



Pacific Continuing Dental Education Project Final Report

**Koror, Republic of Palau
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Prepared for:

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Executive Summary

The Pacific Basin Dental Association, representing dental professionals in the US affiliated states and territories in the Pacific, implemented a continuing education project with the goal of encouraging effective, sustainable and collaborative oral health primary prevention programs for mothers and children. The program builds on the HRSA sponsored Pacific Islands Clinical Continuing Education Program directed by the University of Washington. It addresses long-term infrastructure problems identified repeatedly in reports from the Institute of Medicine and HRSA regional office staff.

The educational program includes conducting an intensive residential workshop at the Palau AHEC that focuses on management and leadership training for dental directors/chiefs. Another component to the workshop includes providing updated general continuing education. Finally, this project includes doing a continuing education and HRD needs assessment for oral health through on-site visits to Pacific jurisdictions. University of Washington faculty members are providing the required training and the Pacific Islands Health Officers Association is providing the funding for the project.

Project Objectives

- Provide management and leadership skills training for dental directors/chiefs
- Provide updated continuing education for dental directors/chiefs and assist in developing sustainable continuing education programs for each jurisdiction.
- Conduct an oral health continuing education needs assessment for Pacific jurisdictions.
- Conduct oral health workforce needs assessment for Pacific jurisdictions.

Management and Leadership Skills Training

Training was conducted in a residential workshop at the Palau Community College AHEC. This training was intermixed with regular updated scientific and public health continuing education. The management training consisted of straight lectures followed by group interactive discussion. The training was held for four days and focused on various spheres in which a dental director may operate: 1) Within the 4 walls of a dental clinic, 2) within a hospital, 3) within public health and community health centers and 4) within the community and interacting with the outside world.

The college computer lab was utilized for improving technological skills on the computer such as: learning PowerPoint, accessing Web resources and utilizing CD resources that were provided by trainers.

Continuing Education Sessions

A number of continuing education sessions were held throughout the 4 day workshop, beyond management CEs. These additional CEs included topics such as: patient management, medical emergencies, bacterial endocarditis, diabetes, diabetes prevention as a an example PH model, politics and health, sedation and medically compromised patients.

Continuing Education Needs assessment

A continuing education needs assessment was carried out by the President of PBDA in the months following the workshop. This was accomplished through site visits to all jurisdictions to meet with dental directors and other relevant personnel. There are a broad range of variances in regards to continuing education in oral health. Overall findings include:

- All jurisdictions require and desire regular oral health continuing education.
- Continuing education should be culturally competent and be tailored to meet the needs and situation of each jurisdiction
- Hands-on training is the preferred method for being taught, especially as dentistry often involves hands-on procedures.
- Focus on mid to low level providers and in primary prevention is a priority for most jurisdictions.
- Local oral health libraries/texts and resources such as journals are almost non-existent and should be supported.

Oral Health Workforce Needs Assessment

An oral health workforce needs assessment was also carried out by the President of PBDA through site visits to all jurisdictions. Assessment reveals that the critical shortage of dental providers is worsening in Pacific jurisdictions and current training program for the Pacific (Fiji) is not meeting the workforce requirements for all jurisdictions. The assessment yields the following recommendations.

- A regional strategy needs to be developed to collectively address the oral health professional shortage.
- A feasibility study and additional planning is required for the possible re-development of a regional (Micronesian) training program for dental nurses (community based, mid-level providers).
- Formal local training and re-training programs for dental auxiliaries require support to improve workforce quality. Model programs should be shared among jurisdictions.
- Select jurisdictions should continue to utilize the Fiji School of Medicine to train dental officers (High-level providers).
- Privatization of services through contractual agreements should be pursued (where possible) to improve efficiency and as a medium term solution to employee attrition through government retirement.

Acknowledgements

The Pacific Basin Dental Association would like to acknowledge PIHOA and its Executive Director, Dr. Robert “Boz” Tucker for their help and generous support. We thank the Palau AHEC for training facilities and Dr. Fred Quarnstrom, Dr. Marco Alberts and Dr. Peter Milgrom for their tireless efforts for this project and to improve oral health in the Pacific.

I. Project Background

US Pacific jurisdictions continue to experience an ongoing oral health crisis that is not being effectively addressed. This crisis not only involves extremely high oral disease rates, but also involves lack of infrastructure and trained personnel to change things for the better. Site visits to all US Pacific Jurisdictions by University of Washington faculty through the Pacific Island Continuing Clinical Education Project (PICCEP) have determined that most dental directors and managers lack the capacity to implement and manage innovative and effective preventive programs. Even though dental chiefs now have the latest scientific knowledge for prevention, this is not translated into improving programs for a variety of reasons. The severe shortage of oral health care providers is compounded by the problem that there are very limited continuing education materials and opportunities available for government dental directors to use for themselves or their employees. With the exception of the recent PICCEP, there has been very little continuing education in oral health occurring for jurisdictions over the past 15 years.

The Pacific Islands Continuing Clinical Education Program (PICCEP) and the University of Washington have made significant strides in improving oral health awareness for health departments and health professionals in Pacific jurisdictions and this project builds upon this progress. It has delivered continuing dental education on up-to-date primary dental prevention technology to dental staff in every jurisdiction over the past few years. However, for long-term sustainability, dental directors need to develop management and leadership skills to help translate lessons learned from PICCEP into solid evidence-based and collaborative programs to meet the needs of their populations.

