

November 2013

**A Review of the
Oral Health Agenda
2008-2012
*PEARL 2012***

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PEARL 2012

- P:** prioritise clients through oral health promotion & prevention, and provide
- E:** education and training that ensure effective, efficient and excellent service, that is
- A:** accessible and affordable while meeting the
- R:** rehabilitative and curative oral needs of the clients to achieve a
- L:** lifelong smile

Vision

Together towards a Healthy Nation
(Healthy Mouth, Healthy Nation)

Mission

To improve Oral Health through effective, equitable, affordable, accessible, safe & sustainable Oral Health Care in Brunei Darussalam



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OVERVIEW

The Oral Health Agenda 2008-2012 was launched by the previous Honourable Minister of Health, Brunei Darussalam, on the 8th August 2008. It is a comprehensive document that outlines the strategic framework and plan of action that the Department of Dental Services have taken over the last 5 years to accomplish its mission and move towards its vision.

This Oral Health Agenda 2008-2012, also known as 'PEARL 2012', presented ways to move forward, to promote oral health, prevent oral disease, and provide equitable access to oral health care, with the effective and efficient use of resources. It appeals for oral health to be considered when drawing up appropriate health policies and during the allocation of the health budget. It advocates for the integration of oral health into systemic health by using a 'common risk approach'. The Agenda realises that the oral health workforce urgently needs to develop their capacity, competencies and skills in order to provide a quality oral health services that would promote both the oral and systemic health of the population and improve their quality of life.

AIMS OF THE ORAL HEALTH AGENDA 2008–2012

The **main aim** of the Oral Health Agenda 2008–2012 was to improve the health and well-being of the Brunei population by improving oral health status and reducing the burden of oral diseases.

The Agenda aimed to help all residents in Brunei Darussalam to retain as many of their teeth as possible throughout their lives; to have good oral health as part of their general good health; to have access to appropriate, affordable, safe and sustainable quality oral health services; and to identify the information and services that will enable them to take control of their oral health.

The **ultimate aim** was to develop strategies/interventions that will achieve sustained long term improvements in oral health. This will involve prudent spending of public oral health care money, where it will have the greatest impact on oral health and contain future costs.

The Agenda is based on the following **4 main themes**:

- 1. Accessibility:** Providing access to appropriate, affordable, safe and sustainable quality oral health services including health promotion, prevention, early intervention and treatment for all residents in Brunei Darussalam.
- 2. Promotion and Prevention:** The recognition that oral health is an integral part of general health and the need to change the perceptions of oral health, with a strong focus on promoting health and the intervention and early identification of oral disease by using a population health approach and by increased collaboration amongst all the stakeholders.
- 3. Education and Training:** Developing education and training to achieve a sufficient and appropriately skilled workforce and to increase the oral health services workforce diversity, capacity, flexibility and expertise, including the utilisation of 'non-dentist providers'.
- 4. Allocation of Funding for Oral Health Services:** Provide oral health services that are cost-effective and efficient and of the highest quality.

A REVIEW OF THE ORAL HEALTH AGENDA 2008-2012

A Working Committee was established by the Department of Dental Services to review and evaluate the Oral Health Agenda 2008–2012 in September 2012 and to come up with the appropriate recommendations for future Oral Health Plan for Brunei Darussalam. The members of the Working Committee are listed in the Annex of this Review and consist mostly of the members of the original team who were tasked to plan this Agenda in 2008.

This Review is an evaluation of the Oral Health Agenda 2008–2012 and covers the following 3 areas:

1. The achievements of the various strategic objectives under the above 4 key result areas of the Oral Health Agenda 2008–2012.
2. Challenges and constraints encountered.
3. Recommendations for future actions and considerations to be included in the next National Oral Health Plan.

The review covered the period dating from August 2008 when the Agenda was launched up till the end of August 2012. The evaluation examines the many strategies, initiatives and activities that were implemented during the 5-year period from 2008–2012 and determine their achievements as measured against the various strategic objectives that were originally set in the Oral Health Agenda 2008–2012.

After examination of the relevant data and information, the achievements of the various strategic objectives under the 4 key result areas were reported by the respective members who were responsible for the achievements in their respective key result area. After verification of these reports and substantial deliberations, the working committee endorsed the achievements and noted the under- and non-achievements in these key areas.

The challenges and constraints that contributed to the under- and non-achievements were discussed at length and most of these difficulties were noted and appreciated. With these contributory factors in mind and the 'lessons learned' from the Oral Health Agenda 2008-2012, various recommendations were proposed by the Committee to be considered in the strategic plan for the next National Oral Health Plan.

ACCESSIBILITY

To have sufficient manpower to meet the Oral Health needs of the population

To increase the number of physical structures to increase accessibility to Oral Health Care services for the public

To increase the accessibility of Oral Health Care services and information to the public

To enhance the oral health services to make it more customer-friendly

To have good and reliable transportation facilities

GOAL		(1) Provide oral health services that is easily accessible to the population																					
KEY TASK		(1) To have sufficient manpower to meet the oral health needs of the population																					
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN	REMARKS																				
<p>1. Appropriate recruitment & deployment of local & foreign manpower:</p> <ul style="list-style-type: none"> • Dental Specialists • Dentists • Dental Nurses • Dental Therapists/ Hygienists • Dental Technologists • Dental Technicians • Dental Surgery Assistants • Administrative & Support Staff 	<p>Fill all vacant posts.</p>	<p>(i) Dental Specialists Specialist post: 13 vacancies (9 vacancies + 4 Dental Specialists promoted to Consultants), 13 Acting Dental Specialists.</p> <p>(ii) Dentists (Dental Officer, DO) Senior DO post: 1 vacancy, 3 Acting SDO. DO post: 4 vacancies (3 in Primary Care & 1 in OMF).</p> <p>(iii) Dental Nurses Principal Nursing Officer, PNO: 1 vacancy, 1 Acting PNO. Senior Nursing Officer, SNO: 1 vacancy, 2 Acting SNO. Nursing Officer, NO: 3 vacancies, 4 Acting NO. Senior Staff Dental Nurse, SSDN: 5 acting SSDN. Staff Dental Nurse, SDN: 8 vacancies. Trainee SDN: 14 vacancies (1st cohort= 4, 2nd cohort= 2, 3rd cohort= 8).</p> <p>(iv) Dental Technologists Senior Dental Technologist, SDT: 4 vacancies, 4 Acting SDT.</p> <p>(v) Dental Surgery Assistants, DSA Chief DSA: 1 vacancy, Acting Chief DSA month to month. DSA: 4 vacancies.</p>	<ul style="list-style-type: none"> • Difficult to recruit new Dentists DO (M16). Overseas applicants either over-qualified or under-qualified. Reserving vacancies/dental surgeries for new graduates. • Trend of undergraduates from 2008-2015: <table border="1"> <thead> <tr> <th>EXPECTED YEAR OF COMPLETION</th> <th>NUMBER OF UNDERGRADUATE</th> </tr> </thead> <tbody> <tr> <td>December 2008</td> <td>1^a</td> </tr> <tr> <td>December 2010</td> <td>2</td> </tr> <tr> <td>December 2011</td> <td>1^b</td> </tr> <tr> <td>June 2012</td> <td>1^c</td> </tr> <tr> <td>December 2012</td> <td>7</td> </tr> <tr> <td>December 2013</td> <td>1</td> </tr> <tr> <td>December 2014</td> <td>2</td> </tr> <tr> <td>August 2015</td> <td>1</td> </tr> <tr> <td>December 2015</td> <td>5</td> </tr> </tbody> </table> <p>^a-Reported for duty in 2012 after completion of Graduate Access Programme without prior approval. ^b-Not reporting for duty. Wants to pay back bond. ^c-Reporting for duty in January 2013.</p> <ul style="list-style-type: none"> • New graduates may not report for duty for some time or none at all. 	EXPECTED YEAR OF COMPLETION	NUMBER OF UNDERGRADUATE	December 2008	1 ^a	December 2010	2	December 2011	1 ^b	June 2012	1 ^c	December 2012	7	December 2013	1	December 2014	2	August 2015	1	December 2015	5
EXPECTED YEAR OF COMPLETION	NUMBER OF UNDERGRADUATE																						
December 2008	1 ^a																						
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December 2013	1																						
December 2014	2																						
August 2015	1																						
December 2015	5																						

		<p>(vi) Administrative & Support Staff Clerk: 1 vacancy (1 vacancy since financial year 2011/2012 – transferred from Medical Services Department).</p>	<ul style="list-style-type: none"> • Vacancies changed annually in 2008-2012 depending on promotion, retirement, end of contract/service, left service and new posts given. • Number of staff lost from 2008-2012 due to termination/retirement/left service/deceased: <table border="1" data-bbox="436 304 579 739"> <tr> <td>Dentists</td> <td>5</td> </tr> <tr> <td>Dental Technicians</td> <td>2</td> </tr> <tr> <td>Dental Nurses</td> <td>7</td> </tr> <tr> <td>Dental Surgery Assistants</td> <td>10</td> </tr> </table> • Difficult to recruit local Dentist: Dentistry is a competitive field. Limited seats in United Kingdom, New Zealand, Australia for overseas students. • Dental post under dental budget, but work in other department, e.g. Oral Maxillo Facial. • Poor retention of Dental Nurse/Dental Surgery Assistant due to poor Scheme of Service. 	Dentists	5	Dental Technicians	2	Dental Nurses	7	Dental Surgery Assistants	10
Dentists	5										
Dental Technicians	2										
Dental Nurses	7										
Dental Surgery Assistants	10										
	<p>Request for more posts in all categories.</p> <p>Target ratio (i) Primary Care Government Dentist: Population 1 : 2,800</p>	<p>In progress.</p> <p>Current ratio (i) Dentist : Population 34 : 393,162 (Census, 2011) 1 : 11,564 (includes part-time Dentists in Oral Health Promotion, Research & Development and Administration)</p>	<ul style="list-style-type: none"> • Government Dentists = 75 • Private Dentists = 17 								

	<p>(ii) Nurse : 0-16 years Population 98 : 112,583 (Census, 2001) 1 : 1,149</p> <p>(iii) Nurse : Primary schoolchildren 98 : 77,557 1 : 791</p> <p>(iv) Dentist : Hygienist (Periodontic Nurses) 75 : 3 25 : 1</p> <p>(v) Dentist : Therapist (Paedodontic Nurses) 75 : 5 15 : 1</p> <p>(vi) Dentist : Technician 75 : 39 2 : 1</p> <p>(vii) Dentist : Dental Surgery Assistant 75 : 94 2 : 2.6</p> <p>(viii) Nurse : Dental Surgery Assistant 98 : 0</p>	<p>(ii) Nurse : 0-16 years Population 1 : 800</p> <p>(iii) Nurse : Primary schoolchildren 1 : 500</p> <p>(iv) Dentist : Hygienist 1 : 1</p> <p>(v) Dentist : Therapist 1 : 1</p> <p>(vi) Dentist : Technician 2 : 3</p> <p>(vii) Dentist : Dental Surgery Assistant 2 : 3</p> <p>(viii) Nurse : Dental Surgery Assistant 1 : 1</p>	<ul style="list-style-type: none"> Overall 98 Dental Nurses exclude: <ul style="list-style-type: none"> - Oral Maxillo Facial Nurse= 1 - Army= 1 4 Acting Senior Dental Technician post confirmed in December 2012. Active and Non-active manpower e.g. Dental Surgery Assistant doing full-time Administrative duties, Pharmacy and Radiography which do not reflect the actual ratio; technically they are not assisting. Should combine ratio of Dentist and Dental Nurse to Dental Surgery Assistant i.e. Dentist/Dental Nurse : Dental Surgery Assistant.
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(1) Provide oral health services that is easily accessible to the Population			
(2) To increase the number of physical structures e.g. buildings, facilities and dental chairs, to increase accessibility to oral health care services for the public			
GOAL	KEY TASK	STATUS OF ACTION PLAN	REMARKS
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012		
1. Upgrade and increase existing physical structures and facilities.	Present National Dental Centre and 4 existing Dental Clinics in Sengkurong, Sg. Hanching, Sg. Assam and Belait are to be expanded with increased facilities by 2012.	<ul style="list-style-type: none"> • National Dental Centre (Population in Mukim Kianggeh, Berakas 'A', Gadong & Kota Batu= 123,968) <ul style="list-style-type: none"> - 7 outpatient cubicles/surgeries operational in February 2010. - 1 new dental surgery (Room 24) for Periodontal Clinic operational on 31st October 2011. - Children's outpatient services during school holidays in Block C started operation since March 2010. - Primary Care Dentist : Population= 7 : 123,968= 1 : 17,710. • Sengkurong (Population in Mukim Sengkurong & Kilanas= 56,017) <ul style="list-style-type: none"> - 2 additional dental chairs in August 2009 (Total= 5 dental chairs: 3 Dentists, 2 Dental Nurses). - Primary Care Dentist : Population= 3 : 56,017= 1 : 18,672. • Sg. Hanching (Population in Mukim Berakas 'B'= 41,117) <ul style="list-style-type: none"> - 1 additional dental chair in December 2010 (Total= 5 dental chairs: 3 Dentists, 2 Dental Nurses). - Primary Care Dentist : Population= 3 : 41,117= 1 : 13,705. • Sg. Assam (Population in Mukim Sg. Kedayan, Sg. Kebun, Saba, Burong Pingai, Peramu & Tamoi= 20,247) <ul style="list-style-type: none"> - 1 additional dental chair in June 2008 (Total= 3 dental chairs: 2 Dentists, 1 Dental Nurse). - Primary Care Dentist : Population= 2 : 20,247 = 1 : 10,124. 	

		<ul style="list-style-type: none"> ● SSB Hospital, Belait (Population in Mukim Kuala Belait= 33,067) - 1 new in-patient dental surgery in February 2012. - Primary Care Dentist : Population= 2 : 33,067= 1 : 16,534. <p>Others</p> <ul style="list-style-type: none"> ● Seria HC (Population in Mukim Seria= 13,093) - 5 dental surgeries on first floor (September 2011); Additional 2 dental chairs: 1 replacement and 1 new for Dentists. - Primary Care Dentist : Population= 2 : 13,093= 1 : 6,547. <ul style="list-style-type: none"> ● PMPHAMB Hospital, Tutong (Population in Mukim Tutong= 33,400) - Renovation of 2 new dental surgeries for Dental Specialists, operational in April 2012. - Primary Care Dentist : Population= 3 : 33,400= 1 : 11,133. 	
<p>2. Build new physical structures with new facilities.</p>	<p>5 new Dental Clinics in Sg. Liang, Muara, Rimba, Bunut and Lambak, and a new National Dental Centre are to be built with new facilities by 2012.</p>	<ul style="list-style-type: none"> ● Sg. Liang (Population in Mukim Sg. Liang= 12,760) - Operational in January 2009 with 3 dental surgeries (only 2 operational chairs: 1 Dentist, 1 Dental Nurse). The third dental surgery is being used as casting room. - Primary Care Dentist : Population= 1 : 12,760. <ul style="list-style-type: none"> ● Muara (Population in Mukim Mentiri & Serasa= 25,462) - 3 dental chairs in March 2010 (2 Dentists, 1 Dental Nurse) and 1 dental lab. - Primary Care Dentist : Population= 2 : 25,462= 1 : 12,731. <ul style="list-style-type: none"> ● Bunut (Golden Jubilee HC, Kg. Perpindahan Bunut= 1,709) - Surau converted into 1 dental surgery in May 2010 for Dental Nurse and Part-time Antenatal Services (Dentist once a month). 	<ul style="list-style-type: none"> ● Effective 2013: Dentist visits Bunut once a week. ● Operational 8th July 2013.

