

## **Technical Report**

**From Ministry of Health to PAHO Office for Barbados and the Eastern Caribbean Countries**

Date: December 9, 2009

Country: St. Kitts and Nevis

Name of the person writing the report: Dyan Campbell

Professor of Community Health and Epidemiology at International University of Nursing, St. Kitts

### **Title of the proposal approved by PAHO:**

#### **Workshop on caries prevention for communities in St. Kitts and Nevis**

The workshop was held December 2 – 4, 2009 at the Marriott Hotel, St. Kitts. Drs. Chris Halliday and Bob Smith came in from the USA and were the trainers. All dental personnel, both private and governmental, as well as key persons in government, community health, education and social development were invited to the conference. Personnel from Nevis came all 3 days, taking the 2 hour round trip boat ride each day. There were also 4 student nurses from the International University of Nursing who had participated in community oral health education and screening programs.

#### **Executive summary**

This was the first time that oral health professionals and allied providers in the health care delivery system from St. Kitts and Nevis came together for 3 days to describe the unmet needs that exist in their communities in reference to dental care. The conference was funded by PAHO. Through expert guidance by the two trainers, Drs. Chris Halliday and Bob Smith from the Indian Health Service in the USA, the group of 35 were engaged in lectures and shown slides/photos about the most current research on dental caries and best practice models for prevention. Small interactive group sessions gave recommendations for programs and projects that will create a comprehensive prevention and treatment system for children in St. Kitts and Nevis. Consideration was given to available resources and ways to minimize or eliminate barriers to care. Commitment to manifest the recommendations was strong, and work began less than one month after the conference to complete screening all school age children for caries, and initiate a fluoride rinse program in the schools. A proposal to a private local foundation to support those efforts is being submitted.

## **Objectives of the proposal**

\* Participants will receive training to understand the process of dental caries and best practices for preventing dental caries.

\* Focus will be on oral health screening and varnish for young children, promote fluoride tooth paste beginning with eruption of the first primary tooth.

\* Key members of both St. Kitts and Nevis in the fields of dentistry, education, pharmacy and health, as well as nursing students, will work together in a holistic, comprehensive manner to address the current issues in oral health in the nation. These will include but not be limited to resources and political will.

\* Participants will work together to implement a community-based oral health plan.

## **Instructors for the course**

Dr. Chris Halliday, DDS, MPH is the Chief Professional Officer of the Dental Category of the United States Public Health Services (USPHS) and Chief Dental Officer of the Indian health service (IHS). He is an Assistant surgeon General and holds the rank of Rear Admiral in the Commissioned Corps of the USPHS. He is responsible for providing leadership and coordination of the USPHS dental professional affairs for the office of the Surgeon General. He is the advisor to the Director if the HIS on all matters pertaining to the oral health status of the American Indian and Alaska Native (AI/AN) people. RADM Halliday received his DDS degree from Marquette University School of Dentistry and his MPH with an emphasis in dentistry from the University of North Carolina.

Dr. Bob Smith is the Deputy Area Dental Director for the Oklahoma City area and holds the rank of Captain in the Commissioned Corps of the USPHS. Capt. Smith attended the University of Central Oklahoma and graduated from the University of Oklahoma College of Dentistry. Capt. Smith spent st 2 years in private practices before entering into service with the Indian Health Service (HIS) in 1992.

- 1992 - Shawnee Indian Health Centre as a Staff Officer Advanced.
- 1995 - Chief, General Dental Unit for the Shawnee Service Unit.
- 1996 – ran the Kickapoo Tribe of Oklahoma dental clinic. During the time with the tribe Capt Smith was made facility director and remained in that position, along with his clinical duties until his next assignment.
- 2003 – Chief, Complex Dental Unit for the Wewoka Service Unit
- 2005 – Deputy Area Dental Director for Oklahoma City area, chairman of the medical imaging workgroup and long term archiving group

Capt. Smith is a member of the Choctaw Tribe, and is married with 7 children ages 10 – 19.

