Monitoring drug coverage for Preventive chemotherapy

World Health Organization

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Preface

In a drive to promote the control and reduction of morbidity attributable to lymphatic filariasis, onchocerciasis, schistosomiasis and soil-transmitted helminthiasis, the World Health Organization, through its Department of Control of Neglected Tropical Diseases, has developed a rapid-impact strategy known as preventive chemotherapy. This public health intervention depends on the integration and delivery of a tried and tested drug package. It may also form a component of the approach for the control and reduction of morbidity caused by trachoma known as SAFE (Surgery, Antibiotics, Facial cleanliness and Environmental improvement). How to plan and use preventive chemotherapy is explained in the manual Preventive chemotherapy in human helminthiasis, published by the Organization in 2006 (see Section 5). Health professionals should note that preventive chemotherapy is one of the elements needed to overcome neglected tropical diseases; case management, health education, improved sanitation and clean water supplies are equally important.

When the manual on preventive chemotherapy was introduced, the WHO Department of Control of Neglected Tropical Diseases began work to develop a second manual offering advice on how to monitor and evaluate the delivery and effects of preventive chemotherapy in the target populations of countries where these diseases are endemic. Many colleagues have contributed to this effort: they are thanked in the acknowledgements section above. Drafts of a proposed comprehensive manual on monitoring and evaluation indicated that it would probably be too big and diverse in content to help programme managers dealing with neglected tropical diseases. Accordingly, the Department has decided to release a series of shorter manuals covering crucial aspects of monitoring and evaluation. This preface introduces the first, Monitoring drug coverage for preventive chemotherapy. Other manuals will follow, dealing with drug efficacy, the management of adverse events and the evaluation of various impact indicators.

Monitoring for Preventive

drug coverage
chemotherapy

1. PURPOSE OF THE MANUAL

Public health interventions using preventive chemotherapy to control neglected tropical diseases (NTDs) depend on people in endemic areas receiving the medicines or drugs they need in the places where they live, at appropriate regular intervals. After making arrangements to ensure access to such drugs, programme managers must be able to follow the progress of the intervention. The first and fundamental step in the process consists of monitoring drug coverage when the drugs are swallowed by individuals at the point of delivery. Managers must know how many people in need of treatment received the treatment when and where it was offered. Without reliable information about drug coverage (see Figure 1), programme managers and their staff cannot monitor programme performance effectively. Working to achieve the objectives of an NTD control programme involving PC requires regular and careful monitoring of drug coverage.

Quantitative results from monitoring drug coverage have several important consequences for programme managers.

1. Reliable drug coverage contributes to informed decisions and policy formulation for NTD control.

2. Difficulties encountered during rounds of large scale treatments can be revealed, such as the identification of places where fewer people received drugs than intended. Corrective action can then be taken.

3. Providers of drugs and funds to support drug delivery, including the governments of disease-endemic countries, can be assured that their support is cost effective. Confidence in and justification of the programme are maintained.

The first and fundamental step in the process consists of monitoring drug coverage when the drugs are swallowed by individuals at the point of delivery. Managers must know how many people in need of treatment received the treatment when and where it was offered.

4. Workers and volunteers involved in drug delivery can be informed about their efforts. This is important feedback which can contribute to maintaining staff morale.

5. Compliance is reinforced when target communities learn that high coverage has been achieved.

6. Advocacy for more support for NTD control is strengthened by knowledge that many people in need are getting treatment.