		<ul style="list-style-type: none"> ● Rimba, Gadong A (Population in Mukim Gadong= 63,621) <ul style="list-style-type: none"> - 5 dental surgeries for 1 visiting Dental Specialist, 3 Dentists, 1 Part-time Dental Therapist and 1 Dental Nurse. Building in progress. - Primary Care Dentist : Population= 3 : 63,621= 1 : 21,207. ● Lambak (Population in Mukim Berakas 'B'= 41,117) <ul style="list-style-type: none"> - 12 dental surgeries for 1 Dental Specialist, 7 Dentists, 1 Dental Hygienist/Therapist and 3 Dental Nurses. Expected completion in 2015. - Primary Care Dentist : Population= 4 : 41,117= 1 : 10,279. ● New National Dental Centre <ul style="list-style-type: none"> Approved for RKN 10 (2012-2017). Site to be confirmed. ● Other projects <ul style="list-style-type: none"> - Paedodontic Unit in Specialist Block 2, RIPAS Hospital <ul style="list-style-type: none"> 3 dental surgeries (2 Specialists and 1 Dental Therapist). Operational on 16/4/2012. - CDC Kiarong <ul style="list-style-type: none"> 1 dental surgery for Paedodontic Therapist. Operational on 2/7/2012. - Lamunin, Tutong (Population in Mukim Lamunin, Tanjong Maya, Rambai & Ukong = 10,720) <ul style="list-style-type: none"> 2 dental surgeries for 1 Dentist and 1 Dental Nurse. Operational on 2/2/2012. Primary Care Dentist : Population = 1 : 10,720. - Pengkalan Batu (Population in Mukim Pengkalan Batu= 13,031) <ul style="list-style-type: none"> 3 dental surgeries for 1 Dentist, 1 Dental Therapist and 1 Dental Nurse. Operational on 10/7/2012.
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<p>3. Guidelines for primary & secondary schools to have static/mobile dental clinics.</p>	<p>To prepare Guidelines in 2008.</p>	<p>Primary Care Dentist : Population = 1 : 13,031.</p> <ul style="list-style-type: none"> • Drafts of Guidelines on setting up Static Dental Clinic & Guidelines on Mobile Dental Squad have been drawn by Dr. Paulina in 2008. • Dr Sylvia has edited the Guidelines and included this in the Working Paper on Setting up Mobile Dental Unit (Strategies to improve School Dental Services)- 1st draft in June 2012. 	<ul style="list-style-type: none"> • This objective was delayed due to absence of Head of School Services (undergoing In-Service Training). • To be submitted to Ministry of Health in March 2013.
	<p>Identify schools by 2010.</p>	<p>Schools with population of less than 500 identified in 2012.</p>	<p>See Appendix 1.</p>
<p>4. Render all non-functioning school dental clinics functioning.</p>	<p>50% and 85% of non-functioning school dental clinics to be functioning by 2008 and 2012 respectively.</p>	<p>Need to determine which schools will still have static dental chairs.</p>	<ul style="list-style-type: none"> • This objective is superseded by increasing accessibility to Health Centres. • Originally, 58 static dental clinics in 2008.
<p>5. Increase number of mobile dental squads (MDS) to cover schools (3 operators per squad).</p>	<p>5 new squads to be set up by 2012.</p>	<p>11 MDS in 2008. Currently, no change in number of MDS.</p>	<p>Insufficient staff for MDS despite increase in recruitment of Dental Hygienist and Therapist (most Dental Hygienist and Therapist works in Health Centres and not with MDS).</p>
<p>6. To fully equip the mobile squad teams.</p>	<p>Each team should be fully equipped with basic mobile equipment by 2012.</p>	<ul style="list-style-type: none"> • Additional portable equipment for MDS already ordered in 'Special Expenditure' 2012. • Proper storage cases already ordered for all MDS. 	<p>Most of the equipment already arrived, waiting for delivery by February 2013.</p>
<p>7. Replace old facilities & equipment.</p>	<p>22 new dental chairs to be installed in 2008-2009.</p>	<ul style="list-style-type: none"> • 10 Adec dental chairs installed in 2008-2009. • 12 Belmont dental chairs installed in 2008-2010. 	

<p>8. Strengthen maintenance of facilities & equipment.</p>	<p>Contract for preventive maintenance to be done in 2008 and renewed every 2 years.</p>	<ul style="list-style-type: none"> • Preventive Maintenance Contract with Medix Suppliers from 2008 ends in February 2012. • New contract with Medix Suppliers for 3 years in 2012. 	
<p>9. Enhance procurement of equipment.</p>	<p>Form a Dental Procurement Committee with guidelines on procurement in 2008.</p>	<ul style="list-style-type: none"> • Procurement unit headed by Assistant Supply Officer, Haji Abd Hamid Omar in 2010. • Procurement committee (evaluation) set up in June 2012, chaired by CEO which convenes every week. 	<p>Guidelines on procurement based on Financial Regulations of Ministry of Finance.</p>
<p>10. Strengthen maintenance of physical structures e.g. buildings.</p>	<p>The Estate Management Unit of the Dental Department to manage all maintenance of physical structures from 2008 onwards.</p>	<p>Pengiran Shahrin bin Pengiran Haji Mohd Salleh, Tradesman from Estate Management, Ministry of Health, seconded to Dental Department on 1st July 2011.</p>	
<p>11. Identify suitable commercial venues to set up Dental Clinics.</p>	<p>To decide, if any, commercial venues are suitable to set up Dental Clinics by 2009.</p>	<p>Not planned.</p>	<p>Difficult to sustain. This objective is superseded by increasing accessibility to Health Centres.</p>

(1) Provide oral health services that is easily accessible to the population			
(3) To have good & reliable transportation facilities			
GOAL			
KEY TASK			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN	
1. Dental Department to have its own land transport vehicles & drivers OR to have the vehicles & drivers supplied by a private company on a vehicle leasing contract.	To have 5 land transport vehicles by 2012 & distributed to: (i) Brunei-Muara District: 2 vehicles. (ii) 1 vehicle each in Tutong, Belait & Temburong Districts.	Only 1 Pajero & Driver assigned for Department in 2011, based in National Dental Centre.	
		REMARKS Need 1 extra transport vehicles for Mobile Dental Squad and Oral Health Promotion Division. Currently, 1 transport vehicle is being used to transport visiting Dental Specialists to Belait and Tutong Districts.	

(1) Provide Oral Health services that is easily accessible to the population			
(4) To increase the accessibility of oral health care services & information to the public			
GOAL	KEY TASK	STATUS OF ACTION PLAN	REMARKS
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012		
1. Make Oral Health care services available on Fridays.	To start outpatient's clinic on Fridays in National Dental Centre after an audit in 2009.	Not planned.	Not feasible with the existing staff.
2. Identify which Dental Clinics can have outpatient's clinic on Fridays.	To identify suitable Dental Clinics to have outpatient's clinic on Fridays by 2009.	Not planned.	Financial incentives for work on Fridays.
3. Introduce dental specialised services in the Districts.	To initiate various dental specialised services in those Districts without these services by 2009 e.g. Oral Surgery, Periodontics, Paedodontics etc.	<p>Tutong</p> <ul style="list-style-type: none"> - Orthodontics: Part-time every Thursday since 2010 (Previously twice a month). Full-time service effective since April 2012. - Oral Surgery: Part-time once a month (1st or 2nd Tuesday every month). - Paedodontics: Part-time 3 times a month (every Tuesday) since 2010. Dental Therapist once a week (every Tuesday) since 2010. <p>Belait</p> <ul style="list-style-type: none"> - Oral Surgery: Full-time in Suri Seri Begawan Hospital since 2009. - Orthodontics: Full-time in Seria since 2009 (Previously, at least once a week since 1993). - Paedodontics: Full-time in Suri Seri Begawan Hospital since 2010. - Periodontics: Part-time every Wednesday since 2010 (Previously twice a month). - Prosthodontics: Part-time every Tuesday since 2011. - Endodontics: Part-time twice a month since September 2012. 	

<p>4. Reduce the time period for patients to have their dentures done.</p>	<p>To implement a suitable working arrangement between the clinical & technical staff to reduce the time period for fabrication of dentures & to reduce the waiting time for new denture patients in 2008.</p>	<p>Temburong - Oral Surgery: Part-time every 6 weeks since January 2011.</p> <ul style="list-style-type: none"> • Currently, period between each stage of denture fabrication is 2 weeks (may be longer when Dentist/Dental Technician goes away on leave), but for simple dentures, certain stages can be skipped. • 2 new denture cases per week for each Dentist (Primary Oral Care Dentist has a 'Denture Day'). • For a smaller clinic with its own dental lab (e.g. Tutong, Muara & Sg. Assam), time period can be negotiated. • Denture waiting list in National Dental Centre has reduced from ~18 months (2008) to ~7 months (2012) with computerised system of Denture waiting list log and increasing number of Dentists in National Dental Centre. All peripheral dental clinics have also started a common denture waiting list system. 	<ul style="list-style-type: none"> • Reduce time period is due to increase in the number of Dental Technician trainees to speed up the tasks, and also increase in the number of Dentists.
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(1) Provide Oral Health services that is easily accessible to the population			
(5) To enhance the oral health services to make it more customer-friendly			
GOAL	KEY TASK	OBJECTIVES / ACTION PLAN	STATUS OF ACTION PLAN
			REMARKS
1. Enhance the environment & atmosphere of the treatment centres to make it more conducive to the public & less threatening.	To make the decor & surroundings of all the treatment centres more appealing to the public by 2009.	<ul style="list-style-type: none"> • Dental Surgeries in National Dental Centre repainted in 2009 & 2011. • Glass partition installed in Cubicle in Upper Floor, Block A, in 2010. • Vinyl Flooring in Upper Floor, Block B, installed in 2011. • Roller blinds for windows in all rooms except dental surgeries in 2011. • Oral Health Promotion banners placed in waiting area, National Dental Centre in 2011. • Landscaping Project in National Dental Centre in 2012. 	
2. Training for all staff members especially front-line workers in public relationship & communication skills.	All front-line workers to receive the basic training by 2009.	<ul style="list-style-type: none"> • Customer Care workshop held on 24th & 26th June 2010 at Civil Services Institute, Rimba, Gadong; 30 participants consisted of Dental Nurses, Dental Technicians, Dental Surgery Assistants and Receptionists; Speakers from Counselling Unit, Ministry of Health. • 10 Dental Specialists & Dentists have attended Communication Skills workshop conducted by Ministry of Health in 2011 & 2012. 	
	All other staff members by 2012.	Customer care workshop is planned in 2013 for all staff.	

<p>3. Access to information.</p>	<p>Documenting dental charges, Primary Oral Care Guidelines and Guidelines for patients by 2008.</p>	<ul style="list-style-type: none"> • Primary Oral Care Guidelines poster for Patients & Dentists distributed in 2009. • New banners of all Units/Services made for World Oral Health Day 2011 (12/9/2011). • Social Media: Facebook & Twitter page for Department launched on World Oral Health Day 2011 (12/9/2011).
	<p>Implant guidelines and Prosthodontics guidelines for VIPs by 2009.</p>	<ul style="list-style-type: none"> • Implant and Prosthodontics guidelines not done.

PROMOTION AND PREVENTION

To apply dental sealants to all indicated primary 2 children

To provide effective fluoridation of all public water supplies at an optimal level of 0.5 to 0.7ppm in Brunei Darussalam.

To establish an Oral Health Surveillance and Research Unit (OHSRU) to collect and set up an Oral Health database and to process, analyse and disseminate relevant Oral Health and other data

To strengthen the Oral Health infrastructure to adapt a more preventive and promotive approach when providing Oral Health services and to integrate Oral Health into General Health Programmes

To implement daily fluoride toothbrushing (DFTB) Programme in Primary schools and Religious (Ugama) schools

To implement 'Rolling Toothpaste' (RTO) Programme for 8 Months old babies onwards to 5 years old

To strengthen the Oral Health Promotion Division with appropriate term of reference

To enhance the function of the fluoride unit

To implement public education and skill development programmes to achieve improve Oral Health knowledge attitudes and behaviours of all resident in Brunei Darussalam

(1) Reduce the prevalence of dental caries and periodontal disease in the population			
(1) To provide effective fluoridation of all public water supplies at an optimal level of 0.5 to 0.7 ppm in Brunei Darussalam			
GOAL	KEY TASK	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN
1. To increase the number of water fluoridation plants.		Water fluoridation plant in Bangar to function in 2008.	Batang Duri plant started operation in 2009.
		Water fluoridation plant in Bukit Barun to function in 2010.	Bukit Barun plant started operation in August 2008 after repair.
2. To ensure that the fluoride in the public water supplies is consistently kept at the optimal level through maintaining close collaboration with the Department of Water Services, Department of Public Works.		Water fluoridation plant in Tasek, BSB, to function in 2012.	Tasek plant started operation in 2009.
		95% of population in Brunei Darussalam to receive fluoridated water in 2012.	Sungai Liang plant started operation in 2010.
		Hold regular meetings & dialogue sessions with the staff of the Department of Water Services, Department of Public Works, throughout 2008 – 2012.	<ul style="list-style-type: none"> Last meeting with the Department of Water Services was in 2010. There has been no fluoride reading in 2011 and 2012 from state scientific lab as the lab reported the fluoride testing machine has broken down. Only fluoride readings from the Department of Public Works were reported for 2011 and 2012. A visit to Mengkabau Water Treatment Plant in 2012.
			<p>The old Sumbiling plant, Temburong, was fluoridated in 2007.</p> <p>Almost 100% of the population in Brunei Darussalam has received fluoridated water since 2010. 100% of the public water supply is fluoridated.</p> <p>Fluoride Unit is incorporated into Oral Health Promotion Division in 2011, to improve the monitoring of the public water supplies.</p> <p>Split water samples report received in 2010 still showed some discrepancies between the readings given by the Department of Public Works and the Ministry of Health (Appendix 2).</p>

(1) Reduce the prevalence of dental caries & periodontal disease in the population			
(2) To apply fluoride varnish to all Primary 1 schoolchildren, twice a year			
GOAL			
KEY TASK			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN	REMARKS
1. To increase the number of Primary schools covered by the School Dental Services.	30% of Primary schools covered in 2008.	No up-to-date data received on the number of Primary 1 schoolchildren receiving fluoride varnish in 2008, 2009 and 2012.	<ul style="list-style-type: none"> No up-to-date data from the School Dental Nurses. Fluoride varnish supplies received in 2008, 2009 and 2012. No supply received in 2010 and 2011. Dental Nurses and Therapists working in the School Dental Service should apply fluoride varnish to all Primary schoolchildren where they are providing Incremental Oral Health Care as part of their Standard Operating Procedure and to submit the number of Primary schoolchildren receiving fluoride varnish in their monthly returns. This includes providing the necessary information to the parents and obtaining their consent.
	50% of Primary schools covered in 2010.		
	80% of Primary schools covered in 2012.		
	80% of Primary 1 schoolchildren to receive fluoride varnish by 2012.		

(1) Reduce the prevalence of dental caries & periodontal disease in the population			
(3) To apply dental sealants to all indicated Primary 2 schoolchildren			
GOAL			
KEY TASK			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN	REMARKS
1. To increase the number of Primary schools covered by the School Dental Services.	30% of Primary schools covered in 2008.	<ul style="list-style-type: none"> On-going but not implemented consistently. No data available on the number and percentage of Primary 2 schoolchildren receiving dental sealants. 	<ul style="list-style-type: none"> Dental Nurses and Therapists working in the School Dental Services should apply dental sealants to all high risk schoolchildren where they are providing Incremental Oral Health Care as part of their Standard Operating Procedure and to submit the number of high risk schoolchildren and sealants done in their monthly returns. Need firm directives from the School Dental Services to all Dental Nurses and Therapists to apply dental sealants as part of their Standard Operating Procedure in their Incremental Oral Health Care programme. Dental Nurses in the School Dental Services were not adequately equipped to carry out resin sealants which are more effective than glass ionomer sealants. Paedodontic Unit to conduct refresher course for Dental Nurses in the selection of cases and application of dental sealants. Need process evaluation on the success of sealants application.
	50% of Primary schools covered in 2010.		
	80% of Primary schools covered in 2012.		
	50% of Primary 2 schoolchildren to receive dental sealants by 2012.		

