

CHAPTER 4

Managing time

Learning objectives

After studying this chapter and doing Exercises 51–55 on pages 248–255, health workers should be able to:

- investigate their own and other staff members' use of time
- plan the use of time according to the work to be carried out, i.e.
 - arrange time-tables and schedules
 - arrange duty rosters
 - arrange long-term programmes
 - annotate and use a year calendar.

Time is not often thought of as a resource. However, it is a non-renewable resource; no event can take place unless there is time for it.

USING TIME EFFECTIVELY IS A MANAGEMENT SKILL

This chapter is concerned with two aspects of the management of time:

- finding out (investigating) how staff spend time in a health service
- planning the use of time according to work to be done, using timetables, schedules, rosters and programme charts.

4.1 Finding out how staff use time

How much time is spent with patients, how much on correspondence, how much on talking to other staff, how much on visiting in the district?

These questions and others like them may be answered roughly by keeping a daily diary for a few days. An example, in the form of a table, is shown on page 196.

Health workers should make a similar table for their own activities and those of other staff members, using different headings according to their work requirements.

Example: Daily time-diary of a medical assistant in a health unit

Name of staff member Day Date

Time	Patients		People		Administration		Dis- trict	Breaks	Remarks
	OPD	Wards	Staff	Meet- ings	Office	Stock inspec- tion			
7.30	1 h								
8.30	1 h								
9.30		1 h							
10.30			10 min		20 min			30 min	Tea
11.30	1 h								
12.30			20 min		40 min				
13.30				1 h					Weekly
14.30				30 min					
Total	3 h	1 h	30 min	1 h 30 min	1 h	Nil	Nil	30 min	7 h 30 min

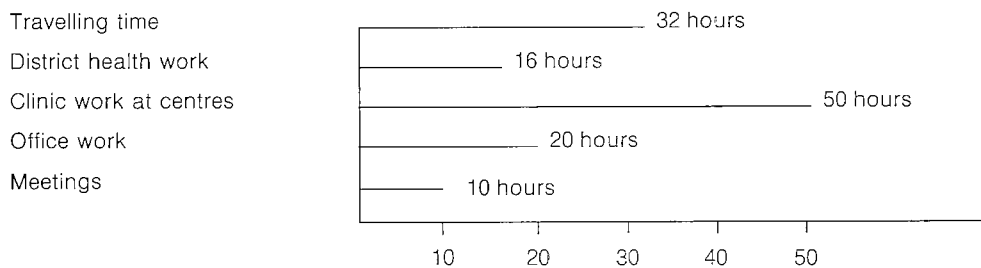


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Making the best use of time

Sometimes it is useful to know what proportions of time are spent on certain activities. For example, it may take four hours to travel to a distant health unit where only one hour is spent on health work, followed by four hours to return. In this case the ratio of time spent on health work to that spent in travel is 1 to 8. In such circumstances it might be decided to visit less often, and to stay overnight and work the following morning. Then the journey of four hours is followed by four hours' work on that day and four hours the next morning, and a four-hour return journey. This makes the ratio of work to travel 8 to 8, which is a more efficient use of time and gives a better service to the people.

The proportions of time spent each month on health work, travel and other activities can be shown on a diagram such as that shown in the following example:



This kind of analysis will often reveal where time is being wasted or not used in the best way.

Planning time arrangements

Events are arranged in daily, weekly, monthly or yearly time periods, depending on their frequency or regularity.

Time-plans are written in various common forms known as timetables, schedules or programmes. These words are often used to mean the same thing, i.e. a time-plan. In this guide terms are used in the following way:

- Timetable:* for daily or weekly regularly recurring events
- Schedule:* for intermittent, irregular or variable events, including details of where the events take place
- Roster:* for duties planned for different staff members, for different times, in turn

Programme: for long-term arrangements of several different events or activities, of which the time-plan is only one part.