II. Continuing Education and Management Training Program (Sept 2-5, 2004)

A. Workshop

Participants: There were ten participants representing Pohnpei (Dr. Marcell Galen), Yap (Dr. Stanislaus Gufsag), Chuuk (Dr. Yalbert Enlet), Kosrae (Dr. Jesson Jesse), Republic of the Marshall Islands (Dr. Ohnmar Tut), American Samoa (Dr. Salamo Laumoli), Palau (Drs. Keith Larson, Beatrix Taima, Louisa Santos) and Guam (Dr. Suzzane Sison). CNMI was invited, but could not send a representative.

Trainers: Dr. Marco Alberts, Dr. Fred Quarnstrom

Day 1 Training (Tuesday September 2, 2003)

Introductions were made at 8:00AM. Dr. Alberts discussed the Dental Directors responsibility within the four walls of the dental clinic. Dr. Quarnstrom presented a program on staff and dentist evaluations. He also reviewed and distributed a 212-page syllabus of evaluation forms, office newsletters suitable to be used for staff meetings and handouts for patients. It includes paper reviews from a number of journal papers on various topics and about 10 papers that discussed important topics of SBE prophylaxis, allergic reactions, periodontics, evaluations of restorations and other topics.

There was interactive discussion concerning the daily clinic management problems that various jurisdictions had and how they solved them. Dr. Quarnstrom gave a presentation on how to motivate staff to perform and how to build good morale. There was discussion that by doing more formal evaluations they might better evaluate their staff. However, the smaller jurisdictions of 2 or 3 dentists did not feel they could evaluate each other. The dental director of the largest jurisdiction, American Samoa, felt he knew who was productive and did not need a formal evaluation. Forms and spread sheets on a computer disk (CD) were provided to record each procedures and weigh each by its difficulty so each producer could be credited for their performance. By recording monthly and yearly performance of individuals and the clinic. The reports could be used to help influence their budget request. There was little interest in evaluating individuals but there was some interest in using the information to justify budget requests. It was agreed that it was difficult to give poor evaluations, as it is very difficult to fire or suspend individuals for not performing enough work.

There was discussion of scheduling in the clinics. Most of the clinics face so many patients with serious pain that about half of their time was spent doing extractions to relieve infection and pain and seeing emergency patients. It was suggested by Dr. Alberts that they put off pain patients for a few days to a week to gain control of their schedules. Some special populations may need to be given higher priority in scheduling (ie. MCH, high risk etc.). The directors suggested they could not tell patients in pain they could not see them. The dentists from the smaller jurisdictions have a problem of patients coming to their homes and awaken them on many nights to be seen for pain. Suggestions were made to use NSAIDs and, when necessary, use a long acting local anesthesia to get the patient out of pain so the dentist would get decent nights sleep.

During the lunch hour a CE video was played on Sub Acute Bacterial Endocarditis and the use of antibiotics in dentistry.

All participants were advised that they each are required to prepare a PowerPoint presentation and give it the group on Friday. The afternoon was utilized for developing technological skills. Dr. Albert's went through a number of Internet sites to show the participants the level of information and resources available on the Internet. A CD disk of about 10 topics was provided to all participants to use and modify for their own presentations to their staff or others. An assignment was also given of having a topic for the study club dinner on Thursday. Participants practiced PowerPoint and modifying ready-made presentations for their own use. Because several of the participants were new to computers and had no experience with PowerPoint it was decided to spend our time gaining experience and learning more of the abilities of these programs.

Day 2 Training (Wednesday September 3, 2003)

Dr. Alberts gave a presentation on the relationship of the dental director to the hospital and community health centers/Public Health. Ms. Rengiil, a nurse involved in diabetes education, gave a presentation on the influence and programs to aid and control diabetes in Palau. Dr. Alberts then gave an hour and a half on the pathology, pharmacology, and treatment of diabetes. This made for a very full morning.

The afternoon started with a one-hour presentation on dental office emergencies. This not only was for continuing education, but also was to serve as a review and example of how to use the CD

programs and customize them for individualized use. The rest of the afternoon was used in the computer lab for two hours to work on altering presentations and learning PowerPoint. Presentations on the disk could be used as their own when they went back to their jurisdiction. Additionally, participants accessed sample newsletters and articles that they were able to modify and use as their own.

Day 3 Training (Thursday September 4, 2003)

Dr. Alberts spoke on the relationship between the dental staff and the community for the morning. There was group discussion on many of the issues and how to overcome barriers to improving the dental divisions relationship with the community. In the afternoon the Vice-President and Minister of Health gave a presentation on how to effectively communicate with your Senators and Representatives and how to use “politics” to your advantage. The Public Health Director of Palau presented on the primary care model, using diabetes as an example. Dr. Quarnstrom presented on Halcion oral sedation for fearful dental patients.

Dr. Alberts led the late afternoon session in the computer lab. CDs containing resource links and a comprehensive dental clinic manual were created for participants. Participants practiced using the Web for resources and in custom making their presentations.

There was an evening dinner study club meeting. Dr. Quarnstrom did a brief presentation on Sub Acute Bacterial Endocarditis as an example for the mentor’s role for a study club. Each participant chose a topic and presented to the group for discussion. Topics that were presented and discussed included the use of Xylitol for snacks, fluoride for water systems and the problems for some islands, extraction techniques, elevators for removal of upper third molars, post operative instructions, value of chewing gum, use of bite guards for athletics, control of bleeding after extractions. There was a free exchange of ideas, regardless of how experienced a dentist was or how much seniority they might have.

