



Pan American Health Organization/
World Health Organization (PAHO/WHO)

Systems Analysis for Oral Health

Regional Oral Health Program

May 2004

Saskia Estupiñán-Day, DDS, MPH, PhD Cand
Regional Advisor for Oral Health

Systems Analysis for Oral Health
Regional Oral Health Program
May 2004



**Pan American Health Organization/
World Health Organization (PAHO/WHO)
Technology and Health Services Delivery
Regional Oral Health Program**

Copyright© 2003 Pan American Health Organization

All rights reserved by the Pan American Health Organization. The contents of this document may be reviewed, abstracted, reproduced, and translated in whole or in part without prior authorization provided that full credit is given to the source and that the text is not used for commercial purposes.

Introduction

The objective of this study is to look at the health care systems in the (name of the country) and to evaluate the dental care that is provided to the people of these countries. Oral disease is a critical element in the overall health status in the _____ since it remains at a high prevalence and has substantial associated treatment costs. There is a high incidence and severity of dental caries in most countries in the _____. A great proportion of this disease burden is in the form of untreated tooth decay and extracted teeth. Additionally, the prevalence and severity of dental caries is greater in low income and poorly educated segments of the population.

Methodology

In this study six aspects of oral health will be evaluated:

1. Oral Health Policy and Planning
2. Human Resources
3. Supply and Demand of Services
4. Infrastructure
5. Financial Resources
6. Research Capability

Protocols that have been used in the past studies by the Pan American Health Organization will be sent to the Government Institutions, the Educational Institutions, and the Dental Societies in (this country/both countries). An initial mailing will be sent that will include an explanatory cover letter, a protocol, and guidelines. Follow up phone mailings and phone calls will be made if needed. Also field trips to the (country/countries) will be made to gather additional information.

Analysis

The descriptive data from the survey will be summarized as follows:

1. Oral Health Policy and Planning
 - Identify the system for delivering oral health care
 - Determine how priorities are established
 - Identify regulations and standards used to measure the oral care delivery
2. Human Resources
 - Determine the number of dentists and other oral health professionals
 - Determine their involvement in the present programs
 - Determine salary sources
 - Determine the number of dentist per 10,000 population
 - Determine the number of operational dental auxiliaries per 10,000 population
3. Supply and Demand of Services
 - Determine the type of care provided, preventive versus comprehensive services
 - Obtain information about the age groups of patients treated
 - Obtain the DMFT at age 12 for each country
 - Identify the prevalence of early childhood caries
4. Infrastructure
 - Identify the settings and facilities in which the oral health care is provided
5. Financial Resources
 - Determine the budget directed towards oral health care services
 - Determine for what type of program the funds are used
6. Research Capability
 - Identify areas of current or future research

The above analysis will be used in three different ways:

- For the evaluation of the present programs and services provided in each country
- To compare the data of this study with a study of this country done in _____ at _____ to determine if any improvements have been made
- To compare the oral health systems of this country with other countries



PAN AMERICAN HEALTH ORGANIZATION
REGIONAL ORAL HEALTH PROGRAM

Work Plan: System Analysis for Oral Health

	sept	oct	nov	dec	jan	feb	march	april	may	June
proposal approval	→									
1st mailing	→	→								
2nd mailing		→	→							
field trip		→	→	→						
3rd mailing			→	→						
data analysis				→	→	→				
Interpretation						→	→	→	→	→

Sample Letter



**Pan American
Health
Organization**

Regional Office of the
World Health Organization

Technology and Health Services Delivery
Health Services Organization

IN REPLY REFER TO:

(....date....)

Dear Dr. _____:

My name is _____. I am jointly working with the Regional Oral Health Program of the Pan American Health Organization (PAHO) on a project called a System Analysis of the Oral Health System in the (name of country).

The objectives of the study are the following: (1) to update the information on the Oral Health System in the (name of country) from the information collected by PAHO in 1994-1995, (2) to identify key institutions and individuals who can serve as resources and who can participate in activities aimed at improving planning, service delivery and research, and (3) to provide guidelines for successive work in the areas of planning, manpower development, finance, utilization pattern, and research.

In order to make the study a success your assistance is necessary to provide the information requested in the enclosed protocol. If you have any questions, please do not hesitate to contact me at the following email address: _____ or at the address indicated in the enclosed envelope.

Thank you for your participation and collaboration.

Sincerely yours,

Saskia Estupiñán-Day
Regional Advisor for Oral Health
Technology and Health
Services Delivery

(researcher name and address)

Encl.

525 23rd St., N. W., Washington, D.C. 20037-2895, U.S.A.

Teléfono: (202) 974-3000
Facsimil: (202) 974-3663

Protocol for Governmental Institutions to
Conduct a System Analysis for Oral Health



PAN AMERICAN HEALTH ORGANIZATION
 REGIONAL ORAL HEALTH PROGRAM

PROTOCOL FOR GOVERNMENTAL INSTITUTIONS TO CONDUCT A SYSTEM
 ANALYSIS FOR ORAL HEALTH FOR _____

1 Oral Health Policy and Planning in the area of your responsibility:

Describe the hierarchy for decision making and the regulation for the oral health delivery system. Indicate the relationship of oral health to primary health care. Copies of organization chart and regulations at national, state or provincial level can be mailed as answers to item a) and b).

- a) Internal Management Structure
 - *Dental Director
 - *Administrators
- b) Regulations:
 - *Infection control guidelines
 - *HIV policy
 - *Health personnel vaccinated against Hepatitis B
- c) Indicate the relationship to the primary health care system

2) Human resources:

Indicate the number of dental and non-dental personnel in government service. Answers can be recorded in the spaces provided. If categories in your country differ from the ones listed, please indicate appropriate names and describe their respective activities.

- a) Number of dentists in government service _____
- b) Number of dentists per specialty:

	Full time	Part time
*general dentists	_____	_____
*oral surgeons	_____	_____
*public health	_____	_____
*periodontists	_____	_____
*endodontists	_____	_____
*prosthodontists	_____	_____
*pedodontists	_____	_____
*orthodontists	_____	_____
*oral pathologists	_____	_____
*military	_____	_____
*others	_____	_____

- c) Number of operating dental auxiliaries _____
- d) Number of dental assistants _____
- e) Number of dental hygienists _____
- f) Number of preventive dentistry auxiliaries _____
- g) Number of laboratory technicians _____
- h) Number of non-dental administrative personnel _____

3) Supply and Demand of Services:

Indicate the number of individual served by the program as requested below. Also indicate the type of services provided routinely.

- a) Total number individuals served by the program per year _____
- b) Number of patients seen per week:
 - children <18 yrs. old _____
 - adults >18 yrs. old _____
 - If available by age group:
 - 1 to 5 yrs. old _____
 - 6 to 9 yrs. old _____
 - 10 to 14 yrs. old _____
 - 15 to 24 yrs. old _____
 - 25 to 34 yrs. old _____
 - 35 to 44 yrs. old _____
 - 45 to 64 yrs. old _____
 - 65 + yrs. old _____

c) Primary interventions (check services provided routinely)

	Individual	Community based
* Topical Fluoride		
- rinses	_____	_____
- gel	_____	_____
*System Fluoride		
- salt	_____	_____
- water	_____	_____
*Sealants	_____	_____
*Health Education	_____	_____
*Oral Cancer Screening	_____	_____
*Atraumatic Restorative Treatment (ART)	_____	_____

- d) Secondary Interventions (check services provided routinely)
- *Fillings _____
 - *Extractions _____
 - *Crowns _____
 - *Fixed Bridges _____
 - *Partial Dentures _____
 - *Full Dentures _____
 - *Endodontics _____
 - *Periodontal Treatment _____
 - *Orthodontics _____

4) Infrastructure:

Describe the type of facilities use in the space provided and answer item a), b), and c).

- a) Type of Clinic
- *Private _____
 - *Public _____
- b) Please indicate total number of operatories _____
- c) Does the program provide services at other sites? _____
(check all that apply):
- *Mobile clinics _____
 - *At Community Centers _____
 - *At Schools with portable equipment _____
 - *Others (specify) _____

5) Financial Resources:

Indicate the annual budget for the oral health program and allocations as requested below.

- a) Annual budget for the program (US\$) _____
- b) Breakdown into allocations as a percentage of the annual program budget:
 - *Salaries _____
 - *Materials _____
 - *Preventive programs _____
 - topical fluoride _____
 - systemic fluoride _____
 - education _____
 - sealants _____
 - *Comprehensive Dental Care _____
- c) Sources of Finance (check all that apply):
 - *Public _____
 - *Private _____
 - *Donations _____
 - *Patient Fees _____
 - *Other _____

6) Areas of Oral /Dental Research:

Indicate areas of research and briefly describe projects in the space provided.

- *Cariology _____
- *Periodontology _____
- *Dental Materials _____
- *Animal Studies _____
- *Care Delivery _____
- *Fluoridation _____
- *Epidemiology _____
- *Other _____
- *Briefly describe: _____

7) Additional Information:

- a) Number of dentists in the country _____
- b) Number of dentists per 100,000-population _____
- c) Number of operating dental auxiliaries _____
per 100,000 population _____
- d) Number of Dental Graduates per year _____
- e) DMFT at age 12 for the country (year & source) _____
- f) Per cent children with Baby Bottle Tooth Decay _____

**Protocol for Professional Institutions to
Conduct a System Analysis for Oral Health**



**PAN AMERICAN HEALTH ORGANIZATION
REGIONAL ORAL HEALTH PROGRAM**

**PROTOCOL FOR PROFESSIONAL INSTITUTIONS TO CONDUCT A
SYSTEM ANALYSIS FOR ORAL HEALTH**

This document contains questions directed to obtain the information pertinent and necessary for the system analysis of oral health in _____

There are 7 parts:

- 1) Oral Health Policy and Planning
- 2) Human Resources
- 3) Supply and Demand of Services
- 4) Infrastructure
- 5) Financial Resources
- 6) Research
- 7) Additional Information

I. Oral Health Policy and Planning

1. Describe the organizational structure of the society

2. List the legal responsibilities that regulate the profession

3. Identify the policies about HIV and Hepatitis B

II. Human Resources

Number of members in _____

Number of dentists per specialty:

Speciality	Full Time	Part Time
General Dentists		
Oral Surgeons		
Public Health		
Periodontistis		
Endodontists		
Prosthodontists		

Pedodontists	Full Time	Part Time
Orthodontists		
Oral Pathologists		
Military		
Others		

	Full Time	Part Time
operating dental auxiliaries		
Dental assistants		
Dental hygienists		
preventive dentistry auxiliaries		
laboratory technicians		
non-dental administrative personnel		

Number of Dentists/10,000 People _____

III. Supply and Demand of Services

Total number individuals served by the dentists per year _____

<u>Age Group</u>	<u>Number Treated</u>
0-5	
6-12	
13-18	
18 and older	

Primary interventions (check services provided routinely)

Service	Individual	Community Based
Topical Fluoride		
Rinses		
Gel		
System Fluoride		
Salt		
Water		
Sealants		
Health Education		
Oral Cancer Screening		
ART		

Secondary Interventions (check services provided routinely)

Services	Individual	Community Based
Fillings		
Extractions		
Crowns		
Fixed Bridges		
Partial Dentures		
Full Dentures		
Endodontics		
Periodontal Treatment		
Orthodontics		

IV. Infrastructure

Describe the type of facilities use in the space provided.

V. Financial Resources

Annual Budget

	US\$
Total budget	
Salaries	
Operations: Administration Research	
Publications	

VI. Research

Indicate areas of research and briefly describe projects in the space provided.

- Cariology _____
- Periodontology _____
- Dental Materials _____
- Animal Studies _____
- Care Delivery _____
- Fluoridation _____
- Epidemiology _____
- Other _____

Briefly describe:

VII. Additional Information

- a) Number of dentists in the country _____
- b) Number of dentists per 10,000 population _____
- c) Number of operating dental auxiliaries _____
per 10,000 population _____
- d) Number of Dental Graduates per year _____
- e) DMFT at age 12 for the country (year & source) _____
- f) Percent children with Early Childhood Caries _____

Please indicate your e-mail address:

Protocol for Governmental Institutions to
Conduct a System Analysis for Oral Health



**PAN AMERICAN HEALTH ORGANIZATION
REGIONAL ORAL HEALTH PROGRAM**

**PROTOCOL FOR GOVERNMENTAL INSTITUTIONS TO CONDUCT A
SYSTEM ANALYSIS FOR ORAL HEALTH FOR _____**

This document contains questions directed to obtain the information pertinent and necessary for the system analysis of oral health in _____

There are 7 parts:

- 1) Oral Health Policy and Planning
- 2) Human Resources
- 3) Supply and Demand of Services
- 4) Infrastructure
- 5) Financial Resources
- 6) Research
- 7) Additional Information

I. Oral Health Policy and Planning

Describe the hierarchy for decision making and the regulation for the oral health delivery system. Indicate the relationship of oral health to primary health care. Copies of organization chart and regulations at national, state or provincial level can be mailed as answers to item a) and b).

- a) Internal Management Structure
 - Dental Director
 - Administrators
- b) Regulations
 - Infection control guidelines
 - HIV policy
 - Health personnel vaccinated against Hepatitis B
 - Policy on Fluoridation
 - ART Services
- c) Indicate the relationship to the primary health care system

II. Human resources

Indicate the number of dental personnel in government service. Answers can be recorded in the spaces provided. If categories in your country differ from the ones listed, please indicate appropriate names and describe their respective activities.

a) Number of dentists in government service _____

b) Number of dentists per specialty:

Speciality	Full Time	Part Time
General Dentists		
Oral Surgeons		
Public Health		
Periodontistis		
Endodontists		
Prosthodontists		
Pedodontists		
Orthodontists		
Oral Pathologists		
Military		
Others		

	Full Time	Part Time
operating dental auxiliaries		
dental assistants		
dental hygienists		
preventive dentistry auxiliaries		
laboratory technicians		
non-dental administrative personnel		

c) Number of Dentists/10,000 People _____

III. Supply and Demand of Services

Indicate the number of individual served by the program as requested below. Also indicate the type of services provided routinely.

a) Total number individuals served by the program per year _____

Age Group	Number Treated
0-5	
6-12	
13-18	
18 and older	

b) Primary interventions (check services provided routinely)

Service	Individual	Community Based
Topical Fluoride		
Rinses		
Gel		
System Fluoride		
Salt		
Water		
Sealants		
Health Education		
Oral Cancer Screening		
ART		

c) Secondary Interventions (check services provided routinely)

Services	Individual	Community Based
Fillings		
Extractions		
Crowns		
Fixed Bridges		
Partial Dentures		
Full Dentures		
Endodontics		
Periodontal Treatment		
Orthodontics		

IV. Infrastructure

Describe the type of facilities use in the space provided.

- | | | |
|----|--|--------|
| a) | Type of Clinic | number |
| | • Private | _____ |
| | • Public | _____ |
| b) | Please indicate total number of operations | _____ |
| c) | Does the program provide services at other sites?
(check all that apply): | _____ |
| | • Mobile clinics | _____ |
| | • At Community Centers | _____ |
| | • At Schools with portable equipment | _____ |
| | • Others (specify) | _____ |

V. Financial Resources

Indicate the annual budget for the oral health program and allocations as requested below.

- | | | |
|----|---|-------|
| a) | Annual budget for the program (US\$) | _____ |
| b) | Breakdown into allocations as a percentage
Of the annual program budget: | _____ |
| | • Salaries | _____ |
| | • Material | _____ |
| | • Preventive programs | _____ |
| | - topical fluoride | _____ |
| | - systemic fluoride | _____ |
| | - education | _____ |
| | - sealants | _____ |
| | • Comprehensive Dental Care | _____ |
| c) | Sources of Finance (check all that apply) | _____ |
| | • Public | _____ |
| | • Private | _____ |
| | • Donations | _____ |
| | • Patient Fees | _____ |
| | • Other | _____ |

VI. Research

Indicate areas of research and briefly describe projects in the space provided.

- Cariology _____
- Periodontology _____
- Dental Materials _____
- Animal Studies _____
- Care Delivery _____
- Fluoridation _____
- Epidemiology _____
- Other _____

Briefly describe:

VII. Additional Information

- a) Number of dentists in the country _____
- b) Number of dentists per 10,000 population _____
- c) Number of operating dental auxiliaries _____
per 10,000 population _____
- d) Number of Dental Graduates per year _____
- e) DMFT at age 12 for the country (year & source) _____
- f) Percent children with Early Childhood Caries _____

Please indicate your e-mail address:

