## SCOPING STUDY FOR STRENGTHENING EAR HEALTH TRAINING PROGRAMS AND ENT SERVICES IN THE PACIFIC

#### Aide memoire

Visits to Vanuatu (15–18 November) and Kiribati (21-23 November 2017)

## Background

1. A consultant <sup>1</sup> from the Clinical Services & Health Workforce Improvement Program (CSHWIP) at the Pacific Community (SPC) visited the ear, nose and throat (ENT) clinics at Vanuatu's two main health facilities, Vila Central Hospital (VCH) and the Northern Provincial Hospital (NPH), between 15 and 18 November 2017.<sup>2</sup> The objectives of the visit were to: (i) review the facilities, activity levels and capacity at the country's two busiest ENT clinics; (ii) discuss plans and options for further development of ENT and audiology services in Vanuatu with senior Ministry of Health (MOH) decision-makers; and (iii) assess the readiness of the ENT clinic at VCH to take a more active role – with ongoing technical assistance from development partners (DP) – in training ear health nurses from other provinces of Vanuatu and from neighboring Pacific Island countries (PIC). An information sheet about the background and purpose of the visit was circulated to key counterparts ahead of the consultant's arrival in Vanuatu (Annex 1).

2. The visit to Vanuatu is the first step in a broader scoping study to determine how to further develop ENT and audiology services in the Pacific. A draft medium-term Plan to strengthen ENT and audiology services was developed by a Pacific ENT Advisory Group (PENTAG) in November 2015 but has not yet been implemented. The scoping study will examine the feasibility of implementing the draft regional Plan and develop recommendations for the Pacific Directors of Clinical Services (DCS) and Heads of Health (HOH) meetings in April 2018 on how best to implement the Plan and what further background work, adjustments or prioritisation might be needed. Terms of reference for the overall scoping mission are included at Annex 2.

3. The current status of ENT and audiology services at Tungaru Central Hospital (TCH) and the School for Children with Special Needs (SCSN) was also reviewed during an incidental visit by the consultant to Kiribati during the week immediately following the Vanuatu visit. This visit provided a comparison of the situation in a country with more specialised ENT and audiology services and training programs (i.e. Vanuatu) with one where those services are provided only through general OPD clinics and visiting teams (i.e. Kiribati).

4. SPC thanks the Governments of Vanuatu (GOV) and Kiribati (GOK) for supporting the visits and meeting arrangements, and for very productive discussions and opportunities to observe activities in the ENT and Outpatient departments (OPD) of the facilities visited. Particular thanks are due to the Director of Hospital and Curative Services of the Vanuatu MOH, the Medical Superintendent of VCH and staff of the ENT Clinics at VCH and NPH; SPC commends the work of VCH managers, department heads and clinical staff and their partners from visiting RACS Pacific

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<sup>&</sup>lt;sup>2</sup> The CSHWIP is an Australian funded initiative that aims to support and strengthen the quality of health services and health worker training and education in the Pacific, and to foster collaboration between countries in addressing clinical and health workforce priorities in the region. It brings together the Public Health Division of SPC, the Fiji National University (FNU) College of Medicine, Nursing and Health Sciences (CMNHS), and the Royal Australasian College of Surgeons (RACS). SPC manages the regional workforce planning and governance aspects of the Program.

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Islands Project (PIP) ENT teams for their efforts to improve ear health and ENT services in Vanuatu. Thanks also to the Directors of Clinical Services, Nursing and Public Health, Kiribati Ministry of Health and Medical Services (MHMS), and the Principal and Deputy Principal of the SCSN for very useful discussions on further development of ENT and ear health services in Kiribati.

# Activities

5. Consultations with the Vanuatu MOH, VCH surgical specialists and the ENT clinic staff took place on 15 and 17 November; the consultant flew to Luganville on 16 November to visit to the ENT clinic at NPH, and for discussions with the Provincial Health Manager and medical staff. Activities at both clinics included a review of available space and equipment, review of patient activity data, and observation of patient consultations and provision of treatment; at VCH, this included an opportunity to observe after-care visits for patients who had recently been fitted with hearing aids – see also paragraph 16). A program of activities and meetings during the visit is included at Annex 3.

6. Consultations with the Kiribati MHMS, staff of the SCSN and TCH OPD staff were undertaken on 21 and 23 November. Options and plans for developing ENT and audiology services and specialised nursing capability were discussed with the Directors of Clinical Services, Nursing and Public Health. Preliminary findings and early options for supporting the implementation of the PENTAG medium-term Plan for the region were discussed at the Health Sector Coordination Committee meeting between Government and DPs on 24 November. These meetings are also included at Annex 3.

7. The findings of the country visits were also discussed at a regional meeting for selected PICs in Nadi, Fiji, on 27-28 November. The purpose of the meeting was to assist selected PICs to review the draft PENTAG medium-term Plan, and to discuss possible recommendations for the DCS and HOH meetings on how to revise and refocus the Plan to support its implementation; this meeting will be reported separately. Countries attending the meeting were those with better developed ENT and audiology services: Fiji, Samoa, Solomon Islands, Tonga and Vanuatu. A presentation to the regional meeting on the principal findings from the consultant's visit to Vanuatu is included at Annex 4; a presentation by the Vanuatu team to the meeting is at Annex 5.

8. Additional telephone consultations with non-Pacific based specialists were undertaken following the country visits and the Nadi meeting. The discussions included the RACS PIP Director and ENT Coordinator, members of PIP ENT teams who had visited Vanuatu, and other technical advisers with experience in the Pacific and/or relevant technical expertise (including audiology). The names of individuals consulted during and after the country visit are included in Annex 3. Findings of relevance to Vanuatu are also included in this *aide memoire*.

## Findings and observations – Vanuatu

### The ENT Clinic and Services at Vila Central Hospital

9. The ENT Clinic at VCH is situated at the south-west end an older outpatients building just below the new Emergency, Outpatients and Operating Theatre block (Figure 1). The building also accommodates the Physiotherapy Department and the Eye Clinic (Figure 2, floor plan); this colocation deliberately brings together the specialty clinics for hearing, visual and physical disabilities under the one roof. Both the ENT Clinic and Physiotherapy Department have recently expanded into space previously occupied by a postnatal baby clinic, but both are cramped and still too small.

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Figure 1: External view of the ENT Clinic, Physiotherapy and Eye Clinic Building at VCH; the ENT Clinic is closest to the camera (left), with an overflow patient waiting area on the veranda outside the Clinic entrance (right)



9. The GOV has approved a proposal by the Hollows Foundation to extend the Eye Clinic to occupy the grassy area between the present building and the Central Medical Stores (CMS; Figures 2 and 3). This will include an operating room and patient preparation and recovery areas as well as patient examination and [non-operative procedure] treatment rooms, a training room adjacent to the current ENT Clinic and staff amenities. Construction is expected to commence and be completed during 2018.

