

A goal
without a
plan is just
a wish.

– Antoine de Saint-Exupéry

Good
morning



➤ PLANNING AND EVALUATION

➤ TARGET GROUP- 4th Year BDS

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Planning



Planning is looking ahead

OBJECTIVES

1. To know the various steps in planning a community oral health programme
2. To know the importance of evaluation in examining public health programs.

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Types of health planning

Steps in planning process

1. Identify the problem
2. Determining priorities
3. Development of program goals, objectives and activities
4. Resource identification
5. Identifying constraints
6. Identify alternative strategies
7. Develop implementation strategy
8. Implementation
9. Monitoring
10. Evaluation

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References

Suggested Reading

Frequently asked questions

Multiple Choice Questions

Introduction

WHY?

“Blue print for taking action”

PROBLEM SOLVING



“*Problema*”

- *It means something that is presented*

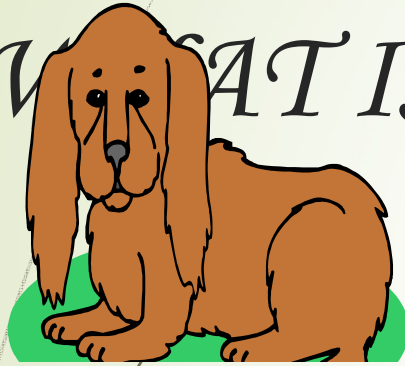


- *It may be a situation, condition, or an issue.*

'WHAT IS'

is different from

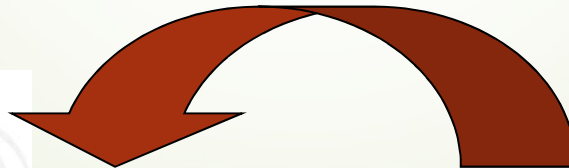
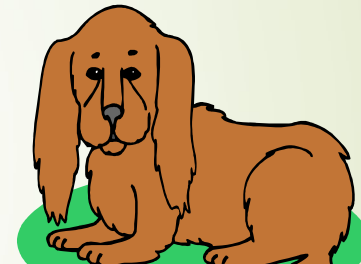
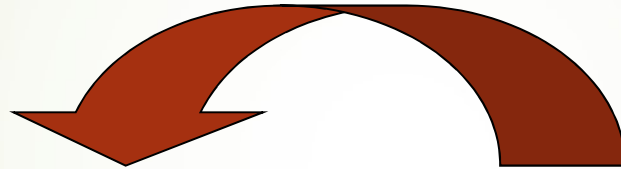
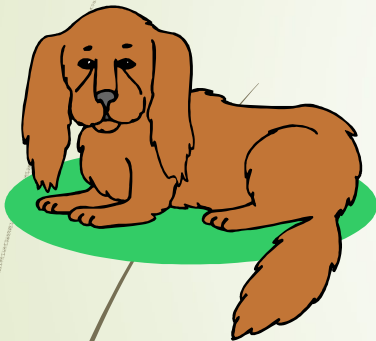
'WHAT IS EXPECTED'





What is problem solving?

➔ *Finding answer to the existing problem.*



Prevent decay treat decay

Problem Solving.....

“HOW”?



‘PLANNING’

➔ *At the individual level*



➔ *At community level.*





What is 'PLANNING'?

➔ *Plan is a systematic scheme addressing a
- PROBLEM*



➔ *'PLAN' links 'PROBLEMS' to their 'SOLUTIONS'*



Definition

- **JONG** “Plan is an systematic approach to defining the problem, setting the priorities, developing specific goals & objectives & determining a alternative strategies, and method of implementation”
- **E. C Banfeild** defined “Plan is a decision about a course of action”

Uses of planning

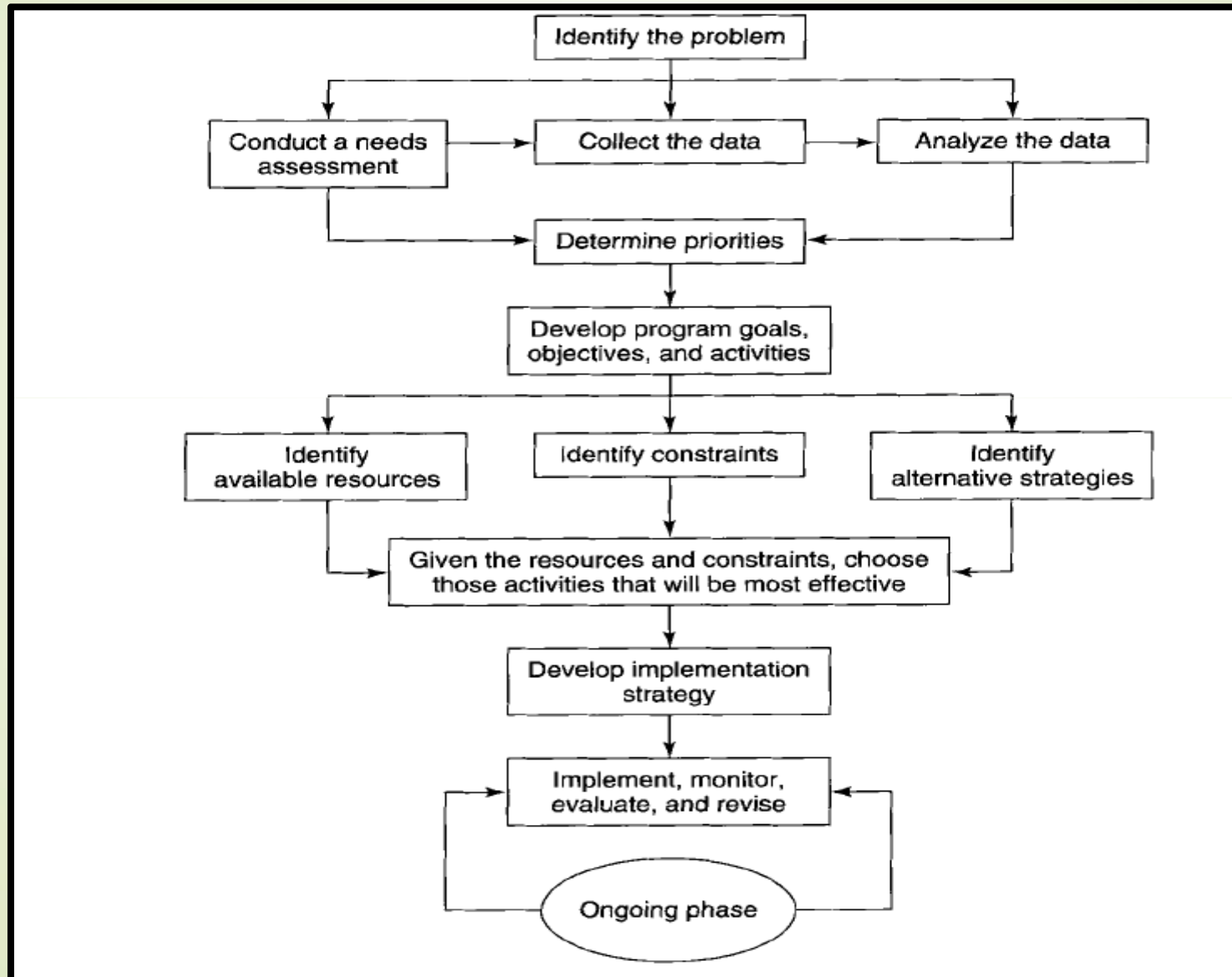
- To match limited resources with many problems
- Eliminate wasteful expenditures or duplication of expenditure
- Develop best course of action and to accomplish a defined objective

Types of health planning

As outlined by Spiegel and associates:

- 1. Problem solving planning**
- 2. Program planning**
- 3. Coordination of efforts and activities planning**
- 4. Planning for allocation of resources**

PLANNING STRATEGY FLOW CHART

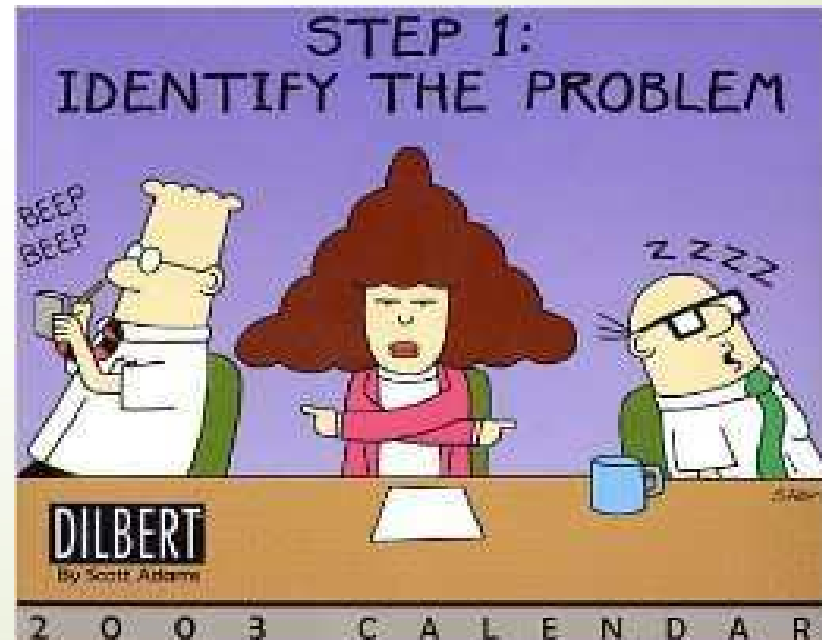


1. Identify the problem
2. Determining priorities
3. Development of program goals, objectives and activities
4. Resource identification
5. Identifying constraints
6. Identify alternative strategies
7. Develop implementation strategy
8. Implementation
9. Monitoring
10. Evaluation

1. Identify the problem

Conduct a need assessment:

Needs defined as “*Deficiencies in health that call for preventive, curative & eradication measures*” **WHO 1971**



- **Reasons for Needs Assessment:**
 - **Defines the problem**
 - **Identifies the extent & severity**
 - **Provides a profile of the community to ascertain the causes of the problem**
 - **Helps in evaluating the effectiveness of the program**



EXAMPLE

Patient comes to the dental hospital/clinic with a chief complaint of pain in lower right back tooth region. On clinical examination 46 has deep dental caries and tender on percussion. Apart from this patients has calculus and stains requiring scaling, and dental caries in 16, 27, 37. Patient feels regular check ups can help improve his oral health and says his adjacent society has regular dental camps in their society when compared to their.

Expressed Need : Pain in lower right back tooth region

Normative needs: Scaling due to stains and calculus, Restorations in 16, 27 and 37.

Felt needs: Regular check ups

Comparative needs: Regular camps in adjacent society.

The information required include

- Number of individuals in the population
- Geographic distribution of the population
- Rate of growth
- Population density and degree of urbanisation
- Ethnic backgrounds
- Diet and nutritional levels
- Standard of living
- Amount and type of public services and utilities

- **Public and private school system**
- **General health profile**
- **Patterns and distribution of dental diseases**

Analysis of data

- **Once this is obtained from the needs assessment, the information must be analyzed before the priorities are determined**

Site : A typical Indian village

1. Total population : 10,000

Children and adolescents : 40% of population

3. Elderly population : 30 % of population

4. Prevalence of dental caries : High

5. Water supply : Centralized water supply
(from one deep rig well)

6. Fluoride concentration in water : 0.1 ppm

7. Nearby dental health care service : PHC+ dentist

(at a distance of 60 km, only basic oral health care services)

9. The village has two schools from kindergarten to tenth standard.

10. There is one dental college at a distance of 120 km with community dentistry department and MDU

11. There is one PHU:

Medical officer - 1

ANMs - 2

Health educator -1

Anganwadi worker - 1

Village health guide -1

PLAN A PROGRAM TO SOLVE THE PROBLEM OF DENTAL CARIES

Results:

5 years - caries prevalence 80%, mean dmft=6, dmfs=16

(majorly ECC)

12 years - prevalence 70%, mean DMFT = 5, DMFS= 8

35-44 years - prevalence 50%, mean DMFT = 4, DMFS=6

65-74 years - prevalence 50%, mean DMFT = 4, DMFS=6

(majorly root caries)

Mean dmft/ DMFT = 5, MEAN dmfs/ DMFS = 9

(For Whole Population)

This data shows increase in trend in dental caries with a majority of children in 5 years and 12 years age group being affected by caries.

2. Determining the priorities

- **‘Priority determination’** is a method of imposing people’s value & judgment of what is important onto the raw data
- Is used to **rank** the problems according to the severity & helps to **utilize** resources tactically
- If priorities are not determined then program may not serve the people in need

When setting priorities for a community the planner must ask


- How serious is the problem?**
- What percent of the population is affected by it?**

3. Development Of Program Goals, Objectives & Activities

- **Program goals** are broad statements on the overall purpose of a program to meet a defined problem.
- **Program objective** are more specific and describe in a measurable way the desired end result of program activities.

- Objectives should specify the following:
 - **WHAT:** Nature of the situation or Condition to be attained
 - **EXTENT:** Scope & Magnitude of the situation or Condition to be attained
 - **WHO:** Particular group or Portion of the environment in which the attainment is desired
 - **WHERE:** Geographic areas of the program
 - **WHEN:** Date by which the desired situation or condition is intended to exist

Goal and objectives



Goal: A 50% reduction in the prevalence of dental caries and caries experience in the given population at the end of 10 years of implementation of programme.

Objectives:

The data shows increasing trend in dental caries in this population (since the caries prevalence and caries experience are steadily increasing from higher age group to lower age group and children are majorly affected).

Objective number 1

Objective number 2 :

A 20% reduction in dental caries prevalence and experience by the end of 6 years

Age group	Prevalence	dmft /DMFT	dmfs/DMFS
5 years	80 → 64%	6 → 4.8	16 → 12.8
12 years	70 → 56%	5 → 4	8 → 6.4
35-44 years	50 → 40%	4 → 3.2	6 → 4.8
65 -74 years	50 → 40%	4 → 3.2	6 → 4.8

At the end of 6 years, missing teeth should reduce from 9.5% to 7.6% of the total dmft/DMFT count.

Objective number 3 :

A 50% reduction in dental caries prevalence and experience by the end of 10 years

Age group	Prevalence	dmft /DMFT	dmfs/DMFS
5 years	80 → 40%	6 → 3	16 → 8
12 years	70 → 35%	5 → 2.5	8 → 4
35-44 years	50 → 25%	4 → 2	6 → 3
65 -74 years	50 25%	4 2	6 3

At the end of 10 years, missing teeth should account only for 4.75% of the total dmf/DMF count.

- **Program Activities**

How to bring about the desired results”

- Includes three components:
 - What is going to be done
 - Who will be doing it
 - When it will be done

4. Resource Identification

- **Implies manpower, money, material, skills, knowledge,& Technique needed or available for implementation of the program**
- **Balance has to struck with what is required & what is available**

RESOURCE IDENTIFICATION SHEET

RESOURCE

SOURCE

Personnel
Sponsors or supporters

Public health organizations, professional dental organizations, dental and dental hygiene schools, industry, health consumer groups, government, labor, media, business, foundations, public schools

Clinical providers

Dentists, dental hygienists, dental assistants, dental technicians, social workers, health aides, public health nurses, physician's assistants, nutritionists

Nonclinical providers

Planning

Health planning agencies

Clerical

Volunteers, students, parents, retirees

Educational

Professional organizations, universities, students

Analytical

Universities, consulting firms

Equipment

Dental units and instruments

Dental supply companies, dental and dental hygiene schools, renovated public health clinics, hospitals, federal government depositories

Computers, calculators, filing cabinets

Business, industry, civic groups, hospitals

Supplies

Office supplies

Consumer groups, industry, business, and government

Dental supplies

Dental supply companies, dental product companies

Dental Health Education

Materials

American Dental Association, other professional organizations, public health agencies, dairy councils; local, state, or federal agencies (e.g., National Institute for Dental Research, Centers for Disease Control and Prevention)

Facilities

Hospitals, health centers, nursing homes, public schools, dental schools, public health clinics, industry, health maintenance organizations

5. Identifying Constraints

- 'Road blocks' or 'obstacles'
- Identification of Constraints early in the planning stage:
 - Can modify design of the program
 - Create a more practical & realistic plan

- **Constraints may be as a result of**
 - **Organizational policies**
 - **Resource limitations**
 - **Characteristics of the community such as**
 - **lack of funding,**
 - **labor shortages,**
 - **restrictive governmental policies,**
 - **inadequate transportation systems,**
 - **negative attitudes.**

- One of the best way to identify constraints is to bring together a group of concerned citizens who might in some capacity be involved in or affected by the project.
- A group that is familiar with local politics and community structures can not only identify the constraints but also offer alternative strategies and solutions for meeting the goals.

- **Should help decide the most suitable plan either individually or in combination**
- **Which should match the limited resources & anticipated costs & effective in return to the main plan**

Identifying constraints

- 1. Minimal finance sponsored by the government**
- 2. Dearth of required manpower**
- 3. Negative attitude towards oral health**
- 4. Lack of required materials and equipments**

6. Identify Alternative Strategies

- **Presence of existing constraints & available resources → Planner Should consider Alternative Strategies → Help achieve objectives**
- **Sufficient no. of alternative plans should be at hand**

Alternative strategies for this problem

First strategy

Dental health education provided by:

Anganwadi worker

Health educator

ANMs

Social workers

School teachers


Volunteers

At individual and
group level

Medical officer

Dentist from nearby PHC

Through mass media



School based fluoride mouth rinsing programme
(Teacher supervised at weekly interval)

+

Introduction of incremental dental care for school children using MDU of nearby dental college

+

Referral of patients to dentist in the primary health center

+

Dental health care for children, elderly non-mobile population by MDU

7. Develop implementation strategy

- An implementation strategy for each activity is complete when the following questions are answered.
 1. **WHY?** The effect of the objective to be achieved
 2. **WHAT?** The activities required to achieve the objective
 3. **WHO?** Individuals responsible for each activity
 4. **WHEN?** Chronological sequence of activities
 5. **HOW?** Materials, methods, techniques to be used
 6. **HOW MUCH?** A cost estimate of materials and time

- To develop an implementation strategy, the planner must know what specific activity he/she wants to do. The most effective method is to work backwards to identify the events that must occur prior to initiating the activity

8. Implementation

- The process of putting the plan into operation is referred to as implementation
- The implementation process involves individuals, organizations and the community. Only through team work between the individual and the environment can implementation be successful
- Most health programs can be divided into four phases of implementation, which are:

- **The pilot phase:** whose development proceeds on a trial and error basis
- **The controlled phase:** where a model of a particular program strategy is run under regulated conditions to judge its effectiveness
- **The actualization phase:** where a model of the program strategy is subjected to realistic operating conditions
- **The operational phase:** where the program is an ongoing part of the structure



Implementation

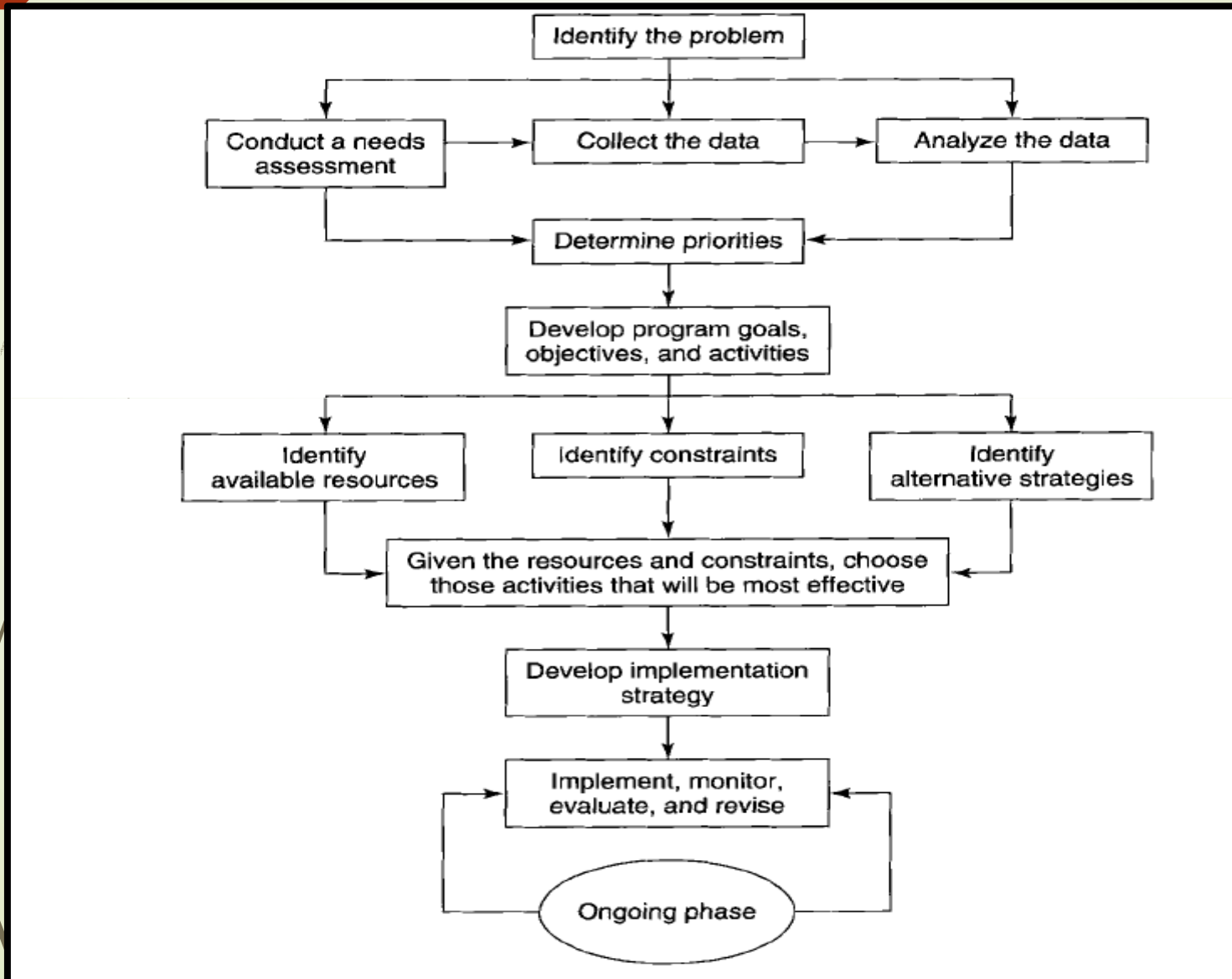
1. 10 school teachers, 5 from each school are recruited after providing training for 15 days in order to give dental health education to school children.
2. 1 school teacher is made responsible for every 300 children in providing health education and supervising fluoride mouth rinsing programme.
3. Health workers, ANMs and Anganwadi workers are utilized for providing health education to general population by training them to do so.

9. Monitoring

- **Monitoring refers to the maintenance of an ongoing watch over the activities of an health service.**
- **Monitoring often denotes not only watching, but using the observation as basis for continual modification of goals, plans or activities.**
- **The data typically collected for monitoring include:**

- 1. Input data:** Eg – financial/budgetary reports, personnel available and vacancies existing, transportation records, equipment and supplies purchased
- 2. Process data:** Eg – specific activities carried out in completing the program, the sequence in which they are carried out and their timing
- 3. Out put data:** Eg – services or goods provided (such as the proportion of target population served)

PLANNING STRATEGY FLOW CHART



10. Evaluation

- ‘Evaluation measures the degree to which objectives and targets are fulfilled and the quality of the results obtained. It measures the productivity of available resources in achieving clearly defined objectives. It measures how much output or cost effectiveness is achieved. It makes possible the reallocation of priorities and of resources on the basis of changing health needs’.

- WHO 1967

Criteria used in the evaluation of dental services (WHO-1972)

1. Effectiveness

2. Efficiency

3. Appropriateness

4. Adequacy

Effectiveness : it has been defined as “ the ration between the achievement of the program activity and the desired level which, during the planning process, the planners had proposed would result from the program”.

- WHO 1974

Three variables are useful in evaluation effectiveness:

1.Resources

2.Activities

3.Objectives

Efficiency : It has been defined as “the result that might be achieved through expenditure of a specific amount of resources and the result that might be achieved through a minimum of expenditure.”

- WHO 1974

It is a measure of the resources spent (money, men, material and time) in the process of providing a health care program.

Appropriateness: the appropriateness of the program will be judged by lay decision makers. They will weigh up **whether the problem defined by the program personnel is a problem for the community.**

Evaluation of appropriateness can be carried out at 2 levels:

- 1. Whether the aim and objectives of the program are appropriate**
- 2. Whether the strategy of the program is appropriate**

- Adequacy: a measure of adequacy **is the extent to which the population in need was covered by the services** or the extent to which the services covered the various aspects of the underlying problem.

Types of evaluation

- **There are different types of evaluation depending on the object being evaluated and the purpose of the evaluation. The most important basic types of evaluation are,**
 - a. Formative evaluation**
 - b. Summative evaluation**

Formative evaluation:

- **It refers to the internal evaluation of a program. It is an examination of the activities of a program, as they are taking place. It is usually carried out to aid in the development of a program in its early phase.**
- **It is used primarily by the program developers as to whether they are workable or whether changes should be made to improve program activities**

Summative evaluation:

- It judges the merit or worth of a program after it has been in operation. It is an attempt to determine whether a fully operational program is meeting the goals for which it was developed.
- Summative evaluation is aimed at program decision makers, who will decide as to a programs continuation or termination and also at decision makers from other programs who might be considering adoption of the program.



VIDEO LINK

➤ https://youtu.be/_9DF-s73AE4

Conclusion

- **A plan can play a vital role in helping to avoid mistakes or recognize hidden opportunities. Planning helps in forecasting the future, making the future visible to some extent.**
- **It bridges between where we are and where we want to go**

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- Soben Peter (2018). Essentials of Preventive and Community Dentistry. 6th Edition, Arya Publishing House, New Delhi; 437-448.
- Hiremath S.S. (2014). Textbook of Preventive and Community Dentistry, 5th Edition, Elsevier. New Delhi; 483-486.

SUGGESTED READING

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- ▶ Park K (2011). Park's Textbook of Preventive and Social Medicine. 21st Edition, Bhanot Publishers, Jabalpur. Page No: 807-826.
- ▶ Tomar SL. Planning and evaluating community oral health programs. Dent Clin North Am 2008; 52(2):403-21.

Frequently Asked Questions (Assignment)

Long Notes

1. Discuss the steps in planning of comprehensive oral health programme in India

Short Notes

3. Formative Evaluation
4. Summative Evaluation

MULTIPLE CHOICE QUESTIONS (Assignment)

Where a model of the program strategy is subjected to realistic operating conditions

- A. Pilot Phase B. Controlled Phase
- C. Actualization Phase D. Operational Phase

2. Which of the following is not a criteria for evaluation of dental services according to WHO 1972

- A. Efficiency B. Resources C. Effectiveness D. Adequacy

3. Which of the following is the first step in planning a health program

- A. Conduct need assessment B. Identify a problem
- C. Identify the constraints D. Determine Priorities

Thank you

**"Life is short. Smile while
you still have teeth."**

- Mallory Hopkins

