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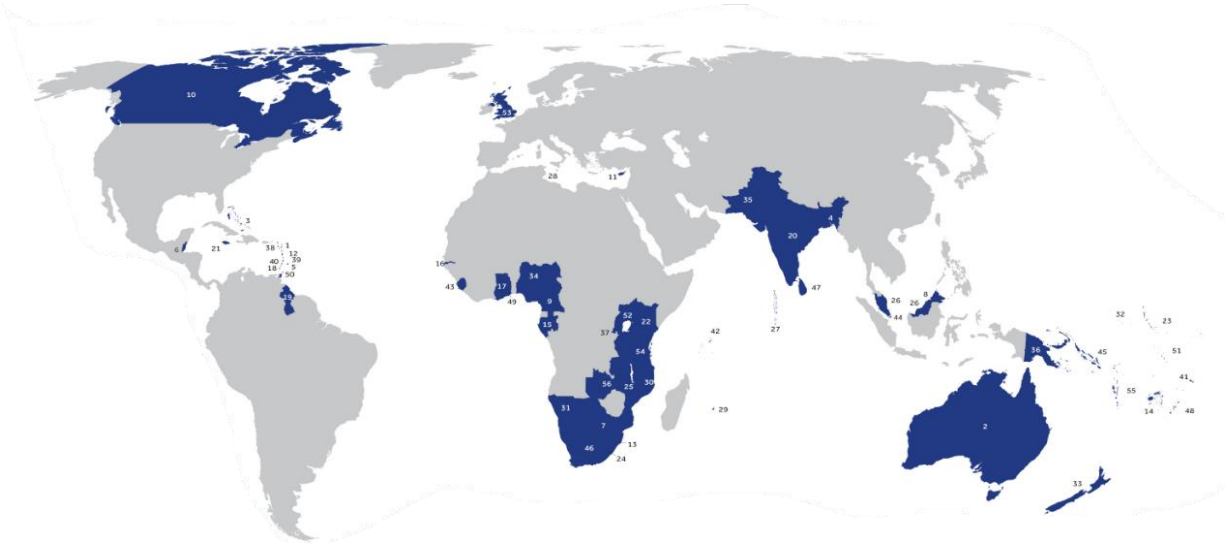

Oral Health – A Role for Nurses and Midwives

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The Commonwealth Nurses and Midwives Federation (CNMF), founded in 1973, is a federation of national nursing and midwifery associations in Commonwealth countries.

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from the PRESIDENT

Professor Kathleen McCourt CBE FRCN
CNMF President

This edition of The Commonwealth Nurse has its focus on oral health. Recent data from the World Health Organization (WHO) shows that oral diseases are the most prevalent health condition worldwide, and have been the most prevalent condition for the past thirty years, regardless of a country's income level.

This is quite surprising information, given that almost all oral diseases can be avoided with a relatively inexpensive daily oral hygiene routine. It is also surprising when you consider that avoiding oral diseases is much more cost efficient than paying large sums of money to have oral diseases treated, which could have been avoided in the first place.

Of concern also from the WHO data, is the link between the oral disease periodontitis, with a range of other health conditions such as diabetes, heart disease, respiratory diseases, and dementia.

In the following pages you will find further information about the current initiatives of the World Health Organization in relation to oral health; an update on the oral health project the CNMF is involved in, together with C3 Collaborating for Health and funded by Colgate; the result of recent research linking oral diseases to other non-communicable diseases; and the role nurses and midwives can play in promoting oral health to individuals, families and communities.

As part of the CNMF | C3 Collaborating for Health project, the CNMF developed an online continuing professional development module on oral health. The module is available on the World Continuing Education platform and will soon be available on the Learn with Nurses platform.

I would encourage all nurses and midwives to go through the module, which is very interactive, informative and entertaining, to see how you can incorporate the promotion of oral health into your daily nursing or midwifery care.

Unfortunately, COVID-19 is still circulating widely in communities across the world and it seems likely that, although the WHO has declared the pandemic over, COVID-19 has become endemic to our society. This has ongoing implications for nurses and midwives. COVID-19 endemic in our society means that the infection will not be eliminated but will continue to be continuously transmitted, often with a peaks and troughs pattern, as immunity from previous waves fades and individuals become again susceptible to infection. It is important that nurses and midwives maintain their vigilance in observing infection and prevention policies, protocols and guidelines to protect themselves, their families and their friends.

I am pleased to report that the regulatory work the CNMF was involved with in Cambodia, developing standards of practice and scopes of practice for regulated health professions has come to a successful close. This issue of the Commonwealth Nurse has a final update of the outcomes of the project.