Day 4 Training (Friday September 5, 2003)

Dr Alberts and Dr. Larson presented on the topic of Dental Departments relationship to the outside world with emphasis on collaborating and getting funding beyond the local government. Funding sources and successful collaborations were shared. There was also discussion on example policies that can be made to improve oral health in jurisdictions. Examples include: having preventive dental services be free for school children, reduced or free dental care for pregnant women, having it be policy that all children must receive fluoride varnish applications during immunizations etc. Collaborators and partners to improve oral health include: WHO, SPC mini-grant, AusAid Small Grant Scheme, Head Start, Ministry of Education, CDC, HRSA, Rotary Club, MCH, CHC, Tobacco Control Programs, Child Care Programs, MCHB grants, ADA, Rotary, nutrition, breastfeeding, Interagency and diabetes control programs. It was emphasized that nothing is given free. Directors must set goals and objectives for all of these programs and be held accountable for any funding provided regardless of source. Written plans with goals and objectives are important and all outcomes should be measurable. Grants are never given out without a cost. Directors are expected to write often time-consuming reports on a regular basis to funding agencies.

Dr. Fred Quarnstrom presented the participants and PBDA a continuing education video library to help with sustainable continuing dental education in the Pacific. These videos were donated from individuals, foundations and companies in the U.S.. Certificates to all the participants were presented after lunch.

A. UW faculty training evaluation/recommendations

UW faculty provided their own evaluation for the training program and shared this information.

Strengths:

1. All attendees seemed to communicate well with each other and with the facilitators.
2. Open discussions on the relationship between Dental Directors and Clinic, Hospital and Community were well received and there was a lot of information shared between jurisdictions.
3. The participants took home a lot of information and resources that may be of value.
4. A PBDA CE video lending library with over 100 titles was created with the assistance of Dr. Quarnstrom. This is something that can be sustainable if it is used, maintained and updated.
5. Participants were able to gain basic computer program knowledge and skills to be able to access Web resources, utilize PowerPoint for continuing education or other presentations, utilize evaluation spread sheets and modify and utilize articles and newsletters.
6. Dental directors received a wide variety of updated continuing education.
7. All areas for the proposed training were covered.

Weaknesses:

1. Consultants should be given a brief biography of each participant so the program can be adjusted to the level of knowledge of the participants.
2. It is difficult to get too specific about suggesting big changes in dental directors' programs without having seen many of the barriers that they face.
3. Consultants should be housed in the same hotel as participants. There was a very productive evening discussion one evening while having dinner at the participant's hotel. This meeting happened by chance. This could have happened every night.
4. Participants should be given an evaluation form with clearly delineated areas to be evaluated along with a section that asks for comments as to content, both areas that should be added or expanded or eliminated from the program.
5. It was difficult to attempt to develop individualized strategic oral health plans for jurisdictions without the facilitators/trainers being more acquainted with each jurisdiction

Participants evaluations (8 jurisdictions):

Evaluation was conducted by doing site visits and interviewing participants of the training .
Table 1

Topic/Area	Very Useful	Somewhat Useful	Limited Usefulness	Some Participant Comments
Day 1 (Clinic management) <i>Note: 1 jurisdiction absent on the first day</i>	3	2	2	<ul style="list-style-type: none"> • We have all been managers for a long time. • Its hard for trainers to provide insight when they haven't seen our clinics. • Very good to have real discussion about clinic management issues. We never talk about this.
Day 2 (Hospital/Health Center management)	3	3	2	<ul style="list-style-type: none"> • Our health system is a bit different, so hard to adapt the training. • Good small discussion
Day 3 (Community)	3	3	2	
Day 4 (Outside world-planning, grants, etc.)	3	3	2	<ul style="list-style-type: none"> • Good, but didn't talk about actually how to get grants, only about available grants. • This was good to share resource opportunities
Scientific CE Presentations	6	2	0	<ul style="list-style-type: none"> • Very good presenters • Lacking some of the materials/drugs presented
Computer Lab	3	3	2	<ul style="list-style-type: none"> • Lacking a laptop for powerpoint • Lacking a computer • I don't feel comfortable on basic computing, so this was difficult. • 2 have done PPT presentations back home as a result of

				training
Resources (Binder of materials, video library, CDs of presentations and links)	5	3	0	<ul style="list-style-type: none"> I use the binder of materials all of the time. Only 1 jurisdiction is using the video library 5 jurisdictions do not have a division VCR
Networking & Sharing ideas	8	0	0	<ul style="list-style-type: none"> This was very valuable Best part of the meeting.

Strengths Consensus:

1. Networking and sharing ideas was almost unanimously the best part of the meeting and was very valuable.
2. Scientific CEs and non-management CEs were also valuable.
3. Open discussions after presentations were very valuable
4. Meeting materials (binder) was valuable for most.
5. The trainers were outstanding and gave interesting presentations (1 later was invited to Guam to speak for the dental society)
6. All participants felt the meeting was valuable to attend.

Weakness Consensus

1. Training should be more focused and not try to cover every topic on earth. 1 or 2 trainers cannot be expected to be experts in all areas (some participants were more versed at PowerPoint than the trainers- for example).
2. Health systems and challenges are not the same among all jurisdictions and this makes management training difficult. Management training should be done more through group discussion and sharing among all dental directors and not trained by outsiders....only facilitated.
3. Trainers must be more intimately aware of barriers, culture etc. in each jurisdiction in order to provide the best possible management training.
4. Clinics lack the drugs/materials that were mentioned in some CE presentations.
5. More participants from each jurisdiction should attend this type of program.