## **Participants**

Lorraine Archibald, Community Nurse manager, MOH Nevis  
Dr. Rolston Archibald, Dental Surgeon MOH Nevis, [roistona@hotmail.com](mailto:roistona@hotmail.com)  
Ms. Beulah Bassue, Dental Assistant, MOH ST. Kitts, [beulaska@hotmail.com](mailto:beulaska@hotmail.com)  
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Dr. Keith Blake, Dental Surgeon, private practice, [blakej@caribsurf.com](mailto:blakej@caribsurf.com)  
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Ms. Lydia Claxton, Sports Officer, MOE Nevis  
Ms. Paulette Dasent, Dental Nurse, MOH St Kitts  
Mr. Robert Felix, Pharmacist, JNF Hospital, [foxprosb@yahoo.com](mailto:foxprosb@yahoo.com)  
Ms Icilma Grant, Pharmacist Alexandra Hospital Nevis  
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Dr. Patrick Martin, Chief Medical Officer, MOH St Kitts, [skncmo@yahoo.com](mailto:skncmo@yahoo.com)  
Ms. Florence Moving, Education Officer, MOE Nevis  
Ms Mari Neason, student, IUON, [mneason@iuon.net](mailto:mneason@iuon.net)  
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Ms Jennifer Otto, student/dental hygienist, IUON [jotto@iuon.net](mailto:jotto@iuon.net)  
Dr. Joaquin Pina, Dental Surgeon, MOH St Kitts, [joaquin1946@gmail.com](mailto:joaquin1946@gmail.com)  
Dr. Therese Rawlins, Dental Surgeon, MOH St Kitts, [rawlinste@hotmail.com](mailto:rawlinste@hotmail.com)  
Ms Hortense Sutton, Dental Hygienist, MOH St Kitts, [horens\\_e\\_suton@yahoo.com](mailto:horens_e_suton@yahoo.com)  
Mr Gerard Villegas, student, IUON, [gvelegas@iuon.net](mailto:gvelegas@iuon.net)  
Ms Yvette Wallace, Education Officer, MOE St Kitts  
Ms Rubena Wilkerson, Dental Hygienist, MOH Nevis  
Mr Loris Williams Dental Assistant, MOH St Kitts  
Ms Rhoda Zeitman, student, IUON, [rzeitman@iuon.net](mailto:rzeitman@iuon.net)

**Agenda:**

**CARIES FREE PREVENTION FOR COMMUNITIES**

**ST KITTS AND NEVIS**

**DECEMBER 2 – 4, 2009**

**Marriott Hotel, Basseterre, St. Kitts**

**Wednesday, December 2**

8:30	Registration
9:00	Welcome Chief Medical Officer Dr. Patrick Martin
9:30	Introductions Dr. Trevor Christmas
10:00	The Caries Balance
11:00	Break
11:30	Caries Risk Analysis for Individuals and Groups
12:30	Lunch
1:30	Oral Health Screening and Fluoride Varnish for Infants and Toddlers
3:15	Break
3:30	Effective Health Education and Community Messages

**Thursday, December 3**

9:00	Systemic Fluoride Interventions
10:00	Topical Fluoride Interventions
10:30	Break
11:00	Effectiveness of ART (PRAT) in a Prevention Program
12:00	Lunch
1:00	Infection Control
2:00	Break
2:15	Working with Infants and Children

**Friday, December 4**

9:00	Presentation and Discussion of Community-Based Oral Health Plan
10:00	Group Exercise #1: Roles and Responsibilities
11:00	Break
11:30	Group Exercise #2: Community Oral Health Messages
12:30	Lunch
1:30	Creating Sustainable Systems
2:30	Review of Community Workshop Learning Objectives
3:30	Closing Exercise and Evaluation

**Implementation:**

The workshop was opened by the Chief Medical Officer of St. Kitts, Dr. Patrick Martin, a paediatrician who stated that “Dentistry has been on the back burner” and pledged that the Ministry ‘will bring it to the forefront” and he acknowledged that dental disease is the # 1 infectious disease in children in St, Kitts and Nevis.

The activities implemented as part of the proposal were:

Day One. Drs. Halliday and Smith introduced themselves and gave some of their backgrounds and work with the Indian Health Service. Lecture by both Drs. Smith and Halliday speaking, and Power Points covered topics; Caries balance, Caries risk analysis, Screening and varnish for infants and toddlers, effective health education and community messages.