In October I was pleased to represent the CNMF at a reception at Buckingham Palace hosted by King Charles III, in honour of nurses from other Commonwealth countries currently working in the United Kingdom. I was accompanied to the reception by a wonderful nurse from Nigeria, Ralueke Ekezie, who has been studying in the UK for his Master's Degree. Ralueke has been very involved in the aged care nursing sector in Nigeria.

ORAL HEALTH
Initiatives of the World Health Organization

In May 2021, the World Health Assembly adopted an historic resolution on oral health (WHA 74.5). The key elements of the resolution were for countries to:

1. Understand and address the key risk factors for poor oral health;
2. Foster the integration of oral health within national policies;
3. Reorient the traditional curative approach toward a preventive, promotional approach;
4. Develop and implement policies for an efficient oral health workforce;
5. Develop and implement effective surveillance and monitoring systems;
6. Map and track the concentration of fluoride in drinking water;
7. Provide oral health services as part of essential health services package;
8. Create an oral health friendly environment.

https://apps.who.int/gb/ebwha/pdf_files/WHA74-REC1/A74_REC1-en.pdf

In 2022, the World Health Assembly expanded on the 2021 resolution on oral health and endorsed the development of a global strategy on oral health. The vision of the global strategy was: *Universal health coverage for oral health for all individuals and communities by 2030.* The goal was to:

- Develop national responses to promote oral health;
- Reduce oral diseases and conditions and oral health inequalities;
- Strengthen efforts to address oral disease and conditions as part of UHC;
- Develop targets and indicators to measure progress to reach vision by 2030.

https://apps.who.int/gb/ebwha/pdf_files/WHA75/A75_10Add1-en.pdf.

A draft Global Health Action Plan 2023-2030 was released in January 2023. The Action Plan has six strategic objectives:

1. Oral health governance;
2. Oral health promotion and oral disease prevention;
3. Oral health workforce;
4. Oral health care;
5. Oral health information systems; and
6. Oral health research agendas.

There are specific targets for each of the strategic objectives, with suggested actions for governments, civil society, the private sector, and for WHO.

Of particular importance to nurses and midwives is strategic objective 3 (innovative workforce models) and its targets and suggested actions. Clause 29 states that *more effective, innovative workforce models will probably include health professionals who traditionally may not have been involved in oral health care working together with oral health professionals to provide an essential package of oral health services.*

Nurses and midwives have a critically important role to play if countries are to achieve universal health coverage for oral health for all individuals and communities by 2030.

In November 2020, the WHO released the *Global Oral Health Status Report – toward universal health coverage for oral health by 2030* in November 2022. Some of the findings from this important report are provided below.

https://www.who.int/publications/i/item/9789240061484

Ranking of most prevalent conditions by World Bank country income levels

	Global	World Bank low income	World Bank lower-middle income	World Bank upper-middle income	World Bank high income
Oral diseases	1	1	1	1	1
Neurological disorders	2	5	2	3	2
Digestive diseases	3	7	4	2	6
Respiratory infections & TB	4	4	3	4	9
Skin diseases	5	3	5	6	5
Sense organ diseases	6	9	8	5	7
Musculoskeletal disorders	7	11	9	7	3
NTDs & malaria	8	2	7	12	19
HIV/AIDS & STIs	9	8	10	8	10
Nutritional deficiencies	10	6	6	13	15
Unintentional injury	11	13	13	9	4
Diabetes & CKD	12	14	12	10	8
Mental disorders	13	10	11	11	11
Cardiovascular diseases	14	16	14	14	13
Neoplasms	15	17	18	15	12
Chronic respiratory	16	15	15	17	14
Self-harm & violence	17	12	17	16	18
Transport injuries	18	19	16	18	17
Substance use	19	22	22	19	16
Maternal & neonatal	20	18	19	20	20
Enteric infections	21	21	21	21	21
Other infectious	22	20	20	22	22

Note. Data are for all ages and both sexes from GBD 2019 *(4)*.

The diagram above shows the prevalence ranking of health conditions globally by World Bank country income level. Oral diseases are the most prevalent across all countries regardless of income level (World Health Organisation 2022 *Global Oral Health Status Report p*.8).

The most important message is that the majority of oral diseases can be prevented or treated with cost effective strategies. Untreated caries of permanent teeth is the most prevalent. Severe periodontal disease is the second most prevalent and edentulism (tooth loss) is the third most prevalent.

The combined estimated of cases of oral disease globally is higher than all five of the main NCDS combined (mental disorders, cardiovascular disease, diabetes mellitus, chronic respiratory disorder, and cancers).

Oral diseases disproportionately affect the most vulnerable and disadvantaged populations. People of low socioeconomic status carry a higher burden of oral diseases and this association remains across the life course, from early childhood to older age, regardless of the country's overall income level.

The importance of oral health and the link with other NCDs

Untreated oral disease can result in physical, social and mental consequences.

