		Psychologist*	
		Psychometrician*	
Nutrition Care	Nutrition Care	Barangay Nutrition Scholars*	Community Nutrition Services (Under Development)
		Barangay Health Worker	Barangay Health Services NC II
		Barangay Nutrition Action Officers	No Available TR
		Nutrition Action Officers*	
		Nutrition Technician	
		Nutrition Program Coordinator*	
		District/City/Municipal Nutrition Program Coordinator*	
		Community Health Workers	
Dental Care	Dental Care	Dental Assistant	Dental Hygiene NC IV
		Dental Hygienist	Dental Hygiene NC IV
		Dental Aide	Dental Laboratory Technology Services NC I
		Dental Equipment Laboratory Technician	Dental Laboratory Technology Services (Fixed Dentures/Restorations) NC II Dental Laboratory Technology Services



			(Removable Dentures/Appliances) NC II
		Dentist*	No Available TR
Pharmacy Care	Pharmacy Care	Pharmacy Assistant	Pharmacy Services NC III
		Pharmacist Aide	No Available TR
		Pharmacist*	

Note: * Requires a higher education degree

B. Emerging and Soft Skills in Care Health

This study has detected emerging skills related to care health ranging from medical transcriptionists to radiologic technology. These skills are indicated in Table 4.

Table 4. Emerging Jobs in Care Health.

Emerging Jobs in Care Work
Medical Transcriptionists
Physical Therapist Aides
Radiation Therapists
Athletic Trainers
Medical Equipment Preparers
Veterinary Assistants and Laboratory Animal Caretakers
Exercise Physiologists
Recreation Workers
Personal Care Aides
Respiratory Therapists
Medical Assistants
Fitness Trainers and Aerobics Instructors
Occupational Health and Safety Technicians
Healthcare Support Workers
Respiratory Therapy
Caregiving
Sterile Procedures / Techniques



Transcription
Radiation Treatment
Medical Dosimetry
Vital Signs Measurement
Simulation
Advanced Cardiac Life Support (ACLS)
Radiologic Technology

Moreover, this study has enumerated soft skills needed for care health workers to perform their duties. Because of the “essential” nature of the care health sector involving having to attend and take care of a variety of patients, whether it be children, adults, and the elderly, in both the home and hospital setting, especially during the climate change crisis and the COVID-19 pandemic, soft skills essential for the operation of care health duties include those related to initiative, communications, compliance, analysis, planning, professionalism, adaptability, organisation, and emotional intelligence, which are indicated below in Table 2.

In this way, Table 2 lists the relevant soft skills/attributes of care health workers.

Table 2. Soft Skills in the care health sector.

Soft Skills in Care Work
The ability to work on your own initiative and prioritise your workload
Good listening and communication skills
The ability to understand and follow policies and procedures
Good English writing and numerical skills to fill in care plans.
The ability to pay attention to detail
Adaptation to abrupt changes and pressure
The ability to deal with extreme circumstances
Solid emotional intelligence (e.g. empathy, respect, friendliness, sensitivity)
The ability to communicate efficiently and properly
Basic Sanitation, Occupational Safety, and Health



Professionalism
Ethical Standards
Customer Relations
Preventive or curative medical knowledge
Standard of care
The ability to attend to multiple tasks and people
The ability to work as a team
Adaptation and knowledge of different needs and factors
Use of electronic medical records

C. Emerging and Soft Skills in Care Health vis-a-vis the New Normal and the Fourth Industrial Revolution (4IR)

Furthermore, the current COVID-19 pandemic has made the care health sector a more “essential” skill because the rising cases of COVID-19, as well as the uncertainty of the spread of the virus (especially when there are new variants) has demanded for more care health workers to take care of patients affected by the virus, as well as those who are undergoing home or facility quarantine. Moreover, as a part of the measures of social distancing and avoiding the virus, more people are shifting to online means in everyday tasks, which is also present in the care health sector as care health workers have to constantly communicate and care for their patients while ensuring that they do not get infected themselves. Hence, this study has detected a list of skills essential for care health workers in the post-COVID-19 “new normal”, which are indicated in Table 5.