Day Two: Lectures and Power Point on Systemic and topical fluoride, Effectiveness of PRAT and Infection control. The audience then created 4 small work groups and began creating group slogans and plans for interventions using the POARE model. (Problem, objectives, activities, resources and evaluation). Groups were also encouraged to use SMART for the problem statement; statistical, measurable, attainable, relevant and trainable. Groups were mixed professionally and with representatives from each island. They proceeded with enthusiasm.

Day Three Group work continued. Members had gone home and worked after the workshop and created Power Point presentations to represent their group's ideas. Lively interactive discussion and agreement and support by all members. These will be forwarded and kept by Clifford Griffin in the Office of the Permanent Secretary for future reference.

The conference was ended by an exercise led by Drs Halliday and Smith having each member share some positive traits about each other through writing on a card for the member. The group gathered for several group picture. It was a great feeling of camaraderie and good will.

Short summaries of the group work are;

### **Group I.**

“60% of 4 y.o. in Nevis have cavities”\_ Using a model *ABC for TEETH* we will reduce caries by 30% in 3 years. Some other ideas are:

- educate public health nurses and doctors for screening.
- seminar for public health officers and teachers
- apply fluoride varnish every year
- teach teen mothers and fathers at clinics
- training seminars for public health nurses and teachers to learn to apply varnish
- antenatal clinics and at immunization clinics, create opportunities to apply fluoride varnish
- questionnaire for parents in their dental IQ
- teach good nutrition and proper hygiene every quarter
- brushing program at preschool after lunch

- PTA meetings – dental staff to attend with 80% target with education to teachers within 3 years
- oral health campaign with media, posters and billboards
- need a jingle and a mascot

Resources needed are: permanent funding, dental materials (donors and sponsors) a spokesperson

Need to involve the Ministers of Health, Education and Social Services

Wide health education with emphasis on prevention.

Hire another person, need a good interdisciplinary understanding of the issue.

It could be an NGO or a government program

Evaluate a cohort after 1 year and 3 years for diet changes, fluoride program, dental IQ.

## **Group II**

Problem is 45% of 369 children ages 5 – 12 in primary school have cavities (this is real, current data)

Objective is to reduce this by 20% over a three year period.

Train 100% of health care workers and home care officers to screen for oral health during the patient visits

Activities to support this;

- Submit progress reports to MOH, DCHS
- 1st month – 1 day workshop – dental staff to train others
- 2nd month – purchase supplies, get OK to act, get parental permission to treat children
- 6<sup>th</sup> month – have transportation arranged to bring children to clinic
- Create a supportive environment. Sensitize teachers, parents, et al PTA to the importance of good oral health. Be sure no extra load is place on the teachers. Incorporate it into the school activities
- Children: oral heal education, theatre i.e. learn through playing, written materials, supply brushes and floss
- National survey – DMFT now and 3 years later
- Resources – Staff and time, space and food
- Budget – Give a toothbrush to every child to use.

### **Group III**

Main focus will be an oral health program for 5 – 8 year olds. as 60% are affected by caries

Decrease prevalence in public and private school within one year

Train 90% of the teachers to administer fluoride to 100% of the children

Train 100% community nurses to administer fluoride to 100% children in clinics

Incorporate oral health into school curriculum

Activities are:

- Mass screening starting January 2010 by dental staff and community health staff
- DMF survey 1<sup>st</sup> Quarter 2010. PAHO certified epidemiologists to train
- Dental staff and community nurses to learn fluoride mouth rinse
- Meet with Ministry Officials
- Create an Action Plan, Involve; churches, civic groups, PTA, health promotion activities, radio. Have competitions. Talk shows, news activities
- Have a Dental Week, Brushing Contests, etc

Costs; periodontal probes, lights, gauze

Give mouth wash to the schools. Document the numbers trained, 90% being the goal.

How do you evaluate a brushing program?

Varnish K, Wash 5 – 8

**Group IV** Problem is 80% of children do not get and oral health prevention care before 4 years old.

Goal is 100% of federation gets prevention care by grade Kindergarten.