(1) Reduce the prevalence of dental caries & periodontal disease in the population			
(4) To implement daily fluoride toothbrushing (DFTB) programme in Primary schools and Religious (Ugama) schools			
GOAL	KEY TASK	OBJECTIVES / ACTION PLAN	STATUS OF ACTION PLAN
1. To conduct Oral Health seminars and workshops for teachers in conjunction with this programme.	<p>For the teachers in:</p> <p>(i) Four pilot Primary schools,</p> <p>(ii) In 10% of Religious schools, in 2008.</p>	<p>For the teachers in:</p> <p>(i) Four pilot Primary schools,</p> <p>(ii) In 10% of Religious schools, in 2008.</p>	<p>REMARKS</p> <ul style="list-style-type: none"> • The Department of Dental Services in collaboration with the Ministry of Education agreed to launch the daily fluoride toothbrushing (DFTB) programme in all the government primary schools in Brunei Darussalam, starting with 4 selected pilot schools; one from each district. • After launching of the project, Brunei Shell generously donated \$10K to the Ministry of Education on 14th March 2009, for purchase of an effective toothpastes and toothbrushes for this programme. • Received the Halal certification from Syariah authorities for Pollypaste (imported from the Philippines). Tested the fluoride content in Pollypaste (1,450ppm) in ACTA Netherlands in January 2009.
	<p>For the teachers in:</p> <p>(i) Another 20 Primary schools,</p> <p>(ii) 40% of Religious schools, by 2010.</p>	<p>(i) Four pilot primary schools:</p> <ol style="list-style-type: none"> 1. SR SOAS, Belait: Training was given to 41 teachers from 15th - 17th April 2008 by Oral Health Promotion staff. 2. SR Selangan, Temburong: Training was given to 12 teachers from 22nd - 24th April 2008. 3. SR Sinaut, Tutong: Training was given to 23 teachers from 28th - 30th April 2008. 4. SR Dato Mohd Yassin, Mentiri: Training was given to 40 teachers on 7th, 8th and 10th May 2008. <p>The total number of students attending primary schools = 31,639 students. The pilot schools (4,546 students) covered 14.4% of the total number of students.</p> <p>(ii) Planning stage started in 2008, and seminar were given between April 2009 and July 2011. Seminar was given to 26% of religious schools in 2009.</p>	
		<p>(i) Primary schools in Brunei I: Oral health seminar was held for 215 teachers from 13 primary schools in SR Rimba II on 29th June 2010. This was conducted by members from Dental Services and Ministry of Education. A practical hands-on session was carried out on 12th - 13th July 2010.</p> <p>Primary schools in Brunei II: A seminar was conducted for teachers in Brunei Zone II. A total number of 380 teachers participated in this seminar from 10 primary schools which was held on 4th November 2010.</p>	

	<p>For the teachers in:</p> <p>(i) Another 40 Primary schools, (ii) 90% of Religious schools, by 2012.</p>	<p>Total number of primary schools introduced with the programme= 23 schools.</p> <p>(ii) Seminar was given to 57% of religious schools in 2010.</p> <p>(i) 26 primary schools i.e. 23 primary schools in Brunei I and IIA that were given seminars in 2010 plus 2 primary schools from Brunei IIB and 1 primary school from Brunei III were visited twice in 2011 and 2012 to ensure implementation of the toothbrushing programme and to monitor, instruct and motivate the schools to conduct the daily fluoride toothbrushing (DFTB) efficiently and effectively. 6 seminars were given to 6 schools in 2011 and 5 seminars were given to 5 primary schools in 2012.</p> <p>(ii) Seminar was given to 100% of Religious schools in all districts in 2012.</p>	<ul style="list-style-type: none"> In 2012, Oral Health Promotion division had a meeting with Health Promotion unit from the Ministry of Education and Zone Supervisors to enhance the daily fluoride toothbrushing (DFTB) programme.
<p>2. To source for adequate & continual funding to sustain the programme.</p>	<p>Request for special budget in 2008 prior to the start of the pilot project & again in 2009.</p> <p>Request for recurrent budget annually for this programme by 2010.</p> <p>Request for recurrent budget in 2011 & 2012 or source for alternative method of funding for this programme.</p>	<p>Paper work for the special expenditure for daily fluoride toothbrushing (DFTB) has been done.</p> <p>Not processed.</p> <p>Processed in 2011, but only received in 2012.</p>	<p>As of 2009, budgets proposals were pooled together under one departmental vote.</p>

<p>3. To launch the daily fluoride toothbrushing programme in Primary and Religious schools.</p>	<p>To launch: (i) The pilot project in four Primary schools (ii) In 10% of Religious Schools, in 2008.</p>	<p>(i) The pilot project was carried out in four primary schools in April and May 2008: 1. SR SOAS, Belait. Monitoring was done on 4th March 2009. 2. SR Selangan, Temburong. Monitoring was done on 3rd March 2009. Principal and teachers were actively involved in this programme. All the students were actively participating in this programme. The toothbrushes and toothpastes were labelled. The programme was going well. On 19th November 2009, 17 bottles of Pollypaste and 130 toothbrushes had been given to this school from Research and Development Division. This was the only school which carried on with the programme. 3. SR Sinaut, Tutong. Monitoring was done on 5th March 2009. 4. SR Dato Mohd Yassin Mentiri. Monitoring was done on 7th March 2009. (ii) Planning stage in 2008. 26% of religious schools in 2009.</p>	<ul style="list-style-type: none"> • The Oral Health Promotion staff visited all the 4 pilot schools in all the 4 districts, to judge the best school before launching the Nationwide daily fluoride toothbrushing (DFTB). • Need to extent this programme to all the government and non-government pre-and primary schools in Brunei Darussalam. • Primary schools in Brunei IIB, III and IV, plus all primary schools in Tutong, Belait and Temburong will be visited and given seminars to implement and monitor the toothbrushing programme in 2013 and 2014. A national toothbrushing competition will be held in 2014.
	<p>To launch the programme: (i) In another 20 primary schools, (ii) In 40% of religious schools, by 2010.</p>	<p>(i) Launched in 23 primary schools: Monitoring reports were received from 9 schools. Oral Health Promotion staff has visited 5 schools in 2010. (ii) 57% of religious schools in 2010.</p>	
	<p>To launch the programme in another 40% Primary schools by 2012.</p>	<ul style="list-style-type: none"> • To extend programme in the remaining government primary schools in 2013. • 79% of religious schools and 73% of students were involved in 2012. 	

(1) Reduce the prevalence of dental caries & periodontal disease in the population			
KEY TASK			
GOAL	OBJECTIVES	STATUS OF ACTION PLAN	REMARKS
<p>1. To launch programme in collaboration with Mother and Child Health (MCH) clinics & involve post-natal/nursing mothers.</p>	<p>2008-2012</p> <p>To launch programme in collaboration with Mother and Child Health (MCH) clinics in:</p> <p>(i) 2008:</p> <ul style="list-style-type: none"> • Kiarong • Bunut • Mata-Mata • Lambak Kanan 	<p>Started as a pilot project in three Mother and Child Health (MCH) clinics in 2009:</p> <ul style="list-style-type: none"> • Kiarong • Sengkurong • Mata-Mata 	<ul style="list-style-type: none"> • Rolling Toothpaste Programme (RTP) is an Interventive Oral Health Promotion Programme. Feeder cups, toothpaste, toothbrush in a bag with information leaflets are given to 9 months old infants followed by a toothbrush and toothpaste every 6 months until the child is 5 years old. This is an on-going programme. • Rolling Toothpaste Programme (RTP) is phased out because of the lack of partnership with the Mother and Child Health (MCH) staff, and replaced with Toddler-Fluoride Varnish Rolling-Toothpaste Programme (TFRTP) run by Dental Nurses (OHP & Health Centre Dental Nurses).
	<p>(ii) 2010:</p> <ul style="list-style-type: none"> • Sg Hanching • Sengkurong • Serasa 	<p>Programme changed to Toddler-Fluoride Varnish Rolling-Toothpaste Programme (TFRTP) and conducted in all Child Health Clinics in Brunei-Muara i.e. Sengkurong, Kiarong, Rimba (Gadong), Lambak Kanan, Anggerek Desa (Berakas A), Muara, Sg Besar, Subok, Mata-Mata, Sg Hanching, Sg Assam, Sg Kebun and Bunut.</p>	
	<p>(iii) 2012:</p> <ul style="list-style-type: none"> • Perpindahan Rimba • Lamunin • Telisai • Sg Liang 	<p>Toddler-Fluoride Varnish Rolling-Toothpaste Programme (TFRTP) conducted in all Brunei-Muara Child Health Clinics, Lamunin and Telisai clinics in Tutong.</p>	

(1) Reduce the prevalence of dental caries & periodontal disease in the population			
(6) To enhance the functions of the Fluoride Unit			
GOAL	KEY TASK	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN
	<p>1. To monitor all fluoride programmes in Brunei Darussalam as given in key tasks 1, 2, 4 & 5, i.e.: the use of fluoride in:</p> <ul style="list-style-type: none"> • Public water supplies • Fluoride varnish • Fluoride toothpaste • Other systemic and topical vehicles of fluoride 	<p>In 2008 (or whenever the fluoride programmes have been implemented).</p>	<p>REMARKS</p> <p>SPLIT WATER SAMPLE ANNUAL REPORT 2011 [Fluoride level (mg/l)]</p> <ol style="list-style-type: none"> 1. Brunei-Muara District - 0.63 ppm. 2. Tutong District - 0.56 ppm. 3. Belait District - 0.71 ppm. 4. Temburong District - Nil. <ul style="list-style-type: none"> • It may be more appropriate to set up the Fluoride Resource Centre at the Health Promotion Centre who will manage the Fluoride Resource Centre.
	<p>2. To set up Fluoride Resource Centre.</p>	<p>By 2009.</p>	<p>To date, the Centre has not been set up.</p>
	<p>3. To advise & regulate on all fluoride products e.g. fluoride toothpaste, imported into Brunei Darussalam.</p>	<p>By 2012.</p>	<ul style="list-style-type: none"> • Follow-up discussion with the Department of Pharmacy on monitoring the quality & safety of fluoride toothpaste imported into the country as covered under the 'ASEAN Cosmetic Act' in 2011. However, ASEAN Cosmetic Order does not regulate the effective fluoride anti-caries efficacy in toothpaste, but only regulate safety usage of fluoride in toothpaste. • Attended the 16th ASEAN Cosmetic Committee (ACC) & Its Related Meetings on 21st - 23rd June 2011.
			<ul style="list-style-type: none"> • Plan to visit and be assisted by Singapore Health Science Agency regarding fluoride testing, safety and anti-caries effectiveness of fluoride content in toothpastes imported into Brunei.

GOAL		(2) Strengthen the Oral Health Promotion Division to oversee all Oral Health Promotion activities	
KEY TASK		(1) To strengthen the Oral Health Promotion Division with appropriate terms of reference	
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN	REMARKS
1. To enhance the functions of the Oral Health Promotion (OHP) Division	<p>HUMAN CAPITAL DEVELOPMENT To increase the functions & responsibilities of the Oral Health Promotion Division by 2008.</p> <p>(i) To ensure clarity of roles, responsibilities and functions of OHP staff:</p> <ul style="list-style-type: none"> • To establish and enhance clear lines of authority for OHP staff. • To enhance and improve efficacy of OHP work with appropriate terms of reference. 	<ul style="list-style-type: none"> • Clear lines of authority achieved. • Enhanced and improved efficacy of OHP with appropriate terms of reference achieved. 	<ul style="list-style-type: none"> • Lack of time and manpower (Dental Nurses/Therapists and OHP officers) to run programmes, do administration, coordination, evaluation and monitoring. • Lack of specialised IT personnel to design and produce Health Promotion materials. • To request for Dental Officers with public health qualifications to work in and with OHP unit
	<p>(ii) Recruitment of new OHP trained staff:</p> <ul style="list-style-type: none"> • Dental Officers. • Dental Therapists. • Dental Surgery Assistants. • OHP trained non-clinical staff i.e. clerks, IT, production, statistician. 	<ul style="list-style-type: none"> • All OHP Dental Officers and Dental Nurses are part-time doing at least 2 days clinical work and 3 days OHP except for 1 daily paid full-time Dental Officer. • Currently, 1 local Acting Dental Specialist with Masters in Community Dentistry in charge of OHP. • 1 local Dental Officer with Masters in Dental Public Health in NDC with view to be in succession plan. • 1 daily paid expatriate full-time Dental Officer. • 2 expatriate Dental Officers coordinate OHP programmes in Tutong and Belait. 	

		<ul style="list-style-type: none"> • 1 Acting Dental Nursing Officer, 1 Senior Dental Nurse, 3 Dental Nurses, 1 open vote Clerk. • No IT (graphics) staff and statistician. 3 applicants with Higher National Diploma in Information Technology wrote-in their work application letter to OHP; have been submitted to CEO and waiting reply. 	<ul style="list-style-type: none"> • No statistician for evaluation of programmes and results. • Need more support from relevant department to regulate the safety and effectiveness of fluoride for anti-caries efficacy in toothpastes, instead of limitation from ASEAN Cosmetic Order.
	<p>(iii) Training of 'existing' OHP dental staff:</p> <ul style="list-style-type: none"> • Training of Dental Officers for OHP. • Training of Dental Therapists for OHP (sourcing out for curriculum from OHP Hong Kong). • Training of Dental Surgery Assistants for OHP - oral health educators (sourcing from Kings' College London, New Zealand, Australia, Sweden, Singapore). 	<ul style="list-style-type: none"> • Dental Officer: On the job training, CME lectures, CNE lectures and through discussions. • Communicated with OHP Hong Kong but could not obtain OHP training curriculum for Dental Therapists. • Discussed Dental Educator course for Dental Surgery Assistants with King's College London, but could not proceed. 	<ul style="list-style-type: none"> • All Basic Specialty Training and Dental Hygiene and Therapy trainees have to complete rotation attachment with Oral Health Promotion Division.
	<p>(iv) Continuing education: Meetings/lectures/seminars/ Books/articles presentation by members.</p>	<p>Conducted meetings, FDI convention, seminars, discussions for Oral Health Promotion staff, presentation nursing "Pot-Pouri" by Acting Nursing Officers.</p>	<ul style="list-style-type: none"> • A study was done by staff Dental Nurse, Dy Rainah binti Haji Jamaie, during conversion course to Diploma in Dental Hygiene and Therapy in 2012 on A SURVEY OF ADOLESCENT ORAL HEALTH BELIEFS IN BRUNEI DARUSSALAM showed that most adolescents only come for dental visits when they have pain, do not floss their teeth regularly and do not add fresh fruits and vegetables to their daily meals.

	<p>REORGANISING/RESTRUCTURING OF OHP DEPARTMENT</p> <p>To integrate with the Health Promotion Division in the Ministry of Health & establish local and statewide Oral Health networks/coalition to promote Oral Health from 2010 to 2012.</p> <p>(i) Collaborate with the MOH:</p> <ul style="list-style-type: none"> • Joint working with Health Promotion - Integration of messages with common risk/health factors. - Hold campaigns with common themes, messages: sugar, plaque, caries, periodontitis, diabetes, obesity, smoking, periodontitis, heart disease, hypertension, lung cancer, stroke. <ul style="list-style-type: none"> • Joint working with RIPAS Hospital - Referral dental diabetic clinic. 	<p>No clear-cut integration of Oral Health Promotion into Health Promotion Centre and state wide network and coalitions. However, OHP have worked with HPC incorporating Oral Health in HPC programmes such as <i>Mukim Sihat</i>, <i>Blueprint</i>, <i>Majlis Ilmu</i>, <i>Career Exhibition</i>, <i>Hari Perkhidmatan Awam</i>.</p> <ul style="list-style-type: none"> - Some incorporation of dental messages in health promotion messages, e.g. Health Galleria pamphlets. - No collaboration with RIPAS Hospital for dental referrals from diabetic clinic. 	
	<p>(ii) Collaborate with RTB/MOH:</p> <ul style="list-style-type: none"> • Joint working with RTB - Production of oral health television promos, documentary, rampai pagi, forums, radio promos. • Joint working with RTB/Health promotion - Production of general health, common risk/health factors, TV promos, documentaries, radio promos. 	<ul style="list-style-type: none"> - Joint working with RTB for production of TV promos, <i>Rampai Pagi</i>, radio promos and organising dental song competition. - Collaboration with RTB and HPC for joint common risk messages in TV and radio promos (<i>Wanita Sihat dan Anggun</i>). 	<p>A study done by a 3rd cohort trainee for Diploma in Dental Hygiene and Therapy, Awang Syahamsudin bin Haji Ali, in 2012 showed that 7% of mothers that watched the OHP TV Promo have started brushing their children's teeth. This outcome is in line with the general impact/outcome of population programmes of 5%.</p>

	<p>(iii) Collaborate with WHO/FDI/ASEAN Committee for regulation of fluoride in toothpaste- low and ineffective fluoride content, toxic substance (safety):</p> <ul style="list-style-type: none"> • To have consultation with the relevant authorities- consultants from WHO, FDI, ASEAN Committee. - To assess current situations and problems. - To formulate action plans regarding post market surveillance, import control, legal actions. - To collaborate with MOH, Pharmacy Department and other relevant agencies at local level for post market surveillance, import control and legal actions. 	<ul style="list-style-type: none"> - Fluoride content in many of the toothpastes sold in the market is below the effective level of anti-carries efficacy 1,450 ppm (from results of Fluoride testing of toothpastes from Brunei market in ACTA Amsterdam WHO collaborating Centre). - Plan to visit and be assisted by Singapore Health Science Agency regarding fluoride testing training of Scientific Officers from MOH and control of fluoride content in toothpastes sold in the Brunei market. - Collaborate with Pharmacy- ASEAN Scientific/ Cosmetic Order: to regulate fluoride in toothpastes to effective level of anti-carries efficacy 1,450 ppm according to WHO/FDI/IADR resolution during 'Effective Use of Fluoride in Asia' in Phuket in March 2011. 	
	<p>(iv) Collaborate with commercial stakeholders:</p> <ul style="list-style-type: none"> • To have dialogue sessions and Oral Health presentations with commercial stakeholders. • To collaborate with relevant authorities for initiation and implementation of reduction of sugar content in imported foods and beverages. 	<ul style="list-style-type: none"> • One dialogue session and oral health presentation with commercial stakeholders in 2008. However, it was advised by Professor Blinkhorn not to prioritise commercial stakeholders for the moment in order not to create an increase in outpatients demand. • Public policy paper research 'Policy to improve health outcome by reducing high sugar consumption in Brunei' completed by Dr Mary Cheong and submitted to MOH and HPC. Reduction of sugar consumption initiative is incorporated into MOH/HPC BLUEPRINT involving stakeholders such as Ministry of Industry and Primary Resources, Department of Food Safety & Ministry of Education. 	