Recommended topics/issues for next regional meeting/training

- How to get more resources (Grant writing)
- Dental equipment repair
- Periodontal disease / related prevention programs

- Orthodontics (serial extractions, simple appliances and related lab work)
 - Oral surgery (advanced cases and management of jaw fractures)
 - Latest techniques and materials for restorative
 - Medically compromised/special needs
 - Primary preventive programs
-

III. CE Needs Assessment

A continuing education needs assessment was done for each jurisdiction and the results are as follows:

A. Priority by provider type

Table 2

Jurisdiction/Territory	dentists	Dental nurses	Assistants	Lab Techs	All staff
Guam	x		x		
Palau			x		
Saipan			x		
Chuuk			x		
Yap		x			
Kosrae	x				
Pohnpei		x	x	x	
RMI	x				
American Samoa					x

B. Preferred method of receiving CE:

The preferred method for receiving CE in all jurisdictions is **hands-on, on-site training**. The next preferred method is as follows:

Table 3

Jurisdiction/Territory	Video	DVD	Telehealth	Journal/texts	Any method
Guam				x	
Palau	x			x	
Saipan				x	
Chuuk				x	
Yap				x	
Kosrae		x			
Pohnpei	x			x	
RMI	x	x		x	
American Samoa			x		x

C. Local Oral Health Libraries

Table 4

Jurisdiction/Territory	Journals	Texts	Comments/needs
Guam	adequate	adequate	
Palau	inadequate	adequate	General dentistry journals and hygiene journal
Saipan	inadequate	adequate	General dentistry journal required
Chuuk	inadequate	inadequate	General dentistry journals and updated texts required
Yap	inadequate	inadequate	General dentistry journals, does not have a updated library (all texts are from 1960s and earlier)
Kosrae	inadequate	inadequate	General dentistry and specialty journals, does not have a library (all texts required)
Pohnpei	inadequate	inadequate	General dentistry and specialty journals, does not have a library (all texts required)
RMI	inadequate	inadequate	General dentistry and specialty journals, does not have a library (all texts except pediatrics and fixed pros required)
American Samoa	inadequate	inadequate	General dentistry journals and new texts (all subjects required)

D. Priority CE topics

Table 5

Jurisdiction	Leadership/management	Assessment & surveys	Oral health promotion	Preventive care	Lab	Clinical care	All areas
Guam		x		x			
Palau			x	x			
Saipan			x	x			
Chuuk			x	x			
Yap						x	x
Kosrae							x
Pohnpei							x
RMI			x	x		x	
American Samoa							x

E. Jurisdiction specific issues

Guam: Guam requires “certifiable” CEs for licensure purposes (Guam Board of Dental Examiners) and this requirement is stringent. Guam has adequate number of journals and provides CEs for

dental assistants, as required. The Guam Dental Society has a strong continuing education component for dentists.

Palau: Palau does not require “certifiable” CEs for licensure purposes. All CEs are provided “in house” for dental staff by the division chief and others as required. Expatriate dentists maintain certifiable CE requirements to maintain US licenses. 1 dentist is a former lab tech and is conducting advanced training for one lab techs. The priority area for CEs is for dental assistants.

Saipan: There is no requirement for CEs for licensure purposes in Saipan and there are no regular CEs provided to dental staff. There is no dental chief in Saipan to provide guidance as to the vision for CEs. However the Director for PH has indicated a priority area for the division is developing perinatal preventive oral health programs (which will require accompanying CE). As one dentist is near retirement and one dentist is a new grad, the priority area for CEs by default is dental assistants. The School Program Coordinator requests and requires training/CE in the area of management of the school dental program and in preventive oral health (school and early childhood preventive oral health).

Chuuk: There is no CE requirement for licensure. The priority area for CEs is for dental assistants, as 4/5 of dentists are expatriates and the health department goal is to develop the capacities of Chuukese providers.

Yap: There are no CEs occurring for oral health staff in Yap and there are no requirements. Dental nurses require CEs on the latest restorative techniques and materials. 3 dental nurses are stationed at outer islands, which represents a barrier. However, CEs may be given through distance tele-health that is being piloted for health assistants in outer islands.

Kosrae: Kosrae has developed a strong relationship with a group of private dentists in the U.S. Dentists regularly visit and provide a broad range of continuing education for staff, much of which is hands on training. There are no formal CE requirements in Kosrae.

Pohnpei: There are no CE requirements in Pohnpei. All staff are very excited to receive continuing education on a wide variety of topics. The dental chief shows strong interest in additional management CEs, especially in the area of oral health surveillance. There is a dynamic of senior staff (dental nurses) not supporting assistants being trained to perform additional duties that dental nurses perceive as “dental nursing” duties. “In house” training may not be recognized/accepted versus outsiders providing training. This is similar in other jurisdictions, but is especially evident here.

RMI: RMI is currently conducting a 15- week dental assisting training program for local high school graduates with technical assistance from a US university. One expatriate dentist is former faculty of a dental university and current faculty of an American University, so this is a very strong asset for “in house” training and CEs. For dentists, the priority areas are advanced surgical techniques and updates on restorative materials/techniques.

American Samoa: Staff may receive medical and dental CEs during regular Wednesday morning meetings and CE sessions. Virtually the entire workforce of dentists are new graduates. All are very

eager for continuing education. American Samoa is the most promising jurisdiction in which to receive distance CEs.

IV. Workforce Assessment in Oral Health

A. Limitations of this assessment

This assessment was accomplished only through discussions with each respective dental director and health director (as available) in short visits to jurisdictions. The assessment and recommended workforce numbers are very conservative and derived from what the dental director feels will improve programs and services and from what realistically the local government may be able to afford. With such high disease burden and a dispersed and high risk population, actual requirements to meet needs are many times what will be realistically recommended in the current environment. This assessment may provide an overview of workforce needs, but additional planning is required to develop a sustainable Pacific oral health workforce.

B. Current Workforce in Government Dental Programs

Table 6

Jurisdiction	Dentists	Dental Nurse	Dental Assistant	Lab Tech	Other
Guam	48 (only 2 in government)	0	12	0	1 (equip repair tech)
Palau	4	3	10	2	
Saipan	8 (4 in government)	0	9	2	1 (hygienist)
Chuuk	5	0	7	2	
Yap	1	7	1	0	
Kosrae	3	0	1	0	
Pohnpei	3	7 (+1 in Head Start)	5 (+1 in Head Start)	2	
RMI	5	2	7	3	1 (hygienist)
American Samoa	15	0	20	2	
TOTAL	92	19	71	13	3

does not include clerical/administrative staff

C Factors/Assumptions used in determining human resource requirements in oral health.

