

# Reforming health systems through interprofessional collaboration (IPC)

## Proceedings of the World Health Professions Alliance Session at the World Dental Congress 2024

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## **Executive summary**

These proceedings are based on the World Health Professions Alliance (WHPA) session that took place during the FDI World Dental Congress in Istanbul, Türkiye on 14 September 2024. Based on the WHPA statement on <u>Interprofessional Collaboration</u> (IPC), the session brought together representatives of the world's health professions and a representative of industry to discuss the importance of IPC for health system strengthening and continuity of care.

Health systems worldwide are struggling with a double burden of both communicable and noncommunicable disease. Consequently, health care needs, including for oral health are often unmet, or below the service users` expectations. <sup>1, 2</sup> The COVID-19 pandemic and lack of progress towards Universal Health Coverage (UHC) has highlighted the urgent need to adapt health systems and reimagine health care delivery. The protracted global shortage of health workers has also made this an imperative.

According to the World Health Organization (WHO), "collaborative practice happens when multiple health workers from different professional backgrounds work together with patients, families, carers and communities to deliver the highest quality of care across settings." As governments develop innovative solutions to transform their health systems, tackle fragmented care, and reach those often left behind, the role of interprofessional collaboration must be mainstream.

Representing the world's dentists, doctors, nurses, pharmacists and physiotherapists, the World Health Professions Alliance (WHPA) speaks for more than 41 million health professionals worldwide, assembling essential knowledge and experience from the key health professions in more than 130 countries.

<u>WHPA released a statement on Interprofessional Collaborative Practice</u> in 2013 and revised it in 2019. It describes the importance of IPC, its enablers and the principles for ensuring its effectiveness. It also covers the potential outcomes of collaborating across health professions.

The session was moderated by a representative of the FDI World Dental Federation (FDI) who also presented the organization's perspective on IPC. Speakers representing World Physiotherapy, the International Pharmaceutical Federation (FIP) and Henry Schein discussed the relevance of IPC to ongoing health systems reforms. Their interventions focused on:

- 1. Enhancing global health outcomes through interprofessional collaboration.
- Enhancing Interprofessional Collaboration in Pharmacy Practice: Strategies for Health System Transformation.
- 3. Interprofessional Collaboration: Reforming Health Systems Through Electronic Health Records.

Attendees highlighted additional thought-provoking themes, emphasizing the relevance of this topic to the practice of dentistry, and to the world's health professions at large.



## Introduction by the moderator

## WHPA and its position on interprofessional collaboration

Prof David Williams, Chair, FDI Vision 2030 Implementation and Monitoring Expert Group

Professor Williams is Professor Emeritus of Global Oral Health in the Faculty of Medicine and Dentistry, Queen Mary University of London and Immediate Past Academic Lead, Centre for Dental Public Health and Primary Care. He is currently Co-chair of the FDI Vision 2030 Working Group and Chairs the Expert Group overseeing its implementation; a Member of the Advocacy Working Group; a Member of the Oral Health Observatory Task Team, and the immediate past Chair of FDI's Science Committee.

## Describe WHPA, its reach and the importance of having the session with representatives of its member organizations

WHPA member organizations include FDI, the International Council of Nurses (ICN), the International Pharmaceutical Federation (FIP), World Physiotherapy, and the World Medical Association (WMA). WHPA speaks for 41 million health professionals from 131 countries. It brings together the world's dentists, nurses, pharmacists, physiotherapists and doctors and works to improve global health and equality of patient care, especially by facilitating IPC. Our speakers are from World Physiotherapy and FIP. We also have Ryan Hungate from Henry Schein who will share how electronic health records can foster IPC.

### What guides collaborative practice among health professionals?

WHPA is committed to improving the health of populations worldwide through the efficient, effective and equitable delivery of preventive, curative, rehabilitative and palliative services. When IPC is practiced correctly, patients and their caregivers are not mere recipients but active participants in the dialogue to determine the best treatment option. IPC involves both the recipient and deliverers.

The principles guiding successful IPC include:

- 1. Mutual respect
- 2. Trust
- 3. Evidence based
- 4. Competence, and
- 5. Defined scope of practice and responsibilities.