(3) Target populations that are at risks to Oral Diseases & to utilise proven interventions		
GOAL	(1) To implement public education & skill development programmes to achieve improved Oral Health knowledge, attitudes & behaviours of all residents in Brunei Darussalam.	
KEY TASK	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	REMARKS
<p>1. These programmes to cover:</p> <p>i. Primary schoolchildren.</p> <p>ii. Secondary schoolchildren.</p> <p>iii. Antenatal & young mothers.</p> <p>iv. Community & School Health Nurses including Trainees.</p> <p>v. Teachers including Trainees.</p> <p>vi. Clients of Dental Department including Civil Service employees.</p> <p>vii. Caregivers of children with special needs.</p>	<p>In 2012, these programmes to cover these population sub-groups by:</p> <p>i. 90 %</p> <p>ii. 60 %</p> <p>iii. 70 %</p>	<p>Insufficient staff for these programmes; there is no permanent staff to carry out this key area.</p> <p>Insufficient staff for these programmes.</p> <p>17 antenatal clinics in the country; commencement of compulsory oral examinations, dental treatment, oral health education for all antenatal mothers by Dental Officers in 18 dental clinics including Pengkalan Batu. Oral health education given for all antenatal mothers by Community Nurses in all MCH Clinics.</p>
	<p>Dental health talk for primary schools.</p> <p>Oral Health Promotion division covered 27 primary schools in the year 2011 (~30%)</p> <p>OHP department has conducted dental health talk for:</p> <ul style="list-style-type: none"> • 1 secondary school in 2011. • 1 secondary school in 2012. • 32.5 % coverage in 2010. • All antenatal patients are given compulsory referrals to dental clinics in all districts, in which they are given priority in queueing. All Outpatient Dental Officers are to treat and give Oral Health Education to all the referred antenatal mothers. • There are 3 new antenatal dental clinics which have started since 2010 (Sg. Besar and Subok 2 days a month, Mata-Mata once a week) and the response is very good from these clinics. • These clinics need to increase to once a week to increase coverage. Propose Dr Paulina to cover Sg. Besar antenatal dental clinic once a week and Dr Mary Cheong to cover Subok antenatal dental clinic. 	

<p>viii. Caregivers of the elderly & adults with special needs.</p>	<p>iv. 100 %</p>	<ul style="list-style-type: none"> • Bunut antenatal dental clinic started in 2012 once a month, and plan is to increase this to once a week by February 2013. • First seminar given on 3rd - 4th December 2008. • Second seminar for post-basic Health Nurses given in February 2009. • In 2009, distribution of DVDs, CDs and DVD players to 14 MCH clinics and hospitals. There are 5 titles of DVD/CD based on toothbrushing, Dental drama, Infosihat, Dental song and Health zone. • In December 2010, OHP seminar given to nursing students from UBD. 	
	<p>v. 60 %</p>	<ul style="list-style-type: none"> • In January and February 2009, seminars were given to the 1st batch of UBD teacher trainees. • Seminar was given to the 1st batch of trainees from KUPU SB in March 2009. It was planned to be done annually, depending on respective institutions. • To include all religious school teachers involved in DFTB Programme (Programme Siwak). • Primary school teachers were given talks:- <ul style="list-style-type: none"> 2010 – 24 schools, 848 teachers 2011 – 4 schools, 117 teachers 2012 – 6 schools, 165 teachers • Seminars were neither given to UBD teacher trainees nor to KUPU SB religious teacher trainees in 2010 and 2011. 	<p>Focal person cannot commit due to clinical responsibility.</p>

	<p>vi. 90 %</p> <p>vii. 20 %</p> <p>viii. 20 %</p>	<p>70% achieved. Daily OHP talks were given to civil servants during the Integrated Health Screening.</p> <p>100% achieved. Paedodontic unit Dental Nurses and Dental Officers gave OHP talks to parents/caregivers of special needs in Child Development Centre, KACA, Pusat Ehsan, Pusat Bahagia, SMARTER, all primary and secondary schools with 'Unit Perkhidmatan Kurang Upaya' in all 4 districts.</p> <ul style="list-style-type: none"> • 20% achieved. OHP talks were given to caregivers of adult with special needs in Pusat Ehsan and Pusat Bahagia. • No OHP talk was given to caregivers of elderly. 	<p>OHP talks stopped in 2011.</p>
<p>2. To promote oral health collaboration/ coalitions/ partnerships/ networking with the various stakeholders.</p>	<p>By 2008, to organise seminars/ workshops for the various stakeholders & decision-/policy-makers to discuss various issues & problems, share best practices & identify education needs for the following Authorities:</p> <ul style="list-style-type: none"> - Education. - Medical & Health. - Water works. - Various Media and private company. - Ministry of Religious Affairs (Friday Sermon). <p>By 2010, to further enhance the collaboration with the various stakeholders e.g. organise seminars and let the stakeholders claim ownership of these OH Educational Programmes.</p>	<ul style="list-style-type: none"> • In March 2009, fluoride seminar was organised for teachers from MOE and MORA, Medical and Health staff, Water Department staff and representatives from various media by Prof. Van Palenstien from Nijmegen University, Netherland. • In November 2011, the Department of Dental Services cooperate with the Ministry of Religious Affairs to produce a text on Siwak (toothbrushing) for Friday Sermon (Khutbah Jumaat). <p>On 11th September 2009, a Health Promotion Seminar was presented by Professor Richard Watt for various stakeholders such as Department of Health and Medical Services, Armed Forces, Brunei Shell, and private practitioners.</p>	<p>Future programme/seminar/ workshop depending on the Department's decision and needs.</p>

	<p>To include more stakeholders including NGOs & voluntary organisations e.g. KACA, SMARTER.</p> <p>By 2012, to continue to support the existing stakeholders & become more of a facilitator to assist them in their various OH Education Programmes. To initiate collaboration with new stakeholders e.g. Elderly Homes, Nursing Homes etc.</p>	<p>This has been achieved by the Paedodontic Unit.</p> <p>Not planned.</p>	<p>Paedodontic Unit provides home visit for home bound special needs children since 2009.</p>
<p>3. To develop a system that provides the stakeholders with relevant oral health information & practices.</p>	<p>By 2008, to enhance the oral health infrastructure in terms of providing education to the community on various oral health topics. Common fears/misconceptions on:</p> <ul style="list-style-type: none"> - Oral Health & treatment. - Fluoride. - Early childhood caries prevention. - Oral hygiene (self-care). - Maternal oral health. - Good dietary habits. <p>To the following groups:</p> <ul style="list-style-type: none"> - Schoolchildren. - Antenatal & young mothers. - MCH & School Health Nurses. - Teachers. <p>By 2010, to further enhance the oral health infrastructure to provide OH Education by developing & distributing comprehensive and appropriate OH educational materials</p>	<ul style="list-style-type: none"> • Oral health education talks conducted by the OHP Division for schoolchildren, antenatal mothers, Community Health and School Health Nurses and teachers are on-going. • Achieved in 2008 through :- <ol style="list-style-type: none"> 1. OHP pamphlets. 2. OHP stickers for children. <p>Achieved in 2010 by:</p> <ol style="list-style-type: none"> 1. Dissemination of comprehensive OHP instructions through OHP booklets and counseling of antenatal mothers, parents in toddlers programme, and teachers in primary schools. 	

	<p>that increase OH awareness to the target populations & providers:</p> <ul style="list-style-type: none"> - To include more OH topics e.g. tobacco cessation, oral cancer risk reduction & injuries prevention. - To include more target groups e.g. caregivers of children, adults & elderly with special needs e.g. nursing aides, domestic helpers. 	<p>2. OHP TV promos:</p> <ol style="list-style-type: none"> i. Dietary Habits – Stop Bottle Feeding and sweet snacks. ii. Oral Hygiene Education - Toothbrushing. <ol style="list-style-type: none"> 3. 14 new OHP banners. 4. OHP pamphlets. 5. OHP posters. 6. OHP stickers for children. 	
	<p>By 2012, to continually enhance the oral health infrastructure to provide OH Education by integrating oral health into ongoing public health programmes using the ‘common risk factor’ approach:</p> <ul style="list-style-type: none"> - To revise & update OH educational materials & implement best practices in OH Education. - To assess effectiveness of OH Education interventions to all the target groups. 	<ul style="list-style-type: none"> • 10 OHP songs composed by local composers and sung by primary school students through National OHP song competition for all primary schools. • Production of video CDs of the OHP songs is in progress. To be used for distribution to public, schools, OHP exhibitions and functions to raise oral health awareness. - New OHP banners with updated information and presentation. Pamphlets information revised and updated. - On-going monitoring and evaluation of all OHP programmes. 	
<p>3. To conduct oral health campaigns and explore opportunities to build upon existing campaigns to communicate the importance of oral health, signs & symptoms of oral diseases &</p>	<p>By 2008, to conduct more OH campaigns and strengthen existing OH campaigns to various sectors of the community by making these campaigns more attractive and relevant to the community.</p>	<ul style="list-style-type: none"> • Oral health campaigns in Schools. • 'Kempen Cara Hidup Sihat'. • Kg. Angkat Programme in Pintu Malim - November 2008. • 'Mukim Sihat' at PTE Katok - 29th October 2011. • 'Muzakarah' with community leaders & teachers. • Exhibition booth at 'Majlis Ilmu' - 17th to 24th May 2011 at ICC. 	

<p>ways of reducing risks e.g.</p> <ul style="list-style-type: none"> • Oral health campaigns in schools. • 'Kempen Cara Hidup Sihat'. • 'Muzakarah' with community leaders & teachers. • 'Mukim Sihat'. • Various OH programmes through the media. • Various public health campaigns. • Use of the Health Zone. 		<ul style="list-style-type: none"> • Various Oral Health programmes through the media. • Various Oral Health Campaigns, 'Pesta Konvo UBD' include Exhibitions & Screening - 20th September 2011. • World Oral Health Day - 12th September 2011. • Use of the Health Zone - Launching of Health Promotion Blueprint 2011. • Exhibition booth at 'Hari Perkhidmatan Awam' at ICC - 29th September 2011. • Dr Mary Cheong Poh Hua gave a talk to the public during Majlis Ilmu 2012 with title 'IMPLIKASI KESIHATAN MULUT KEPADA KESIHATAN UMUM'. 	
<ul style="list-style-type: none"> • Use of the Health Zone. 	<p>By 2010, to lobby for a high profile personnel to be the 'Champion' for OH campaigns and lobby the authorities to dedicate a special day as 'Oral Health Day' with official functions and intense activities to promote oral health involving all staff members in the Department of Dental Services.</p> <p>By 2012, to enhance the profile of 'Oral Health Day' & further intensify its activities and scope to reach more sectors of the population.</p>	<p>World Oral Health Day :-</p> <ul style="list-style-type: none"> • 2010 in conjunction with MOH/FDI conference, launching of DFTB programme. • 2011 Launching by Minister of Health, open day in NDC, MOH/FDI, National Dental Song competition (April 2012). <p>National Dental song competition in primary schools of Brunei Darussalam. A National Dental Song Competition was conducted as part of the World Oral Health Day Celebration 2011.</p>	
			<p>The lyrics were related to oral health which includes advice, knowledge and habits for good oral health. The aim is to utilise songs to instill/influence/impact young children towards good oral health by imparting oral health knowledge through effective 'catchy' children dental songs.</p>

(4) Re-orientate oral health services towards promotion & prevention rather than concentrating on treating the consequences of oral diseases			
(1) To strengthen the oral health infrastructure to adopt a more preventive & promotive approach when providing oral health services & to integrate oral health into general health programmes.			
GOAL	KEY TASK	OBJECTIVES / ACTION PLAN	STATUS OF ACTION PLAN
		REMARKS	
1. To formulate & implement training programmes to motivate the oral health workforce to improve the oral health of their clients through the use of proven preventive measures.	To provide appropriate training programmes in Oral Health promotion & prevention for the oral health workforce in 2008.	<ul style="list-style-type: none"> • In June 2009, a curriculum entitled "Smiles for Life" was formulated. A pilot presentation to medical and health staff in Temburong district was done, with favourable results. • To present the curriculum for approval from administrative authorities, as per consultations with Professor Watt on 11th - 13th September 2009. 	This programme discontinued due to limited manpower and facilities.
2. To educate Ministry of Health policy- & decision-makers on the needs & benefits to integrate oral health into general health programmes & to implement appropriate programmes for integration.	To integrate oral health into all general health programmes by 2012.	<ul style="list-style-type: none"> • From 2007-2011, Dental Department was invited to be involved in the Integrated Health Screening (IHS) programme for Civil Services Staff for the screening of their oral health status. • Since 2010, Dental Department was also invited to be involved in health exhibitions and health screenings in events organised by Ministry of Health and other agencies such as during the Launching of the Health Promotion Blueprint, Ministry of Health career carnival, 'Mukim Sihat' programme and Civil Services Day Celebration (Hari Perkhidmatan Awam). • In 2012, Dr Mary Cheong was a speaker in the <i>Majlis Ilmu</i> entitled " Oral Health and It's implications on General Health". 	

<p>3. To develop a system to identify those populations who are most at risk for oral diseases & develop programmes for them to have better access to oral health services.</p>	<p>To target oral health services at populations who are at risk for oral diseases by 2010.</p>	<ul style="list-style-type: none"> • A pilot project called “Recall, Follow-up, Appraisal and Prevention (RAAP)” was launched in PIHM Hospital, Temburong, involving the resident Dental Hygienist for following up cases to completion and providing preventive recall visits customised to each case on a 3- and 6- monthly basis. This serves as a foundation pilot study for establishing preventive clinics manned by Dental Hygienist in each primary health facility. • Project disbanded due to relocation of the Dental Hygienist after three months of commencement of the project. Third monthly results showed promising numbers. Further full period of 6-month study needs to be done prior to presenting to higher authorities for considering implementation nationwide. The project would need a bigger team with administrative and beaurocratic leverage to envisage a creative output. 	<ul style="list-style-type: none"> • Suggestions were made by Professor Watt during his visit to Brunei Darussalam to start preventive health facilities to add a practical impetus to the whole programme. • First of its kind, so no working template to act as guiding base. • Project involves multiple stakeholders namely: Dentists in Primary Oral Care, Dental Therapists and Heads of each Division.
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(5) Establish An Oral Health Surveillance & Research Unit			
GOAL	(1) To establish an Oral Health Surveillance & Research Unit (OHSRU) to collect & set up an oral health database & to process, analyse & disseminate relevant oral health and other data		
KEY TASK	OBJECTIVES / ACTION PLAN	STATUS OF ACTION PLAN	REMARKS
1. To determine the functions & scope of the Oral Health Surveillance & Research Unit (OHSRU) and to incorporate it into the oral health information system.	The Oral Health Surveillance & Research Unit (OHSRU) to function adequately by 2008.	<ul style="list-style-type: none"> Oral Health Surveillance & Research Unit (OHSRU) was established in January 2008, with a temporary office at the Sg. Hanching Dental Clinic. In October 2008, OHSRU moved to a flat premise managed by Ministry of Health in Kiarong. The unit is changed to Research and Development (R&D) Division with Oral Health Surveillance and Research as a unit within the division. Full-time staff: only 1 Dental Officer, 1 Senior Dental Surgery Assistant and 1 Clerk. Other part-time staff: 1 Dental Officer, 2 Dental Nurses and 1 Senior Dental Surgery Assistant (2 or 3 days a week). 	More collaboration needed with Ministry of Health's Research and Development Unit.
2. To implement a system to collect data on Oral Health status for children, adults & elderly.	The Oral Health Surveillance & Research Unit (OHSRU) to be incorporated into the oral health information system & link up to e-Health database by 2012.	<ul style="list-style-type: none"> E-Health database has not been implemented. A computerised data storage and collection system, the Brunei Health Information Management System (BruHIMS) started in PMMPHAMB Hospital, Tutong, in 2012. Expected to be launched in Belait in 2013, followed by Brunei-Muara district. 	
	For children, by 2008. For the adults & elderly, by 2010.	Completed in 2010. Completed in 2010.	