7. Forecasting for drug supplies for future treatment rounds is helped by the best information about drug coverage.

Figure 1. Three main categories of indicators for monitoring preventive chemotherapy
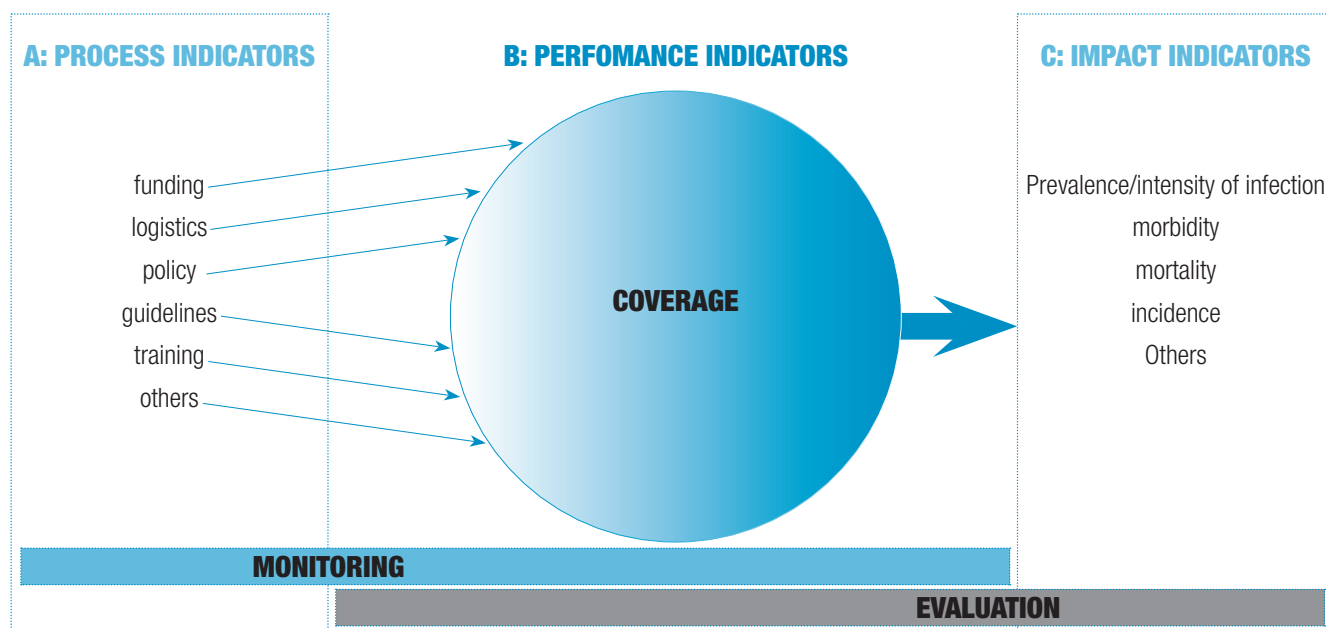
2. DEFINING AND PLANNING THE MEASUREMENTS OF DRUG COVERAGE

Drug coverage is the proportion of individuals in a defined population who swallowed a drug or, as is the case in PC, a combination of drugs. The defined population can be (a) a target group for treatment, e.g. school-age children, (b) the people in a geographical region, administrative area or communities highly endemic for specific diseases or (c) the people in an entire country. These three types of coverage are referred to as programme coverage, geographical coverage, and national coverage respectively.

2.1 Calculating drug coverage

Each form of coverage is expressed in percentage terms obtained from the following equation:

Numerator ÷ denominator x 100 = drug coverage (%)

National programmes need to report drug coverage in the three forms, as explained below. Annex 1 gives examples of the calculations for programme coverage, geographical coverage and national coverage.

2.1.1 Programme coverage

In some situations, the particular programme or project targets only a sub-set of the individuals living in the defined endemic area, e.g. a school-based deworming programme targets school-age children for administration of the PC package. In the context of a package based on ivermectin + albendazole or diethylcarbamazine + albendazole, a certain section of the population will not be eligible for treatment because of being under a certain age or height or being pregnant. In these situations the programme coverage is an indicator of the effectiveness of the particular intervention, as per the target population.

$$\frac{\text{Number of } \textbf{individuals in the target population ingesting } \textit{the PC drugs in [designated] } \textbf{endemic } \textit{area}}{\textit{All the } \textbf{individuals targeted for treatment } \textit{in the [designated] } \textbf{endemic } \textit{area}} \times 100$$

2.1.2 Geographical coverage

While the above format of reporting is a measure of population-based drug coverage, geographical coverage is an indicator of scaling-up of the PC programme in a country. It is the proportion of administrative units that are implementing PC of all those that require to be covered by a particular PC package.

$$\frac{\textit{Number of }\textbf{endemic administrative units}\textit{ where }\textbf{PC is implemented}}{\textit{Total number of }\textbf{endemic administrative units}\textit{ where }\textbf{PC is required}} \times 100$$

The target for all programmes is to reach 100% geographical coverage in as short a time as is feasible.

2.1.3 National coverage

National coverage is the proportion of individuals in an endemic country requiring preventive chemotherapy for a specific disease who have ingested the appropriate drug as part of a PC package.

$$\frac{\textit{Number of }\textbf{individuals ingesting}\textit{ PC drug for a specific disease in an endemic country}}{\textit{Number of }\textbf{individuals at the national level requiring}\textit{ PC for a specific disease in an endemic country}} \times 100$$

It is calculated after each round of administration of a PC package. This indicator is synonymous as the "therapeutic coverage" defined in the Onchocerciasis Control Programmes or the "drug coverage" defined in the Programme to Eliminate Lymphatic Filariasis.

National programmes need to report drug coverage in the three types given above. Annex 1 presents an example of calculation of the above types of coverage.

2.1.4 Components of the equation

Numerator
The numerator ought to be the most accurate figure for the number of people known to have taken the drug. There may be variations depending on the local needs of the programme. For example, a programme may need to know about the number of schools, villages, districts or implementation units in which the drug was delivered (numerator) as a proportion of the intended number of schools, villages, districts or units targeted for delivery (denominator). **Eventually, it is the number of people treated that will have to be reported to the higher levels**.

Denominator

The form of the denominator depends on how drug coverage is to be expressed to meet programme needs. The denominator may be the number of targeted school-age children, the number of people living in a number of villages or in a region (e.g. coastal or forest), or the national population. In most cases, the best information for setting the denominator should be available from the National Census Office where the most up-to-date demographic information will be kept. The census office will also have information about the geographical distribution of the population in the country. There are accepted methods for estimating the population of a country by applying the population growth rate to data from the most recent census. Such projected population data should be used.

Accurate demographic information may not be available for people living in remote places or for nomadic groups who may nevertheless have benefited from a round of mass drug administration. In such instances, nongovernmental organizations and programmes such as the African Programme for Onchocerciasis Control may be able to provide population estimates derived from household censuses conducted as part of their programme work.

2.2 Further considerations

There is compelling evidence for the direction of treatment for schistosomiasis and soil-transmitted helminthiasis towards children, often referred to as "school-age children". For the sake of standardization and intercountry comparability, school-age children are considered as children aged 5–14 years. In any given country, the number of children in this age group can easily be found in census figures. The reality may be, however, that many older children attend primary school. One therefore has to accept that coverage figures can be "gross" (above 100%). Programme managers should ensure that the school-age children group has been clearly defined. Does the group mean only children aged 5–14 years? Does the group mean those attending school? How about the many children of school age who happen not to be enrolled in the school system? If this point is not clarified, the value of the denominator may distort the value of the drug coverage result (see also Table 1). Programme managers should ensure that the denominator used to compute national coverage includes all children – both in and out of school.

While PC encompassing at least four major NTDs becomes a more efficient process when implemented according to the charts in the PC manual, planning and monitoring drug coverage for the individual diseases targeted by PC can become complicated. For example, a country in which the entire population is at risk of lymphatic filariasis may also have dispersed groups within the country who are at risk of schistosomiasis, which is a highly focal disease. Monitoring drug coverage will need to accommodate data on all those who received ivermectin and albendazole for lymphatic filariasis and some of those who in addition received praziquantel for schistosomiasis. Those who received albendazole were automatically treated for soil-transmitted helminthiasis which may or may not be endemic; however, a second round of treatment, with either albendazole or mebendazole, may be

desirable for people at high risk of soil-transmitted helminthiasis. Among those most at risk of soil-transmitted helminthiasis will be children and so the second round of treatment may be targeted on them. Therefore preparation and training for monitoring drug coverage should be done carefully and completed before rounds of large-scale treatment begin.

Until drug treatment directed against blinding trachoma can be fully integrated into the PC system, monitoring drug coverage should remain a less complicated process provided numerators and denominators are identified unambiguously. Advice is provided in *Trachoma control: a guide for programme managers*, published by WHO in 2006 (see Section 5).

3. DATA COLLECTION AND INFORMATION FLOW

Collecting and recording information about the numbers of people who received treatment during PC is the most important aspect of monitoring drug coverage. This information should be collected at the places where people receive treatment, i.e. the peripheral level (community hall, health centre, school, village or some other site designated by the programme or the community). For best practice and greatest accuracy, the information to be recorded should be collected on the day the treatment is given, and at a minimum should include the age-group and sex of each person (adult or child; male or female). The form on which this information is recorded should show the round of PC, the name of the drug(s) for the treatment, the place and date of treatment, and the identity of the person completing the form.

3.1 Data collection forms for use at the peripheral level

3.1.1 The tally sheet

The check sheet in Annex 2.1 has been developed from experience gained during large-scale interventions to deliver vaccines to communities (mass campaigns for meningitis outbreaks, yellow fever and poliomyelitis) and drugs for targeted diseases (schistosomiasis and trachoma). The form's tally consists of small circles arranged in blocks of 10 under two headings – sex (male or female) and age group (preschool-age children, school-age children or adults). When a drug combination is offered and swallowed, the recorder fills in the appropriate circle with a pencil, i.e. converts the circle to a spot. The numbers of filled spots are entered in the totals rows at the bottom of each column. Health workers or volunteers responsible for completing the forms must keep them safe until they are collected by team supervisors who deliver them to the district office where they are compiled. Every effort should be made to complete compilation of all district data within one month of the end of each round of PC. Programme managers are advised to set up a simple system for following the collection and delivery of the forms from the peripheral to the district level and then on to national level. Each supervisor should know the number of forms to be collected (the completeness of the exercise) and a log should be kept of the number of forms that finally reach the district (the timeliness of its execution). Supervisors at district level should know the due date for the delivery of their form(s) to the national level. The smooth running of this process can help with the subsequent analysis of drug coverage and the progress of the programme (see Section 4 below).

3.1.2 Registers

Some programmes use a tabular form bound into registers, in which the names and exact addresses of the individuals who receive the drug are recorded. Such a form, an example of which is given in Annex 2.2, may be easy to use where

numbers of individuals treated at the peripheral level are not overwhelming. The tabulated format should be consistent with the PC data capture tools in provided data – by sex (male and female) and age group (preschool-age children, school-age children and adults).

3.2 Data compilation forms for use at the district level

3.2.1 Data summary form

The example in Annex 3 has been adapted from the manual Preventive chemotherapy in human helminthiasis for recording drug coverage at district level. The purpose of such forms is to summarize all the available data collection for each round of PC at the peripheral level. When completed, they are sent by the agreed due date to the national programme manager's office. Various organizations supporting the implementation of PC in the country should similarly submit copies of their summaries to the national health authorities, ideally through the authorities of the district in which they are active. The national authorities should submit their programme report annually to the WHO country office for transmission through the WHO regional office to WHO/NTD. This information must be received promptly in order to be included in reports to the World Health Assembly, which has adopted several resolutions with set targets for the control of NTDs.

A suggested pathway for the flow of drug coverage data during PC is illustrated in Figure 2.

Figure 2. Recommended pathway for preventive chemotherapy data flow
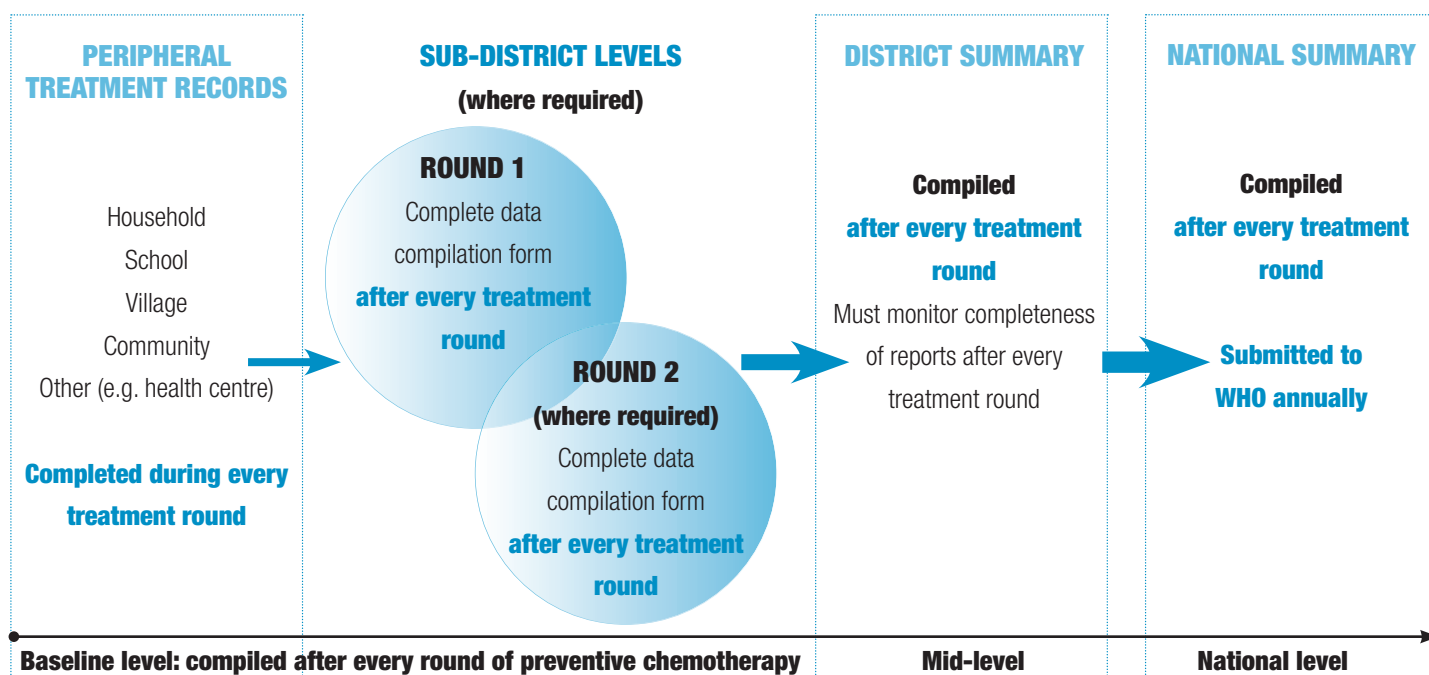
3.3 Quality control of data collection and information flow