Dentist/provider: population ratio: An ideal dentist:population ratio (1:1,500) for jurisdictions is not realistic with lack of government funding and support for such a ratio. Among Pacific jurisdictions the dentist to population is approximately one dentist for every 11,000 individuals. A more realistic

goal is to improve provider to population ratio (ie. dentist plus dental nurse/therapist to population ratio). A conservative ratio for provider to population is 1:1,500. The only jurisdiction to meet this ratio is Yap State. However, it should be noted that Yap dental nurses also have to provide auxiliary services (dental assisting), as there is only 1 dental assistant working.

Table 7

Jurisdiction	Dentist to population ratio	Provider to population ratio
Palau	1:5,000	1:2,800
Saipan	1:7,500	1:10,000
Chuuk	1:12,000	1:12,000
Yap	1:12,000	1:1,500
Kosrae	1:3,000	1:3,000
Pohnpei	1:11,000	1:3,500
RMI	1:12,000	1:8,500
American Samoa	1:4,000	1:4,000
Overall	1:8,000	1:5,200

Guam dentist to population ratio is 1:2,500, which is reasonable. However, this is due to private practice dentists. These practices focus on higher income and insured patients. Low-income and uninsured clients do not have access to dental care and caries rates remain excessively high. Low-income children for all of Guam are served by only 2 dentists (not even full-time). Guam dentist to population ratio is 1:75,000 for dental public health.

Population characteristics: The oral disease rates (caries) are especially high for Pacific jurisdictions. Caries rates in all jurisdictions are many times that of the U.S. Mainland and this requires additional oral health workforce. Virtually all children entering Head Start and elementary school have untreated dental decay. This has been documented in Head Start Surveys, Head Start Oral Health Forums, the Pacific Oral Health Summit, jurisdictional surveys and in the 1999 MCH Coordinators meeting in Hawaii. Serving this type of high risk population requires additional human resources both for prevention and also for curative care. Periodontal disease rates are assumed to be high with the high rate of tobacco and betelnut use among jurisdictions, but no firm data is available to document the prevalence. It is also assumed that with few providers to serve populations, there is a tremendous amount of unmet treatment need.

Geographically dispersed populations are going to require additional oral health workforce. This is true for all jurisdictions except for Kosrae and American Samoa, which have populations that are more accessible.

Facility space: Provider projects are limited by facilities and available equipment/space to provide services. It is assumed that facilities will remain the same or slightly expand for jurisdictions.

Table 8

Jurisdiction	Central clinic	Satellite
Guam	8 chairs	2 two chair clinics (unstaffed)
Palau	6 chairs	1 two chair satellite
Saipan	6 chairs	2 three chair satellite (Rota/Tinian)
Chuuk	4 chairs	-
Yap	3 chairs	-
Kosrae	3 chairs	-
Pohnpei	7 chairs	-
RMI	5 chairs	1 three chair (Ebye)
American Samoa	8 chairs	1 three chair 2 two chair

Budgets/resources: It is assumed that budgets and resources for oral health will remain the same or slightly increase.

Age of providers: The cohort of dental nurses that were trained at the Palau Micronesian Occupational College in the 1970's serving FSM, Palau and Saipan have retired or on the verge of retiring. This assessment assumes that providers will retire after 30 years of service.

D. Recommended workforce requirements (within 5-8 years)

It should be recognized that actual requirements based on population size and characteristics are much higher than those being recommended. The recommendations below are “real world” estimates, which are more likely to be supported by local jurisdictional governments.

Table 9

Jurisdiction/Territory	Dentists	Dental Nurse	Dental Assistant	Lab Tech	Other
Guam	4*		10		
Palau	1	5	5	1	
Saipan	2*		1		
Chuuk	4	12	8		
Yap	2	4	3	1	
Kosrae			3		
Pohnpei	4	9	9	1	1 (hygienist)
RMI	5	5	8	1	
American Samoa					2 (hygienist)

TOTAL	23	35	47	4	3
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*Outside recruitment

Justification for requirements

Guam has very tight budget constraints for new hires. Salaries are low within the government, which makes dentist positions difficult to fill. The dental division is working to increase salaries of dentists within the government. The Guam Board of Dental Examiners is a large barrier, as all off-island dentists are required to take the board exam and pay a \$2000 test fee. The division is working to have the fee waived. Only U.S. trained dentists and hygienists are allowed to practice. Hiring funds are available to recruit dentists. No hiring funds for required assistants. It is hoped that the closed satellite dental clinics serving the low-income population will re-open and be fully staffed. Additionally, the school sealant busing program that has been interrupted because of lack of funds for bus fuel, is anticipated to operate once again.

Palau anticipates retiring all dental nurses within the next 5-8 years. Priority for the division of Oral Health and the Bureau of PH is to develop community based mid-level oral health providers (dental nurses) rather than highly specialized providers. Dental assistants required are to replace those advancing into dental nursing. The requirements take into consideration retirees, an anticipated Koror (Central) CHC and increased services in rural areas and preventive programs (ECC prevention & school program). Privatization through contractual agreements (for primary care and preventive services) may be an option to maintain dental nurse workforce beyond retirement. Palau has shown 50% success rate at using Fiji School of Medicine to train dental officers. An additional lab tech is required to provide advanced lab services.