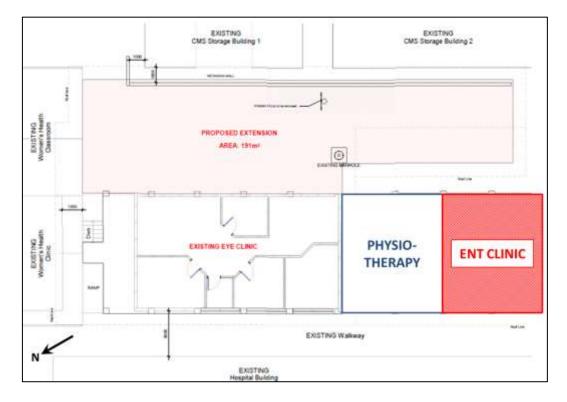
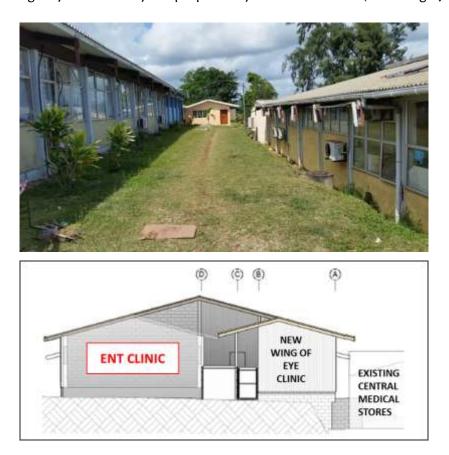


Figure 2: Floor plan of existing ENT, Physiotherapy and Eye Clinic building, showing proposed extension to the Eye Clinic (see paragraph 9) Aide memoire - visits to Vanuatu and Kiribati, November 2017

Figure 3: Grassy area (upper picture) to be used for proposed extension to the Eye Clinic, with existing ENT, Physiotherapy and Eye Clinic building on the left and the CMS on the right, The lower picture shows the south-western elevation of the existing ENT Clinic (on the left), with the grassy area filled by the proposed Eye Clinic extension (on the right)



10. Clinical facilities in the ENT Clinic include one large and three smaller consulting rooms and a patient waiting area (with overflow seating available on the veranda outside the Clinic entrance; Figure 1). Figure 4 shows a panoramic view of the interior of the Clinic, and additional images are available in Annex 4. Following triage and booking at the OPD, new patients with an acute presentation are sent direct to the ENT Clinic for assessment and treatment. Only basic clinic management systems are in place to manage appointments or ensure that follow up appointments are attended.



Figure 4: Panoramic view of consulting rooms in VCH ENT Clinic

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11. The ENT Clinic staff establishment supports a nurse led model of care. The Clinic is currently staffed by one senior ENT nurse (Nurse-in-Charge), two registered nurses (one of whom is trained in audiometry) and one Nurse Aide (who is trained in after-care of recipients of hearing aids (see paragraph 16). There is no specific category of ENT Nurse or Nurse Practitioner on the current MOH staff establishment; Clinic staff are employed as general outpatient nurses.

12. The GOV has proposed a new staff establishment for the entire Ministry. Elements that are relevant to the ENT Clinic are summarised in Figures 5 and 6. The nurses staffing the ENT Clinic at VCH are reflected in the proposed OPD nurse establishment, but their relationship to the overall ENT service has been included in Figure 5 (blue box titled "National ENT Clinic and Training Unit"); details of proposed positions are provided in Figure 6.

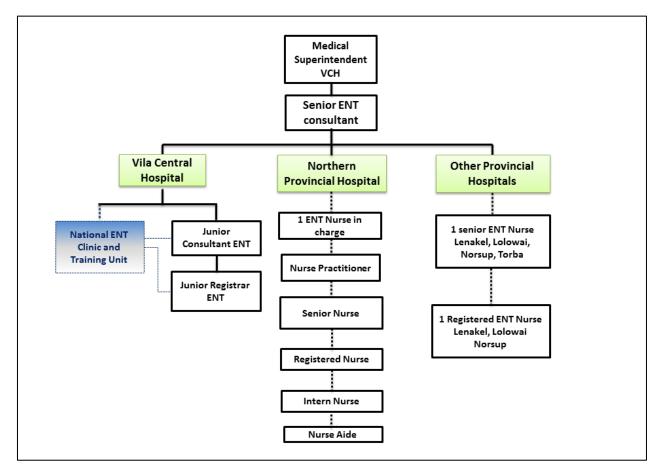


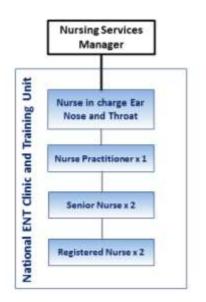
Figure 5: Proposed human resources for national and sub-national ENT services, Vanuatu

There are positions in the proposed MOH staff establishment for two qualified ENT surgeons, an ENT registrar and an ENT Nurse-in-Charge.

However, it does not include a specific cadre of ENT Nurse or ENT Nurse Practitioner.

Note also that Figure 6 does not include a position for an Audiologist – this role may continue to be met by one of the Senior Nurses.

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13. Equipment in the Clinic is sufficient for conducting detailed outpatient examination and basic procedures like ear toilet and removal of foreign bodies from the ear, nose or throat; the RACS team has assessed this as "a good base of essential medical equipment that is reasonably new and in good condition". Audiometry is available in a separate but rather compact room; there is a somewhat worn sound-proof booth for the subject to sit in. The PIP team has noted that the Essential Drugs List (EDL) is not well aligned with the spectrum of disease in Vanuatu.

14. For more complex cases and operative procedures, specialist clinical support is provided by one general surgeon, one expatriate ENT physician and the visiting RACS PIP team (see paragraph 15). Although there is no qualified ni-Vanuatu ENT surgeon, a Master's (MMed) level general surgeon covers both ENT and plastic surgery and receives mentoring and on-the-job training during RACS and other specialist visits. While there is a degree of uncertainty about whether the visiting teams regard him as an ENT or plastic surgery counterpart for PIP visits, the overall work load and case mix at present suggest that he can cover both sub-specialties provided his general surgical work load does not become too intrusive. There is also a long term Cuban expatriate ENT physician, who undertakes outpatient management and minor procedures in the ENT Clinic but does not perform more complex operative procedures, e.g. which require general anaesthesia.

15. Additional specialised technical assistance is available through the RACS PIP visiting ENT team. The PIP team generally includes up to three ENT and Head and Neck (H&N) surgeons, an anaesthetist, up to three nurses and an audiologist. The same team (with almost the same composition and membership) has been coming to Vanuatu annually for 16 years. Most PIP visits are made to VCH, although the team occasionally visits NPH or other provinces; visits outside VCH are limited by the standard of facilities, which may not be able to support operative procedures under general anaesthesia.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> For example, activities during the 2017 visit to NPH were restricted by a shortage of oxygen cylinders, meaning that only procedures feasible to conduct under local anaesthesia were undertaken.

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16. A hearing aid program has been introduced this year with the assistance of the Starkey Hearing Foundation, a charitable entity affiliated with a large American manufacturer of hearing aids that is active in more than 50 lower- and lower-middle income countries. The Foundation brings their own team and equipment to work with local counterparts, and has a fixed, four-phase approach: Phase 1 is patient screening, assessment and moulding; Phase 2 is hearing aid fitting and patient instruction; and Phase 3 is the first after-care visit. Phase 1 and 2 are managed by the visiting Starkey's team, while Phase 3 and ongoing follow-up are managed by the counterpart clinic. Phase 4 (a communication support program) is not yet available in Vanuatu. If patients don't turn up for the Phase 2 visit (fitting), Starkey's take the hearing aids back to Australia or the United States (rather than leaving them for the counterpart clinic staff to fit). Recent visits identified about 500 patients in need of hearing aids in Port Vila and 270 in Santo.

17. The Starkey Foundation is keen to expand their activities to other PICs, and has identified the Nurse-in-Charge of the VCH ENT Clinic as their Pacific focal point to guide this expansion. She recently participated in a Starkey mission to Tarlac Province in the Philippines (as a training opportunity); the Foundation's proposed expansion countries in the Pacific are Fiji and Tonga.

18. ENT conditions comprise between one-quarter and one-third of all presentations to the VCH OPD, with most of those due to ear conditions. In 2016, out of a total 33,672 acute and general outpatient presentations, there were 8,103 presentations with ear disease, 580 with nasal conditions and 393 with disorders of the throat (about 27% of OPD attendances for the year, of which 89% were for ear or hearing complaints); this equates to about 750-800 patients per month, or about 30-35 per day. Table 1 shows ENT Clinic presentations, by category, for the last three years; annual variations and variations by type of consultation reflect factors like outbreaks or seasonal circulation of respiratory viruses. Further data are provided at Annex 5.

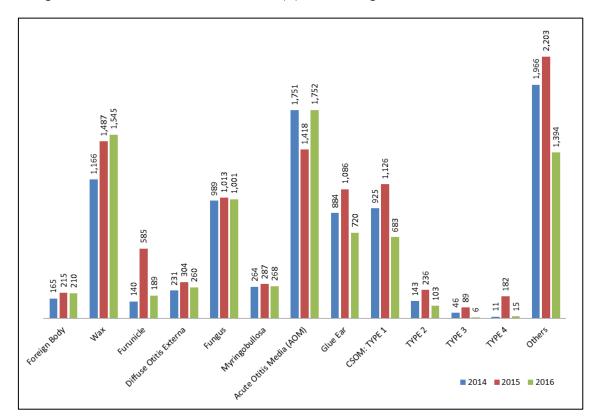
	2014	2015	2016
Ear	8,681	10,231	8,103
Nose	395	899	580
Throat	475	841	393
Total	9,551	11,971	9,076

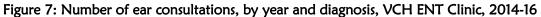
Table 1: Number of consultations, by type of complaint, VCH ENT Clinic, 2014-16

19. The most common ear conditions seen are: acute otitis media, wax impaction, chronic secretory otitis media (CSOM) and acute otitis externa. Figure 7 summarises presentations to the ENT Clinic for ear conditions, by diagnosis, for the last three years. CSOM is recognised as a disease of poverty, linked to poor social determinants of health like overcrowding, poor nutrition and inadequate access to health services.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> WHO (2004) Chronic suppurative otitis media – Burden of Illness and Management Options

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**20.** Community outreach from the VCH Clinic is limited. Patients mainly self-present through the VCH OPD or are seen following referral from community health facilities on Efate and within Shefa Province. In Port Vila, there is a particularly good relationship with the Prison Governor, whereby newly sentenced prisoners are referred to VCH for two specific examinations: a) an ENT examination and audiometry; and b) a psychiatric evaluation.

21. Activity levels during the annual PIP ENT team visits include outpatient examinations (typically around 120 per visit), operative procedures (typically 50-65 per visit) and audiological assessment (typically 25-50 or more per visit); sometimes patient management is based on the audiology assessment conducted by the ENT Clinic nurse, and sometimes the assessment is repeated by the visiting audiologist. The most common procedures performed include: major head and neck surgery (H&N; e.g. thyroid and other masses); mastoidectomy; myringoplasty and grommet procedures; and nasal septal operations, polypectomy and adenoidectomy.

#### The ENT Clinic at Northern Provincial Hospital

22. The ENT Clinic at NPH occupies two rooms located at one end of the OPD building (Figure 8) – one for patient consultation and treatment, and the other for audiometry (no booth), set-up of gear for village and community outreach visits, and for hearing aid after-care consultations.

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#### Figure 8: NPH OPD building, showing location of ENT Clinic.

The consulting room is located in the near corner of the building with the smaller window; the auxiliary room is behind the large louvre windows to the left of the sign.



The interior is spacious compared with the VCH Clinic (Figure 9). There is one provincial ENT nurse who has trained at the VCH ENT Clinic.



# Figure 9: Interior of NPH ENT Clinic consulting room showing medical intern at work.

23. About 130 patients per month are seen in the NPH ENT Clinic. The ratio of ear, nose and throat conditions is similar to that seen at VCH, and the spectrum of **ear diseases seen is also similar** (with CSOM predominating). The nurse had developed an abbreviated hand-written guide for the interns, summarising key points in diagnosis and management of common conditions.

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24. The nurse in charge of the NPH ENT Clinic undertakes a regular schedule of visits to the community, as part of a multidisciplinary outreach program that includes oral health, maternal and child health, an eye nurse and health system departments (pharmacy and health information). Community ENT visits generally focus initially on schools, where clinical examination, treatment of common minor ailments and basic hearing screening are offered. More than 2,800 ENT patients have been seen during community outreach visits so far in 2017. Patients with suspected more complex problems or requiring medical consultation or audiometry are referred to the NPH ENT Clinic.

**25.** The PIP ENT team visits NPH infrequently. The team that visited in 2017 undertook 119 clinical consultations and 24 audiometry assessments, and performed 36 procedures (including mastoidectomy and other H&N surgery, myringotomy and grommet insertion, and myringoplasty). Twenty-five of the operated patients were from Espiritu Santo island and the rest were from neighbouring islands or provinces (most from Penama).

### Other Provincial Hospital ENT Clinics

26. In addition to the clinics at VCH and NPH, there are provincial ear nurses in the provincial hospital OPD in Penama (Lolowai Hospital), Tafea (Lenakel Hospital) and Malampa (Norsup Hospital) Provinces. All of the ear nurses in these provincial facilities had been trained at the VCH ENT Clinic with the assistance and involvement of the RACS PIP team (see paragraphs 27-28). Time constraints did not allow the consultant to visit any of these centres.

#### Training activities

27. Training activities centre on the VCH ENT Clinic, which also takes on the role of a national training unit for primary ENT care. Provincial ENT nurses have trained there and generally also accompany their referred patients from the provinces for specialist consultation or review by the visiting team (provided funding is available). ENT nurses from neighbouring PICs (including e.g. Kiribati, Tonga, Tuvalu and Solomon Is) have attended for in-service training during specialist team visits. Training of nurses at community facilities is not offered at either VCH or NPH.

28. The RACS PIP ENT team has had a long-term focus on capacity development and training for Vanuatu's national and provincial ENT nurses. An extensive range of reference manuals and texts have been provided and placed in the VCH and NPH clinics (Figure 10 on next page); these materials are relevant to the epidemiological setting found in PICs, appear to be well used, and include materials developed by WHO specifically for use in resource-limited settings and for health workers in remote Australian indigenous communities. A Nurse Practitioner Training Conference is generally held while the PIP team is in-country (funding is through private benefactor donations). Subject to the availability of a local counterpart, surgical skill transfer for emergency and routine procedures and mentoring on patient management is also part of the visit schedule.

29. Nurse training activities to date have only taken place while a PIP ENT team is visiting Vanuatu. The RACS PIP team generally develops the curriculum or teaching schedule for each visit and undertakes assessments of participants' performance. The team considers the case load and case mix attending VCH is sufficient for the ENT Clinic to function as a training facility, and has assessed the VCH ENT team as ready to deliver its own training programs. They have recommended a four-month clinical attachment and a regular, structured teaching and learning program (see also paragraph 32).

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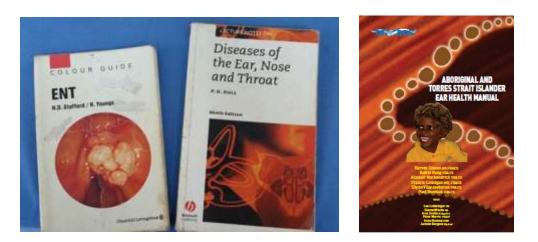


Figure 10: Examples of reference materials and manuals available in the VCH ENT Clinic

30. Training conducted in Vanuatu in ENT nursing is not accredited with the Vanuatu College of Nurse Education (VCNE) or the Vanuatu Health Training Institute (VHTI), and does not contribute to formal career advancement within the MOH staff establishment for participants from Vanuatu or other PICs. Training does not produce a qualification that is registered with the Vanuatu Qualifications Authority.

31. Medical interns are also rostered to the ENT Clinics at VCH and NPH, and to attend training activities during specialist team visits. Vanuatu is one of several PICs that have sent medical students to Cuba for training. The Cuban undergraduate ENT curriculum (which is delivered in Spanish) is highly theoretical and does not include the development of skills in practical clinical assessment or common ENT outpatient procedures that are needed in PIC settings. The availability of a Cuban ENT physician is useful to help the interns to bridge between their undergraduate experience in Cuba and the clinical realities in Vanuatu. While interns are involved in pre-screening patients for PIP visits and participate in the teaching and learning program, their ENT attachments are otherwise not restricted to specialist visits.

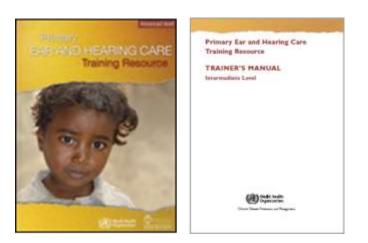
### **Provisional recommendations – Vanuatu**

# 32. The Vanuatu MOH should consider establishing a formal training program for ENT Nurse Practitioners.

- a) Training would be implemented by the senior VCH ENT staff (who would be retrospectively awarded the same qualification, based on historical and continuing training and assessment by the visiting PIP team).
- b) To consolidate career progression for nurses, the program would initially be country specific, i.e. delivered under the auspices of VCNE / VHTI and with formal accreditation locally by the Vanuatu MOH.
- c) The qualification would be registered with the Vanuatu Qualifications Authority.
- d) Training would be built around an approximately four-month attachment in the VCH ENT Clinic (possibly with participation in community outreach activities at sub-national level), and would include a structured teaching and learning program.

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- e) The curriculum for the teaching and learning program could be either based on the WHO *Primary Ear and Hearing Care Training Resource* (which is available off-the-shelf and is already being used for this purpose in Fiji; Figure 11)<sup>5</sup> or a purpose-built curriculum (which could be based on the approaches currently being used by the PIP ENT team, and/or further developed with their assistance).
- f) The annual PIP team visit would be scheduled to coincide with the last week of training in order to provide quality assurance and independent final assessment



#### Figure 11: The WHO Primary ear and hearing care course materials

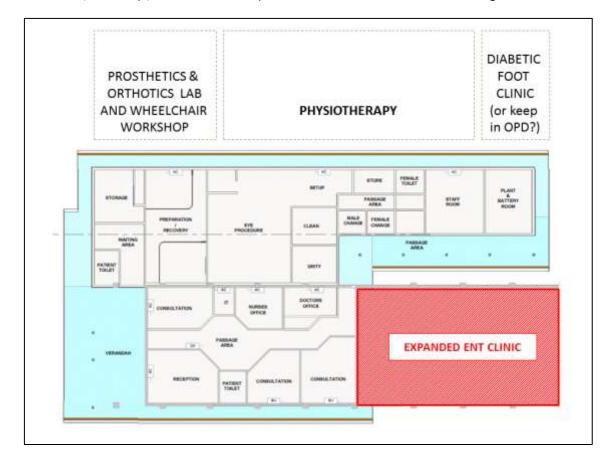
The Nadi meeting recommended that medical interns should also complete the basic WHO course block as a structured part of their national Medical Internship Program.

**33.** The ENT Nurse Practitioner training program would potentially also be accessible to participants from other PICs, enabling it to function as a regional or sub-regional activity. Use of a curriculum and competency-based assessments that were standardised with other countries offering ENT nurse training (e.g. Fiji, possibly Samoa) would ultimately facilitate future amalgamation, i.e. scaling it up into a regional qualification for ENT Nurse Practitioners in the Pacific. (This will be discussed further in the report of the Nadi meeting and in the submission to the 2018 DCS and HOH Meetings).

34. Subject to the CMS moving off the VCH campus, consider relocating the Physiotherapy Department to that building and the adjacent workshops – this would make an excellent integrated physiotherapy clinic, prosthetics and orthotics laboratory and wheelchair workshop (Figure 12). The ENT clinic could then be expanded into the existing Physiotherapy Department, with larger examination rooms, a dedicated (and larger) audiometry facility incorporating a new sound-proof booth, and a minor procedures area. The Eye Clinic has already confirmed that other departments would have access to the staff training facility in the new extension.

<sup>&</sup>lt;sup>5</sup> World Health Organization. *Prevention of blindness and deafness – Primary ear and hearing care* http://www.who.int/pbd/deafness/activities/hearing\_care/en/

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**Figure 12: Proposed expanded Eye, ENT and Physiotherapy Clinics, Vila Central Hospital** with Physiotherapy relocated to the present Central Medical Stores building (not to scale)

35. The visiting PIP ENT team would maintain its mentoring and skills transfer program for local surgical counterpart(s), backed up by opportunities for clinical attachments in Australia, New Zealand or possibly Papua New Guinea. This could be achieved through the PIP, and/or by mobilising resources through RACS' own channels (e.g. the Rowan Nicks Pacific Island Scholarships). Until such time as a postgraduate qualification is available through the Fiji National University College of Medicine, Nursing and Health Sciences, accreditation for short courses and training undertaken and competencies achieved would be through the candidate's own MOH or a relevant Pacific Clinical Organisation – e.g. the Pacific Island Surgeons Association (PISA), or possibly PENTAG as an entity under PISA.<sup>6</sup> This would enable the visiting team to focus its clinical inputs on the more complex end of the procedural spectrum, not on routine procedures that should be within the skill set of local surgeons.

36. At the next review of the Vanuatu EDL, ensure that relevant expert ENT opinion is also sought to ensure that the revised EDL is consistent with the burden of ENT disease. Preparations that are not currently available outside of PIP ENT team visits but which may be considered for addition to the EDL include topical and inhaled steroids and a wider range of topical antibiotics and anti-fungal agents. The PIP ENT Coordinator and team will be willing to advise.

<sup>&</sup>lt;sup>6</sup> The University of Papua New Guinea also offers a postgraduate training program in ENT surgery, and may be considered.

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**37.** Given the reported burden of disease and hearing loss in the community, there is a great need to maintain the type of outreach conducted by the NPH ENT Clinic and replicate it in other provinces (if it is not happening already).<sup>7</sup> SPC commends the NPH and Sanma Provincial Health Office for including ENT screening and outreach in its integrated community outreach visits, and encourages other provinces to explore similar technical efficiency in using available health resources to bring services to communities in need. Opportunities to develop and strengthen screening activities at community level using mobile technologies <sup>8</sup> – and possibly incorporating hand-held tympanometry and video otoscopy (to document pathology for future review) – will be discussed in the report of the Nadi meeting.

## Brief findings, observations and recommendations - Kiribati

#### ENT and Audiology Services in South Tarawa

**38.** Ambulatory ENT services are fully integrated with outpatient services at TCH and in Health Centres in the community. There are separate Eye and Diabetic Eye Clinics at TCH, which are not currently co-located. Although there has been some discussion about also setting up a separate Ear or ENT Clinic at the Hospital, no definite plan is yet in place to do this. Options are discussed further at paragraph 47.

39. External technical assistance is provided by a RACS ENT and audiology team who visit TCH, and by a small team of volunteer audiologists and ear health nurses who visit the School for Children with Special Needs from New Zealand. The RACS ENT team visits approximately annually and undertakes screening and audiology assessment, teaching and a range of operative ENT and Head and Neck procedures; their work is part of the Australian-funded PIP.<sup>9</sup> There is good collaboration and communication with the New Zealand team, and the PIP audiologist also sees children and fits hearing aids at the SCSN. The New Zealand team generally also visits annually; they work out of a small clinic room at the SCSN, conducting audiometry, prescribing and fitting hearing aids and providing general primary ear care. Their work is funded variously by the New Zealand Aid Programme (Ministry of Foreign Affairs and Trade) and a private foundation in Melbourne, Australia; hearing aids are provided through another private foundation affiliated with a hearing aid manufacturer in Sydney, Australia.

# 40. The RACS team reports that equipment and medications are generally inadequate for other than basic primary care, and bring all of their own equipment and consumables.

Otoscopes in OPD and on the wards are of poor quality (with no pneumatic attachments and often no speculae to attach to the otoscope) and there are no appropriate head lights. The New Zealand team left a suitcase containing audiometry equipment on their last visit to the SCSN, but there is nobody in-country who is trained to use it.

<sup>&</sup>lt;sup>7</sup> Multidisciplinary outreach clinics are a key strategy under the proposed *Health Service Strategy* (Revision 1, August 2017). This strategy also operationalises policy objectives 3.1 and 3.3 of the *National Sustainable Development Plan 2016-2030* ("The People's Plan")

<sup>&</sup>lt;sup>8</sup> For example, the *hearScreen* mobile app currently being piloted in South Africa – see http://www.hearza.co.za/

<sup>&</sup>lt;sup>9</sup> The RACS team's most recent visit in June-July 2017 was reported to be only partially successful due to the non-arrival of their equipment from Nadi, Fiji. Activities were therefore limited to clinical examination, fitting hearing aids that had been sent with the team, and some teaching for registrars, interns and nursing staff.

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#### Burden of ENT disease and hearing loss, and access o services

41. No background study of the epidemiology of ENT or H&N conditions or hearing loss has been undertaken in Kiribati. The New Zealand audiology team has estimated that up to half of the approximately 240 children attending the SCSN have some degree of hearing impairment (which is severe in about one-quarter). The RACS team mostly sees referred patients with more significant pathology – up to 200 patients per visit.

42. Patients with ENT or hearing problems usually present for primary care at TCH OPD, or are referred from a community or outer island health facility. The visiting team from New Zealand conducts occasional screening visits to primary schools on South Tarawa, where they commonly find children with hearing impairment secondary to chronic middle ear infection, wax concretion with coral dust and other causes; they treat on the spot where they can, or refer to the TCH OPD for more definitive treatment. The MHMS usually puts out a call by public radio to notify potential patients ahead of a RACS ear team visit.

#### Human resources

**43.** Two nurses at TCH have undertaken short-course training in outpatient ENT care at VCH. In the absence of a dedicated ENT or Ear Health Clinic, they have returned to their wards (one to the operating theatre, one to the paediatrics ward) and only provide specific ear health services during RACS ENT or New Zealand audiology team visits. Their knowledge, skill sets and motivation are reported by the visiting teams to be excellent and they make a valuable contribution during those visits.

44. The surgical work force at TCH is limited; it currently consists of one I-Kiribati general surgeon trained to postgraduate diploma level (PGDip) at FNU, and two qualified expatriate surgeons – one from Cuba and one from PNG (the latter is employed as a clinical supervisor through the Kiribati Internship Training Program). Although the I-Kiribati surgeon is closely involved in RACS team visits, other visiting teams also compete for his time and his role is not identified specifically for ENT.

45. Pre-screening prior to RACS visits is done by medical interns, who receive very little practical ENT training during their undergraduate training in Cuba. There are no doctors who are confident in diagnosing or treating more complex ear and nose disease, and tutorials conducted during the RACS visits are an important component of the medical internship.

### ENT and Audiology Services on the outer islands

46. There are no dedicated ENT or audiology services outside of Tarawa; the visiting ENT and audiology teams from Australia and New Zealand have not yet visited the outer islands. ENT services on the outer islands are provided by Medical Assistants or Registered Nurses as part of general primary health care, and by medical or nursing staff in OPD at Southern Kiribati Hospital and Ronton Hospital. Occasionally, a team visiting the outer islands for other reasons (e.g. an overseas team conducting echo cardiographic screening for rheumatic heart disease, or a public health team from Tarawa) will examine, diagnose and provide treatment for patients with ear complaints. Patients in need of audiometry must be referred to TCH at the time of a team visit.

Aide memoire - visits to Vanuatu and Kiribati, November 2017

#### Provisional recommendations - Kiribati

**47.** It is important to establish an Ear Health or ENT Clinic at the TCH OPD. The Hollows Foundation is about to fund the refurbishment of several rooms adjacent to the Diabetic Eye Clinic, as an integrated General and Diabetic Eye Clinic and minor operating room. This will free up the large room in the OPD that was previously used as the General Eye Clinic. There are provisional plans for this room to be re-purposed as a Surgical OPD Clinic for two half-days per week. However, this use would still be compatible with it also being used as an ENT Clinic at other times, and it is ideally located; it is also large enough to install a sound-proof booth for audiometry.

48. The trained ear health nurses should then relocate to the ENT Clinic for four days per week, and full-time during team visits; at other times, they could be based in their current locations (the paediatrics ward and operating theatre). Prior to establishment of an ENT Clinic at TCH, it may be beneficial for them to undertake a period of refresher training at the CVH ENT Clinic in Vanuatu.

49. Clinical mentoring and skill transfer for the I-Kiribati surgeon and surgical registrars should continue through the visiting PIP team, on a similar basis to Vanuatu (see paragraph 35). This would also depend on sufficient candidates being in place and adequate supervisory capacity available in General Surgery.

## Next steps

50. Review of this *aide memoire* by Vanuatu MOH, Kiribati MHMS and selected external stakeholders. Responses and suggestions for adjustment could be referred through SPC.

51. A report from the Nadi meeting and a revised version of the Regional Plan will be circulated in early 2018 for review by stakeholders. Countries that participated in the Nadi meeting (including Vanuatu) have already developed a prioritised action list to continue with on their return home. Prominent among these actions are: more accurate documentation of the burden of disease; establishment of multi-sectoral task force; and review of national EDLs.

52. SPC, through the CSHWIP, will develop a proposal for the 2018 DCS and HOH meetings, drawing on findings of this scoping visit and the Nadi meeting, and comments and feedback from country ENT focal points and stakeholders.

Aide memoire – visits to Vanuatu and Kiribati, November 2017

# Annexes

- Annex 1: Information Sheet circulated ahead of country visits
- Annex 2: Terms of reference for the ENT scoping mission
- Annex 3: Timetable and meeting schedule for country visits
- Annex 4: Presentation to the regional meeting on the visit to Vanuatu
- Annex 5: Presentation by Vanuatu at the Nadi meeting

Aide memoire – visits to Vanuatu and Kiribati, November 2017

# Annex 1: Information Sheet circulated ahead of country visits



# **INFORMATION SHEET**

## SCOPING STUDY FOR STRENGTHENING EAR HEALTH TRAINING PROGRAMS AND ENT SERVICES IN THE PACIFIC



#### Introduction

The Clinical Services & Health Workforce Improvement Program is an Australian funded initiative that aims to support and strengthen the quality of health services and health worker training and education in the Pacific, and to foster collaboration between Pacific Island countries (PIC) in addressing clinical and health workforce priorities in the region.<sup>1</sup> It brings together three partners with experience in developing and strengthening health programs, training health professionals and delivering specialised clinical services in the Pacific: the Public Health Division of the Pacific Community (SPC); the Fiji National University (FNU) College of Medicine, Nursing and Health Sciences (CMNHS); and the Royal Australasian College of Surgeons (RACS).

Untreated ear conditions and hearing impairment have a recognised association with poor educational achievement and negative social outcomes. However, estimating the burden of disease due to Ear, Nose and Throat (ENT) and Head and Neck (H&N) conditions in the Pacific is difficult. Outpatient data from Tonga, the Solomon Islands and Vanuatu suggest that around 30% of all outpatient attendances are for ENT disorders. Impaired hearing is present in more than half of the students attending the school for children with disabilities in Kiribati. In other resource limited settings, studies have identified that a high proportion of individuals in custodial settings have hearing impairment. Improved screening and treatment options are fundamental to better defining the burden of disease and addressing untreated ENT and H&N pathology.

In late 2015, at the request of PICs, the SSCSiP program convened a Pacific Ear Nose and Throat Advisory Group (PENTAG) to explore ways to strengthen ENT and Audiology services in the Pacific. PENTAG developed a vision and a medium-term Plan, which focuses on estimating the burden of disease in countries and the region and the resources needed to address it, and gradually strengthening country capacity and systems to provide and monitor ENT and Audiology services.

### The Scoping Study

The Clinical Services & Health Workforce Improvement Program is undertaking a scoping study to examine the feasibility of implementing the PENTAG medium-term Plan. This will include a visit to the ENT clinic at Vila Central Hospital (VCH; as a potential training facility for health workers from Vanuatu and other PICs in ENT screening, diagnosis and treatment) followed by a workshop for interested PICs in Nadi.

SPC will summarise the outcomes and recommendations of the workshop in a short report. That report will be used to develop a discussion paper for the Pacific Heads of Health meeting in 2018 about the further development of the ENT workforce and clinical service delivery in the Pacific.

#### **Your Contribution**

During November 2017, prior to the regional workshop, an SPC consultant will visit Vanuatu to meet senior clinicians and health decision-makers and to visit the ENT facility at VCH. The facility's role in outreach visits will also be explored during a visit to the Northern Districts Hospital in Luganville, Santo.

The findings and options arising from the visit will be discussed at the workshop in Nadi, along with country perspectives on the PENTAG priorities. Following the guidance of PICs attending the workshop, the Program will undertake further consultations by telephone, video link or email with other PENTAG members and with regional partners involved in supporting and developing ENT and Audiology services in the Pacific.

Thank you for agreeing to take part in discussions – subject to travel and other requirements, we expect your discussion with the Program consultant to last about 30–45 minutes, although a longer period of observation

<sup>&</sup>lt;sup>1</sup> The Clinical Services & Health Workforce Improvement Program takes over from the former Strengthening Specialised Clinical Services in the Pacific (SSCSiP) program at FNU.

in clinical facilities in Port Vila and Santo will be helpful.

#### **Reporting and Confidentiality**

The team will take some notes during their time with you, including during the workshop. These will be used to prepare the workshop report and the discussion paper for the Heads of Health meeting. The report will acknowledge your involvement in consultations or your participation in the workshop. If you prefer to remain anonymous or for some of your comments not to be recorded, please let us know when we meet.

#### **Scoping team**



**Dr Rob Condon** – Public Health, Health Systems and Health Workforce Specialist Rob is an experienced Australian public health physician. He has worked as a clinician and in public health in the Pacific, Africa, China and the Philippines. He will undertake the visit to the ENT facility and review the provision ENT services in Vanuatu, will help facilitate the Nadi workshop, and will lead the development of the paper for the Heads of Health.



Dr Berlin Kafoa – Clinical Services & Health Workforce Improvement Program Berlin is a Fijian public health physician based at SPC in Suva. He has extensive experience in primary care and public health in Fiji, and in regional medical education as a former Associate Dean at the FNU CMNHS. He will convene the regional workshop in Nadi, and will help to develop and present the paper to the Heads of Health meeting next year.

#### Information arising from the Scoping Study and Workshop

The scoping study will address a number of questions arising from the PENTAG strategy and conceptual plan:

- 1. What is the burden of disease related to preventable and treatable ENT and H&N conditions in PICs? What information is available, and what additional information is needed? [PENTAG Objective 1]
- 2. How are ENT services reflected in current national health strategic plans, and what is current capacity to deliver these services? How are they prioritised relative to other health issues? How are they currently funded? Is there a strategy or policies for prevention of hearing loss? [PENTAG Objective 2]
- 3. Have PICs identified the human resources, equipment and financial requirements for strengthening ENT and audiology services? What is the best way to do this? Have costing studies or plans been developed? What are the current human resources (surgical, nursing, audiology, other)? [PENTAG Objective 3]
- 4. What partnerships currently exist within the region to deliver or strengthen ENT and Audiology services? How effective have they been? What can we learn from past experience? [PENTAG Objective 3]
- 5. What is the best model for improving the skills of different categories of health workers in delivering preventive, diagnostic and curative services? How would patients be managed if they are beyond the capability of in-country services? [PENTAG Objective 3]
- 6. What type(s) and level(s) of ENT-related training are preferred or needed? Would it be an in-service / CPD model or should it be an academic qualification? Who would provide the training? What roles do you see for different partners in training the work force (e.g. the Vanuatu facility, RACS, FNU) and for follow-up in-country mentoring and support? [PENTAG Objective 3]
- 7. How will we know if we are making a difference? Are existing information systems able to tell us about ENT services or country capacity, or to monitor changes in the burden of disease? [PENTAG Objective 4]
- 8. Is there a need for the PENTAG strategy to be refined or further developed? If so, what changes would you recommend, and why? [Overall Vision for the PENTAG strategy]

#### **Questions or comments?**

As we will be moving around quite a lot during November and December, the best way to send a query or to provide additional comments or feedback after the workshop will be to leave a message by email with Rob (<u>rob@robcondon.org</u>) or Berlin (<u>berlink@spc.int</u>).

Aide memoire - visits to Vanuatu and Kiribati, November 2017

#### Annex 2: Terms of reference for the ENT scoping mission

#### A. Project Title: Ear, Nose and Throat Consultation

#### B. Project Description

• Conduct ENT consultation with selected Pacific Island Countries and ENT consultants in Australia and New Zealand

#### C. Scope of Work

- Review available documentation in relation to the development of preventive, primary care and rehabilitative ENT services in PICs (including but not limited to the documents listed at Section J of these TORs, below)
- Review available documentation in relation to provision of specialist ENT services to PICs
- Undertake an initial scoping visit to Vanuatu to review clinical facilities at Vila Central Hospital and Northern Provincial Hospital, and to discuss further development of services and a possible role for Vanuatu as a regional or subregional training centre with key health decision-makers and other stakeholders
- Help to facilitate discussions with selected PIC delegates during a regional ENT consultation in Nadi
- Undertake follow-up consultations by telephone and email with key clinical support personnel in Australia and New Zealand

#### D. Expected Outputs

- A completed Vanuatu scoping mission report
- A completed regional consultation report

(Both reports will be presented at the regional Heads of Health meeting 2018)

#### E. Institutional Arrangement

The Contractor will be responsible to SPC's Team Leader – PRCSWIP, Public Health Division for all aspects of the work, including the production of the required outputs. For logistic support and other management issues, PRCSWIP will coordinate with SPC Contracts, Travel and Accounts departments.

#### F. Duration of the Work

15 days in total, between December 11<sup>th</sup> and December 29<sup>th</sup>, 2017.

The number of work days and the period of work may be amended if agreed by the parties and reasonably required to deliver the expected outputs.

#### G. Duty Station

Desk work (including email and telephone consultation with regional experts) to be conducted from the Consultant's home base in Canberra, Australia.

Consultations with PIC stakeholders to be conducted in Vanuatu (and any other locations that may be feasible as incidental activities to the Consultant's other work, e.g. Kiribati), and in Nadi, Fiji.

Aide memoire – visits to Vanuatu and Kiribati, November 2017

# Annex 3: Timetable and meeting schedule for country visits

Date	Location	Activity or Meeting
Tuesday 14 November	Travel	Travel Canberra – Brisbane – Port Vila
		Check in to Coconut Palms Hotel
Wednesday 15 November	Port Vila (MOH, VCH)	Briefing with Dr Willie Tokon, Director, Hospital and Curative Services
		Briefing with Dr Santus Wari, Senior Consultant Surgeon; Medical Superintendent, Vila Central Hospital; tour of Hospital campus
		Visit to VCH ENT Clinic; review equipment and facilities
		Discussions with Ms Eslyn Napau (Senior ENT Nurse), Mr Philippe Essau (ENT Nurse / Audiologist), Mr Rex (ENT Nurse Aide), Dr Vega Keuh (Medical Intern)
		Discussions with Dr Samuel Kemuel (Surgeon)
		Visit to VCH Eye Clinic
		Observe patient consultations
		Interim de-briefing with Dr Willie Tokon, Dr Santus Wari
Thursday 16 November	Travel	Travel Port Vila – Luganville
	Luganville (NPH)	Briefing with Ms Gerolyn Tagaro, Manager, Northern Provincial Hospital
		Visit to NPH ENT Clinic;
		Discussions with Ms Leisale Rovette Toara (ENT Nurse), Dr Nilai Tari (Medical Intern)
		Review data and equipment, observe patient consultations
		Discussions with Dr Laurence Boe (Medical Registrar)
		Discussions with Ms Tousei Lesteour (A/Nursing Services Manager); visit VHTI campus
		De-briefing with Dr Andy IIo, Medical Superintendent, Northern Provincial Hospital
	Travel	Travel Luganville – Port Vila

Aide memoire – visits to Vanuatu and Kiribati, November 2017

Date	Location	Activity or Meeting				
Friday 17 November	Port Vila (VCH, MOH)	Meeting with Dr Santus Wari; review draft National Health Strategic Plan and FNU Postgraduate Training Committee review document				
		Visit VCH Physiotherapy Department				
		Visit VCH ENT Clinic; observe patient consultations (including hearing aid after-care)				
		Meeting with VCH health information officers				
		Meeting with Secretariat, Medical Workforce Support Program for Vanuatu (includes discussion on ENT content of Vanuatu Internship Program)				
Saturday 18 November	Travel	Check out Coconut Palms Hotel				
		Travel Port Vila – Nadi				
		Review documents and notes				
Sunday 19 November	Nadi	Start report writing				
		Start preparations for Nadi meeting				
Monday 20 November	Travel	Travel Nadi – Tarawa				
	Tarawa (MHMS)	Briefing with Secretary, MHMS				
	Parliament House maneaba	Meeting with Dr Burentau Teriboriki, Director of Clinical Services (about ear health & audiology clinic)				
Tuesday 21 November	Tarawa (School for Children	Review Audiology and Ear Health Clinic, SCSN				
·	with Special Needs)	(Principal Tabaa Enoka, Deputy Principal Koriri Tioti)				
	TCH campus	Diabetic and General Eye Clinics (Sr Miri, Dr Helena)				
Wednesday 22 November	Tarawa (MHMS)	Meeting with Ms Helen Murdoch, Director of Nursing Services (about ENT nursing workforce and ear health & audiology clinic)				
Thursday 23 November	Tarawa (Chatterbox Café, Bikenibeu)	Meeting with Ms Eretii Timeon, Director of Public Health and Ms Kakiateiti Erikate, DFAT Health Program Manager about ear health & audiology clinic and possible Australian support for New Zealand visiting audiology team				

Aide memoire – visits to Vanuatu and Kiribati, November 2017

Date	Location	Activity or Meeting
Friday 24 November	Tarawa (Marine Training Centre Boardroom, Betio)	Health Sector Coordination Committee meeting (includes briefing on SPC regional scoping mission)
		Kiribati Internship Training Program Governance and Coordination Committee meeting (includes review of ENT requirements for interns from Kiribati, Tuvalu and Nauru)
Saturday 25 November	Tarawa	(Incidental meetings in Tarawa)
Sunday 26 November	Travel	Travel Tarawa – Nauru – Nadi
		Preparation for Nadi meeting
	Nadi	Briefing with Dr Berlin Kafoa
Monday 27 November	Novotel, Nadi	Regional Consultation (day 1) – see separate program, below
Tuesday 28 November	Novotel, Nadi	Regional Consultation (day 2) – see separate program, below
Wednesday 29 November	Nadi	(Incidental activities in Nadi)
Thursday 30 November	Travel	Travel Nadi – Sydney - Canberra

Aide memoire – visits to Vanuatu and Kiribati, November 2017

# Regional ENT Consultation, Novotel Hotel, Nadi, Fiji

Time	Day 1 Agenda	Time	Day 2 Agenda
8.30 – 9.00	Welcome and Introduction Background of Regional ENT Consultation Dr Berlin Kafoa & Dr Rob Condon	8.30 – 9.00	<b>Recap of Day 1</b> Dr Willie Tokon
9.00 – 9.20	ENT in Tonga Dr Sepiuta & Ms Loleta lini	9.00 -10.00	Group Work (Specific Objectives)
9.20 – 9.40	ENT in Samoa Dr Sione P & Mr Ulisese T	10.00 - 10.30	Tea Break
9.40 -10.00	ENT in Solomons Ms Mary Loduha	10.30 – 12.00	<ul> <li>Finish drafting Group Reports, Strategy adjustments and Recommendations</li> <li>DEVELOP A SHORT PRESENTATION: Feedback and agreement on Key Recommendations (overall strategy, Strategic Objectives and NEXT STEPS (e.g. 3 things) for each Objective</li> </ul>
10.00 - 10.30	Tea Break	12.00 – 1.00	Lunch
10.30 – 10.50	ENT in Vanuatu Ms Adorin Aki	1.00 – 3.00	Short report from RC Vanuatu visit GROUP PRESENTATIONS Discussion and Agreement on how to carry forward the Key Recommendations (e.g. next steps, additional consultations with partners and at country level, etc.)
10.50 – 11.10	ENT in Fiji	3.00 – 3.30	Tea Break
11.10 – 11.40	Regional ENT Issues: Review of the <i>Conceptual Plan for strengthening ENT and Audiology in the Pacific,</i> and key questions that need to be answered	3.30 – 4.00	Discussion on recommended structure of discussion paper to go to HOH Meeting in 2018