	<p>To plan & conduct a national oral health survey from 2008 to 2009.</p>	<p>In progress. A National Oral Health Survey is planned to be carried out in 2014. The working paper has been submitted to the Director-General of Medical Services on 26th November 2011. Memorandum to SUT's office has been submitted on 18th January 2012 & 16th May 2012 (review budget). Estimated budget for Phase 1 (Children) is \$ 299,604.00 and for Phase 2 (Adult) is \$166,308.00 (Estimated total budget is \$465,642.00).</p>	
<p>3. To enhance the present system of collecting data on the oral health coverage for schoolchildren & the population & the utilisation of the oral health services.</p>	<p>By 2008.</p>	<p>Completed in 2010, a new Returns Forms format was introduced, which is more comprehensive than previous Returns format.</p>	
<p>4. To enhance the present system of collecting data on the training, utilisation, deployment & distribution of the oral health workforce.</p>	<p>By 2008.</p>	<p>Completed in 2010.</p>	
<p>5. To decide on the national minimum dataset for oral health & using various oral health indicators to show the effectiveness & impact of various intervention strategies.</p>	<p>By 2008.</p>	<p>Still in progress (related with National Oral Health Survey). In September 2011, Research and Development Division published the Oral Health Information Booklet (OHIB) 2010. The booklet presented data obtained from 2010 returns.</p>	

<p>6. To expand the oral health surveillance system to provide more comprehensive & timely data.</p>	<p>To collect, process & analyse data for mid-term review of Oral Health Agenda by 2010.</p>	<p>Completed, reports by each coordinator for each key result area are compiled.</p>	<p>The next Oral Health Agenda will be formulated based on findings from the 1st Oral Health Agenda 2008-2012.</p>
	<p>To review impact of Oral Health Agenda by 2012.</p>	<p>Completed.</p>	
<p>7. To strengthen the research component of the Oral Health Surveillance & Research Unit (OHSRU).</p>	<p>By 2012.</p>	<p>In progress.</p>	<p>The Basic Specialty Training trainees are required to conduct an audit as part of their rotation with the Research and Development Division.</p>

EDUCATION AND TRAINING

To train and produce sufficient Oral Health human capital that is competent and knowledgeable

(1) Provide excellence in Oral Health Care			
(1) To train and produce sufficient Oral Health Human Capital that is competent & knowledgeable			
GOAL	KEY TASK	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN
STRATEGIES / ACTION PLAN	REMARKS		
1. Send local scholars to reputable institutions overseas to study Dentistry & related fields: <ul style="list-style-type: none"> • Dentistry. • Dental Technology. • Administration/ Management/ related fields. 	<p>The training unit mentioned is referring specifically to the Dental Hygiene and Therapy training unit, that was established in September 2008. This unit only deals with Dental Hygiene and Therapy training programme.</p>	<p>Dental Hygiene and Therapy Training Unit has been set up in 2008. An annex block at the National Dental Centre has been built to accommodate the unit.</p> <ul style="list-style-type: none"> • A training committee for professional development (in-service training, in-house training) has been set up in early 2011, which discuss and monitor staff applications for further training or course. • Basic Specialty Training for Dental Officers is run currently by Dr. Hajah Mawarti, Dental Technician training is under Hajah Zuraidah, and Dental Surgery Assistant training is under Roslan. 	
		<p>To set up Unit coordinating Education and Training.</p>	<p>Not done.</p>
		<p>To provide information to the Ministry of Education on Dental Human Resources needs yearly.</p>	<ul style="list-style-type: none"> • Not done in all districts (only in Brunei-Muara district). • Dental Department has participated in a 'Career in Dentistry' exhibition/talks in: <ul style="list-style-type: none"> - Health Promotion Centre - Maktab Sains PSBS - Maktab Duli PMMPHAMB - Pengiran Anak Puteri Rashidah Sa'adatul Bolkiah Institute of Health Sciences, Universiti Brunei Darussalam - Jerudong International School
		<p>Dental roadshow for O and A-Level students in all districts.</p>	

<p>2. Increase intake of Trainee Dental Therapists and Hygienists into the local Dental Training Centre (Diploma in Dental Hygiene and Therapy with King's College, United Kingdom).</p>	<p>Ensure recruitment of Dental Hygiene and Therapy trainees.</p>	<ul style="list-style-type: none"> • National Dental Centre receives regular 'O' level & 'A' level students visit & work attachment requested via the Medical Education Centre, RIPAS Hospital. • Completed and on-going. In March 2006, a 3-year Diploma in Dental Hygiene and Therapy course commenced with the intake of Cohort 1: 8 trainees completed their course in May 2009. • Cohort 2 recruited in January 2008: 6 trainees completed their course in December 2010. • Cohort 3 recruited in June 2010: 9 trainees are expected to complete their course in May 2013. • In 2012, recruitment of cohort 4: 12 trainees is currently being advertised. • In 2011, a 1-year conversion course to Diploma in Dental Hygiene and Therapy commenced for Dental Nurse; first intake of 7 Dental Nurses completed their course in 2012. <p>Not done.</p>	<ul style="list-style-type: none"> • Earlier submission of request for recruitment still not able to recruit trainees to start on planned schedule; highly depend on the Department of Public Service Commission for recruitment process. • The steering committee for Dental Hygiene and Therapy training is currently reviewing the feasibility of the conversion course based on the scope of work of the recently qualified first intake of Dental Nurses. • No annual increase in intake due to limited facilities.
	<p>Manage recruitment and advertisement with the Department of Public Service Commission (SPA).</p>		<p>Recruitment done by the Department of Public Service Commission, whereby the Department of Dental Services inform the Ministry of Health, and then to the Department of Public Service Commission; not directly.</p>

<p>3. Increase intake of Trainee Dental Surgery Assistant to be trained under the local Dental Surgery Assistant Training Programme.</p>	<p>Intake of 3rd cohort for Dental Surgery Assistant course.</p> <p>To train Dental Surgery Assistant to be Oral Health Educators in collaboration with King's College London.</p>	<p>On-going, 17 3rd Cohort trainees will complete their course in mid-2013.</p> <p>Not done.</p>	<p>Started in March 2011.</p> <p>This was discussed with King's College London consultants' but the proposal was not attractive for the Dental Surgery Assistant as the course only awards a certificate. Therefore, proposal was rejected by the Dental Surgery Assistant Training Committee.</p>
<p>4. Send serving personnel for in-service training in various dental specialty & related fields complementary to Dentistry, with priority to Dental Public Health Training.</p>	<p>To prioritise in Dental Public Health training: Identify and process application for Dentists to pursue Dental Public Health speciality.</p> <p>To train Dental Nurse to become Dental Hygienist and Therapist tutors: Identify and process application for Nurses to pursue tutors training at King's College London.</p> <p>Dental Technician to specialise in: Orthodontics, Cobalt Chrome denture framework, Basic training in Dental Technology.</p>	<ul style="list-style-type: none"> • Completed. • In 2010, 3 Dentists graduated with Masters in Dental Public Health. • Completed. • 6 Dental Nurses were selected to undergo a one-year conversion course that included a teaching module (9 months at King's College London and 3 months local training) from November 2009 to October 2010. <p>In 2010:</p> <ul style="list-style-type: none"> • 1 Senior Dental Technologist attended 6 months ceramic course in United Kingdom. • 1 completed Higher National Diploma in Dental Technology, Scotland (Cobalt Chrome). 	

	<p>In 2011:</p> <ul style="list-style-type: none"> • 1 Dental Technician went for course in Masters in Dental Technology in New Zealand and 4 Dental Technician trainees went for 3-years Higher National Diploma course in United Kingdom. <p>In 2012:</p> <ul style="list-style-type: none"> • 2 completed Diploma in Dental Technology, Malaysia. • 1 completed Higher National Diploma in Dental Technology, Scotland (Ceramic). • 3 Dental Technicians sent for Diploma in Dental Technology, Malaysia. 		
	<ul style="list-style-type: none"> • Completed. • 1 Dental Nurse completed Dental Hygienist and Therapist degree course in University of Otago in 2010. 	<p>Dental staff (Dental Surgery Assistant and Dental Nurse) to pursue Dental Hygienist and Therapist degree course.</p>	
	<p>On-going</p>	<p>To train Dental Surgery Assistant to do Radiography training externally.</p>	<p>Refresher course with radiography unit.</p>

ALLOCATION OF FUNDS

To ensure adequate resources are allocated to the Oral Health Services

To explore alternative sources / methods of funding oral health care

GOAL	(1) Provide Oral Health services that is cost-effective and efficient												
KEY TASK	(1) To ensure adequate resources are allocated to the Oral Health Services especially: (a) Oral Health Promotion & Disease Prevention Programmes (b) Primary Oral Care Services (c) Education & Training including Dental Training Centre & CPD Unit (d) Specialised Dental Services (e) Oral Health Surveillance & Research Unit												
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN	REMARKS										
<p>1. To increase the annual budget of the Dental Department substantially including:</p> <ul style="list-style-type: none"> • Special expenditure. • Recurrent expenditure. • Manpower. 	<p>To increase the:</p> <p>(i) Oral Promotion & Disease Prevention budget by:</p> <ul style="list-style-type: none"> • 40% in 2008 • 40% in 2010 • 100% in 2012 <p>(ii) Primary Oral Care Services budget by:</p> <ul style="list-style-type: none"> • 30% in 2008 • 50% in 2010 • 80% in 2012 	<ul style="list-style-type: none"> • This objectives are not applicable. As of 2009, budgets proposals were pooled together under one departmental vote. • Proposal budgets for dental department are submitted annually. • Proposal of budget includes: <ul style="list-style-type: none"> - Special expenditure - Recurrent expenditure - Manpower 											
	<p>(iii) Specialised Dental Services budget by:</p> <ul style="list-style-type: none"> • 20% in 2008 • 10% in 2010 • 10% in 2012 	<p>From 2008 to 2012:</p> <p>Overall Dental budget:</p> <table border="1" data-bbox="1096 827 1331 1168"> <tr> <td>2008</td> <td>\$ 10,197,360</td> </tr> <tr> <td>2009</td> <td>\$ 11,198,376</td> </tr> <tr> <td>2010</td> <td>\$ 10,869,220</td> </tr> <tr> <td>2011</td> <td>\$ 13,165,501</td> </tr> <tr> <td>2012</td> <td>\$ 12,875,447</td> </tr> </table>	2008	\$ 10,197,360	2009	\$ 11,198,376	2010	\$ 10,869,220	2011	\$ 13,165,501	2012	\$ 12,875,447	
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	<p>To request for:</p> <p>(i) Dental Training Centre:</p> <ul style="list-style-type: none"> • \$ 2.6 million in 2008 • \$ 50K annually from 2010 to 2012 <p>(ii) IT, internet & library facilities:</p> <ul style="list-style-type: none"> • \$ 50K annually from 2008 to 2012 <p>(iii) Oral Health Surveillance & Research Unit:</p> <ul style="list-style-type: none"> • \$ 20K in 2008 • \$ 45K in 2010 • \$ 90K in 2012 <p>(iv) Continuing Professional Development Unit:</p> <ul style="list-style-type: none"> • \$ 10K in 2008 • \$ 20K in 2010 • \$ 40K in 2012 	<p>Recurrent expenditure</p> <table border="1"> <tr><td>2008</td><td>\$ 1,060,000</td></tr> <tr><td>2009</td><td>\$ 1,246,799</td></tr> <tr><td>2010</td><td>\$ 1,320,950</td></tr> <tr><td>2011</td><td>\$ 2,270,508</td></tr> <tr><td>2012</td><td>\$ 1,430,000</td></tr> </table> <p>Special expenditure</p> <table border="1"> <tr><td>2008</td><td>\$ 201,000</td></tr> <tr><td>2009</td><td>\$ 310,000</td></tr> <tr><td>2010</td><td>\$ 350,000</td></tr> <tr><td>2011</td><td>\$ 350,000</td></tr> <tr><td>2012</td><td>\$ 1,700,000</td></tr> </table> <p>Manpower</p> <table border="1"> <tr><td>2008</td><td>\$ 8,936,360</td></tr> <tr><td>2009</td><td>\$ 9,504,778</td></tr> <tr><td>2010</td><td>\$ 9,180,470</td></tr> <tr><td>2011</td><td>\$ 9,434,485</td></tr> <tr><td>2012</td><td>\$ 9,434,485</td></tr> </table> <p>Additional</p> <table border="1"> <tr><td>2008</td><td>-</td></tr> <tr><td>2009</td><td>\$ 136,799</td></tr> <tr><td>2010</td><td>\$ 17,800</td></tr> <tr><td>2011</td><td>\$ 1,110,508</td></tr> <tr><td>2012</td><td>\$ 310,962</td></tr> </table>	2008	\$ 1,060,000	2009	\$ 1,246,799	2010	\$ 1,320,950	2011	\$ 2,270,508	2012	\$ 1,430,000	2008	\$ 201,000	2009	\$ 310,000	2010	\$ 350,000	2011	\$ 350,000	2012	\$ 1,700,000	2008	\$ 8,936,360	2009	\$ 9,504,778	2010	\$ 9,180,470	2011	\$ 9,434,485	2012	\$ 9,434,485	2008	-	2009	\$ 136,799	2010	\$ 17,800	2011	\$ 1,110,508	2012	\$ 310,962	
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(1) Provide Oral Health services that is cost-effective and efficient			
(2) To explore alternative sources/methods of funding Oral Health care			
GOAL	STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	STATUS OF ACTION PLAN
1. To formulate various alternatives of funding oral health care through collaboration/partnership with relevant Government & Non-Government Organisations.		To explore the feasibility of:	In progress.
		(i) Offering certain specialised dental services as revenue generating services e.g. Restorative & Cosmetic Dentistry like implants, veneers, crowns & bridges, teeth whitening etc, including the supporting dental laboratory services, by 2009.	
		(ii) Renting fully equipped dental clinics from private companies/organisations as additional facilities for the Dental Department to deliver Oral Health Care Services to the community by 2010.	No action taken.
		(iii) Arranging for a subsidy scheme with the private dental practitioners whereby priority clients may be referred to them for oral health care by 2011.	No action taken.
		(iv) Privatising certain services of the Dental Department e.g. Dental Laboratory Services, Prosthodontic, Restorative and Orthodontic Services.	No action taken.
			REMARKS
			Scheme of charges undergoing revision and awaiting approval.
			Currently, with the renovations of dental clinics and opening of health centres with dental clinic reduces the need for such measures.
			Currently, no subsidy scheme is made. However, this does not hinder outsourcing certain services to private clinics.
			Not feasible to privatise certain dental services at present.

ACHIEVEMENTS, CHALLENGES,
CONCLUSION,
RECOMMENDATIONS

NOTABLE ACHIEVEMENTS OF THE ORAL HEALTH AGENDA 2008-2012

1. Oral Health Outcome

- *Based on the School Dental Services data 2008-2012 released by the Research and Development Division of the Department of Dental Services, there is a decrease in the percentage of caries-free deciduous teeth among 6-year-old schoolchildren from 2008 to 2012 whereby only 17.7% of schoolchildren are caries-free in 2012 compared to 22.9% caries-free schoolchildren in 2008 (Table 2). However, when compared to the data from the 1999 National Oral Health Survey which showed that only about 11% of the 6-year-olds were caries-free, the 2012 data still showed an improvement but is significantly short of the Oral Health Agenda 2008–2012 Oral Health impact goal 2012 of 50% of 6-year-olds to be caries-free.
- **On the other hand, the School Dental Services data from 2008–2012 showed that the mean DMFT (Decayed, Missing, Filled Permanent Teeth) among 12-year-old schoolchildren was 0.7 as opposed to the data from the previous National Oral Health Survey in 1999 which reported that the DMFT score for 12-year-olds was 4.8. The 2012 data has also well exceeded the Oral Health Agenda 2008-2012 Oral Health impact goal 2012 for mean DMFT in 12-year-olds to be 2 or less.