Saipan is limited by facilities, funding and licensure requirements. All dentists must be US trained and dental nurses are no longer licensed to practice. There has been no dental director for the division to outline a plan/vision for the division. Additional dentists required are to assist with the Public Health CHC in Saipan and a possible 330 funded CHC. Saipan does not recognize Fiji School of Medicine credentials and does not license dental nurses. Rota and Tinian are not administratively under the main Saipan Health Department, but they have found success at recruiting and maintaining staff.

Chuuk has the least favorable provider to population ratio and has a very highly dispersed population. The division has not found success at sending students to the Fiji School of Medicine. The division only has one Chuukese dentist near retirement and four expatriate dentists. The division would like to prioritize the development of a dental nursing workforce to provide mid-level preventive and restorative dental services in the community and be placed in various rural sites. The division chief anticipates that governors of outer islands may help secure funding for future new dental nurses to be placed in their jurisdictions.

Yap requires at least one dentist to replace the division chief who is at retirement age. Yap also requires additional dental nurses to replace those who are retiring. Yap has not found success at sending students to the Fiji School of Medicine Dental Program, but there is one Yapese who has been attending intermittently over the past 6 years. In the long term, the government dental program may be limited to providing outpatient and emergency dental services, leaving preventive services to

be contracted out for more efficiency and effectiveness. However, with dental nurses retiring, additional will be required whether there is privatization or not.

Kosrae has two new local dentist graduates and has found success at sending students to the Fiji School of Medicine. Kosrae requires assistants to provide preventive oral health services for the school program and to provide chair side assisting.

Pohnpei has found some success at sending students to the Fiji School of Medicine. All dental nurses are age 45 years or older, including one Head Start dental nurse. 4 nurses required to work providing services for school children, 3 are required to work in the municipalities (dispensaries, CHC) and the 5 outer islands. 2 are required for Head Start. Privatization of dental nursing services may be an option to maintain workforce in the medium term. Four dentists are required for the centralized dental clinic and providing future services at dispensaries.

RMI is in the process of training 8 dental assistants and supporting 3 dental students who are already enrolled at Fiji School of Medicine. 5 dentists at minimum are required and it is anticipated that they will eventually replace expatriate dentists. As RMI also has a very dispersed population in outer atolls, at least 5 dental nurses/therapists are required to provide primary oral health care services in the community and outer islands. This follows the RMI human resource development plan. RMI has shown very good success keeping students enrolled and advancing at the Fiji School of Medicine, thanks to regular monitoring and tutoring of students during breaks and summer by an expatriate dentist.

American Samoa has graduated a number of dentists from the Fiji School of Medicine in recent years. This has met the workforce needs at the time of the assessment. A small centralized facility limits the hire of additional providers. However, American Samoa requires at least 2 dental hygienists (U.S. trained) to focus on periodontal disease in the community (prevention and control). Dental nurses cannot practice in American Samoa.

E. Current Jurisdictional Plans

The following grid outlines the current plans and assumptions of how jurisdictions will attempt to meet oral health workforce needs.

Table 10

Jurisdiction	Use Fiji School of Medicine	Locally trained	U.S. or other country training	Micronesian training program
Guam	no	no	No (only dentist recruitment plans)	N/A (licensure barrier)
Palau	no	Dental assistants (semi-formal)	Lab tech, dentist recruitment for CHC grant	yes
Saipan	no	no	No (only dentist recruitment plans)	N/A (licensure barrier)
Chuuk	Yes (keep)	On the job	no	yes

	trying for success)			
Yap	Yes (keep trying for success)	no	no	yes
Kosrae	none	On the job	no	no
Pohnpei	Dentists (keep trying)	no	Lab tech	yes
RMI	Dentists, Dental therapists (keep trying for success)	Formal DA training, Tutoring Fiji students	yes	No
American Samoa	no	no	Dental hygienist	N/A (licensure barrier)

F. Workforce Development Options

Although additional planning is still required, the following are possible options that have been raised to assist with meeting workforce requirements for oral health.

Regional (Micronesian) dental nursing school: The Pacific Basin Dental Association has entered into discussion for developing a regional (Micronesian) dental nursing school or training center to meet some of the workforce needs in the region. This would be especially beneficial for Palau, Yap, Chuuk and Pohnpei who have or are retiring all of their dental nurses in the foreseeable future. CNMI and Guam would also greatly benefit, if their licensure regulations would allow dental nurses to practice. RMI may benefit if success is not found at Fiji. The U.S. is one of the few countries in the world that does not recognize dental nursing/therapy. A graduated dental nurse would be a mid-level oral health provider who would be able to provide preventive and restorative services, especially concentrating in the community and MCH populations. The degree earned for this program would be similar an associate degree. The end goal would for entry students would be for them to graduate and have a career in dental nursing, not to use it as a stepping stone to become dental officer to provide high end clinical care. A paradigm shift is required to raise the importance of the dental nursing field to that equal to or exceeding that of dental officers. Current trend/perception is that failing dental officers become dental nurses/therapists by default.

This type of training program would be based in Micronesia and have the following characteristics for improved chances of success:

- 2 year training program
- Tier training program (Dental Assistant-6 mos, Dental Health Aide 1yr, Dental Nurse-2 yr)
- Focused training scope (basic primary oral health care)
- Culturally competent training
- Partner with existing Micronesian HRD programs (nursing programs, AHEC etc.)

- Have a decentralized training component (at each student’s home jurisdiction)
- Oral health modules for training “non-dental providers” to provide basic oral health care (ie. for health assistants stationed in remote islands where there is no dental provider).