Various methods for quality control could be included to assess the efficiency of the process of monitoring drug coverage. Specific tools may need to be developed further for this purpose. In the meantime, simple data quality assessment tools and rapid coverage assessment methods should be used, similar to those employed in large-scale vaccination campaigns. The following steps can give information about the process and can identify points in need of attention.

- Check that all the forms and items needed to record drug coverage were in place when the round of PC began.
- Check the number of recording forms received by the district office from the peripheral levels. Does this represent a high proportion of the number distributed?
- Check how many forms reached the district by the due date.
- Check how many forms from the districts reached the national office by the due date.
- Check the accuracy of the recording at the peripheral level by interviewing people in a selection of places where the drug treatment was administered. These interviews may be carried out at sentinel sites. Staff recording data during the PC should not know if they are working in a sentinel site.

Other checks may be used according to the needs of the programme and available resources, but some form of quality control is highly desirable.

4. DATA COMPILATION AND ANALYSIS

Coverage should be analysed by age group (adults aged 15 years or older, preschool children aged 1–4 years and schoolchildren aged 5–14 years) and by sex. Where good records have been kept at the peripheral level and careful compilations have been prepared at the district level, calculating drug coverage will be straightforward. The task is nevertheless time-consuming, given the number of people who are reached by modern control programmes.

4.1 Data quality concerns

Initial exploration of the data may give cause for concern. For example, more people may have been recorded as having taken a drug in a district than would be possible according to the number of tablets issued to that district. Some common concerns about suspect data and their possible causes are set out in Table 1, as an aid to identifying ways of rectifying problems.

Table 1. Examples of data quality concerns and possible causes

Data quality concern	Possible cause

Coverage >100%	• Numerator too high because it includes:
	  – persons treated who are not part of the population in which coverage is being monitored (i.e. those who live in another area and are not part of the denominator)
	  – persons treated who are outside the target group (by age group, height,[a] or eligibility)
	  – many children older than 14 years of age who attend primary schools
	  – fictitious treatments (reported but not given)
	• Denominator too low because:
	  – last census results were used rather than the projected population
	  – projections underestimated the population (e.g. there may have been an unexpected influx of new residents)
	  – incomplete aggregation of denominators or data entry errors resulted in aggregated denominators that are too low
	  – it is based on drug distributor reports of total population but the reports do not provide a complete count of the total population

Large variations in total number of PC doses used from year to year at the same reporting level	• Variable completeness of reporting • Changes in management or implementation strategies • PC extended to new areas • PC no longer conducted in some areas
Large discrepancy between PC doses distributed from stores and number of doses reported as ingested during the same treatment round	• Reports missing from lower levels • Inconsistent or poor data recording of drug inventories in stores • Inconsistent or poor data recording by drug distributors • Some drug distributors reported only the number of persons treated and not (in addition) the total number of tablets ingested • Large number of persons absent or unwilling to swallow tablets • Tablets lost or used for other purposes

[a] Refers to the use of dose poles for determining the correct dose of certain drugs. PC = preventive chemotherapy.

4.2 Presentation of drug coverage

The manner in which the coverage data is presented is important for: national and district records; country profiles; donors; health workers and community volunteers; advocacy agents; and media outlets including web sites, newspapers, radio and television. In addition to tabulated data, drug coverage should be displayed in charts and diagrams that highlight needs as well as progress. Opportunities should be sought to promote accurate publicity about drug coverage and the benefits it brings to people in need of treatment.

4.3 Feedback about drug coverage

Efforts should be made to publish and to disseminate widely the annual national report on the control of NTDs by the first quarter following the implementation year (i.e. before 31 March). Health workers and community volunteers who capture data at the places where PC is delivered deserve to be told as soon as possible about the results of their work. Feedback helps to:
- acknowledge and thank people for their dedicated work;
- improve the quality, completeness and timeliness of collection forms;
- develop a team spirit and a feeling of belonging to a national programme;
- encourage worker and community compliance for the next round of PC.

5. TECHNICAL GUIDELINES ON DRUG COVERAGE

- *Preventive chemotherapy in human helminthiasis*. Geneva, World Health Organization, 2006 (WHO/CDS/NTD/PCT/2006.2).
- *Trachoma control. A guide for programme managers*. Geneva, World Health Organization, 2006.
- *Monitoring and epidemiological assessment of the programme to eliminate lymphatic filariasis at implementation unit level*. Geneva, World Health Organization, 2005 (WHO/CDS/CPE/CEE/2005.50).
- *Helminth control in school-age children. A guide for managers of control programmes*. Geneva, World Health Organization, 2002.
- *Monitoring helminth control programmes. A guide for managers of control programmes (II)*. Geneva, World Health Organization, 1999 (WHO/CDS/CPC/SIP/99.3).
- *Guidelines for the evaluation of soil-transmitted helminthiasis and schistosomiasis at community level. A guide for programme managers*. Geneva, World Health Organization, 1998 (WHO/CTD/SIP/98.1).
- *Onchocerciasis and its control. Report of a WHO Expert Committee on Onchocerciasis Control*. Geneva, World Health Organization, 1995 (World Health Organization Technical Report Series, No. 852).

ANNEXES

ANNEX 1.

In an endemic country made up of 40 districts with an average prevalence of 30% for soil-transmitted helminthiasis, a school-based deworming programme targets all school-going children in all the districts with the administration of albendazole. The population strata of the country is as follows:

Age-group	Number
0 – <1year	1 000 000
1 – <2 years	750 000
2 – 4 years	1 250 000
5 – 14 years	3 000 000
> 15 years	4 000 000
Total:	**10 000 000**
Number of pregnant women[a]	2 000 000

[a] Arbitrarily estimated at 2% for this population.

Of this population, 2 000 000 children in the age group 5–14 years are enrolled in schools. Of these 2 000 000 school-enrolled children, the deworming programme administers albendazole to 1 750 000 children. The expanded programme on immunization treated 1 500 000 pre-school age children as part of the national child health day activities.

The effectiveness of the school-based deworming is measured by calculating the **programme coverage** as:

$$\frac{1\,750\,000 \text{ (number of children administered albendazole in the schools)}}{2\,000\,000 \text{ (total number of school-enrolled children in the country)}} \times 100 = 87.5\%$$

The **national coverage** of deworming school-age children only is calculated as;

$$\frac{1\,750\,000 \text{ (number of school-age children who received treatment in the district)}}{3\,000\,000 \text{ (total number of school-age children in the country)}} \times 100 = 58.33\%$$

The **national coverage** of deworming **pre-school and school-age children** is calculated as:

$$\frac{3\,250\,000 \text{ (number of children administered albendazole in the schools)}}{5\,000\,000 \text{ (total number of pre-school and school-age children in the country)}} \times 100 = 65.0\%$$

The **geographical coverage** for school-based deworming programme in the country is calculated as:

$$\frac{40 \text{ (number of districts in which school-based deworming is implemented)}}{40 \text{ (total number of districts in the country)}} \times 100 = 100\%$$

If the country is also endemic for lymphatic filariasis and has no coendemity of onchocerciasis, the PC package DEC and albdendazole is administered. Here, children aged below 2 years (1 750 000), pregnant women (2 000 000) and seriously ill individuals are not eligible for treatment. **The eligible individuals are the target to be treated by the programme**.