Time-plans in a health service

A well-managed rural health unit may need the following time-plans:

- A weekly timetable showing the time of the week when certain regular events always occur (e.g. staff meeting).
- Several schedules showing the detailed dates on which intermittent events occur and where they occur (e.g. visits to peripheral health centres or mobile clinics).
- Several duty rosters for different sections of the work (e.g. night-call, outpatient duties).
- A programme of any special health activity (e.g. a nutrition campaign).
- An annual overview of events.

Sometimes a timetable, a schedule and a roster may be combined.

4.2 Preparing a health-unit timetable

All the activities that happen regularly each week should be listed and then arranged in an appropriate timetable grid according to local working hours.

Example 1: Health centre weekly activities and timetable

List of regular activities:

Outpatients	Daily
Ward round	Three times a week
Hygiene round	Once a week
Stock inspection	Once a week
Office correspondence	Once a week
Tuberculosis/leprosy clinic	Once a week
Home visits	Twice a week
Staff meeting	Once a week
Clinical seminar	Once a week
District visit to peripheral health unit	Once a week

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7.30	Out-patients	Out-patients	Out-patients	Out-patients	Out-patients	Out-patients Ward round
10.30	BREAK					
11.00	Ward round	Office	Ward round	TB/ leprosy clinic	District	Hygiene round
12.30	BREAK					
14.00	Stock inspection	Home visits	Staff meeting	Clinical seminar	Home visits	



Teamwork in planning and scheduling health activities

Example 2: Community activities for one month

Month:

Day	1st week		2nd week		3rd week		4th week	
	Area or district	Activities	Area or district	Activities	Area or district	Activities	Area or district	Activities
Monday		Home visiting	Village	Visit market on market day Discuss hygiene				
Tuesday	North end of village	Group: Health education. Nutrition demonstration	Village	Visit school. Talk with teacher. Hygiene discussion with teacher and children	North end of village	Inform people of next day's immunization session Immunization session	East end of village	Continue and complete immunization
Wednesday	North end of village	Meeting with village people. Discuss community project, e.g. digging well or latrines		Home visiting				
Thursday	South end of village	Group health education		Group health education	South end of village	Inform people of next day's immunization session Immunization session		Write up records of immunizations. Review future equipment needs, etc.
Friday	South end of village	Health education in village school. Meeting with school teacher	East end of village	General meeting with people and other community development workers				

4.3 Preparing health-unit schedules

A schedule is required when a different activity, or the same activity in a different place, occurs at intervals over time. For example, home visits may be made daily or several times a week, but they may cover different villages or different types of disease at special times. Similarly, mobile teams may travel on the same day each week but visit a different area. It may be decided to have an inspection every Monday but to inspect a different part of the health unit each week.

To make a schedule, each different activity or each different place is listed and assigned dates in turn; the whole cycle is then repeated. It is essential to have a calendar showing the dates of the chosen days in the months ahead.

Schedules for mobile team visits need a map showing routes, distances and travel times. Travel times will depend on the state of roads, the nature of the terrain (e.g. the number of hills), and other factors as well as the distance. It may be possible to leave half a team at one place while the rest go on to another, thus saving time. Returning by a circular route and visiting yet another place later in the day may also be possible.

Other factors to be considered in the schedule are the number of people in the villages or area (population density) and the days of local markets.

The following examples show schedules for mobile team visits and for supervision and maintenance checks of a health unit.

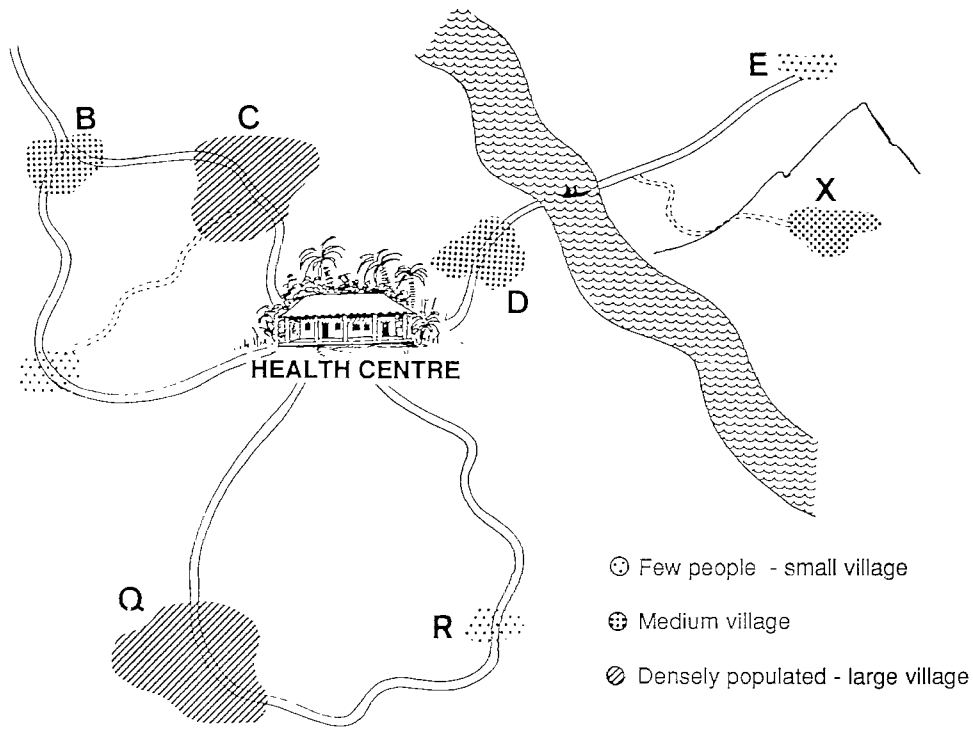
Example 1: Schedule for mobile team visits to cover eight villages

Arranged routes (see map, page 203)

- Route 1: Visit villages A, B and C.
Leave half the team at A, to walk to C later.
Go to B for morning clinic.
Whole team at C for afternoon clinic.
- Route 2: Go to village E to catch early morning ferry.
Return to D by midday to hold afternoon clinic.
- Route 3: Visit X only (long distance over mountain road).
- Route 4: Morning clinic at village Q.
Short clinic at R on return.

Travel every Tuesday and Friday, thus visiting each place every two weeks.

		Villages ABC Route 1	Villages DE Route 2	Village X Route 3	Villages QR Route 4
April	Tuesday	April 04			
	Friday		April 07		
	Tuesday			April 11	
	Friday				April 14
	Tuesday	April 18			
	Friday		April 21		
	Tuesday			April 25	
	Friday				April 28
May	Tuesday	May 02			
	Friday		May 05		
	Tuesday			May 09	
	Friday				May 12
	Tuesday	May 16			
	Friday		May 19		
	Tuesday			May 23	
	Friday				May 26



Example 2: Schedule for supervision and maintenance checks of a health unit

<i>To be inspected</i>	<i>Every Monday, as shown</i>				
Store-room and stock ledger	April	03	Holiday	July	24
Laboratory, laboratory inventory		10	June 05		31
Building, grounds, kitchen		17	12	Aug	7
Vehicle and log-book		24	19		14
Outpatient and inpatient units	Holiday		26		21
Maternity and MCH unit	May	08	July 03	Holiday	
Office and filing systems		15	10	Sept	04
Drug stock and drug usage		22	17		11

In Example 2, each section has a special control inspection every eight weeks. This spreads the work of control and maintenance evenly over the year and takes very little time (perhaps one hour) each week.

Public holidays often occur on scheduled dates. When this happens, another time must be planned for the activity, or the inspection may wait for another eight weeks.

4.4 Preparing duty rosters

A duty roster is a time-plan for distributing work among staff members in turn.

Duty rosters are common in all types of health work. They are needed for three purposes:

- to distribute work fairly and evenly outside normal working hours (e.g. night, weekend, holiday and overtime duty)
- to distribute uninteresting or difficult work, and interesting or varied work, equally among the various members of the unit; in maternity work, for instance, midwives could rotate among the mobile team, the delivery unit and the clinic
- to divide extra duties among the whole staff; such extra duties might include supervision of the nutrition garden, making education posters, tracing defaulters and doing the hygiene inspection.

Making duty rosters fair and just to all staff members is both difficult and important. Unless they are arranged very carefully they can cause a great deal of trouble and quarrelling.

Rosters have to be changed frequently, because staff become sick, go on leave, or are transferred or promoted, or because public holidays intervene.

Two rules for duty rosters

When rotating several people (or groups) through several types of duty, there are two important rules:

- The length of time of each duty period must be the same as for all other types of duty period. A duty period may be a day or a week or a month, but all periods must be the same within a single roster.
- The number of people (or groups) working in turn must divide evenly into the number of duty stations or duty periods; for instance, three people cannot be rostered through five duty stations, or five people through three duty stations.

To make a duty roster, the date of the beginning of each new roster should be listed in the left-hand column. The duty stations should be listed across the page. Names should be filled in, in order from left to right, starting each new line one column further on.

Example: A duty roster problem

Suppose there is a group of eight nurses to work in turn through six different health centre duties, e.g. wound dressing station, injection stations, examination room, maternal and child health (MCH) clinics, delivery ward, and night duty.

According to the roster rules, the number of duty periods must be equal to, or divide evenly by, the number of people (or groups) to be rostered. In this case, there are six duty stations and eight people. Because eight does not divide evenly into six, it is not possible to make a roster.

What is the solution to this problem?

- Reduce the nurses to six groups by making two group of two nurses and four 'groups' of one nurse, or keep two nurses in reserve to be placed when others fall sick or are very busy. This permits a six-week roster.

The eight nurses are Nurses A, B, C, D, E, F, G, H.
 The six nurse groups are AG, BH, C, D, E, F

Weeks beginning		Wounds	Injections	Examination room	MCH	Deliveries	Night duty
April 10	May 22	AG	BH	C	D	E	F
17	29	F	AG	BH	C	D	E
24	June 05	E	F	AG	BH	C	D
May 01	12	D	E	F	AG	BH	C
08	19	C	D	E	F	AG	BH
15	26	BH	C	D	E	F	AG

- Increase the duty periods to eight by doubling the time at two of the duty stations so that they appear twice on the roster. This permits an eight-week roster.

The eight nurses are Nurses A, B, C, D, E, F, G, H

Weeks beginning		Wounds	Injections	Exam. Room	MCH	MCH	Delivery	Delivery	Night duty
April 10	June 05	A	B	C	D	E	F	G	H
17	12	H	A	B	C	D	E	F	G
24	19	G	H	A	B	C	D	E	F
May 01	26	F	G	H	A	B	C	D	E
08	July 03	E	F	G	H	A	B	C	D
15	10	D	E	F	G	H	A	B	C
22	17	C	D	E	F	G	H	A	B
29	24	B	C	D	E	F	G	H	A

4.5 Preparing a programme chart

A programme is a plan that outlines a series of events or activities that will take place in the future. A programme usually includes *what* will be done, *where* it will take place, *who* will do it, and *when* it will occur. The time-plan is therefore only part of the total programme.

4.6 Preparing a year calendar

In the course of a year many things happen that are outside the normal routine. These may be matters of administration such as annual stock-taking, estimates, annual reports, and statistical returns, or they may be external events such as festivals, elections, conferences and seminars, or visits by dignitaries.

So that the whole year may be seen at once, it is very convenient to have a one-page annual calendar or year-planner pinned on the wall, with important events marked. This has two functions:

- it acts as a reminder of definite events, usually outside one's control
- it shows where it is possible to fit in new events such as special meetings or periods of travel.

Lined paper (with about 30 lines) is useful for this. Dates of the months are written down the left margin and 12×1.25 cm columns are drawn across the page, one for each month. Dates you wish to be reminded of, and dates of all public holidays, should be entered.

Example: A year calendar

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1					/							
2												
3												
4												
5		xD									Elec. day	
6		xM										
7		xO										
8									/A			
9									/N			
10				S		xM			/N			
11				E		xO			/U			
12				M		xH			/A			
13				I					/L			
14				N					/			
15				A					/L			
16				R					/E			
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Code: / Public holiday
 x Visits: DMO = District Medical Officer, MOH = Ministry of Health