Toothache, which accompanies many of the major oral diseases, is a common experience for individuals the world over. Periodontitis is closely associated with major chronic diseases – type 2 diabetes, cardiovascular disease, pneumonia and dementia.

Dental caries, gingivitis, periodontitis and tooth loss can be unsightly which impacts on self-confidence and self-esteem, often leading to reduced social interaction, isolation or even stigmatization.

Severe untreated oral diseases may negatively affect school attendance; educational achievements; employment opportunities; and reduced productivity at work.

Many recent studies have assessed the potential link between poor oral health and a range of chronic diseases. The strongest and most consistent evidence has shown an association between severe periodontal disease and type 2 diabetes mellitus.

Seitz et al (2019)[i] found that the chronic systemic disease with the most frequently observed correlations with a dental condition was type 2 diabetes mellitus. The dental condition with the most frequently observed correlations to chronic systemic disease was periodontitis.

King et al (2022[ii] p.200) demonstrated an association between periodontitis and both type 2 diabetes and cardiovascular disease linked to systemic bacteremia and the inflammatory response. King (2022) maintains that early diagnosis and management of oral disease will reduce the systemic inflammatory burden thereby positively affecting cardiometabolic health outcomes p.204).

Sanz et al (2022)[iii] reported robust evidence from epidemiological studies for a positive association between periodontitis and coronary heart disease, while Larvin et al (2021) demonstrated a modest but consistently increased risk of cardiovascular disease in populations with periodontitis.

Nurses and midwives can play an important part in the early diagnosis of oral disease by incorporating oral health assessment into their interactions with clients and patients.

Manger et al (2017)[iv] presented evidence of an association between oral health and COPD and pneumonia. Manger concludes that toothbrushing reduces the incidence, duration and mortality from pneumonia in the community and in hospitalized patients, an important message for nurses and midwives.

Gaeckle et al (2020)[v] reviewed common dental conditions and the potential mechanisms by which poor oral health may contribute to lung disease. The review found that normal microaspiration in healthy people establishes a very similar microbiome between the oral cavity and the lung. Dental disease, such as periodontitis, results in a dysbiosis (imbalance) in the oral microbiome which can be microaspirated to the lung. Gaeckle claims evidence is mounting that implicates the oral microbiome in a variety of lung diseases including asthma, chronic obstructive pulmonary disease (COPD) pulmonary fibrosis and pneumonia.

There is also mounting evidence to suggest the relevance of oral health practices and the oral microbiome to dementia and Alzheimer's Disease (AD). Zhang et al 2023[vi] found that tooth loss is associated with a significantly increased risk of cognitive decline and dementia, suggesting that adequate natural teeth are important for cognitive function in older adults. The likely mechanisms suggested, include nutrition, inflammation, and neural feedback, especially deficiency of several nutrients like vitamin D.

Recent research by Loughman et al 2023[vii] (among others) implicates oral health and the oral microbiome in the risk and pathophysiology of AD. Periodontitis and the oral microbiome, Loughman et al state, contributes to the cerebrovascular and neurodegenerative pathology of AD via the inflammatory, vascular, neurotoxic, and oxidative stress pathways.

Nurses and midwives can have a significant role in highlighting the link between oral health and general health to their clients and patients.

How to clean your teeth

When bacteria in your mouth break down food you eat, particularly sugary food and drinks, it produces acids that erodes the minerals in the enamel on the surface of your teeth. This loss of minerals is called demineralization. Weakened tooth enamel leaves your teeth vulnerable to bacteria that cause dental caries. Brushing your teeth helps remove plaque and bacteria that continually form on teeth and around the gumline. When not removed regularly, plaque can lead to tooth decay, gingivitis, and periodontal disease.

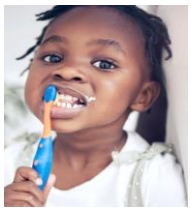
- Brush your teeth at least twice a day for two minutes with a fluoride toothpaste if available which provides additional protection for your teeth.
- A small (pea-sized) amount of toothpaste is all that is required.
- A toothbrush with a small head can better reach all areas of the mouth.
- A toothbrush with soft bristles will remove food debris and plaque and not be abrasive to sensitive gums.
- An electric toothbrush is a good option for individuals with limited manual dexterity.
- Daily cleaning between your teeth with dental floss or a dental brush is recommended.
- Before you start brushing, rinse your toothbrush to remove any dust or debris.
- Rinse your toothbrush when you have finished and store it safely. Some toothbrushes come with a cover which helps keep them clean between brushing.

Brush the outside surfaces of all teeth, upper and lower, using a circular motion. Go tooth by tooth so none are missed. Don't forget to brush along the gum line.

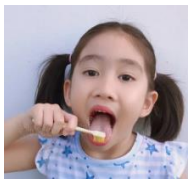
Brush the inside surfaces of all teeth, upper and lower, making sure you brush along the gum line

Brush the biting surfaces of all teeth, upper and lower. Be gentle, not vigorous. Overbrushing teeth can lead to abrasion, gum recession and sensitivity.

Brush the chewing surface of your back teeth (molars) to clean any food debris from their surface.



Using an up and down stroke, brush the gaps between your teeth.



Finally, gently brush your tongue. Spit out the toothpaste and saliva. DO NOT rinse. The fluoride toothpaste remaining on teeth after cleaning, helps to protect the teeth.

In many countries, toothbrushes, often called chewing sticks or miswak, made from twigs from particular trees, such as the Arak tree are used to clean teeth. The outside of the twig is cut back revealing small fibers which are soaked in clean water to clean and soften them. These fibers act as the bristles of a toothbrush.

Fluoride toothpaste if available can be used with the miswak. Using a miswak toothbrush for your dental routine is effective for removing dental plaque and preventing dental caries, gingivitis and periodontitis. When the toothbrush needs replacing, the fibers can be cut off and a new miswak made. Miswaks are readily available and do not cost much.

Oral Health Project

For the past twelve months, the CNMF, in partnership with C3 Collaborating for Health have been working on an oral health project funded by Colgate. Among other activities, the project has developed an online continuing professional development course on oral health for nurses and midwives. The module is hosted on the platform of the World Continuing Education Alliance.

The course is in two parts with five modules:

Part 1

- Anatomy of the oral cavity and dentition,
- Common oral diseases and conditions,
- A role for nurses and midwives.

Part 2

- The global picture,
- Impact, common determinants and risk factors.

The objectives of the course are:

1. To provide current information on oral health and increase understanding of the importance of oral health to general health and wellbeing.
2. To encourage nurses and midwives to incorporate oral health assessment into routine care of all clients and patients.
3. To motivated nurses and midwives to engage in oral health promotion and disease prevention with all clients and patients.
4. To convince nurses and midwives to be ambassadors for the inclusion of oral health in essential care packages and universal health coverage.

For phase 1, Colgate funded 300 completions of the course targeting three countries: Kenya, South Africa and Tanzania. At the close of phase 1, 378 courses had been completed with a 96% pass rate. A further 467 courses were still in progress. There was a knowledge improvement between pre- and post-tests of 15.58%. The course received an evaluation score of 98.4% over eight criteria.

Colgate accepted the recommendation from phase 1 to make the course more widely available in Africa by funding a further 1,200 courses. Phase 2 target countries were: Kenya, Tanzania, South Africa, Malawi, Uganda, Ghana, Zambia, and Botswana.

At the end of phase 2, 1,450 courses had been completed with a 96% pass rate; a knowledge improvement score of 18.15%; and an evaluation score of 98.4%.

We have now moved into phase 3, where a further 3,500 courses have been funded by Colgate with the course now available right across Africa.

The success of the program has encouraged Colgate to fund other oral health activities:

- The development of ten Fact Sheets on oral health for parents.
- The development of six lesson plans on oral health for teachers, together with suggested classroom across three age groups: 3-5; 6-7; and 8-9.
- The development of five oral health promotion modules for community health workers together with suggested community activities.

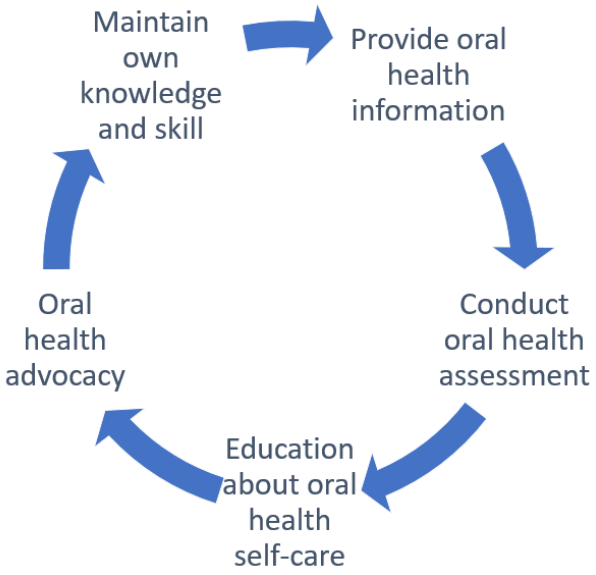
These educational materials as well as the PDF versions of the Oral Health CPD for Nurses and Midwives are being translated into Swahili, French and Portuguese.

Colgate has also requested the development of a specific online CPD course for midwives and maternal and child health nurses which is due to be launched early 2024. The three initial target countries will be Kenya, Botswana and the Philippines.

The achievement of the World Health Organization vision to achieve universal health coverage for oral health for all individuals and communities by 2030 cannot be achieved without input from nurses and midwives. That input however needs to be informed. The aim of the online CPD on oral health is to meet that information need and to inspire nurses and midwives to be ambassadors for oral health.

ORAL HEALTH
a role for nurses and midwives

Oral diseases are largely preventable or require only simple interventions if diagnosed and addressed at early stages. Every nurse or midwife clinician has the opportunity when interacting with clients and patients to reinforce effective oral health self-care practices or support or provide appropriate oral health care.



This graphic describes the role and responsibilities of nurses and midwives relevant to oral health - maintaining own knowledge and skill; providing oral health information to clients and patients; conducting oral health assessments; providing education about oral health self-care; and being an advocate for oral health.

A primary responsibility is to promote health and wellbeing in order to prevent disease. In relation to oral health this involves:

- Providing information, both orally and in writing (pamphlets, diagrams etc), about oral health self-care.
- Promoting oral health self-care routines:
  - establishing a daily oral health routine,
  - cleaning teeth twice a day for two minutes,
  - making sure all teeth surfaces (outside, inside, biting edges and chewing surfaces), gums, and tongue are cleaned,
  - using a fluoride toothpaste if available,
  - having regular dental checks, and
  - making appropriate referrals to an oral health professional.

Part of that provision of information and education is also about addressing risk factors, as well as encouraging a healthy diet.

- Addressing risk factors
  - smoking (all forms of tobacco – cigarettes, cigars, vapes, pipes),
  - avoiding harmful use of alcohol,
  - reducing sugar intake,
  - having a healthy diet,
  - taking precautions to avoid facial injuries.
- Providing nutritional advice relevant to the social, cultural and economic circumstances of the client or patient.

All nurses and midwives have a responsibility to stay informed about oral health and its importance to general health and regularly update their knowledge through continuous professional development.

Nursing and midwifery client and patient intake forms and care plans need to include a comprehensive assessment of oral health:

- Daily oral hygiene routine,
- Last visit to dentist or oral health professional,
- Any pain or discomfort, and
- A visual inspection

The opportunistic provision and integration of oral health assessment into routine nursing and midwifery care is a major contribution nurses and midwives can make to improving the health of individuals and communities. A visual inspection should only take a couple of minutes and should be an integral part of the routine initial assessment of all clients and patients.

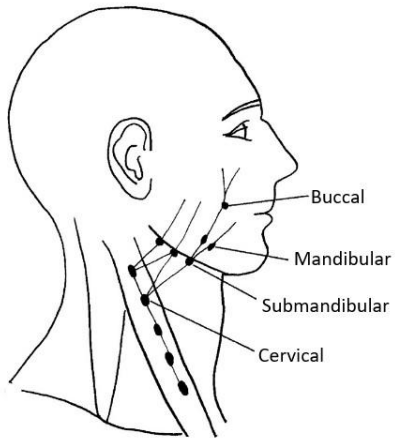
ORAL HEALTH ASSESSMENT

A bright torch and a disposable wooden tongue depressor should be used. Gloves should be worn. The procedure should be explained and consent to proceed obtained. In relation to oral health, the role of the nurse or midwife is to assess, advise, educate, and refer if necessary. It is not to diagnose. The procedure should only take a couple of minutes.

If the person has dentures, the oral cavity should be inspected both with dentures in place and when dentures have been removed. Dentures should not be loose or have broken or missing teeth

AREA	HEALTHY	OF CONCERN
Lips	Smooth, pink, moist surface, including corners of mouth.	Dry; chapped; swollen; lumpy; white, red or ulcerated patches; bleeding; cracked, red, bleeding or ulcerated at corners.
Teeth	Clean with no debris, coating, tartar, plaque or discolouration present. No decayed, worn down or broken teeth. No tooth loss. No halitosis.	Teeth not clean with debris, coating, tartar, plaque or discolouration present. Decayed, worn or broken teeth. Tooth loss. Halitosis.
Gums and other tissues	Smooth, pink and moist. No bleeding.	Dry, shiny, red or rough. Swollen, bleeding, or ulcerated. Generalised redness or white or red patches. Red around border with teeth.
Saliva	Moist, watery and free flowing	Little or no saliva or saliva sticky or thick; dry mouth (xerostomia). Tissues look dry and red.
Tongue	Moist, pink and normal roughness	Tongue fissured or red or coated. Swollen. Red or white patches. Ulcerated. Smooth.

Lymph nodes should not be enlarged or tender. Any issues of concern should be referred to a dentist or doctor.



The relationship between oral diseases and diabetes, cardiovascular diseases, respiratory diseases and cerebrovascular diseases requires closer attention to oral health from all health professionals. Oral diseases can be prevented with a daily oral hygiene routine which is relatively inexpensive given the cost involved in treating oral diseases and their sequelae.

DEVELOPING STANDARDS AND SCOPES OF PRACTICE

The CNMF has just concluded a five year project supporting five health professional regulatory Councils in Cambodia to develop standards of practice and a scope of practice for each of the regulated professions: midwives, nurses, pharmacists, dentists and medical practitioners. The project came about as a result of similar work the CNMF had undertaken with nursing and midwifery regulatory bodies in Africa.

Midwives were the focus of the first year of the project with a midwifery reference group developing and endorsing a framework for the standards and scope of practice. The framework, which was developed following broad consultation, and an examination of the global literature, had six domains:

- Clinical
- Legal, Ethical and Professional
- Leadership, management and administration
- Communication, collaboration and advocacy
- Teaching and learning
- Research, innovation and quality improvement.

Each domain had several subdomains. Standards and a scope of practice were written, modified by the midwifery reference group to ensure they reflected current practice in Cambodia, and endorsed by the profession.

The development of standards of practice and a scope of practice for nurses occupied the second year of the project. At a two day workshop, the nursing reference group were provided with a range of existing regional and international frameworks and tasked with developing a framework which reflected nursing practice in Cambodia. The domains they agreed on for framework they chose was that of the midwives.

The nursing profession in Cambodia already had a set of standards which, being over five years old, no longer fully reflected nursing work in Cambodia. These standards were reviewed and incorporated into the revised standards where appropriate. Before the nursing project could be completed, the world was engulfed with COVID-19 and country lockdowns prevented in-country consultation.

If there was one benefit from the pandemic and country lockdowns, it was learning to effectively use digital technology for communication and to continue working. Work continued on the nursing standards and scope of practice using Zoom technology. Once the standards and scope of practice for midwives and for nurses was endorsed by the profession they were submitted to the Ministry of Health for approval and broader dissemination.

The successful completion of the project for midwives and nurses, led to a request from the other three regulatory Councils for support to develop similar documents for pharmacists, dentists and medical practitioners.

Each of the three health professional Councils agreed to use the same domains with some variation in the subdomains. There was recognition across the Councils that, apart from the Clinical domain, there were certain standards that all health professionals needed to be aware of and adhere to.

The Scope of Practice documents outlined the scope of practice for each subset or class of practitioners in the particular profession from beginner to expert, generally based on level of qualification: for midwifery and nursing the differentiation was between certificate, diploma and degree midwives and nurses. The Clinical Domain showed the greatest differentiation reflecting the different roles of the various professions.

Midwifery Clinical Subdomains
- Preconception care and care in the community
- Antenatal care
- Labour and birthing
- Postnatal care
- Neonatal care
- Abortion care
- Documentation and record keeping
- Infection prevention and control
- Emergency preparedness and response
- Health informatics

Nursing Clinical Subdomains
- Assessment
- Diagnosis
- Planning
- Implementation
- Monitoring
- Evaluation
- Health promotion and illness prevention
- Documentation and record keeping
- Infection prevention and control
- Emergency preparedness and response
- Nursing informatics

Pharmacy Clinical Subdomains
- Client centred care and services
- Health screening services
- Provision of prescribed medicine and therapeutic over the counter health products
- Provision of traditional medicine
- Provision of medical devices and equipment
- Provision of healthcare, lifestyle, dietary and food supplements, hygiene and pharmaceutical products
- Compounding medicines
- Provision of first aid
- Pharmacovigilance and reporting
- Documentation and record keeping
- Infection prevention and control
- Emergency preparedness and response

Dental Clinical Domain Subdomains
- Client and patient centred care
- Assessment
- Diagnosis
- Oral and dental care treatment plan
- Clinical management, monitoring and evaluation
- Documentation and record keeping
- Infection prevention and control
- Emergency preparedness and response

Medical Clinical Subdomains
- Client centred care
- Prevention
- Health screening
- Consultation and assessment
- Diagnosis
- Prescribing
- Care and treatment plans
- Clinical management, monitoring and evaluation
- Care and treatment of individuals with special needs
- Delegation, referral and handover
- Management of risk
- Documentation and record keeping
- Infection prevention and control
- Provision of minor surgery and first aid
- Emergency preparedness and response

There was very little differentiation between the professions for the subdomains of the other domains, reinforcing the commonality between the respective health professions.

Leadership and Management
- Leadership
- Management and administration
- Supervision
- Occupational health and safety

Legal, ethical and professional practice
- Legal practice
- Ethical practice
- Professional practice

Communication, collaboration and advocacy
- Communication
- Collaboration and cooperation
- Advocacy

Teaching and Learning
- Teaching
- Learning

Research, innovation, quality management

- Research
- Innovation
- Quality Management

The Standards of Practice were the same across all practitioners in the profession, although slightly different between professions, with different performance indicators to demonstrate the achievement of the standards for each level of practitioner.

Similar to the Scope of Practice, the Standards of Practice linked to the same domain framework:

Standards of:

- Clinical practice
- Legal, Ethical and Professional practice
- Leadership, management and administration
- Communication, collaboration and advocacy
- Teaching and learning
- Research, innovation and quality improvement.

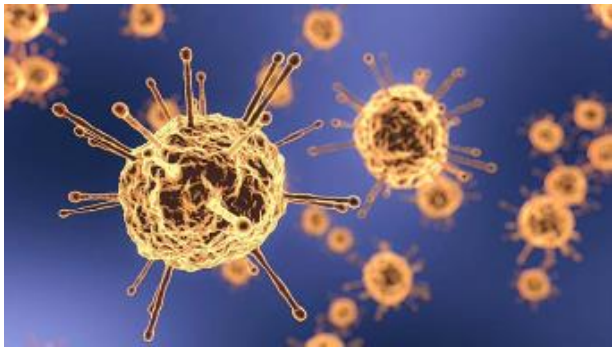
The five year project had some significant achievements. The Ministry of Health became interested and involved in the development of the Scope and Standards. The five regulatory Councils started to work more closely together, recognising their shared commonality by embracing a common framework.

The methodology of the consultant working closely with a representative technical working group (TWG) from the profession, nominated by the Council and endorsed by the Ministry, worked well, especially when in-country visits became impossible because of COVID-19 country lockdowns. Working with the TWGs using Zoom technology meant working for one to two hours every week or fortnight which allowed the development of a closer relationship and the TWG having a vested interest in and ownership of the work. This was particularly important as the TWG reported back to the broader profession on the progress of the work.

The Scope of Practice and Standards of Practice for each of the five health professions have now been completed and endorsed by the profession and approved by the Ministry of Health. This is a great achievement for the health professions in Cambodia.

WHO PANDEMIC DECLARATION

5 May 2023



The World Health Organisation (WHO) declared a public health emergency on 30 January 2020 in response to an increasing number of COVID-19 infections across the world. Over three years later, on 5 May 2023, the WHO declared the public health emergency over, pointing out however that COVID-19 is still a global health threat with COVID-19 causing the death of one person every three minutes in the week prior to the declaration.

The declaration means countries can transition from an emergency response to COVID-19 to managing the disease in the same manner as other infectious diseases. In making the declaration, the WHO Director-General warned that the COVID-19 virus is here to stay and that the risk remains of new variants emerging that cause new surges in cases and deaths.

The Director-General said being able to make the declaration was a time of celebration but also of reflection. Celebration due to the skill and selfless dedication of health and care workers; the innovation of vaccine researchers and developers; the difficult decisions governments have had to make; and the sacrifices that people across the world have made as individuals, families and communities to keep each other safe. And reflection, because COVID-19 has left, and continues to leave deep scars on our world, where a lack of coordination, equity and solidarity led to unnecessary deaths and suffering .

Another pandemic seems inevitable. Whether the world has learned anything from COVID-19 remains to be seen.

https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing---5-may-2023

COVID-19 ACROSS THE COMMONWEALTH
11 March 2023
Johns Hopkins University

https://www.arcgis.com/apps/dashboards/bda7594740fd40299423467b48e9ecf6

Country	Cases	Deaths	Case Fatality Ratio %
Tuvulu	2,805	0	0.00
Nauru	5,393	1	0.02
Singapore	2,235,294	1,722	0.08
Tonga	16,810	13	0.08
Brunei Darussalam	279,661	225	0.08
New Zealand	2,236,114	2,550	0.11
Vanuatu	12,014	14	0.12
Maldives	185,738	311	0.17
Australia	11,401,996	19,578	0.17
Samoa	16,607	29	0.17
Cyprus	650,685	1,330	0.20
Seychelles	50,665	172	0.34
Mauritius	296,042	1,044	0.35
Kiribati	5,014	18	0.36
Dominica	15,760	74	0.47
Barbados	106,798	579	0.54
Solomon Islands	24,575	153	0.62
Gabon	48,981	306	0.62
Malta	117,610	828	0.7
St Kitts and Nevis	6,597	47	0.71
Malaysia	5,044,718	36,967	0.73
Botswana	329,758	2,801	0.85
Togo	39,396	290	0.74
Ghana	177,229	1,462	0.85
United Kingdom	24,658,705	220,721	0.90
Mozambique	233,214	2,242	0.96
Belize	70,757	688	0.97
Rwanda	133,194	1,468	1.1

Country	Cases	Deaths	Case Fatality Ratio %
Canada	4,617,095	51,720	1.12
Zambia	343,135	4,057	1.18
Nigeria	266,598	3,155	1.18
India	44,690,738	530,779	1.19
Grenada	19,680	238	1.21
Fiji	68,898	883	1.28
St Vincent & Grenadines	9,589	123	1.28
St Lucia	30,004	409	1.36
Papua New Guinea	46,825	670	1.43
Bangladesh	2,037,871	29,445	1.44
Cameroon	124,392	1,965	1.58
Antigua and Barbuda	9,106	146	1.6
Sierra Leone	7,760	126	1.62
Kenya	342,937	5,688	1.66
Guyana	171,229	1,298	1.78
eSwatini	74,267	1,425	1.92
Pakistan	1,577,411	30,644	1.94
Tanzania	42,906	846	1.97
Lesotho	34,796	723	2.08
Uganda	170,544	3,630	2.13
Bahamas	37,491	833	2.22
Jamaica	154,416	3,514	2.28
Trinidad & Tobago	189,918	4,355	2.29
Namibia	171,156	4,090	2.39
Sri Lanka	672,039	16,830	2.50
South Africa	4,067,067	102,595	2.52
Gambia	12,598	372	2.95
Malawi	88,707	2,686	3.03

The table above, from Johns Hopkins University, orders the countries of the Commonwealth by case fatality rate. Johns Hopkins stopped collecting and reporting on data 11 March2023. According to the data, Malawi had the highest case fatality rate across the Commonwealth, with Tuvalu having the lowest. Case fatality can be influenced by many factors, such as: geographic spread and age of population; availability, spread and sophistication of health services; number of health personnel; and general health of the population. Another important factor is the accuracy of the data. The WHO Director General in his statement declaring the pandemic no longer a global emergency, said that while almost 7 million deaths had been reported, the real toll is likely to be at least 20 million. So, a lot of unreported data which might tell a very different story.

ANTIBIOTIC STEWARDSHIP
A Role for Nurses and Midwives

Antibiotic stewardship is the effort to measure and improve how antibiotics are prescribed by clinicians and used by patients. Improving antibiotic prescribing and use is critical to effectively treat infections, protect patients from harms caused by unnecessary antibiotic use, and combat antibiotic resistance.

The World Health Organisation (WHO)[viii] use the term 'antimicrobials' which includes antibiotics, antivirals, antifungals and antiparasitics: all medicines used to prevent and treat infectious diseases in humans, animals and plants.

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites no longer respond to antimicrobial medicines. As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness, disability and death.

AMR is accelerated by human activity, mainly the misuse and overuse of antimicrobials to treat, prevent or control infections in humans, animals and plants.

The WHO report:

- Antimicrobial resistance is one of the top global public health and development threats. It is estimated that bacterial AMR was directly responsible for 1.27 million global deaths in 2019 and contributed to 4.95 million deaths.
- The misuse and overuse of antimicrobials in humans, animals and plants are the main drivers in the development of drug-resistant pathogens.
- AMR affects countries in all regions and at all income levels. Its drivers and consequences are exacerbated by poverty and inequality, and low- and middle-income countries are most affected.
- AMR puts many of the gains of modern medicine at risk. It makes infections harder to treat and makes other medical procedures and treatments, such as surgery, caesarean sections and cancer chemotherapy, much riskier.

Additionally:

- AMR has significant economic costs. The World Bank estimates that AMR could result in US$ 1 trillion additional healthcare costs by 2050, and US$ 1 trillion to US$ 3-4 trillion loss in gross domestic product (GDP) each year by 2030.
- Priorities to address AMR in human health include preventing all infections which may result in inappropriate use of antimicrobials; ensuring universal access to quality diagnosis and appropriate treatment of infections; and strategic information and innovation, for example surveillance of AMR and antimicrobial use; and research and development for novel vaccines, diagnostics and medicines.

A systemic review[ix] recently published in The Lancet estimated the pooled prevalence of non-prescription antibiotic dispensing in community pharmacies worldwide and identified associated factors influencing the practice (162 studies covering 52 countries were included). The prevalence was significantly higher in low-income countries than in high-income countries. Dispensing antibiotics without prescriptions has not improved in the past twenty years. Pharmacies located in poorer economic areas; pharmacy staff who were also the pharmacy owners; and private pharmacies were more likely to dispense non-prescription antibiotics.

Four major factors were found to be driving antibiotics being dispensed without a prescription. First, strong customer demand for non-prescription antibiotics and a lack of relevant knowledge; second, pharmacy staff motivated by financial or personal viewpoints; third, alternative health-care services being expensive or inconvenient, or having irregular prescribing practices; and finally, weak social, industry, and legal regulation.

Nurses and midwives are in a unique position to become antimicrobial stewards. They have regular contact with individuals and families where medications are routinely discussed. They also usually know what medications are being taken and can raise inappropriate prescription of antimicrobials with the prescribing doctor. It is essential that all health care providers take up this challenge.

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