Local training programs: Developing local training programs with technical assistance from outside universities is one option to improve workforce, especially in the area of dental assisting. RMI is currently implementing a local, formal dental assisting training program with technical assistance from University of Washington, Columbia University and University of Hawaii. This program focuses on training dental assistants both in chair side assisting and implementing primary preventive oral health programs. As most jurisdictional dental assistants are trained on the job or informally, this option (using the RMI program as a model) would be very beneficial at improving workforce numbers and also improving standards of care in dental assisting. Jurisdictional exchange programs also are a viable option for more hands-on informal training in jurisdictions.

Fiji School of Medicine: Jurisdictions have shown varying success at utilizing this school to meet workforce needs. Reasons for failure include: lack of good study skills, lack of basic sciences background, “missing home”, too far and too expensive to visit back home and family obligations/issues back home. Not only is there a high failure rate for jurisdictional students, no students enter for the expressed purpose of becoming a mid-level oral health providers (dental therapists/nurses) to provide primary preventive oral health services in the community. A reality of graduates from the Fiji School of Medicine is that very few graduates have interest in providing community-based preventive oral health services (ie. most prefer providing technical services in hospital settings). Only two students have dropped out of Fiji and (by default) are practicing at the dental nurse/therapist level in jurisdictions. So, Fiji is not meeting the need to increase mid-level providers in jurisdictions. With this said, it has done a great service to increase numbers of high-level providers, especially for American Samoa who successfully graduated 15 dental officers from Fiji. It also still remains the only school known that readily accepts Pacific applicants with only high school credentials.

Utilizing the U.S. or other country schools: This remains an option for some jurisdictions in select areas, especially in the area of the dental laboratory and hygiene.

Other interim options: Although the USPHS National Health Service Corps (NHSC) is currently not stationing commissioned dental providers in the Pacific, aggressive requests should be made to resume this valuable activity (at the country level). All jurisdictions are eligible because of health professional shortage area status (except for Guam). JICA and other volunteer agencies should be approached to assist with placement of dental providers in jurisdictions.



PACIFIC BASIN DENTAL ASSOCIATION

The association serves as a resource for professional development, oral health advocacy and community enrichment.

Dr. Keith Larson
President
Republic of Palau

Dr. Kenneth Miklos
Vice President
Kosrae State

Dr. Kyaw Tut
Secretary/Treasurer
Republic of Marshalls

DATE

Dear: **Dental Director**

I am pleased to announce that you are invited to participate in a management and continuing dental education training program for Pacific dental directors.

The training program will be held at the Palau Area Health Education Center on **September 2-5 in Koror, Republic of Palau.**

With sponsorship from the Pacific Islands Health Officers Association, PBDA and faculty from the University of Washington are organizing and conducting this training.

The primary focus includes:

- Improving leadership and management skills in relation to clinics, health centers, communities, HRD, funding, staffing, special populations, programs, planning and evaluation.
- Planning and developing sustainable continuing dental education for Pacific jurisdictions.
- Improving the capacity of dental directors/managers to provide continuing dental education and oral health presentations within their own jurisdictions.
- Providing current information on a variety of oral health related topics

One person from your jurisdiction is funded to participate in this important training. At your earliest convenience, please confirm your attendance or the attendance of an appropriate designee, so we may make necessary arrangements and reserve air travel and hotel accommodations.

Transportation to and from the airport, venue and hotel will be provided. Please feel to contact me if you have any questions regarding this training and hope to see you soon!

Keith Larson
E-mail: dental@palaunet.com
Fax: 680 488-1211

cc Minister / Secretary of Health

Pacific Dental Directors Continuing Education Program
September 02-05, 2003
Palau AHEC
Koror, Republic of Palau

Day One (Tuesday, September 02)

8:00-8:45 Opening Session & Introductions
9:15-11:15 “Director’s Sphere of Operation I - Dental Clinic” – *M. Alberts, F. Quarnstrom*
11:30-12:30 LUNCH (provided)
12:30-1:45 “Sustainable Continuing Education” – *F. Quarnstrom*
2:00-4:00 Accessing Continuing Ed. / On-line journals - *K. Larson, F. Quarnstrom*
4:00-4:30 Next steps
7:00 Reception Dinner for PIHOA (Sponsored by Vice President)

Day Two (Wednesday, September 03)

8:00-8:15 Opening
8:30-9:00 “Diabetes, its influence and PH programs to address the problem” – *A. Renguil*
9:00-10:30 “Director’s Sphere of Operation II – Hospital / Health Centers” – *M. Alberts*
10:30-11:30 “Sustainable Continuing Ed” – *F. Quarnstrom*
11:30-12:30 LUNCH – PBDA meeting
12:30-2:30 “Sustainable Continuing Ed” - *M. Alberts, F. Quarnstrom*
2:45-4:00 Utilizing PowerPoint / managing forms, files, records / evaluation
4:00-4:30 Next steps

Day three (Thursday, September 04) PBDA Affiliation to PIHOA (8:30-11:30)

8:00-8:15 Opening
8:15-10:00 “Sustainable Continuing Ed.” -*M. Alberts, F. Quarnstrom*
10:00-10:15 Break
10:15-11:15 “Sustainable Continuing Ed” - *M. Alberts, F. Quarnstrom*
11:30-12:30 LUNCH
12:30-1:00 “Health Minister and Legislative Perspective” – *Hon. Vice President S. Pierantozzi*
1:00-1:30 “Community Health” Dr. Stevenson Kuartei
1:30-2:45 “Director’s Sphere of Operation III – Community and Partnerships” – *M. Alberts*
3:00-4:15 Developing customized presentations
4:00-4:30 Next steps
6:00-8:00 Study Club Dinner (TBA) – *F. Quarnstrom*

Day four (Friday, September 05)