Of the population, 5 800 000 individuals are administered the two drugs. The **national coverage** is calculated as:

$$\frac{5\,800\,000 \text{ (number of individuals administered the two drugs)}}{10\,000\,000 \text{ (total number of individuals in the country, all at risk of infection)}} \times 100 = 58.0\%$$

However, the **programme coverage** is calculated as:

$$\frac{5\,800\,000 \text{ (number of individuals administered the two drugs)}}{6\,250\,000 \text{ (total number of targeted individuals after excluding under 2-year olds and pregnant women in the country)}} \times 100 = 92.80\%$$

ANNEX II.1 Forms for data collection at the peripheral level – Example of a tally sheet

Country: ....   Region/Province: ....   Form Number: ....

Tally sheet for recording preventive chemotherapy treatments at drug distribution points.   Drugs distributed (tick as appropriate):

☐ praziquantel   ☐ albendazole/mebendazole   ☐ ivermectin   ☐ diethylcarbamazine   ☐ azithromycin

District: ....   Health unit: ....   Town/Village: ....   Area: ....

SEX	Male			Female		
AGE GROUP	1–4 years	5–14 years	≥15 years	1–4 years	5–14 years	≥15 years
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO	OOOOO OOOOO
TOTAL treated, by age group						
TOTAL treated, by sex						
TOTAL TREATED: males + females						

Number of persons treated

Community drug distributor: ....   Supervisor: ....   Date: ....

ANNEX II.2　Forms for data collection at the peripheral level –
Example of a register

Country: ....　Region/Province: ....　District: ....

Place of treatment: ....　□ Health centre　□ Village　□ School

Name of distributor: ....

Dates (mm/dd/yr): ...... /....../...... to ...... /...... /......

ROUND No: ....

No.	INDIVIDUAL IDENTIFICATION		Age (years)	Sex (M/F)	Drug 1: .... (name of drug) Enter no. of tablets given	Drug 2: .... (name of drug) Enter no. of tablets given	Reasons for non-treatment* (Enter code as given below)
	Name	Address					
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

Notes
*Codes for non-treatment: 1 = pregnant; 2 = lactating (only in case of MDA1 or MDA3); 3 = - sick; 4 = under age/height; 5 = refused; 6 = absent; 9 = other.
If more than one round of preventive chemotherapy per year is indicated in this treatment area, a second form should be used for round 2 of treatment (2nd round package of drugs).
If necessary, the form can be printed or drawn on two facing pages and extended horizontally to cover more years.

ANNEX II.3 Form for data compilation at the district level –
Example of a tabulated summary

FORM FOR SUMMARIZING PREVENTIVE CHEMOTHERAPY TREATMENTS

Person reporting:_____   Administrative level: _____   Reporting date: _____
Round of treatment (Round 1 or Round 2): _____

Diseases targeted	Yes or No	Drug used	Number of tablets recieved	Number of tablets used	Number of tablets remaining
Lymphatic Filariasis					
Onchocerciasis					
Soil-transmitted helminths					
Schistosomiasis					

Total number of reports expected:_____   Total number of reports recieved: _____
Percentage of return of reports: _____%

NAME OF REPORTING UNIT	INDIVIDUALS TREATED					
	Pre-school age children (1-4 years)		School-age children (>5-14 years)		Adult (>15 years)	
	Male	Female	Male	Female	Male	Female
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
TOTALS						

[a] Note: This form should be adapted for use to report data from health facility-based, community-based and school-based drug distributions.

Helminth infections impose a great burden on poor populations in the developing world. Yet there are robust, low-cost and effective public health interventions that can relieve that burden and enable people in poor settings to lead better lives. Preventive anthelminthic chemotherapy aims at using available anthelminthic drugs either alone or in combination as a public health tool for preventing morbidity due to more than one form of helminthiasis at once. The emphasis of preventive chemotherapy is therefore on the best, coordinated use of drugs rather than on specific forms of helminthiasis. The greatest challenge is to expand regular anthelminthic drug coverage as a public health intervention to reach all at risk of morbidity induced by helminth diseases.

Working to achieve the objectives of a national programme for the control of Neglected Tropical Diseases by implementing preventive chemotherapy requires regular and careful monitoring of drug coverage. Without reliable information about drug coverage programme managers and their staff cannot monitor programme performance effectively. Managers must know how many people in need of treatment received the treatment, when and where it was offered. This manual provides programme managers with standardized guidelines for monitoring and reporting of drug coverage for preventive chemotherapy.