Table 1. Oral Health Impact Goals

Oral Health Impact Indicators	Goals		Oral Health Outcome 2012
	2010	2012	
Percentage of 6-year-olds with caries-free mouths (DMFT= 0 and dmft= 0)	30%	50%	17.7% *
Percentage of 6-year-olds with caries-free permanent teeth (DMFT= 0)	80%	90%	49.8%
Mean DMFT in 12-year-olds	3 or less	2 or less	0.7 **
Percentage of 15-year-olds with healthy periodontium	50%	75%	No data

Table 2. School Dental Services Data 2008-2012

Oral Health Status	OH Impact Goals 2012	2008	2009	2010	2011	2012
Percentage of 6-year-olds with caries-free mouths (DMFT= 0 and dmft= 0)	50%	22.9%	16.0%	22.0%	16.4%	17.7%
Percentage of 6-year-olds with caries-free permanent teeth (DMFT= 0)	90%	63.3%	58.3%	48.8%	60.2%	49.8%
Mean DMFT in 12-year-olds	2 or less	1.4	1.3	0.8	0.7	0.7

Comments:

The above significant discrepancies in the data must be analysed with caution because of the following factors:

- i) The 1999 National Oral Health Survey examined children aged 5–6 years and 12–15 years from schools which were randomly selected from a sampling frame which consisted of all the schools in Brunei Darussalam, i.e. a truly random sample which was more likely to be a true representative of the caries status of children in these age groups. On the other hand, the School Dental Services only used data collected from the children in schools where oral health services were provided. This is more probably a biased sample because children receiving regular oral health intervention would more likely have better caries status but would not necessarily be a true representative of the total school population of the same ages.
- ii) The 1999 National Oral Health Survey used only 4 examiners who were properly trained and calibrated prior to the start of the survey. Furthermore, they were trained to follow strictly the diagnostic criteria as given by the World Health Organization. This most probably resulted in the collection of data that were consistent, reliable and valid. However, the School Dental Services data were collected by about 44 School Dental Nurses who were not trained or calibrated in their examination and diagnosis of the children. Furthermore, no firm diagnostic criteria were provided to these Dental Nurses. Most of them used a clinical approach to diagnose caries which can be more subjective than objective depending

on their years of clinical experience and competency. This very likely led to the collection of data that were inconsistent, less reliable and less valid. Hence, it is strongly advocated that another National Oral Health Survey be conducted soon to truly reflect the oral health status of the children and adults in Brunei Darussalam. The data collected will be more representative of the population of the country and can be compared to other countries if the diagnostic criteria used follow the standards of WHO or other reputable organisations.

2. Physical infrastructure

Physical infrastructure changes with installation of 1 new dental surgery in National Dental Centre, 5 additional dental chairs in existing hospitals/health centres, and 3 new dental clinics in health centres/clinics were undertaken to improve accessibility. Ambiance alterations were done to make the National Dental Centre more appealing and customer-friendly.

3. Dental Manpower

- The increase in the number of Dentists in specialist care services (9 Dental Specialists and 20 Senior Dental Officers) has optimised accessibility to specialist care services in all districts.
- With the addition of 21 Dental Hygienist and Therapist into the dental workforce, some of the simple dental treatments for adults are now taken over by these dental care professionals, supplementing the role of the Dentists.

4. Oral Health Promotion Programme

- Collaboration of oral health programme with other stakeholders were undertaken to strengthen Oral Health Promotion Division to achieve the goals of the Oral Health Agenda. However, more steps and measures need to be undertaken in this direction to have a wider reach.
- Inter-ministerial collaboration was strengthened with the implementation of numerous Oral Health programmes such as Daily Fluoride Toothbrushing (DFTB) and Toddler-Fluoride Varnish Rolling-Toothpaste Programme (TFRTP).

5. Community Water Fluoridation Programme

Almost 100% of our Brunei population currently receives fluoridated water, which is the most cost-effective and efficient population strategy in caries prevention.

6. Establishment of the Research and Development Division

The establishment of Research and Development Division provided a platform for the Department of Dental services to ensure evidence-based data collection to help in the planning of dental services in Negara Brunei Darussalam. However, this division faced many challenges and need to enhance its human and competency capacity.

CHALLENGES & CONSTRAINTS

1. Relating to Dental Human Capital Capacity

- Filling of vacant senior posts depends on confirmation of 'Acting' officers and staff by the Ministry of Health and Department of Public Service Commission. Thirty-four officers and staff are holding acting senior posts for 1–3 years.
- The total number of Primary Oral Care Dentists fluctuates as new local dental graduates join Basic Specialty Training after serving 2 years in Primary Oral Care Services. After 3 years of Basic Specialty Training, most will pursue Advanced Specialty Training. These results in a consistently insufficient number of Primary Oral Care Dentists as there are fewer incentives for local officers to remain as Primary Oral Care Dentists as they do not have a structured career development pathway.
- Lack of specific manpower such as graphic designer, skilled IT personnel, researcher and statistician for the Oral Health Promotion and Research & Development Divisions to work more efficiently and productively.
- With the increase in Oral Health Promotion programmes, the current manpower (Dentists and Dental Nurses/Therapists) is unable to cope with the increasing clinical workload in order to meet the goal of providing an optimal oral health services coverage for the population. A decision has to be made as to how to optimise the use of the current professional and complementary dental human capital and the level of priority to be accorded to oral health promotion and disease prevention as opposed to clinical interventions.
- The number of Dental Technicians pursuing Advanced Specialty Training does not correspond to the increase in the number of Dental Specialists. Currently, Dental Technicians need to finish the prosthetic and orthodontic cases requested by both the Dental Specialists and Primary Oral Care Dentists.

- Dental Nurses/Therapists are not provided with Dental Surgery Assistants due to insufficient number of Dental Surgery Assistants. This compromise quality and productivity of the Dental Nurses/Therapists.

2. Relating to recruitment, retention and career prospects of various dental personnel

- Retention and recruitment is challenging mainly due to unattractive scheme of service and poor career pathway for Dental Technicians and Dental Surgery Assistants; competitive entry requirements for local students to enter overseas Dental Schools; and limited facilities in the National Dental Centre to train Dental Hygiene and Therapy trainees.
- Recruitment of Dental Hygienist and Therapist trainees is based on availability of posts and processing of paperwork by the Department of Public Service Commission, which makes it difficult to ascertain the start of the Dental Hygiene and Therapy programme.
- Only a small number pursue postgraduate studies in Dental Public Health/Community Dentistry because the new Scheme of Service for Dentists is unattractive to Public Health Dentists who are not recognised as Dental Specialists after obtaining their Masters/Postgraduate qualification in Dental Public Health.

3. Relating to Infrastructure

- The decision to expand and upgrade existing Dental Clinics and to build new physical structures (new dental clinics) depend on other departments within the Ministry of Health (Estate Department, Health Services and Hospital Services). The number, location and size of dental surgeries/rooms depend on budget and space allocated for Dental Services.
- The condition of most static and non-static dental clinics in Primary Schools is unsatisfactory, non-conducive and do not adhere to health and safety standards. Ministry of Education and school authorities need to play a more supportive role in the school oral health programmes by providing favourable conditions for the dental staff to operate in and to take over the ownership of relevant oral health programmes, e.g. Daily Fluoride Toothbrushing (DFTB).
- Space constraint to have new dental laboratory equipments and addition of work benches to accommodate Dental Technicians. Currently, the Dental Laboratory building and its set-up is not in line with Health, Safety and Environment (HSE) requirements.

4. Relating to Training and capacity building

- Inadequate budget for proper training of Dental Hygienists and Therapists – often the dental materials and consumable items are lacking for training.
- To date, the training are still unable to accommodate a yearly intake of 10 trainees as there is still lack of phantom heads and clinical chairs for the training.

5. Relating to collaboration with various stakeholders

Initiation of some of the oral health programmes are difficult due to lack of inter-sectoral collaboration with various departments/ministries in the early stages of policy - and decision-making, and programme planning.

6. Relating to budget allocation for Oral Health Services

Budget usage for each unit/division could not be retrieved due to the pooling of the budget together under one vote since 2009.

CONCLUSION

This Oral Health Agenda 2008-2012 is a comprehensive document that outlines the strategic framework and plan of action that the Department of Dental Services has taken over the last 5 years. The findings of the review found that target strategies and action of plan have largely been met: Of 115 strategies planned, 42% were successfully completed; 38% were in its various stages of progression; while only 20% were not implemented (Appendix 3).

Enhancing human resources, dental infrastructure and specialist dental services delivery in all districts have been achieved. With the arrival of more trained Dental Officers and Specialists, dental services in various specialties are easily accessible to the population in all districts. This key task in optimising accessibility has achieved a remarkable 77% completion and has several associated key tasks in progression.

Oral health promotion is the key to achieving prevention. The findings of the review found that 94% of the strategies planned in this key area have been successfully completed. Increased coverage of primary schools through mobile dental squad, various school-based preventive programmes, water fluoridation, and collaborations with government and non-government organisations are the collective achievement.

The establishment of the Research and Development Division is another achievement for the Department of Dental Services. It was established to collect a National Minimum Dataset for Oral Health accurately and consistently so as to better ensure that the oral health and related information that are collected, analysed, disseminated and reported are valid, reliable and of a high quality.

Dental Hygienists and Therapists recruitment training was launched in Brunei in collaboration with King's College London to train more Dental Hygienist and Therapist locally. On the other hand, local training for the Dental Surgery Assistants and advanced training for Dentists and Dental Technicians in various specialties are an on-going strategy to produce competent dental human resource. Career road shows around the country were also undertaken to attract students towards dentistry and its allied fields.

Oral Health Agenda 2008-2012 has revealed the substantial contributions that the oral health promotion and prevention of oral diseases programmes and initiatives have towards promoting the oral health of the population, especially the children. With the right policies and a proper goal-orientated strategic planning, implementation, monitoring and evaluation and with the appropriate monetary, physical and human capacity and competency in place, oral health promotion and the prevention of oral diseases will continue to enhance the oral health of the population and contribute significantly to good systemic health and quality of life. Not only will this enable us to achieve the oral health goals of WHO but it will also be in line with the Ministry of Health's Vision 2035 of 'Together Towards a Healthy Nation' and WAWASAN BRUNEI 2035 Goal no. 2 of 'Enhancing the Quality of Life'.

RECOMMENDATIONS

1. Disseminate this 'Review of Oral Health Agenda 2008-2012' to all officers & relevant staff to inform them on the achievements and challenges faced by the Department and the focal persons in each key task. Strategies and goals should be a collaborative effort made by all officers and staff within the Department.
2. A Memorandum of Understanding is needed between the Ministry of Health and Ministry of Education to ensure continued and enhanced cooperation and responsibility from schools to improve School Dental Services and oral health promotion programmes conducted in schools.
3. Another National Oral Health Survey need to be urgently conducted since the last one was carried out 14 years ago. The data collected can be used to analyse the oral health status and disease trends of the population and its impact on the quality of life of the people taking into account the various determinants of health. Such information is indispensable for the proper planning of various oral health programmes and interventions that would be effective to address the various oral health problems and issues that the community faced. These will greatly assist in the formulation of more feasible and relevant strategies with achievable objectives which should be incorporated into the next Oral Health Agenda. With such scientific data, we can then compare our findings with that of other countries in the region and globally. It will also allow us to benchmark some of our services and standards to the 'gold standard' as practised in the more reputable countries in ASEAN and the world and allow us to use an evidence-based approach to move towards this standard.
4. The challenges of recruitment and retention of the dental workforce may be overcome by a more attractive scheme of service, better career development and effective succession planning.

APPENDICES

Appendix 1. Schools with population of less than 500 in 2012 (except highlighted in blue)

Government	School Population	Non-Government	School Population
Brunei-Muara District			
Brunei I			
SR Datu Ahmad	224	Sekolah Al-Falaah, Ban 5	358
SR Pehin Datu Jamil	391	Sekolah Al-Falaah, Jln Kebangsaan	821
SR Pular Ulak	352	Sekolah Antarabangsa Bright Jigsaw, Kg. Salambigar	173
SR Raja Isteri Fatimah	205	Sekolah Antarabangsa Brunei (ISB), Berakas	881
SR Sg Kebun	203	Sekolah Antarabangsa Fairview Montessori, Kg. Manggis	57
SR Hj Tarif	134	Sekolah Antarabangsa Jerudong (JIS), Tungku	1,264
SR Pintu Malim	352	Sekolah Antarabangsa Seri Mulia Sarjana, Kg. Mata-Mata	631
SR PAP Besar	204	Sekolah Bakti Dewa, Berakas	87
SR Datu Godam	79	Sekolah Bakti Dewa, Jerudong	148
SR Kg Bendahara Lama	81	Sekolah Cahaya Bina Insan, Ban 3	38
SR Mabohai	349	Sekolah Cemerlang Abejess, Kg. Kapok	291
SR Saba Darat	283	Sekolah Chung Hwa, BSB	3,223
SR Sg Siamas	242	Sekolah DES, Anggerek Desa	475
Brunei II (A)			
SR Amar Pahlawan	325	Sekolah DKRJ Sunflower, Kg. Sg. Buloh	21
SR Anggerek Desa	504	Sekolah Fairview, Kg. Manggis	74
SR Berakas Garrison	241	Sekolah Freda Radin, Sg. Akar	77
SR DMW Lambak	415	Sekolah Jigsaw Play, Kg. Kiarong	240
SR Pulaie	270	Sekolah Joyful Kids Montessori, Kg. Telanai	131
SR Pantai Berakas	389	Sekolah Kesuma Mekar, Kg. Rimba	212
SR Dato Basir	514	Sekolah Learning Tree, Jln Kebangsaan	574
SR Dato Othman	569	Sekolah Luqman Darussalam, Jln Jerudong	122
SR Dato Marsal	729	Sekolah Nusa Laila Puteri, Kg. Beribi	345
SR Lambak Kanan Jln 49	685	Sekolah Nusa Laila Puteri, Kg. Tanjung Bunut	119
Brunei II (B)			
SR Delima Satu	401	Sekolah Nusa Laila Puteri, Jangsak	277
SR HMS Sg Hanching	335	Sekolah Nusa Laila Puteri, Kg. Kiulap	285
SR Serasa	229	Sekolah Nusa Laila Puteri, Kg. Sg. Buloh	273
SR SUAS Muara	297	Sekolah Nusa Laila Puteri, Kg. Sg. Asam	282
SR Tanah Jambu	168	Sekolah PGGMB, Kg. Sg. Akar	459
SR Batu Marang	165	Sekolah Rendah 'IQRA', Kg. Manggis	152
SR Mentiri	215	Sekolah Rendah Jigsaw, Jln. Berakas	394
SR OKBI Subok	250	Sekolah Rendah Little Star, Kg. Mata-Mata	78
SR ATL Muara	269	Sekolah Rising Star Child Development, Kg. Rimba	89
SR SAB Sg Besar	222	Sekolah Riverside, Kg. Masin	256
SR Dato Muhd Yassin	604	Sekolah Riverside, Kg. Sg. Matan	138
SR Kapok	263	Sekolah Seri Mulia Sarjana, Kg. Jangsak	574
SR SG Bunga	127	Sekolah Seri Mulia Sarjana, Kg. Mata-Mata	122
Brunei III			
SR Bendahara Sakam Bunut	272	Sekolah Seri Mulia Sarjana, Kg. Santul	345
SR HMJM Kiulap	198	Sekolah Sinaran Mas, Kg. Kiarong	119
SR Kg Mata-Mata	411	Sekolah Sinaran Pelangi, Kg. Sengkurong	277
SR Kiarong	518	Sekolah St. Andrew, BSB	285
SR OKSB Kilanas	463	Sekolah St. George, BSB	1,014
SR PPSD Sahibul Bandar	511	Sekolah Stella, Kg. Sg. Akar	1,082
SR Tungku	643	Sekolah Sunshine, Kg. Beribi	581
SR Rimba I	519	Sekolah Syamde Bright Kids, Kg. Sg. Tilong	15
SR Rimba II	684	Sekolah Tadika Jaya DHMR, Berakas	324
SR Beribi Telanai	488	Sekolah Tadika & Rendah Alif, Tungku	105
SR Katok 'A'	610	Sekolah Taman Asuhan Pertiwi, Kg. Mabohai	15
		Sekolah Taman Didikan Anak-Anak Polis Diraja Brunei, Gadong	103
		Sekolah Tangga Gemilang, Kg. Kapok	105
		Sekolah Tinkerbelle Learning, Kg. Sg. Orok	353
		Sekolah Tunas Cemerlang, Kg. Sg. Hanching	47