Activities;

- Evaluate children in preschool and then 5 years later
- Ask questions such as; # visits, wre they checked at a medical exam?, how many times day brush? Do you use fluoride toothpaste? Have you have fluoride treatment?
- Data is VERY important

Would you say the objectives were met? YES [X] NO [ ]

The **Community workshop evaluation** was

5= Strongly agree      1 =Do not agree

(The numbers vary as not every question was answered on each form)

The content matched what I need to know.

(16) 5s and ( 7) 4s

The instructors were well prepared and adequately presented the subject matter

(19) 5s (5) 4s

Hand outs, audiovisuals, exercises and other instructional materials were appropriate

(20) 5s (4) 4s

The time frame for this workshop was appropriate

(13) 5s (9) 4s (1) 2 (The comment here was longer time sessions were wanted)

The workshop adequately prepared me to implement oral health initiatives in my community

(15) 5s (8) 4s

Some of the comments;

Hoping to see our DMFT ...?????.and of this workshop. Definitely will get better in St. Kitts from this.

Good work, keep it up.

Invite me the next time. It was very well done.

High level personnel from MOH and MOE should have been here e.g. health and education planners.

Invite political leaders to attend sessions so they can learn and distribute such information to the public.

Presenters could be briefed on Island issues, needs and context to help the delivery of materials.

Some practical exercises.

A very informative workshop. Helped to increase my awareness of Dental Caries and my desire to assist in the education of the public in this area.

The workshop was excellent. Many of the information given were further reinforce. Presenters did a great job. Thanks.

Humour was a great addition. Thanks

The instructors Bob and Halliday were excellent in conducting this and they both have great patience.

We need to have more if these conventions. I hope this will not be the last.

I suggest follow up workshops

I would love to visit Project Smile

We have to have these workshops at least once a year to get more help on other topics as well.

Because I was not fully released from my duties a weekend workshop would have been more convenient

It's a very high standard and I don't know of anything that can be done to improve the sessions.

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As a result of the implementation of this proposal, please list the main lessons learned

1. Sustainability is crucial. We need to build on this momentum and continue to work together.
2. Data, data, data. What reports will be generated? How will they be shared? Who will they go to?
3. We need DENTAL LEADERS.
4. Idea was discussed of forming a Dental Association. This will be brought to the Chief Medical Officer. \_
5. There was discussion of creating a Community Oral Health Coalition. This would be crucial for essential oral health education. Information needs to be given in schools, in homes, and in schools again. Dr. Christmas offered to lead that effort. The list of people attending this workshop will be given to Clifford Griffin. He will sit with Dr. Sybil Jones and look for other key community leaders to recommend to include in the coalition. This will include both private and public figures. This group will be given information and updates on oral health issues.

**The next steps:**

1. DMF Survey needs to be done. 2 schools have been done in St. Kitts and Nevis has done one. Need an official proposal after combining data
2. Work plans need a second study, analyze and review in depth. Need a baseline (DMF) for any future requirements.
3. Enhance oral activities on both islands.
4. EPI trainer / analyzer from PAHO is needed to come and help work with the data
5. Standardize the way data is gathered and calibrated.

February 1, 2010 General elections have just been completed and the Labour party remains in power. This means that the major players in the Ministries of Health that were so supportive of the oral health conference and many that participated are well versed in the issues and are ready to go forward with the plans that were made.

Dr. Christmas is actively continuing to screen children in schools, and is planning a nation – wide fluoride rinse program if sufficient resources for both personnel and materials can be dedicated to the effort. Student nurses from the International University of Nursing (IUON) are assisting Dr. Christmas with the screenings, and fund raising for toothbrushes and supplies to hand out to the children and their families. The student nurses group from IUON are planning on going into the elementary schools with health education programs and creating posters and brochures to have in the clinics. The school nurses and clinic nurses will be trained in fluoride benefits and applications. Parent groups will be engaged and educated as well.

An in-service will be held on March 19,2010 at the University of Medical and Health Sciences in St. Kitts for nursing and medical students, and invited guests, to hear Dr. Christmas speak about the impact dental disease has on overall health, and the importance of screening and referring for care. Dr. Christmas is working with Dyan Campbell and other members of the coalition to set the agenda for ongoing meetings, to develop a plan and a proposal. A grant is being submitted to the Advancement of Children's Foundation in St. Kitts for funding for 2 assistive personnel positions and resources to implement the fluoride rinse program.