### What are the learning objectives for this session?

Session attendees will:

- 1. Understand IPC and the importance of collaborating across health disciplines.
- 2. Learn the principles guiding successful IPC mutual respect, competence, trust, evidence-based, well-defined scope of practice and responsibilities.
- 3. Acquire knowledge on the barriers and opportunities for IPC.
- 4. Learn the benefits of IPC (using oral health as a case study) to inspire country-level collaboration



## Speaker 1

## Enhancing global health outcomes through interprofessional collaboration

Prof. Suh-Fang Jeng - Vice-President, World Physiotherapy

Professor Jeng is vice president of World Physiotherapy and a professor at the School and Graduate Institute of Physical Therapy at National Taiwan University. She served as the Associate Dean of the National Taiwan University College of Medicine, and as the President of the Taiwan Physical Therapy Association, and the World Physiotherapy- Asia Western Pacific (AWP) Regional Chair.

Her expertise includes early assessment and intervention of high-risk infants, professional promotion and advocacy, and international collaboration.

### The socio-historical perspective of health profession and IPC

I commend FDI for selecting Istanbul as the host country for the World Dental Congress this year. Istanbul is known as a bridge for cultures and religions and IPC requires bridging professions. Understanding past events could better prepare us for future changes. From a socio-historical perspective, the configuration of professions started over 500 years ago in the United Kingdom with the Crafts Guild System, and expanded to Europe and other regions to control the ownership of knowledge and skills. Medicine continued to promote guild development through professionalism by restricting entry to practice through exclusive educational programs and professional cohesion to marginalize competing groups. Nurses, pharmacists, dentists, physiotherapists, social workers and others have emerged in the twentieth century as key participants in healthcare delivery. This profession-centred approach has led to fragmented care and a substantial increase in healthcare costs. Several governmental and societal developments in the 1980s, including patient-centred approach, clinical governance (a systematic approach to maintaining and improving the quality of patient care), consumerism, and the development of new professional roles have marked a paradigm shift towards a more collaborative approach to healthcare delivery. Additionally, the increasing ageing population, the COVID-19 pandemic, the lack of progress towards UHC and protracted health workforce shortages have highlighted the need to adapt our health systems. The call for effective teamwork is echoed in a range of government policies, professional regulatory documents and WHO reports to help overcome the fragmentation of service delivery and improve patient safety.

## World Physiotherapy's perspectives on IPC

World Physiotherapy values IPC and approved a statement on relationship with other health professions in 1995. It expects physiotherapists to understand the role and function of other health professions and appreciate the core differences and common features. It also encourages its member organizations to raise awareness about the scope of physiotherapist practice to enhance IPC for the benefit of patients.

#### Benefits of IPC

IPC can provide more comprehensive and personalized care by leveraging a wide variety of knowledge and skill of a diverse group of health professionals. The benefits include

- 1. Improved communication resulting in better diagnosis and tailored treatment plans.
- 2. Enhanced patient care quality and satisfaction (which can impact on their physical, mental and emotional wellbeing in a holistic approach).
- 3. Reduced healthcare costs by reducing the risk of complications and hospital admissions through proactive and coordinated care.
- 4. Innovative solutions to public health issues.



#### Barriers to IPC

Several barriers may affect the implementation of IPC. These include:

- 1. Cost access to physiotherapy may be absent or inadequate in some countries/territories. Limited insurance coverage and legislative support can also limit IPC.
- 2. Referral pathways: The lack of referral pathways that engage physiotherapists can be attributed to a lack of awareness of the benefits physiotherapy can provide. Referral to a physiotherapist is often at the discretion of the physician and usually happens after an illness has led to a disabling state.
- 3. Capacity building: health professionals working in a team need to have a synergistic understanding and approach to the patient's concerns to provide safe and effective interventions.

### Strategies for IPC

Improving IPC requires the combined efforts of organizations, healthcare teams, and individuals, and its implementation requires strategic planning.

World Physiotherapy would like to propose the following strategies:

- 1. Clear protocols and guidelines to define the roles and responsibilities of different health professions within the collaborative team.
- 2. Including IPC in both entry level and continuing education to facilitate members` understanding of the models of care, the common goals and how to achieve them.
- 3. Advocating for integral budget for health professions.
- 4. Engaging patients in care planning to ensure adherence to treatment and satisfaction.
- 5. Leveraging technologies such as shared electronic patient records to give healthcare providers access to patient's health history can facilitate timely, team-based information sharing.
- 6. Tracking patient's outcomes to allow team members to adjust future care using empirical metrics.

## Case study – physiotherapists participation in IPC in the care of oro-facial pain

Orofacial pain is an increasingly prevalent problem and encompasses discomfort in the face and mouth and related structures such as the neck and shoulders. It can affect an individual's quality of life profoundly, and often manifests as headaches, jaw pain, and even disturbances in neck functions such as mobility and stability. The causes vary, including dental tissue problem to lack of motor control like parafunctional activities such as bruxism, postural imbalances. This makes it complex to assess the problem and determine the best treatment. Over the years, physiotherapists, speech therapists and dentists have shown increasing educational and clinical interest in orofacial pain and established the Cranial Facial Therapy Academy to promote IPC. Recent systematic reviews have shown significant improvement in patients following musculo-skeletal intervention including manual therapy, exercise and patient education. Physiotherapists specialising in the neck area have collaborated closely with physicians specializing in neurology and ear nose and throat and plastic surgery and dentists, exemplified by the launch of a Master of Orofacial Physical Therapy in the Netherlands. This collaboration will benefit patients worldwide.

**Moderator**: Orofacial pain is a global problem. What contribution does physiotherapy bring to its management and how important is it?

**Suh-Fang**: Physiotherapists are specialists in manual therapy and exercise. If dentists can rule out that oro-facial pain is not from a dental condition, and possibly from a musculo-skeletal problem, they can refer the patient to a physiotherapist. If the pain is due to nerve or muscular disorder, a physiotherapist will be able to provide the necessary assessment or treatment.



## Speaker 2

## **Enhancing Interprofessional Collaboration in Pharmacy Practice: Strategies for Health System Transformation**

Mr Luís Lourenço - Professional Secretary, International Pharmaceutical Federation (FIP)

Luís is a Portuguese pharmacist who is currently managing his community pharmacy where he has created a Research and Development department for the implementation of pharmacy services and the production of evidence to foster pharmacy practice.

Luís is an avid scholar trained on business and change management, political studies and human resources management. In 2017, he was awarded a FIP Fellowship and, in 2021, elected as FIP Professional Secretary, thus having a seat in the FIP Executive Committee.

## The importance of trust in fostering collaborative practices and interprofessional education

Collaborative practice is the basis of all healthcare professions. Within each health profession, different areas of practice have emerged due to specialization. Therefore, collaboration is relevant within a health profession and across different health professions. Collaboration can also enhance the efforts to address the social determinants of health and should involve psychologists, social workers and others who are working to improve the welfare of our patients.

We desire to do our best for our patients, but we must realize that sometimes, doing our best will be referring a patient to another professional or learning more about what other professionals are doing to address a condition. It is also important to assess if we are leveraging the full extent of a health professionals' knowledge, skills and expertise. This emphasizes the importance of trust as a guiding principle for IPC. Trust in other professionals lays a solid foundation for working together and understanding each profession's scope of practice, this is relevant for collaborating both at the national and global levels.

## Approaches to IPC

To facilitate IPC, we can adopt the top-down or bottom-up or a mixed approach. FIP recently released a statement on IPC during its annual Congress in Cape Town and it reiterates the importance of fostering collaboration with other health professions. This is an example of the top – down approach. However, everyone of us here today can and should also determine to foster IPC in our practice.

**Moderator**: WHPA's statement on IPC highlights the role of a supportive infrastructure including reliable systems for communicating across professions. How can we improve communication across professions to ensure professionals can bring their skill and talent to bear in a collaborative way to improve things for patients? How can we engage patients in that dialogue?

**Luis**: Health professionals graduate with a knowledge of their profession and a basic knowledge of other health disciplines. It is paramount to ensure health professionals develop interest in IPC while they are still undergraduates. People respond to a concept differently as undergraduates compared to when they go into practice. If we start to impart our students right now, we will see a change in 5-7 years.

International member-based organizations can influence policies at the global level and at the national level through their members and we can leverage existing structures to promote health professional's interest in IPC. For example, abiding by the profession's code of ethics and mandatory issuance of licenses are a core part of each health profession's identity. Health professions can integrate the importance of IPC and information on what other professions are doing into their appraisal and licensing schemes. This will ensure the education of those currently in practice.



**Moderator**: Certainly, there is an undergraduate component of IPC, but it is more about signposting rather than working together. In the United Kingdom, there are post graduate programs that brings different professions together. The management of sleep apnoea is one area where collaboration among different health professions has become key.

## Speaker 3

## Interprofessional Collaboration: Reforming Health Systems Through Electronic Health Records

#### Dr. Ryan Hungate - Chief Clinical Officer, Henry Schein One

Dr. Ryan Hungate is the Chief Clinical Officer of Henry Schein One, an orthodontist, and the founder of Simplifeye, Inc. As an entrepreneur, he led a revolution in software automation for thousands of practices integrating patient engagement technology and modern payment infrastructures.

Before dentistry, Dr. Hungate designed the Apple retail workflow with industry veteran Ron Johnson at Apple, Inc. He holds a DDS from Indiana University and completed his Orthodontics specialty at the University of Southern California. Now, as Chief Clinical Officer at Henry Schein One, he is spearheading the integration of dental specialty modules, the medicodental interoperability initiative, and focusing on next-generation revenue cycle management automation.

## Communication and data sharing gaps between medical and dental professionals and their impact on patient care and outcomes

Most people visit their dentists even when they do not have any apparent oral health condition. Dentists see their patients for longer and more frequently than anybody else. For example, most people see their dentists twice a year and this means they have the opportunity discover things more quickly and can establish a better relationship with patients.

Dentists want to collaborate more, but it has always been difficult to collaborate with other professionals. This can be attributed to the legal implications of sharing patient's data and to difficulties in interpreting dental data. For example, when we share periodontal probing depths, we need to explain what the mean. However, health professionals can now leverage artificial intelligence (AI) to decipher the implications of ambiguous health data, but this is subject to sharing data in an objective manner.

Also, when electronic health records and patient management solutions were first created, they were designed in silos. For example, in the United States of America, the most popular medical and dental electronic health record softwares do not talk to each other. However, we know this disconnected electronic medical and dental records is a global problem and Henry Schein is addressing this by developing electronic health records that will support health professionals to shift from a patient-focused approach to a person-focused approach.

#### Patient-focused approach vs person-focused approach.

The person–focused approach means treating a patient as a whole individual, while the patient-focused approach limits us to treating the problem they complain about only during a visit or over a small amount of time. It is a big mandate, and we had to answer three major questions:

- 1. Can health professionals speak the same language?
- 2. What data do we need to pass around among health professions?
- 3. How do we pass the relevant data back and forth?



### Electronic Health Records (EHRs) Consensus Statement

With the goal of enhancing holistic patient care, FDI World Dental Federation (FDI) and Henry Schein implemented a project focusing on the requirements for oral health within electronic health records. It highlights the role of Electronic Health Records in fostering collaboration among health professionals. The statement creates a pathway for incorporating oral health metrics into a unified health record system to elevate care quality through better patient-centered practices. We look forward to its adoption at the country level by FDI Members.

Henry Schein has identified a series of objective and standardized data fields (including medical history, allergies etc) that can be collected once and for all by dentists. The source of this data may come directly from the patient as well as an expanded network of caregivers, families and communities. This means doctors can be more efficient by leveraging data collected by dentists. Having a common data platform can also help to avoid over prescribing and cross prescribing.

Identifying this objective set of data is a baseline for collaboration across professions and we are now looking at how to apply this data set to the innovative solutions available. Henry Schein is also creating a Universal Data Platform (UDP) and by quarter 1, 2025, it will be possible to integrate medical data and images that come with them with dental data. This means that data can be shared instantaneously to facilitate collaboration.

### IPC as a strategy to overcome limitations in access to oral healthcare

Collaboration can also help to address limitations in dental insurance. For example, there is a cap on insurance for dental services in the United States of America, and these limits have remained unchanged since the invention of dental insurance. By leveraging joint electronic records, dental practices are supporting patients to maximize their flexible medical insurance packages and make the best use of their dental insurance packages. Several innovative dental practices are also interested in collaborating with their medical colleagues more and in some cases, they are considering partnering with medical practices which is mandatory for the person-focused approach.

#### Electronic Health Records as educational tools

Furthermore, Henry Schein is adapting its electronic health records to ensure they are educational tools. For example, if a dentist receives an electronic health record that they cannot interpret from a doctor or a pharmacist, they can leverage AI to understand the data received. This approach also eliminates building complex user interphases in electronic health records.

**Moderator**: How we share information is critical, at this Congress, there have been discussions around the difference between "data" and "information", and that needs to be considered as we think about information sharing. It is easy to produce data that we understand within the scope of our profession, but how we present this data is an electronic record that is sharable and intelligible is for all parties is very critical. However, deciding on what to share and what patients want from an electronic health record is important.



## Open discussion, including question and answer Efficient interprofessional communication

**Moderator**: As a professional, how do you determine the exact information you need, and what information do you need to share when you want the input of other health professionals?

**Luís**: The architecture of interprofessional communication should be designed to promote a patient-centred healthcare system, so, patients should have the rights to determine which information they want to share across their care providers. In England and some areas of the United Kingdom, there are campaigns encouraging people to go to their pharmacist first for urinary tract infections, and sore throat. We are following a similar trend in Portugal. Pharmacists can take care of some acute conditions and some controlled chronic illnesses to reduce the burden on GPs. This arrangement is possible through an alliance of the health care professions, and it based on strong ethics and trust that pharmacists will refer the necessary cases. Pharmacists can also present the information shared with other professionals as urgent, not urgent, and information that is simply noteworthy.

We are conscious that triaging the information shared is subject to the pharmacist's assessment and that also raises questions about what is urgent and why. This also suggests the need for standard guidelines to back information shared across professions and emphasizes the need for professions to interact both at the practice and regulatory levels.

Finally, task sharing raises the critical issue of ethics, patient safety and who should be held accountable if delegation fails. So, apart from arguing for the cost effectiveness of interprofessional collaboration, we must understand the implications of interprofessional collaboration and address them.

**Suh-Fang**: In Taiwan, we have electronic health records and patient information can be shared at different levels of a health system. Each profession documents their interventions but there is a joint record developed by multi-disciplinary teams with the relevant information. However, there are still a few barriers to interprofessional collaboration. The treatment goals that dentists desire are sometimes different from those desired by physiotherapists or medical specialists. I believe we can address this barrier by organizing educational programmes to create awareness on the outcomes that are important to each profession.

#### Protecting the confidentiality and appropriate use of health data

Delegate 1 from Türkiye: It is important to also acknowledge that health data can be shared with third parties for commercial interest without the knowledge of a patient and all healthcare providers. How can we address this risk?

Also, IPC is not yet a way of thinking for the average health professional. Infact, collaborating with different specialists within dentistry can be difficult. I believe we need to integrate IPC into our teaching protocols for training health professionals. On the contrary, the intensity of our undergraduate programs is already high, and students simply learn what they need to know to qualify as professionals. So, we must be conscious that simply creating an additional module on IPC for undergraduate programs may not be the way forward.

**Moderator**: Adding things to what students need to learn can be a real challenge. It seems as though one element of the curriculum must be removed to make room for a new element.

Ryan Hungate: I think if IPC is simplified and presented as an approach to referral, it may be better received by students. We are taught to refer and how to do it, but it remains a difficult concept for many to implement. Many times, referrals are implemented through a simple sheet of paper with a list of instructions for the patient, and there is a real risk that the paper gets destroyed or missing. Electronic Health Records can be leveraged to create a "highway" for sharing standardized data back and forth, and this can be integrated into hospitals health records systems. Based on this approach, students will not have to memorize the process for making a referral to different specialists. They can simply share a set of objective data (which FDI's new consensus paper on Electronic Health Records addresses). Each professional will also have a right to accept to review a patient's health data or reject it. This will manage the issue of liabilities.



**Suh-Fang**: Physiotherapists are taught the principles of patient-centred care as undergraduates, including the need to respect the differences between patients. Additionally, our undergraduates take problem-based courses at the College of Medicine along with undergraduates from other professions. Each category of undergraduate professionals provides their perspective on a case study, and they are required to come up with a shared decision and treatment plan. This is how we include IPC in a curriculum. This exercise builds the capacity of students at a young age and hopefully, they will carry on when they become professionals.

I think health systems can also encourage IPC in clinical settings. Insurance policies can attach incentives to proper referrals. We can also advocate for hospital policies that promote referrals. For example, a teaching hospital may wish to introduce a legislation that mandates students to participate in multidisciplinary teams' practices.

**Luís**: Regarding the question on the perceived risk around accessing health data for commercial purposes, in Portugal, the patient grants access to the health professional they wish to share their data with. This suggests that we can manage the risk of authorized access.

Also, we can only identify the most relevant set of health information for each health profession through interaction. In Portugal, we have identified different sets of information that different specialties of pharmacy (community pharmacists, clinical pharmacists) should have.

I believe the issue of referral comes up at an advanced stage in IPC, and there is a lot that can be done collaboratively outside of that. For example, the standard practice is that everyone should have an oral evaluation twice a year. If all health professionals are aware of this, they can check each patient's health records quickly to confirm if that has been done and reinforce that information. That is one benefit of joint access to a patient's record. We have data to show that these simple actions to reinforce health-seeking behaviours support patients to make healthier choices, even if it is not in 100% of cases.

Regarding the issue of referrals with a simple piece of paper, patients may forget recommended future visits to a healthcare provider. However, if such information is documented in an electronic health record, that is supported by a customer-relation interphase, a healthcare provider can schedule a reminder. Therefore, transferring the information we have delivered by paper or voice into a digital format can be done with manual implications for legislation but with a lot of impact for patients.

### Leveraging IPC to address health workforce shortages

**Delegate 2 from the United Kingdom**: We have all discussed the challenges we have with the world's health workforce. The limited ability to train and retain the health workforce is probably affecting physiotherapists as much as it is affecting pharmacists. It is certainly an issue for dentistry, and I would like to look at **how IPC can be leveraged to address health workforce shortages to meet the demand of an increasingly ageing population**.

**Suh-Fang**: This is a very important question and several of our member organizations have reported challenges due to their limited workforce. We are encouraging our members to share their knowledge and skills with primary care providers who are also trained to refer any case requiring physiotherapy promptly. This frees up the physiotherapists` time and attention for only the most critical cases.

**Luís**: I would like to reiterate that we can have patients undergoing the same intervention but under the care of different professionals. WHPA's statement on IPC stresses the importance of understanding the scope of practice of each profession and acknowledging that while some skills and competencies are specific to certain health professions, others can be adopted or learnt by others for the greater good of patients.

Also, we must consider how artificial intelligence, and technological advancements can help us to address health workforce shortages. Furthermore, we have the duty of bringing other health professions who are not usually acknowledged in discussions on IPC. For example, psychologists and social workers. Also, we should consider introducing our patients who are the risk of poverty due to their health conditions to social workers. In a recent case study, pharmacists worked with police officers to identify cases of domestic violence. So, we have a responsibility to identify other factors that might impact on our patient's quality of life.

FIP intervenes in humanitarian crisis, and we are aware that the frontline health workers are usually not pharmacists. This suggests that there are some aspects of pharmacy practice that can be managed by other professions. So, professions can devote 80% of their time to interventions that are within their scope of practice and the remaining 20% to other general interventions that are equally important to their patients e.g oral health education.



Finally, while we agree on IPC, we need to think more about how to finance it and answer critical questions on who will pay for tasks that are shared among different professionals.

**Ryan**: From the clinical perspective, it remains hard to increase the coverage of health professions without training and retaining more clinicians. However, we can leverage standardized data to automate time consuming adjunct tasks. We can develop standardized training or onboarding programs for newly recruited staff, who do not necessarily have to be health professionals. We believe there will be an era of abundance due to data sharing and hopefully, this will solve some of the health workforce shortages problems.

### Successful models of interprofessional education

**Delegate 3 from the United States of America**: Before IPC is interprofessional education, and it is important to look at case studies of what is being done to promote interprofessional education. At the University of Buffalo, each semester, there is a full-day joint education requirement where all the students from nine different departments including pharmacy, medicine, physiotherapy, dentistry, nursing, social welfare all spend the day together to review a role play of scenarios. They then discuss possible interventions all through the day and it has been a wonderful learning process. Dental students understand how patients navigate health systems and learn about the challenges they face to access oral healthcare. Our students need to learn together and interact more so that when they come out, IPC is much easier. I also know more people in the other professions than I would ordinarily know except for doing these required courses. I would like to know if this is happening in other regions of the world.