Aide memoire – visits to Vanuatu and Kiribati, November 2017

Time	Day 1 Agenda	Time	Day 2 Agenda
11.40 – 12.30	Discussion and Agreement on Topics for Group Work		
12.30 – 1.30	Lunch		
1.30 – 3.30	Group Work (3 groups)		

Aide memoire – visits to Vanuatu and Kiribati, November 2017

# Annex 4: Presentation to the regional meeting on the visit to Vanuatu



15-18 November 2017















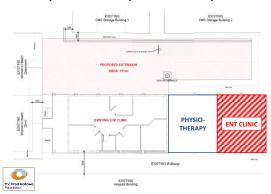






+ systematic integrated outreach + referral network to VCH (RACS team)

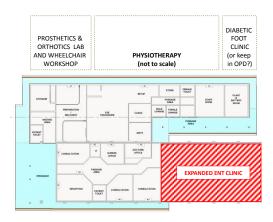
Proposed redevelopment of VCH Eye Clinic



(Boto)







#### Suitability as a national and – potentially – a regional training facility

#### Assets and advantages:

- Well established clinic
  - Equipment, clinical guidelines and core HR in place
     Includes MMed surgeon with ENT interest
  - Solid, long-standing support from RACS
  - Lead role and solid relationship with Starkey Foundation
- Latest RACS ENT team report: "ready to start conducting their own training"
- Good network of outer island ENT clinics and nurses
- Established relationships with neighbouring PICs (Solomon Is, Kiribati, others)
- · Government of Vanuatu supportive of expanded role

#### Suitability as a training facility ...

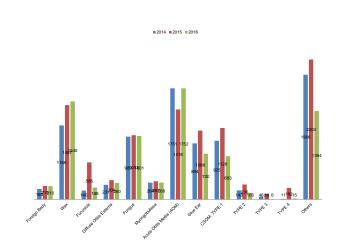
#### Work still to be done:

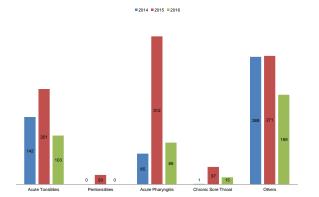
- Training curriculum (WHO?)
  - Formal adoption and proposal for accreditation
  - Accreditation with National Qualifications Authority
- Human resources and institutional linkages
  - Formal TOT course and support & supervision
  - Accreditation with VCNE \leftarrow regional institution (?)
  - Training attachment for ENT surgeon in regional centre of excellence (Australia, New Zealand)
- Infrastructure
  - Coordinated with Hollows Foundation and work on expanded Eye Clinic
  - Subject to relocation of CMS and Physiotherapy

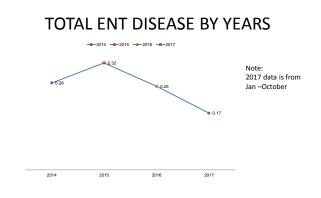
Aide memoire – visits to Vanuatu and Kiribati, November 2017

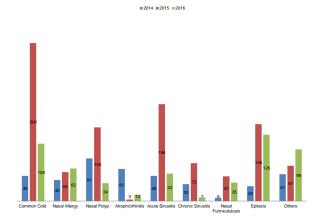
# Annex 5: Presentation by Vanuatu at the Nadi meeting





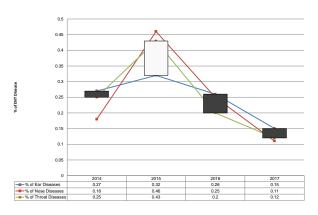






ENT clinic			January	Febru	March	April	May	June	July	August	Septem	Octobe	Novem	Decemi	Total
Ear Diseas	e		990	577	596	441	644	589	838	559	698	993	861	895	8681
Nose Disea	se		23	9	15	18	9	24	41	105	68	34	28	21	395
Throat Dis	ease		23	14	15	15	4	33	69	92	89	57	33	31	475
Total			1036	600	626	474	657	646	948	756	855	1084	922	947	9551
ENT 20	15 Jan	Feb	Mar	Apr	M	ay	Jun	Jul	Au	g Se	рO	ct	Nov	Dec	Tota
Ear	551	1153	1507	94	66	513	471	121	5 5	51 5	54 1	129	957	584	1023
Nose	102	39	28	3	3	40	95	21	0	15	67	114	80	76	89
Throat	66	89	33	4	0	27	98	14	8 (	56	50	92	75	57	84
Total	719	1281	1568	101	96	580	664	157	3 6	32 6	71 1	335	1112	717	1197
ENT 20	16														
ar Clinic		Jan	Feb	Mar	Ap	r I	Иay	Jun	Jul	Aug	Sep	5 O	ct N	ov De	ec To
fot Ear Di	sease	830	110 3	165	7 12	46	595	533	2 40	19 31	81 2	93	365	325 3	67 81
Fot Nose I	Disease	55	117	8	5	28	41	3	5 4	15 3	84	31	34	30	45 5
lot Throa Disease	t	27	24	5	3	33	32	4:	L 3	7	14	21	22	30	39 3
Total		912	124	179	5 13	07	668	60	3 49	1 44	19 3	45	421 :	385 4	51 90

TOTAL ENT DISEASE BY TYPE AGGREGATED BY YEARS



Procedures for ENT Conditions

- Aboriginal Ear Health Manual 1
- ENT Nurse Training Package Audiometric interpretation Manuel of basic Audiometry 2
- 3
- STATUS OF ENT SERVICES IN THE NATIONAL HEALTH STRATEGIC PLAN
- 1 INCLUDED IN THE HSS - INTEGRATED OUTREACH PROGRAM.
- EXPANDED STRUCTURE IN THE NEW HEALTH STRUCTURE. 2 SCHOOL VISITS, OUTREACH & WORK WITH STARKEY FOUNDATION.

ENABLING ENVIRONMENT - LEGISLATIVE, REGULATIONS, REHABILITATION & SUPPORT SERVICES FOR HEARING IMPAIRED.

LOT OF WORK BEING DONE WITH REHABILITATION IN HEARING AND OTHER 1 AREAS.

2 VANUATU WILL START WORK ON BRINGING TOGETHER ALL THESE WORK AND ASSIST WITH CO-ORDINATING THE WORK OF REHABILITATION.

## Human Resource

SHEAFA PROVINCE VCH.....Dr Raoul, Dr Kemuel, Andorin, Eslyn, Philipe & Rex

SANMA PROVINCE NPH- Leisale Rovet

PENAMA Lolowai- Beverly Tosiro

TAFEA Lenakel- Jocelyn Stevent

MALAMPA Norsup-Tom Tasso

## National policy but

Clinical Guidlines Standards Approved structure to be implemented Doing work....school visits, outreachwork, etc

## Three things that could be done to strengthen ENT Services in Vanuatu

Dedicated budget Implement new structure Policy



THANK YOU / TANKYO