Government	School Population	Non-Government	School Population
Brunei IV		Sekolah Tunas Jaya PGGMB, Kg. Lambak	340
SR Bebuloh	75	Sekolah Tunas Jaya PGGMB, Kg. Madang	292
SR Junjongan	197	Sekolah Wonder Kidz, Kg. Jerudong	42
SR Kasat	89	Sekolah Yayasan Sultan Haji Hassanal Bolkiaah, Jln. Kebangsaan	1,508
SR Lumapas	451		
SR Masin	219		
SR NAR Menunggol	70		
SR Panchor Murai	118		
SR Pengkalan Batu	170		
SR PB Limau Manis	320		
SR Putat	73		
SR Mulaut	173		
SR Sengkurong	725		
SR AHMY Katimahar	244		
SR Bengkurong	326		
SR Jerudong	533		
Tutong District			
Tutong I		Sekolah Bakti Dewa, Kg. Panchor Dulit	35
SR Bakiau	50	Sekolah Chung Hwa, Kg. Kiudang	158
SR Batang Mitus	65	Sekolah Chung Hwa, Tutong	326
SR Birau	127	Sekolah Nurul Falah, Kg. Penanjong	78
SR Bukit Panggal	84	Sekolah Nusa Jaya, Kg. Keriam	161
SR Kg Menengah	63	Sekolah Nusa Jaya, Kg. Penanjong	158
SR Keriam	248	Sekolah Pertama Tutong	365
SR Kiudang	172	Sekolah Tutong Public	344
SR Lamunin	151		
SR Muda Hashim	207		
SR OKAWSD Kupang	141		
SR Penanjong	175		
SR PDN PJ Sengkarai	205		
SR PM Mahkota	70		
SR Sinaut	170		
SR Tutong Kem	270		
SR Binturan	277		
Tutong II			
SR AR Tanjong Maya	85		
SR Benutan	28		
SR Bukit Udal	149		
SR Danau	78		
SR DPS Ukong	83		
SR Kampong Bukit	88		
SR Layong	65		
SR Lubok Pulau	74		
SR Panchong	78		
SR Penapar	51		
SR PKN Bukit Beruang	156		
SR Rambai	58		
SR Tumpuan Telisai	237		
SR Per Kg Bukit Beruang II	140		

Government	School Population	Non-Government	School Population
Belait District			
SR Ahmad Tajuddin	291	Sekolah Antarabangsa Brunei (ISB), Kuala Belait	103
SR PSN Pg Hj M Yusof	351	Sekolah Chung Ching, Seria	844
SR DMS Dian Sukang	15	Sekolah Chung Hua, Kuala Belait	963
SR Labi	72	Sekolah Chung Hwa, Labi	39
SR Lumut	210	Sekolah Chung Lian, Kg. Sg. Liang	83
SR Melilas	6	Sekolah Gemilang Cemerlang, Kg. Lumut	38
SR Merangking	17	Sekolah Kindycare, Kuala Belait	61
SR Muhd Alam	279	Sekolah Panaga, Seria	636
SR OKPB Bukit Sawat	37	Sekolah St. Angela, Seria	397
SR Panaga	431	Sekolah St. James, Kuala Belait	491
SR Sg Liang	225	Sekolah St. John, Kuala Belait	718
SR Sg Teraban	65	Sekolah St. Margaret, Seria	874
SR Kuala Belait	255	Sekolah Tadika ABC, Kuala Belait	214
SR PSJ Pg Abd Momin	610	Sekolah Tadika Alif, Kuala Belait	136
SR Sg Tali	475	Sekolah Tunas Jaya PGGMB, Kuala Belait	201
SR PSB SOAS	536		
Temburong District			
SR Amo	149	Sekolah Pai Yuek, Kg. Batang Tuau	149
SR Kenua	51	Sekolah Suria Jaya Kindergarten, Kg. Puni	64
SR Labu Estate	38		
SR Negalang	59		
SR Puni	151		
SR Piasau-Piasau	31		
SR Sultan Hassan	214		
SR Sultan Hashim Batu Apoi	125		
SR Selangan	116		
SR Semabat	26		
SR Selapon	22		

Appendix 2. Split water sample annual report [Fluoride level (mg/l)] 2010

Name of End Point/Water Work	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Average
SG ASSAM DC (BT BARUN)													
JKR	1.10	0.49	0.73	0.57	0.77	0.70	0.61	0.00	0.00	0.00	-	-	
MOH	0.93	0.60	0.76	0.55	0.65	0.78	0.25	0.63	0.43	0.67	-	-	0.67
	U	A	U	A	A	U	U	A	U	A			
MUARA DC (MENGKABAU)													
JKR	0.90	0.55	0.60	0.67	0.67	0.83	0.58	0.00	0.00	0.00	-	-	
MOH	0.76	0.67	0.63	0.64	0.64	0.73	0.24	0.55	0.49	0.35	-	-	0.60
	U	A	A	A	A	A	U	A	A	U			
TUTONG HOSPITAL/LAYONG													
JKR	0.73	0.44	0.63	-	0.59	0.51	0.55	0.00	0.00	0.00	-	-	
MOH	0.62	0.53	0.54	0.59	0.52	0.58	0.22	0.53	0.43	0.47	-	-	0.53
	A	A	A	A	A	A	U	A	U	A			
SERIA DC													
JKR	0.79	-	0.48	-	0.80	0.71	0.80	0.00	0.00	0.00	-	-	
MOH	0.71	-	0.67	0.62	0.78	0.88	0.34	0.76	0.66	0.18	-	-	0.77
	A		A	A	U	U	U	U	A	U			

A - Acceptable. U - Unacceptable

No reports received in the month of November and December 2010. The Proportionate Fluoride levels refer to the proportions of fluoride level for each month, in respective water treatment plants that are:

1. Low - fluoride level less than 0.45 mg/l
2. Acceptable - fluoride level 0.45 to 0.75mg/l
3. High - fluoride level more than 0.75mg/l

Appendix 3. List of strategies which are completed, in progress and not done.

KEY RESULT AREA	(I) Optimising Accessibility			
GOAL	(1) Provide oral health services that is easily accessible to the population			
KEY TASK	(1) To have sufficient manpower to meet the oral health needs of the population			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
1. Appropriate recruitment & deployment of local & foreign manpower: <ul style="list-style-type: none"> • Dental Specialists • Dentists • Dental Nurses and Therapists/ Hygienists • Dental Technicians • Dental Surgery Assistants • Administrative & Support Staff 	Fill all vacant posts. Request for more posts in all categories. Target ratio (i) Dentist : Population= 1 : 2,800 (ii) Nurse : 0 – 16 years Population= 1 : 800 (iii) Nurse : Primary schoolchildren= 1 : 500 (iv) Dentist : Hygienist= 1 : 1 (v) Dentist : Therapist= 1 : 1 (vi) Dentist : Technician= 2 : 3 (vii) Dentist : Dental Surgery Assistant = 2 : 3 (viii) Nurse : Dental Surgery Assistant = 1 : 1		✓ ✓ ✓	

(I) Optimising Accessibility		COMPLETED	IN PROGRESS	NOT DONE
KEY RESULT AREA	GOAL			
KEY TASK	OBJECTIVES 2008-2012			
STRATEGIES / ACTION PLAN				
1. Upgrade and increase existing physical structures and facilities.	Present National Dental Centre and 4 existing Dental Clinics in Sengkurong, Sg. Hanching, Sg. Assam, and Belait are to be expanded with increased facilities by 2012.	√		
2. Build new physical structures with new facilities.	5 new Dental Clinics in Sg. Liang, Muara, Rimba, Bunut and Lambak and a new National Dental Centre are to be built with new facilities by 2012.		√	
3. Guidelines for primary & secondary schools to have static/mobile dental clinics.	To prepare Guidelines in 2008. Identify schools by 2010.	√		
4. Render all non-functioning school dental clinics functioning.	50% and 85% of non-functioning school dental clinics to be functioning by 2008 and 2012 respectively.		√	
5. Increase number of mobile dental squads (MDS) to cover schools (3 operators per squad).	5 new squads to be set up by 2012.			√
6. To fully equip the mobile squad teams.	Each team should be fully equipped with basic mobile equipment by 2012.		√	
7. Replace old facilities & equipment.	22 new dental chairs to be installed in 2008-2009.	√		

8. Strengthen maintenance of facilities & equipment.	Contract for preventive maintenance to be done in 2008 & renewed every 2 years.	√		
9. Enhance procurement of equipment.	Form a Dental Procurement Committee with guidelines on procurement in 2008.	√		
10. Strengthen maintenance of physical structures e.g. buildings.	The Estate Management Unit of the Dental Department to manage all maintenance of physical structures from 2008 onwards.	√		
11. Identify suitable commercial venues to set up Dental Clinics.	To decide if any commercial venues are suitable to set up Dental Clinics by 2009.			√

KEY RESULT AREA	(I) Optimising Accessibility			
GOAL	(1) Provide oral health services that is easily accessible to the population			
KEY TASK	(3) To have good & reliable transportation facilities			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
1. Dental Department to have its own land transport vehicles & drivers OR to have the vehicles & drivers supplied by a private company on a vehicle leasing contract.	To have 5 land transport vehicles by 2012 & distributed to: (i) Brunei-Muara District: 2 vehicles. (ii) 1 vehicle each in Tutong, Belait & Temburong Districts.		√	
				√

(I) Optimising Accessibility				
KEY RESULT AREA	(1) Provide oral health services that is easily accessible to the population			
GOAL	(4) To increase the accessibility of oral health care services & information to the public			
KEY TASK	OBJECTIVES 2008-2012			
STRATEGIES / ACTION PLAN	COMPLETED			
	IN PROGRESS			
	NOT DONE			
1. Make Oral Health care service available on Fridays.	To start outpatient's clinic on Fridays in National Dental Centre after an audit in 2009.			√
2. Identify which Dental Clinics can have outpatient's clinic on Fridays.	To identify suitable Dental Clinics to have outpatient's clinic on Fridays by 2009.			√
3. Introduce dental specialised services in the Districts.	To initiate various dental specialised services in those Districts without these services by 2009 e.g. Oral Surgery, Periodontics, Paedodontics etc.	√		
4. Reduce the time period for patients to have their dentures done.	To implement a suitable working arrangement between the clinical & technical staff to reduce the time period for fabrication of dentures & to reduce the waiting time for new denture patients in 2008.		√	

(I) Optimising Accessibility				
KEY RESULT AREA	(1) Provide oral health services that is easily accessible to the population			
GOAL	(5) To enhance the oral health services to make it more customer-friendly			
KEY TASK	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
STRATEGIES / ACTION PLAN 1. Enhance the environment & atmosphere of the treatment centres to make it more conducive to the public & less threatening. 2. Training for all staff members especially front-line workers in public relationship & communication skills. 3. Access to information.	To make the decor & surroundings of all the treatment centres more appealing to the public by 2009.		√	
	All front-line workers to receive the basic training by 2009. All other staff members by 2012.	√		
	Documenting dental charges, Primary Oral Care Guidelines and Guidelines for patients by 2008. Implant guidelines and Prosthodontics guidelines for VIPs by 2009.	√		

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases						
(1) Reduce the prevalence of dental caries and periodontal disease in the population						
(1) To provide effective fluoridation of all public water supplies at an optimal level of 0.5 to 0.7 ppm in Brunei Darussalam						
KEY RESULT AREA	GOAL	KEY TASK	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
STRATEGIES / ACTION PLAN	1. To increase the number of water fluoridation plants.		Water fluoridation plant in Bangar to function in 2008.	√		
			Water fluoridation plant in Bukit Barun to function in 2010.	√		
	2. To ensure that the fluoride in the public water supplies is consistently kept at the optimal level through maintaining close collaboration with the Department of Water Services, Department of Public Works.		Water fluoridation plant in Tasek, BSB, to function in 2012.	√		
			95% of population in Brunei Darussalam to receive fluoridated water in 2012.	√		
			Hold regular meetings & dialogue sessions with the staff of the Department of Water Services, Department of Public Works, throughout 2008-2012.		√	

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases				
KEY RESULT AREA				
GOAL	(1) Reduce the prevalence of dental caries & periodontal disease in the population			
KEY TASK	(2) To apply fluoride varnish to all Primary 1 schoolchildren, twice a year			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
1. To increase the number of Primary schools covered by the School Dental Services.	30% of Primary schools covered in 2008.		√	
	50% of Primary schools covered in 2010.		√	
	80% of Primary schools covered in 2012.		√	
	80% of Primary 1 schoolchildren to receive fluoride varnish by 2012.		√	

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases				
KEY RESULT AREA				
GOAL	(1) Reduce the prevalence of dental caries & periodontal disease in the population			
KEY TASK	(3) To apply dental sealants to all indicated Primary 2 schoolchildren			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
1. To increase the number of Primary schools covered by the School Dental Services.	30% of Primary schools covered in 2008.		√	
	50% of Primary schools covered in 2010.		√	
	80% of Primary schools covered in 2012.		√	
	50% of Primary 2 schoolchildren to receive dental sealants by 2012.		√	

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases				
KEY RESULT AREA	(1) Reduce the prevalence of dental caries & periodontal disease in the population			
GOAL	(4) To implement daily fluoride toothbrushing (DFTB) programme in Primary schools and Religious (Ugama) schools			
KEY TASK	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
STRATEGIES / ACTION PLAN 1. To conduct Oral Health seminars and workshops for teachers in conjunction with this programme.	For the teachers in: (i) Four pilot Primary schools, (ii) In 10% of Religious schools, in 2008.	√		
	For the teachers in: (i) Another 20 Primary schools, (ii) 40% of Religious schools, by 2010.	√		
2. To source for adequate & continual funding to sustain the programme.	For the teachers in: (i) Another 40 Primary schools, (ii) 90% of Religious schools, by 2012.		√	
	Request for special budget in 2008 prior to the start of the pilot project & again in 2009.		√	
	Request for recurrent budget annually for this programme by 2010.		√	
	Request for recurrent budget in 2011 & 2012 or source for alternative method of funding for this programme.	√		

<p>3. To launch the daily fluoride toothbrushing programme in Primary and Religious schools.</p>	<p>To launch: (i) The pilot project in four Primary schools, (ii) In 10% of Religious Schools, in 2008.</p>	√		
	<p>To launch the programme: (i) In another 20 primary schools, (ii) In 40% of religious schools, by 2010.</p>	√		
	<p>To launch the programme in another 40 Primary schools by 2012.</p>			√

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases				
KEY RESULT AREA	(1) Reduce the prevalence of dental caries & periodontal disease in the population			
GOAL	(5) To implement 'Rolling toothpaste' (RTP) programme for 8 months old babies onwards to 5 year olds			
KEY TASK	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
STRATEGIES / ACTION PLAN 1. To launch programme in collaboration with Mother and Child Health (MCH) clinics & involve post-natal/nursing mothers.	To launch programme in collaboration with Mother and Child Health (MCH) clinics in: (i) 2008: <ul style="list-style-type: none"> • Kiarong • Bunut • Mata-Mata • Lambak Kanan 	√		
	(ii) 2010: <ul style="list-style-type: none"> • Sg Hanching • Sengkurong • Serasa 	√		
	(iii) 2012: <ul style="list-style-type: none"> • Perpindahan Rimba • Lamunin • Telisai • Sg Liang 	√		

KEY RESULT AREA		(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases			
GOAL		(1) Reduce the prevalence of dental caries & periodontal disease in the population			
KEY TASK		(6) To enhance the functions of the Fluoride Unit			
STRATEGIES / ACTION PLAN		OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
1. To monitor all fluoride programmes in Brunei Darussalam as given in key tasks 1, 2, 4 & 5, i.e.: the use of fluoride in: <ul style="list-style-type: none"> • Public water supplies. • Fluoride varnish. • Fluoride toothpaste. • Other systemic and topical vehicles of fluoride. 		In 2008 (or whenever the fluoride programmes have been implemented).	√		
2. To set up Fluoride Resource Centre.		By 2009.			√
3. To advise & regulate on all fluoride products e.g. fluoride toothpaste, imported into Brunei Darussalam.		By 2012.		√	

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases					
(2) Strengthen the Oral Health Promotion Division to oversee all Oral Health Promotion activities					
(1) To strengthen the Oral Health Promotion Division with appropriate terms of reference					
KEY RESULT AREA	GOAL	KEY TASK	COMPLETED	IN PROGRESS	NOT DONE
STRATEGIES / ACTION PLAN					
1. To enhance the functions of the Oral Health Promotion (OHP) Division.	<p>OBJECTIVES 2008-2012</p> <p>HUMAN CAPITAL DEVELOPMENT To increase the functions & responsibilities of the Oral Health Promotion Division by 2008.</p> <p>(i) To ensure clarity of roles, responsibilities and functions of OHP staff:</p> <ul style="list-style-type: none"> • To establish and enhance clear lines of authority for OHP staff. • To enhance and improve efficacy of OHP work with appropriate terms of reference. <p>(ii) Recruitment of new OHP trained staff:</p> <ul style="list-style-type: none"> • Dental Officers. • Dental Therapists. • Dental Surgery Assistants. • OHP trained non-clinical staff i.e. clerks, IT, production, statistician. <p>(iii) Training of 'existing' OHP dental staff:</p> <ul style="list-style-type: none"> • Training of Dental Officers for OHP. • Training of Dental Therapists for OHP (sourcing out for curriculum from OHP Hong Kong). • Training of Dental Surgery Assistants for OHP - oral health educators (sourcing from Kings' College London, New Zealand, Australia, Sweden, Singapore). 				
		√		√	
				√	

	<p>(iv) Continuing education: Meetings/lectures/seminars/books/articles presentation by members.</p>		√	
	<p>REORGANISING/ RESTRUCTURING OF OHP DEPARTMENT To integrate with the Health Promotion Division in the Ministry of Health & establish local and statewide Oral Health networks/coalition to promote Oral Health from 2010 to 2012. (j) Collaborate with the Ministry of Health:</p> <ul style="list-style-type: none"> • Joint working with Health Promotion <ul style="list-style-type: none"> - Integration of messages with common risk/health factors. - Hold campaigns with common themes, messages: sugar, plaque, caries, periodontitis, diabetes, obesity, smoking, periodontitis, heart disease, hypertension, lung cancer, stroke. • Joint working with RIPAS hospital <ul style="list-style-type: none"> - Referral dental diabetic clinic. 			√
	<p>(ii) Collaborate with RTB/MOH:</p> <ul style="list-style-type: none"> • Joint working with RTB <ul style="list-style-type: none"> - Production of oral health television promos, documentaries, rampai pagi, forums, radio promos. • Joint working with RTB/Health promotion <ul style="list-style-type: none"> - Production of general health, common risk/health factors, TV promos, documentary, radio promos. 		√	

	<p>(iii) Collaborate with WHO/FDI/ASEAN Committee for regulation of fluoride in toothpaste- low and ineffective fluoride content, toxic substance (safety):</p> <ul style="list-style-type: none"> • To have consultation with the relevant authorities- consultants from WHO, FDI, ASEAN Committee. • To assess current situations and problems. • To formulate action plans regarding post market surveillance, import control, legal actions. • To collaborate with MOH, Pharmacy Department and other relevant agencies at local level for post market surveillance, import control and legal actions. 		√	
	<p>(iv) Collaborate with commercial stakeholders:</p> <ul style="list-style-type: none"> • To have dialogue sessions and Oral Health presentations with commercial stakeholders. • To collaborate with relevant authorities for initiation and implementation of reduction of sugar content in imported foods and beverages. 		√	

KEY RESULT AREA		(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases			
GOAL		(3) Target populations that are at risks to Oral Diseases & to utilise proven interventions			
KEY TASK		(1) To implement public education & skill development programmes to achieve improved Oral Health knowledge, attitudes & behaviours of all residents in Brunei Darussalam			
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE	
<p>1. These programmes to cover:</p> <ul style="list-style-type: none"> i. Primary schoolchildren. ii. Secondary schoolchildren. iii. Antenatal & young mothers. iv. Community & School Health Nurses including Trainees. v. Teachers including Trainees. vi. Clients of Dental Department including Civil Service employees. vii. Caregivers of children with special needs. viii. Caregivers of the elderly & adults with special needs. <p>2. To promote oral health collaboration/ coalitions/partnerships/networking with the various stakeholders.</p>	<p>In 2012, these programmes to cover these population sub-groups by:</p> <ul style="list-style-type: none"> i. 90 % ii. 60 % iii. 70 % iv. 100 % v. 60 % vi. 90 % vii. 20 % viii. 20 % <p>By 2008, to organise seminars/workshops for the various stakeholders & decision-/policy-makers to discuss various issues & problems, share best practices & identify education needs for the following Authorities:</p> <ul style="list-style-type: none"> - Education. - Medical & Health. - Water works. - Various Media and private company. - Ministry of Religious Affairs (Friday Sermon). 	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	

	<p>By 2010, to further enhance the collaboration with the various stakeholders e.g. organise seminars and let the stakeholders claim ownership of these OH Education Programmes.</p> <p>To include more stakeholders including NGOs & voluntary organisations e.g. KACA, SMARTER.</p>		√	
	<p>By 2012, to continue to support the existing stakeholders & become more of a facilitator to assist them in their various OH Education Programmes. To initiate collaboration with new stakeholders e.g. Elderly Homes, Nursing Homes etc.</p>		√	
<p>3. To develop a system that provides the stakeholders with relevant oral health information & practices.</p>	<p>By 2008, to enhance the oral health infrastructure in terms of providing education to the community on various oral health topics.</p> <p>Common fears/misconceptions about:</p> <ul style="list-style-type: none"> - Oral Health & treatment. - Fluoride. - Early childhood caries prevention. - Oral hygiene (self-care). - Maternal oral health. - Good dietary habits. <p>To the following groups:</p> <ul style="list-style-type: none"> - Schoolchildren. - Antenatal & young mothers. - MCH & School Health Nurses. - Teachers. 	√		
	<p>By 2010, to further enhance the oral health infrastructure to provide OH Education by developing & distributing comprehensive appropriate OH education materials that increase OH literacy to the target populations & providers:</p>			

	<ul style="list-style-type: none"> - To include more OH topics e.g. tobacco cessation, oral cancer risk reduction & injury prevention. - To include more target groups e.g. caregivers of children, adults & elderly with special needs e.g. nursing aides, domestic helpers. 	√	
	<p>By 2012, to continually enhance the oral health infrastructure to provide OH Education by integrating oral health into ongoing public health programmes using the 'common risk factor' approach:</p> <ul style="list-style-type: none"> - To revise & update OH education materials & implement best practices in OH Education. - To assess effectiveness of OH Education interventions to all the target groups. 	√	
<p>4. To conduct oral health campaigns and explores opportunities to build upon existing campaigns to communicate the importance of oral health, signs & symptoms of oral diseases & ways of reducing risks e.g.</p> <ul style="list-style-type: none"> • Oral health campaigns in schools. • 'Kempen Cara Hidup Sihat'. • 'Muzakarah' with community leaders & teacher. • 'Mukim Sihat'. • Various OH programmes through the media. • Various public health campaigns. • Use of the Health Zone. 	<p>By 2008, to conduct more OH campaigns and strengthen existing OH campaigns to various sectors of the community by making these campaigns more attractive and relevant to the community.</p>	√	
	<p>By 2010, to lobby for a high profile personnel to be the 'Champion' for OH campaigns and lobby the authorities to dedicate a special day as 'Oral Health Day' with official functions and intense activities to promote oral health involving all staff members in the Department of Dental Services.</p>	√	
	<p>By 2012, to enhance the profile of 'Oral Health Day' & further intensify its activities and scope to reach more sectors of the population.</p>	√	

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases				
KEY RESULT AREA	(4) Re-orientate oral health services towards promotion & prevention rather than concentrating on treating the consequences of oral diseases			
GOAL	(1) To strengthen the oral health infrastructure to adopt a more preventive & promotive approach when providing oral health services & to integrate oral health into general health programmes.			
KEY TASK	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
STRATEGIES / ACTION PLAN				
1. To formulate & implement training programmes to motivate the oral health workforce to improve the oral health of their clients through the use of proven preventive measures.	To provide appropriate training programmes in Oral Health promotion & prevention for the oral health workforce in 2008.		√	
2. To educate Ministry of Health policy - & decision-makers on the needs & benefits to integrate oral health into general health programmes & to implement appropriate programmes for integration.	To integrate oral health into all general health programmes by 2012.		√	
3. To develop a system to identify those populations who are most at risk for oral diseases & develop programmes for them to have better access to oral health services.	To target oral health services at populations who are at risk for oral diseases by 2010.		√	

(II) Enhancing Oral Health Promotion & Prevention of Oral Diseases	
KEY RESULT AREA	GOAL
KEY TASK	KEY TASK
OBJECTIVES 2008-2012	
STRATEGIES / ACTION PLAN	COMPLETED
STRATEGIES / ACTION PLAN	IN PROGRESS
STRATEGIES / ACTION PLAN	NOT DONE
<p>(5) Establish An Oral Health Surveillance & Research Unit</p> <p>(1) To establish an Oral Health Surveillance & Research Unit (OHSRU) to collect & set up an oral health database & to process, analyse & disseminate relevant oral health and other data</p>	<p>The Oral Health Surveillance & Research Unit (OHSRU) to function adequately by 2008.</p> <p>The Oral Health Surveillance & Research Unit (OHSRU) to be incorporated into the oral health information system & link up to e-Health database by 2012.</p> <p>For children, by 2008.</p> <p>For the adults & elderly, by 2010.</p> <p>To plan & conduct a national oral health survey from 2008 to 2009.</p> <p>By 2008.</p> <p>By 2008.</p>
<p>1. To determine the functions & scope of the Oral Health Surveillance & Research Unit (OHSRU) and to incorporate it into the oral health information system.</p>	<p>√</p>
<p>2. To implement a system to collect data on Oral Health status for children, adults & elderly.</p>	<p>√</p> <p>√</p>
<p>3. To enhance the present system of collecting data on the oral health coverage for schoolchildren & the population & the utilisation of the oral health services.</p>	<p>√</p>
<p>4. To enhance the present system of collecting data on the training, utilisation, deployment & distribution of the oral health workforce.</p>	<p>√</p>

<p>5. To decide on the national minimum dataset for oral health & using various oral health indicators to show the effectiveness & impact of various intervention strategies.</p>	<p>By 2008.</p>		<p>√</p>	
<p>6. To expand the oral health surveillance system to provide more comprehensive & timely data.</p>	<p>To collect, process & analyse data for mid-term review of Oral Health Agenda by 2010.</p>	<p>√</p>		
<p>7. To strengthen the research component of the Oral Health Surveillance & Research Unit (OHSRU).</p>	<p>To review impact of Oral Health Agenda by 2012.</p>	<p>√</p>		
	<p>By 2012.</p>	<p>√</p>		

KEY RESULT AREA		(III) Expanding Education and Training			
GOAL		(1) Provide excellence in Oral Health Care			
KEY TASK		(1) To train and produce sufficient Oral Health Human Capital that is competent & knowledgeable			
STRATEGIES / ACTION PLAN		OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
1. Send local scholars to reputable institutions overseas to study Dentistry & related fields: <ul style="list-style-type: none"> • Dentistry. • Dental Technology. • Administration/Management/related fields. 	To set up Unit coordinating Education and Training.	√			
	To provide information to the Ministry of Education on Dental Human Resources needs yearly.			√	
	Dental roadshow for O and A-Level students in all districts.				√
2. Increase intake of Trainee Dental Therapists and Hygienists into the local Dental Training Centre. (Diploma in Dental Hygiene and Therapy with King's College, United Kingdom).	Ensure recruitment of dental trainees.		√		
	Manage recruitment and advertisement with the Department of Public Service Commission (SPA).				√
3. Increase intake of Trainee Dental Surgery Assistants to be trained under the local Dental Surgery Assistant Training Programme.	Intake of 3 rd cohort for Dental Surgery Assistant course.			√	
	To train Dental Surgery Assistant to be Oral Health Educators in Collaboration with King's College London.				√

<p>4. Send serving personnel for in-service training in various dental specialty & related fields complimentary to Dentistry, with priority to Dental Public Health Training.</p>	<p>To prioritise in Dental Public Health training: Identify and process application for Dentists to pursue in Dental Public Health.</p>	√		
	<p>To train Dental Nurse to become Dental Hygienist and Therapist tutors: Identify and process application for Nurses to pursue tutors training at King's College London.</p>	√		
	<p>Dental Technician to specialise in: Orthodontics, Cobalt Chrome denture framework, Basic training in Dental Technology.</p>	√		
	<p>Dental staff (Dental Surgery Assistant and Dental Nurse) to pursue Dental Hygiene and Therapy degree course.</p>	√		
	<p>To train Dental Surgery Assistant to do Radiography training externally.</p>			√

(IV) Allocation of funds for Oral Health Services			
KEY RESULT AREA	GOAL	KEY TASK	
	(1) Provide Oral Health services that is cost-effective and efficient	(1) To ensure adequate resources are allocated to the Oral Health Services especially: (a) Oral Health Promotion & Disease Prevention Programmes (b) Primary Oral Care Services (c) Education & Training including Dental Training Centre & CPD Unit (d) Specialised Dental Services (e) Oral Health Surveillance & Research Unit	
STRATEGIES / ACTION PLAN	OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS
1. To increase the annual budget of the Dental Department substantially including: <ul style="list-style-type: none"> • Special expenditure. • Recurrent expenditure. • Manpower. 	To increase the: (i) Oral Promotion & Disease Prevention budget by: <ul style="list-style-type: none"> • 40% in 2008 • 40% in 2010 • 100% in 2012 (ii) Primary Oral Care Services budget by: <ul style="list-style-type: none"> • 30% in 2008 • 50% in 2010 • 80% in 2012 (iii) Specialised Dental Services budget by: <ul style="list-style-type: none"> • 20% in 2008 • 10% in 2010 • 10% in 2012 		Not Applicable
			Not Applicable
			Not Applicable
	To request for: (i) Dental Training Centre: <ul style="list-style-type: none"> • \$ 2.6 million in 2008 • \$ 50K annually from 2010 to 2012 		Not Applicable

	<p>(ii) IT, internet & library facilities:</p> <ul style="list-style-type: none"> • \$ 50K annually from 2008 to 2012 	<p>Not Applicable</p>
	<p>(iii) Oral Health Surveillance & Research Unit:</p> <ul style="list-style-type: none"> • \$ 20K in 2008 • \$ 45K in 2010 • \$ 90K in 2012 	<p>Not Applicable</p>
	<p>(iv) Continuing Professional Development Unit:</p> <ul style="list-style-type: none"> • \$ 10K in 2008 • \$ 20K in 2010 • \$ 40K in 2012 	<p>Not Applicable</p>

KEY RESULT AREA		(IV) Allocation of funds for Oral Health Services			
GOAL		(1) Provide Oral Health services that is cost-effective and efficient			
KEY TASK		(2) To explore alternative sources/methods of funding Oral Health care			
STRATEGIES / ACTION PLAN		OBJECTIVES 2008-2012	COMPLETED	IN PROGRESS	NOT DONE
<p>1. To formulate various alternatives of funding oral health care through collaboration/partnership with relevant Government & Non-Government Organisations.</p>		<p>To explore the feasibility of:</p> <p>(i) Offering certain specialised dental services as revenue generating services e.g. Restorative & Cosmetic Dentistry like implants, veneers, crowns & bridges, teeth whitening etc, including the supporting dental laboratory services, by 2009.</p>		√	
		<p>(ii) Renting fully equipped dental clinics from private companies/organisations as additional facilities for the Dental Department to deliver Oral Health Care Services to the community by 2010.</p>			√
		<p>(iii) Arranging for a subsidy scheme with the private dental practitioners whereby priority clients may be referred to them for oral health care by 2011.</p>			√
		<p>(iv) Privatising certain services of the Dental Department e.g. Dental Laboratory Services, Prosthodontic, Restorative and Orthodontic Services.</p>			√

ACRONYMS

BME	Biomedical Engineering
BruHIMS	Brunei Health Information Management System
BST	Basic Specialty Training
CEO	Chief Executive Officer
CME	Continuous Medical Education
CNE	Continuous Nursing Education
DC	Dental Clinic
DHT	Dental Hygiene/Therapy
DFTB	Daily Fluoride Toothbrushing
DO	Dental Officer
DSA	Dental Surgery Assistant
DT	Dental Technician
FDI	International Dental Federation
HC	Health Centre
HPC	Health Promotion Centre
HSE	Health, Safety and Environment
IADR	International Association of Dental Research
ICC	International Convention Centre
IHS	Integrated Health Screening
IOHC	Incremental Oral Health Care
IT	Information Technology
JKR	Jabatan Kerja Raya
KCL	King's College London
MCH	Mother and Child Health
MDS	Mobile Dental Squad
MO	Medical Officer
MOE	Ministry of Education
MOH	Ministry of Health
MOF	Ministry of Finance
MORA	Ministry of Religious Affairs
NDC	National Dental Centre
NO	Nursing Officer
OH	Oral Health

OHA	Oral Health Agenda
OHIB	Oral Health Information Booklet
OHP	Oral Health Promotion
OHSRU	Oral Health Surveillance & Research Unit
OMF	Oral Maxillo Facial
PA	Periapical Radiograph
PNO	Principal Nursing Officer
PPM	Parts Per Million
R&D	Research & Development Division
RKN	Rancangan Kemajuan Negara
RTB	Radio Televisyen Brunei
RTP	Rolling Toothpaste Programme
SDN	Staff Dental Nurse
SDS	School Dental Service
SDT	Senior Dental Technologist
SH	School Health
SMO	Senior Medical Officer
SNO	Senior Nursing Officer
SOP	Standard Operating Procedure
SPA	Suruhanjaya Perkhidmatan Awam
SSB	Suri Seri Begawan Hospital
TFRTP	Toddler-Fluoride Varnish Rolling-Toothpaste Programme
WHO	World Health Organization

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