I would also like to know how important social determinants of health are to the group here. This is about how patients are taken care of in a more equal way due to IPC.

**Suh-Fang**: In practical terms, if you include more health professionals in a care team, coordination takes more efforts. However, this approach delivers more benefits for the patients. Data analysis shows the impact of collaborations between medicine and nursing and not so much between other teams. I think we need to compile and show more evidence for the effectiveness of IPC among other health professions.

**Luís**: Having undergraduate dentists, pharmacists and others go through the same course together was explored in some pharmacy school and it worked out quite well. However, we must also acknowledge that having health professions around each other does not necessarily increase partnership and not all activities involving putting students together are efficient. They must engage on a common intervention or case study to appreciate the commonalities and differences across the different professions.

**Ryan**: Artificial intelligence is good at looking at large data sets and the outcome to provide us with what to do in the future. It is one thing to bring undergraduate health professionals together, but most people do not practice what they have learnt in school due to complex real-life contexts. However, if artificial intelligence can analyse a standard data set and suggest important referrals, that would be both educational and lifesaving. It leverages the same method whereby when you apply Al to imaging, it does not tell you categorically that there is tooth decay or bone loss. It suggests these conditions are possible diagnosis and could be designed to also point health professionals towards the ideal next steps in the patient's treatment, including moments to make referrals, seek the opinion of other health professions etc. This could be a really helpful approach to promoting IPC through Al-backed electronic health records.



### Addressing oral health education gaps in medicine

**Delegate 4 from South Africa**: This is such an important topic that 90 minutes is not enough to discuss and nail the issues at hand. We urge FDI to assist NDAs to be more informed, particularly academic institutions. I agree that we should not just put data out, facilitating multidisciplinary liaisons remains critical. In my country (South Africa), we have a complete disconnect between our statutory body, health care funders and academic institutions. Our dental schools are oral health schools that are integrated and linked to a faculty of health science. They are not individual schools, but we only have multidisciplinary liaisons where students come together at the postgraduate level. Moreso, medical colleagues probably know much less about dentists than they would about dentistry. Addressing this challenge would require more collaboration between the two disciplines.

### Increasing access to oral health through IPC - case study

**Delegate 5 from Peru**: I agree with Luis regarding the challenges with reimbursing tasks shared among different health professions. However, we must prioritize promoting oral health through immunization programs. Vaccination is the most successful public health measure, and integrating routine oral health examinations or oral health promotion activities within vaccination programs can be very effective. I also agree with Ryan that oral health education trainings taken in the second or third year of college will most likely be forgotten. We should identify models in which the patients and professionals are already involved and adding on the oral health component. We have a very successful model which involves partnering with nurses in Peru. Nurses oversee vaccination, and they are the most visited professionals in our small health centres. Unfortunately, we do not have sophisticated data records but a referral sheet (paper) with which the nurses can refer them to other health professionals especially dentists an early age when public health interventions can be more effective.

## Leveraging electronic health records and AI for IPC and better treatment outcomes

**Delegate 6 from the United States of America**: In my country, we have access to the patient's data. I can track all the places where my patient has been if he/she grants me access. I think the future of IPC can be influenced by allowing AI to analyse health data and defining the most important data sets for different health professionals. So, there is already a lot of data and there will be more but understanding the most important.

E-prescription works wonderfully in our country already. For example, I self-prescribed a dose of antibiotics and received an alert explaining to me that the concentration of my macrolides will reduce, and I was advised to revise the prescription. Although I am not a pharmacist, this minimal information helped me to make the best choice based on my health history. So, I believe we can leverage AI for clinical practice and for collaborating across professions more if we want it. The more we use it, the more we can improve it.

In terms of collaborating with doctors while in practice, complications arise because doctors do not learn about oral health while they are undergraduates. Whereas we see patients more often and can guide patients who need further attention to them. Therefore, they should get the basic education on oral health.

#### Conclusion

- The world's health professions evolved in silos, but collaborating across professions it is a pathway that we all need to follow.
- IPC is fundamental to oral health reintegration into health systems.
- IPC must be entrenched at the undergraduate level through interprofessional education, and there are successful examples of how this can be done.
- Electronic health records can promote IPC, the person-centred approach and better treatment outcomes.
- The role of artificial intelligence in optimizing electronic health records should not be underestimated.



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