Table 5. Emerging Skills associated with the New Normal.

New Normal Skills
Telemedicine/Telehealth
Psychological First Aid
Basic Counseling (listening, interviewing, probing)
Mobile Health Application Navigation



Customer Service/Customer Relations
Technology use for disease prevention and control
Workplace Disinfection and Sanitation
Use of Online/Digital Communication Tools (i.e Video Conferencing Platforms)

In other words, the Fourth Industrial Revolution (4IR) has introduced various forms of technology such as Artificial Intelligence, Automation, and the Internet of Things, which will expect to displace a lot of workers in the future, and the care health sector is not spared. This process became quicker during the COVID-19 pandemic when people began pivoting to online means of everyday life. In this way, this study has acknowledged the importance of 4IR skills that care health workers can learn in order to adapt to the 4IR, which are indicated in Table 6.

Table 6. Emerging Skills associated with 4IR.

Fourth Industrial Revolution Skills
Artificial Intelligence and Machine Learning
Internet of Things (IoT)
Environmental and Occupational Health and Hygiene
Health Information System Navigation and Management
Electronic Medical Records Management
Clinical Research
Remote Patient Monitoring
Health Surveillance and Monitoring
Block chain
electronic health (ehealth) and mobile health (mhealth)
Genomics and Proteomics
3D and bioprinting
Telecare

Moreover, considering that the rise of online learning has become a part of the rise of the post-COVID-19 “new normal” and the 4IR, this study has



detected online learning priorities for the care professional cluster as shown in Table 3. This may serve as a guide of the additional learning that may be embedded should a development of an online program be considered.

Table 3. Priorities for additional learning among online learners.

Priorities	Skills Taught
The Science of Well-Being	kindness, meditation, savoring, happiness, gratitude
Essentials in Clinical Simulations across the Health Professions	debriefing, learning, simulation
Nursing Informatics Leadership	nursing, exercise, mentorship, leadership
Patient safety	problem-solving, design thinking, leadership, patient, safety
Vital Signs: Understanding What the Body is Telling Us	pain management, human error assessment and reduction techniques, pain, vital signs, digital signature

Source: World Economic Forum (2020)

VIII. TVET Capacity

This study has identified the number of enrolled TESDA students, TESDA graduates, people who are assessed by TESDA, and people who are certified by TESDA in the aforementioned care health-related TVET courses, which are indicated in Table 7. Please note that most of the TRs listed in the table were only promulgated last year, thus they are still unutilized. For instance, Emergency Medical Services NC III was promulgated on October 13, 2020 and



published on November 25, 2020. Also, Caregiving NC II was superseded by the various TRs on Caregiving which were promulgated on June 9, 2020 and published on August 14, 2020. On the other hand, Community Nutrition Services is still under development.

Table 7. Total Number of Enrolled, Graduated, Assessed, and Certified by Qualification (WTR) by Sex, January to June 2021.

Qualifications (WTR)	Enrolled			Graduated			Assessed			Certified		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Barangay Health Services NC II	43	154	197	122	503	625	81	342	423	78	319	397
Caregiving NC II	715	3038	3753	434	1971	2405	1414	6695	8109	1327	6299	7626
Caregiving (Clients with Special Needs) NC II	0	0	0	0	0	0	0	0	0	0	0	0
Caregiving (Newborn to Pre-Schooler) NC II	0	0	0	0	0	0	0	0	0	0	0	0
Caregiving (Grade Schooler to Adolescent) NC II	0	0	0	0	0	0	0	0	0	0	0	0
Caregiving (Elderly) NC II	0	0	0	0	0	0	0	0	0	0	0	0
Community Nutrition Services (Under Development)	0	0	0	0	0	0	0	0	0	0	0	0
Contact Tracing NC II	0	0	0	0	0	0	0	0	0	0	0	0
Dental Hygiene NC IV	0	0	0	0	0	0	0	0	0	0	0	0
Dental Laboratory Technology Services NC I	0	0	0	0	0	0	0	0	0	0	0	0
Dental Laboratory Technology Services (Removable Dentures/Appliances) NC II	0	0	0	0	0	0	0	0	0	0	0	0
Dental Laboratory Technology Services (Fixed Dentures/Restorations) NC II	0	0	0	0	0	0	2	1	3	1	0	1
Emergency Medical Services NC II	201	88	289	323	175	498	149	139	288	146	131	277



Emergency Medical Services NC III	0	0	0	0	0	0	0	0	0	0	0	0
Health Care Services NC II	101	421	522	226	738	964	478	1623	2101	446	1547	1993
Medical Transcription NC II	17	27	44	32	105	137	16	32	48	16	32	48
Pharmacy Services NC III	0	7	7	4	17	21	33	125	158	31	112	143

Moreover, this study has identified the numbers of assessment centers, competency assessors, registered programs, and NTTC holders for the care health-related TVET courses, which are indicated in Table 8. Out of the 108 registered programs on Barangay Health Services NC II, 16 have an embedded contact tracing competency.

Table 8. Summary of the Number of Assessment Centers, Competency Assessors, Registered Programs, and NTTC Holder per Qualification (WTR), F.Y. 2021.

Qualifications (WTR)	Number of Assessment Centers*	Number of Competency Assessors*	Number of Registered Programs**	Number of NTTC Holder*
Barangay Health Services NC II	46	33	109	199
Caregiving NC II	101	248	347	803
Caregiving (Clients with Special Needs) NC II	1	0	0	0
Caregiving (Newborn to Pre-Schooler) NC II	0	0	0	0
Caregiving (Grade Schooler to Adolescent) NC II	0	0	0	0
Caregiving (Elderly) NC II	0	0	0	0
Community Nutrition Services (Under Development)	0	0	0	0
Contact Tracing NC II	0	0	0	0
Dental Hygiene NC IV	0	0	2	2
Dental Laboratory Technology Services NC I	0	0	4	2
Dental Laboratory Technology Services (Removable Dentures/Appliances) NC II	1	2	6	11
Dental Laboratory Technology Services (Fixed Dentures/Restorations) NC II	1	3	7	12
Emergency Medical Services NC II	12	26	31	102
Emergency Medical Services NC III	1	1	0	0
Health Care Services NC II	59	154	211	423



Medical Transcription NC II	8	8	23	30
Pharmacy Services NC III	14	47	15	86

Source: *TESDA's TVET Statistics as of August 2021

** TESDA's TVET Statistics as of June 2021

IX. TESDA Initiatives

A. Industry Consultations for the Health Sector

TESDA is conducting initiatives for industry consultations for the Health Sector, including sectors in the care health industry. For example, besides drafting and coordinating with a skills map, especially for skills in the care health sector, TESDA has been drafting feedback reports and presentations with the National Nutrition Council (NNC) on public nutrition, in which one from July 15, 2021 recommended the enhancing of the TVET Capacity for Barangay Health Services NC II, the prioritisation of Nutrition Technician, consultations with other government agencies, the incorporation of emerging and soft skills into relevant programs, the fast-tracking of the TR Development of Community Nutrition Services, and the prioritisation of scholarship allocation (TESDA, 2021, July 15).

Furthermore, TESDA is conducting industry consultations for the Health Sector in relation to the Emergency Medical Technician (EMS) industry. For example, a meeting on May 3, 2021 between TESDA and the Department of Health (DOH), with recommendations on (1) requiring qualifications for personnel who board ambulances to avoid accidents, (2) registration and enrollment of licensed nurses to a training program on boarding life-saving vehicles, (3) employment opportunities for graduates of the TRs for the EMS industry, and (4) a nationwide standard for healthcare personnel to be equipped with advanced ambulatory knowledge. Moreover, TESDA drafted a feedback report on June 7, 2021, on the EMS industry, in which it recommended the incorporation of soft and emerging skills on the EMS



training programs, prioritisation of EMS skills, and on-trainee entry requirements for the EMS training programs (TESDA, 2021, June 7).

B. Workplace Skills and Satisfaction (WSS) Survey for the Health Sector

The Workplace Skills and Satisfaction (WSS) Survey for the Health Sector is an ongoing TESDA initiative (in cooperation with the Department of Health - Health Human Resource Development Bureau together with other players in the Health Sector) which aims for the provision of Technical-Vocational Education and Training (TVET) stakeholder information on the ongoing skills gap of the health sector, emerging skills, and the employers' satisfaction with TESDA graduates. This is currently being done through the gathering of relevant data by the conducting of online surveys and interviews with hospitals around the Philippines, as well as encoding and analysis of the data gathered and the drafting of a WSS Survey Report. Hospitals involved in this survey include Primary Care Facilities, Health Care Facilities/Hospitals, and Supporting Services. To connect this with the care health sector, there are questions from the surveys and interviews being conducted in this initiative that include determining if (1) there is a shortage, no change, or a surplus in care health jobs (e.g. nurses, pharmacists, barangay health workers, etc.), (2) these said care health jobs are hard to fill or not, and (3) there are skills requirements for these said care health jobs that can be addressed by existing TVET programs (TESDA, 2021, August 28).

C. Scholarship Programs and Educational Assistance

TESDA is mandated under Section 32 of the TESDA Act of 1994 to respond to the country's technical education and skills development needs by adopting a system of allocation and funding of scholarship grants (PCW, n.d.). The agency has various scholarship grants currently being implemented which are as follows:

1. Private Education Student Financial Assistance (PESFA) which offers



educational grants to qualified and deserving college freshmen both in degree and non-degree courses established through Section 8 of Republic Act No. 8545;

2. Training for Work Scholarship (TWSP)
3. Special Training for Employment Program (STEP) offers free training and competency assessment, starter tool kits and a daily training allowance for the training's duration;
4. Universal Access to Quality Tertiary Education Act (UAQTEA) provides free TVET in Post-Secondary Technical Vocational Institutions as mandated by Republic Act No. 10931.
5. The health sector is one of the priorities under the National Technical Education and Skills Development Plan (NTESDP) and the TESDA "Abot Lahat" program as a part of their efforts to attend to the needs of the COVID-19 frontliners who need to take care of an influx of patients affected by the pandemic. According to our calculations from TESDA Circular No. 013-2021, together with TESDA Circular Nos. 013-A, 013-B, and 013-C, TESDA allocates an average of P30,450.30 (in per capita training costs) in its scholarship programs for the TRs related to the care health sector (TESDA, 2021).

D. Greening of the Training Regulations

The Philippine Green Jobs Act of 2016 mandates TESDA to "formulate the necessary training regulations for the implementation of skills training, program registration and assessment and certification in support of the requirements for skilled manpower of the green economy" (Republic Act 10771, 2016). With that, TESDA, as the authority in TVET, has initiated the greening of the TVET sector through the greening of the TRs and other programs. One of the promulgated TRs with green competencies is Dental Hygiene NC IV.



X. Ways Forward

Considering the overall content of this study, we have provided the ways forward for the future of the care health industry in the Philippines, especially during the New Normal and the 4IR, which include:

A. Development of New Training Programs

There is an opportunity to develop new training programs, be it a full-blown Training (TR) program or a Competency Standards (CS), for needed care health jobs that do not have programs yet. Table 9 lists the technical skills/jobs that do not require higher education which may be considered for the development of programs subject to the criteria of TESDA. In fact, a development of a TR on Nutrition Technician is recommended as a result of the consultation on Public Nutrition conducted by the TESDA Planning Office. But then, the prioritization for Nutrition Technician will be pushed through once the internal policy/ies of the NNC Council are established to ensure the employment of the graduates. In addition, Barangay Nutrition Action Officer (BNAO) is included in the same consultation, however it was not recommended for the development of a program as this is mostly a designated position. Moreover, a consultation on Emergency Medical Services was conducted but the report was yet to be finalized as of writing.

Table 9. Technical Skills Without Corresponding Training Regulation.

Technical Skills with no Corresponding TR
Operating Theatre Nurse
Respite Services Home Care Coordinator/Volunteer
Physical Fitness Program Coordinator/Volunteer
Palliative Care Coordinator/Volunteer
Assistant Midwives
Hospital-based Birth Assistant



Home-based Birth Assistant
Medical Equipment Preparers
Call Taker/Communications Officer
Dispatch Officer
Physical Therapy Assistants
Physical Therapy Technician
Radiation Therapy Assistants
Respiratory Therapy Assistant
Occupational Therapy Assistant
Psychiatric Aides
Barangay Nutrition Action Officers
Nutrition Technician
Community Health Workers
Pharmacist Aide

Furthermore, the new care health training programs should upgrade to adapt to the New Normal and the Fourth Industrial Revolution. First, they should integrate emerging skills (e.g. telemedicine, Internet of Things, etc.), as well as soft skills (e.g. communication skills, professionalism, attention to detail, etc.). In this way, care health workers will not be confined to their own technical specialisations, but they will also be effective in their care health work using the soft skills being learned (e.g. using communication and multitasking to take care of a flow of COVID-19 patients, etc.), and even adapt easily to the technologically changing world due to the 4IR and the post-COVID-19 new normal while making use of them in their specialised care health skills. This can be done through professional education and training, which further enhances collaboration within and between health professions and between social and care professionals, are needed to replace current silo approaches to education and training. Competency-based curricula



that are responsive to rapidly changing societal needs and which exploit the power of technology for learning will better prepare individuals for the work environment of the future.

B. Reviewing of Existing Training Regulations

There are existing TRs related to care health occupations that should be reviewed for updating through the integration of standards under the post-COVID-19 new normal and the Fourth Industrial Revolution (4IR), which include:

1. Caregiving NC II

According to a paper by de la Vega et.al. (2021), the caregiving program of TESDA does not have a specific module on dementia. It may be considered to incorporate this to the existing caregiving TR as dementia care is “recommended for all health professional schools and caregiver training courses” (de la Vega et.al., 2021). Moreover, there should be modules on caregiving for terminally ill people, as well as people who are undergoing COVID-19 quarantine provided the uncertainty of patients trying to recover from the virus. Furthermore, when it comes to skills associated with the new normal and the 4IR, the caregiving TRs need an integration of telemedicine/telehealth and the usage of online/digital communication tools in consulting their patients regarding their health status, as well as telecare so that they can remotely attend to ill and vulnerable patients, especially children and the elderly, without having to stand beside them all the time, which would decrease the chances of getting infected in case the patient has an infectious disease. In other words, the caregiving TRs need to integrate the navigation of mobile health applications and technology usage for disease prevention and control. Caregivers can navigate mobile health applications to assist their patients in seeking medical advice as well as go through digitised medical procedures, and they can use new forms of technology to



prevent the spread of disease in the surroundings of their patients (e.g. disinfection technology to help prevent the spread of COVID-19 in a home-quarantined person).

2. Health Care Services NC II

This TR needs to integrate the usage of basic counseling, customer service, technology use for disease prevention and control (especially in disinfection), mobile health application navigation, and the usage of online digital/communication tools in its own modules as a part of its reviewing and updating processes. First, basic counselling and customer service can be integrated into modules on patient transportation and responding to difficult and challenging patient behaviour. Basic counselling combined with customer service can be useful in navigating the transport of patients, as well as dealing with different factors that can shape the difficulty of the patient's behaviour, especially when the patient is stressed in battling with COVID-19. Second, technology use for disease prevention and control can be integrated into modules on handling medical waste and monitoring infection control procedures. For example, disinfection technology can be used to control COVID-19 infections before they can infect the health workers, and automation-related technology can be used to help health workers handle medical waste without getting infected themselves. Finally, mobile health application navigation combined with online communication tools can be integrated in modules on transporting patients. Online communication tools can be used in coordinating with patients in their mobility or transportation while mobile health application navigation can be used to keep a more accessible database of patients to be transported, linens to be prepared, and medical waste to throw away (TESDA, n.d.).

3. Barangay Health Services NC II



During the new normal, this TR needs to integrate the usage of telemedicine and telehealth, online or digital communication tools (such as video conferencing platforms, etc.), and mobile health application navigation in its own modules as a part of its reviewing and updating process. First, telemedicine and telehealth, as well as online or digital communication tools can be integrated into the modules on assisting households in identifying health problems and promoting health and well-being, as well as monitoring health status of household members. Telemedicine and telehealth can be used by barangay health workers through using online or digital communication tools to consult and monitor the health status of household patients with infectious diseases like COVID-19 without risking getting infected themselves, especially when the patient is undergoing home quarantine. Second, the navigation of mobile health applications can be integrated into modules involving the monitoring the health status of household patients as well as maintaining an updated list of records of health activities. Future barangay health workers can learn to utilise mobile health applications that can carefully track the status of the household, as well as keep a real-time digital database of the records of health activities. Third, psychological first aid can be integrated into the module on applying basic first aid so that barangay health workers can attend and care for patients suffering mental health problems caused by the current pandemic. Lastly, workplace disinfection and sanitation can be integrated into modules on ensuring the proper maintenance of health stations so that barangay health workers coming from caring for COVID-19 patients can navigate through them without getting infected themselves (TESDA, 2019).

4. Pharmacy Services NC III

In modules on maintaining pharmaceutical products, this TR needs to integrate the usage of electronic medical records management for their



easier access and organisation, the navigation of electronic health or mobile health platforms for a contactless way for patients to order their pharmaceutical products while respecting social distancing policies, and artificial intelligence and machine learning, which can help pharmacists easily search for specific pharmaceutical products the patients prefer (TESDA, 2015).

5. Medical Transcription NC II

According to the Qualifications and Standards Office of TESDA, there is a need to review the TR on Medical Transcription NC II. It is deferred by the Healthcare Information Management Association of the Philippines (HIMAP) for the time being since there are only a few BPOs now engaged in medical transcription.

C. Enhancing TVET Capacity

TESDA has to increase its capacity on skills requirements with corresponding TVET programs. As evident in Table 7 and Table 8 in TVET Capacity, a majority of the TRs have been unutilized, even for those which have long been promulgated such as the dental-related TRs.

D. Care Work-Climate Work Integration

There should be an integration between climate work and care work, especially in the education and training of care health workers. In fact, occupations in the care health sector should be perceived as climate work due to its essential nature in caring for the environment, as well as people affected by environmental disasters like those induced by climate change (Feminist Green New Deal Coalition, n.d.). This can be done by mobilising the care health sector to treat climate change as an urgent matter through upgrading the current curricula for the education and training programs of care health workers to include training for the care health workers about



the dynamics of climate change, climate change adaptation, climate change reduction, and the connections between care work and climate work (World Health Organization, 2021, November 18). In fact, care health workers should be educated and trained more on finding ways to use their current care health skills to mitigate the effects of climate change, especially through pivoting towards more environmental-friendly and sustainable practises in exercising their care health duties (e.g. segregation and recycling of food and medical waste when caring for patients, turning off medical equipment when not in use, switching off lights, closing doors and windows) (Healthcare Without Harm, n.d.). In this way, care health workers can respond to the effects of climate change to the health sector by taking action to make the health sector sustainable and adaptive to the effects of climate change through engaging in climate change-reducing efforts (e.g. decarbonisation) whilst at care work. On the other hand, climate change and health vulnerability and adaptation assessments, as well as climate funding, can be done to help the care health sector become resilient to the effects of climate change (World Health Organization, 2021, November 18). This can be integrated into TESDA's initiatives to the "greening of the TVET sectors" through the addition of green competencies. In this way, starting with Dental Hygiene NC IV, this can pave the way to the addition of green competencies to the rest of the other care health-related TRs.

E. Investment of Funds and Resources

There should be an investment of funds and resources for the further development of technical-vocational education programs on jobs and skills related to care health, as well as the reinforcement of certification, employment, and retention of care health workers.

F. Public-Private Partnerships

There can be a formation of partnerships between government agencies and care health-related organisations, as well as healthcare researchers and



other healthcare, education, and training providers to assess the care health sector and then plan for the reinforcement of the education and employment of care health workers in order to meet the rising demands provided by the post-COVID-19 new normal.



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