8:00-8:15 Opening
8:15-10:00 “Director’s Sphere of Operation IV – Outside World / Planning / Funding opportunities” – *M. Alberts, K. Larson*
10:00-10:15 Break
10:15-11:30 “Sustainable Continuing Education” – *F. Quarnstrom*
11:30-12:30 LUNCH
1:00-4:00 Developing customized materials – not facilitated
4:00-4:30 Closing

Pacific Jurisdiction OH Continuing Education Needs Assessment

<u>Topic</u>	Interested	Not interested	<u>Comments</u>
Basic Screening Survey			
Planning for a BSS			
Selecting a sample			
Implementing a BSS			
Developing a database			
Data analysis			
Report preparation			
Other			
Other Assessment Methods			
BRFSS / YRBS / PRAMS			
Oral Cancer			
Periodontal Disease			
Survey research: assessing knowledge, attitudes, and behaviors			
Other:			
Leadership / Management			
Interfacing/integrating OH programs with other programs			
Report writing: making your point			
Leveraging resources through creative partnering			
Grant writing			
Developing an oral health plan			
Policy development and analysis			
Creating advocacy for oral health			
Team building			
Personnel management			
Other:			
OH Education / Promotion			
Preparing effective oral presentations			
Preparing effective posters			
Tailoring materials for diverse audiences			
Creating newsletters / pamphlets			
Creating PowerPoint presentations			
Other:			

Topic	Interested	Not Interested	Comments
Primary Care Programs			
Programs for children with special health needs			
Programs for elders			
Methods for preventing ECC			
New mother/infant oral care			

programs			
Programs for persons with Diabetes			
Developing a sealant program			
Periodontal disease prevention			
Other:			

<u>Topic</u>	Interested	Not interested	<u>Comments</u>
Dental Laboratory			
Crown fabrication			
Denture fabrication			
Repairs			
Other:			
Dental Assisting			
Dental ergonomics			
Scaling and root planing			
Ultrasonics			
Taking impressions			
Sealant placement			
Dental radiography			
Infection control			
Fluoride varnish			
Other:			
Dentists / Dental Officers / Dental Nurses and Therapists			
Comprehensive exams			
Radiology interpretation			
Basic restorative			
Medically Compromised			
Office Emergencies			
Sedation / Anesthesia			
Oral Pathology			
Oral surgery			
Removable prosthodontics			
Endodontics			
Pharmacology			
Traumatic injuries			
Pediatric dentistry			
Periodontics			
Basic orthodontics			
Other:			

Continuing Education Urgency

Employee type	High need	Moderate need	Low need
Dentist / Dental Officer			
Dental Nurse & Therapist			
Dental Laboratory Technicians			
Dental Assistants			
Other:			

Local Oral Health Library

Current Texts	Required	Not required
Operative dentistry		
Endodontics		
Oral Surgery		
Medically Compromised		
Oral Pathology		
Pediatric Dentistry		
Periodontics		
Fixed Prosthodontics		
Removable partial prosthodontics		
Public health dentistry		
Anesthesia		
Other:		

Current Journals	Required	Not required
General Dentistry		
Hygiene		
PH Dentistry		
Endodontics		
Pediatric Dentistry		
Periodontics		
Other		

Is your office receiving any journals? _____

Besides texts and journals, what is the preferred method for receiving continuing education? _____

Formats for receiving CME:

CME format	Within last 2 months	Within last year	Preferred?
Journals			
Texts			
DVD			
Video			
Web-based			
Distance			
Home-study / Booklet			
Lectures			

Comments:

Management Training Evaluation (site-visits)

Discussions	Useful	Limited Usefulness	comments
Day 1 Dental clinic: Staff management, Team building, Evaluations, Performance tracking, Budgets, Scheduling Special populations			
Day 2 Hospital / Health Center: Missions /Goals staff Meetings, Financial accountability, role within the hospital.			
Day 3 Community: Health advocates, Media, Health Promotion, Coalitions Head Start partnership, Fluoridation, Population based programs, Other PH programs			
Day 4 Outside world: Planning Data collection / surveys, Evaluation, Getting outside funding, grants, partnering locally to get funds (ie from Head Start, MCH etc.)			
CE presentations			
Bacterial endocarditis			
Medical emergencies			
Halcion			
Diabetes and oral health			
Diabetes prevention programs			
Politics and health			
PH model			
Computer lab			
PowerPoint training			
Web resources			
Performance sheets			
Resources			
Video library			
CDs			

Binder of handouts			
Other			
Networking with other jurisdictions			
Finding funding opportunities			
Sharing best practices			
Funding ideas			

Other:

Jurisdiction:

Date: _____

PBDA Workforce Needs Assessment

V. I. Background / unique issues

Population: _____

Population distribution (how many islands are inhabited?)

Community Health Centers / Dispensaries (#?)

Funding sources:

Clinic description (chairs/services)

Types of Preventive Programs (Schools/MCH etc)

Outreach equipment (#s)

III Current workforce

<u>Type</u>	2004	<u>Comments</u>
Dentist / Dental Officer		
Dental Nurse / Therapist		
Dental Assistants		
Dental Laboratory Technician		
Hygienist		
Other:		

Comments:

Jurisdiction:

Date: _____

VI. IV. New workforce requirements (within next 5 yrs)

Type	# Required	Hiring funds available?	Comment
Dentist / Dental Officer			
Dental Nurse / Therapist			
Assistants			
Dental Laboratory Technician			
Hygienist			
Other:			

Comments:

What are your plans for meeting the workforce needs?

Is or will the Fiji School of Medicine meet your workforce needs?

V. Advanced Training / Retraining requirements (medium term)

Employee type	# Requiring basic retraining	Specialty Areas	Comments
Dentist / Dental Officer			
Dental Nurse & Therapist			
Dental Laboratory Technicians			
Dental Assistants			
Other:			

Comments: