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RECOMMENDATION BY THE EXECUTIVE DIRECTOR FOR AN APPORTIONMENT
TO MOROCCO FOR THE EXTENSION OF THE CAMPAIGN AGAINST TRACHOMA
AND ASSOCIATED EYE DISEASES

1. In this paper the Administration recommends that out of the African area allocation the sum of \$37,000 be allocated to Morocco for assistance in extending the present campaign against trachoma and associated eye diseases. If this recommendation is approved it will represent an increase in the assistance granted by UNICEF to Morocco in May 1952 when the Executive Board apportioned \$100,000 towards the cost of transport and necessary medical supplies for one year (E/ICEF/R.313). At that time the French Government asked UNICEF for assistance in the campaign for a period of two years but requested the necessary supplies for the first year only.
2. UNICEF received from the Shereefian Government of the French Protectorate in Morocco a report on the 1953 campaign, the 1954 programme and a summary of plans for 1955-56. A summary of this report is given in the annex hereto.

1953 campaign

Conjunctivitis

3. The 1953 campaign can be described in a few words as having proceeded according to plan. There was a mass campaign against seasonal conjunctivitis and a campaign on a smaller scale against trachoma in schools. The campaign against seasonal conjunctivitis, "Operation Day" as it is called in the report, took the form of an instillation of aureomycin ointment twice a day for three days each month for six months. Each inhabitant of the district received this treatment as a preventive or curative measure. The work was carried on in the

southern territories, in the foothills to the south of the Atlas range where, during the epidemic season between June and November, 114,000 persons were treated by 17 teams consisting altogether of 87 persons. Conditions of work were extremely difficult.

"The inhabitants were expected to assemble for treatment at 7 a.m. and 5 p.m. The teams had to leave camp early enough to allow for the length of the journey. Towards the end of summer, the hour of the afternoon assembly was put forward so that treatment could be completed by nightfall. In most cases teams did not return at mid-day for in summer even a short journey in the middle of the day is likely to cause engine trouble with vehicles and involves heavy wear on the tyres.

"It should be pointed out that from June onwards the maximum daily temperatures in these areas vary between 40 degrees Centigrade (104 degrees Fahrenheit) and 50 degrees C. (122 degrees F.). The heat does not begin to diminish until the onset of the rains in October."

4. Although only the statistics for the first three monthly cycles of treatment have been analysed, it is already possible to state that the campaign has produced very good results.

"The inhabitants consider that, as a result of treatment, the summer of 1953 was the most unusual in human memory and was called saif balash ramad, or the summer without conjunctivitis.

"There can be no question of special epidemiological conditions.

A very widespread investigation has shown that everywhere else the conjunctivitis epidemic followed its normal course."

5. At the same time, this treatment for the prevention of conjunctivitis has also curbed the incidence of trachoma. In a pilot sector in Skoura where the campaign was launched in 1952 and where "Operation Day" (Opération Jour) was carried out twice, a clinical study showed that:

- (1) serious cases of malignant trachoma had decreased from 57.4 per cent to 9.2 per cent;
- (2) slight or clinically inactive cases of trachoma had risen from 41.5 per cent to 90.6 per cent.

Trachoma

6. At the end of the conjunctivitis season staff were assigned to the campaign against trachoma itself in schools. Trachoma requires much more intensive treatment. The campaign takes the form of an instillation with ointment three times a day for a period of 60 days. Between December 1953 and March 1954 20,000 school children suffering from the disease will receive this treatment.

7. Some comments (by the Department of Health) on the results obtained in 1953 are reproduced below:

"The first results obtained have proved beyond doubt that mass campaigns had a very beneficial effect both on acute conjunctivitis and on trachoma contracted by children in an infected family environment."

"The popular success of 'Operation Day' throughout the Ouarzazate area provides valuable encouragement for the future. We are convinced that after systematic treatment in areas where trachoma is most prevalent the task will soon be simplified. As a result of the spontaneous publicity which accompanies the mass campaign, it will be sufficient to provide the more advanced peoples of the Atlantic seaboard with the necessary medicaments in order to stamp out conjunctivitis epidemics and reduce the incidence of trachoma to manageable proportions without risk of complications. Action by the Department of Health will then be confined to the supervision of family treatment."

"In the meantime, however, mass campaigns are necessary. Prompt arrangements have to be made for repeated mass campaigns to be carried out regularly for three years at least, before trachoma can be eliminated from those areas where climatic and social conditions are so favourable to its growth."

Plans for 1954

8. The campaign against conjunctivitis is to be extended to a new district of 138,000 inhabitants to the east of the district already treated. At the same time, treatment will be repeated in the latter but in the form of supervised self-treatment, i.e. the ointment will be distributed to families who are now acquainted with its beneficial effects and who know how to administer it. A check of the incidence of conjunctivitis will be carried out every month. After the third year, by which time the habit of using the ointment will be still more firmly established, it is proposed merely to sell it at a reduced price. A check will then be carried out by the sampling method. Self-treatment has already been tried on 9,000 people in the Skoura district.

9. The campaign against trachoma is to be extended to 40,000 school children in Marrakesh, Casablanca and other towns.

10. During 1953, UNICEF supplies amounted to \$73,000 out of a total of \$100,000 allocated. For the second year, a sum of \$64,000 is required. Whereas the demand for ointment will increase, that for transport will be reduced, although the fleet of cars already supplied is proving insufficient and nine more vehicles are necessary.

UNICEF Commitments

11. If this recommendation is approved, UNICEF will provide the following supplies:

	<u>Dollars</u>
(a) Transport: 9 utility vehicles for the transport of mobile groups and 1 liaison car. There will be four new teams and replacement vehicles are necessary.	20,000
(b) Antibiotics and sulphamides for the treatment of eye diseases.	24,000
(c) Equipment for fly control and other purposes	<u>20,000</u>
	64,000

The estimated cost of these supplies is \$64,000. Of the apportionment of \$100,000 made in May 1952, there remains an unexpended balance of \$27,000 and consequently for the second year of the campaign an additional apportionment of \$37,000 only is requested.

WHO Commitments

12. At the moment, the Executive Board has apportioned \$47,000 for the reimbursement to the World Health Organization of the costs of international staff during 1954 and part of 1953.

13. As stated in document E/ICEF/R.313, WHO has been associated with the development of the plan of operations. WHO also gave its technical approval to the campaign projects for 1954-1955.

Government Commitments

14. The Government will provide 96 million francs (\$275,000) for the continuation of the campaign during 1954. It will continue to provide or be responsible for the staff, equipment and supplies as during the first year but on a larger scale.

Agreement

15. The basic agreement between UNICEF and the French Government dated 28 February 1948 has been amended so as to make its terms applicable also to Morocco.

Previous allocations

16. The total allocation approved by UNICEF for Morocco is \$531,600, made up as follows:

	<u>Value of supplies</u>	
	<u>1947-1953</u>	<u>1954-</u>
	Dollars	
Anti-syphilis campaign	16,400	86,600
Joint BCG campaign	281,600	-
Campaign against trachoma	<u>60,800</u>	<u>86,200</u>
	<u>358,800</u>	<u>172,800</u>

Recommendations

17. The Administration recommends, subject to the availability of funds,
- (a) that out of the African area allocation, the sum of \$37,000 be apportioned to Morocco for the purchase of vehicles and other equipment which will enable that country to continue and extend its campaign against trachoma and other eye diseases during 1954;
 - (b) that approval be given for the extension of the present plan of operations according to the programme outlined above.

ANNEX

Extract from the report of the Director of the Department of Health
in Morocco on the campaign against eye diseases

Under the 1953 programme against eye diseases two campaigns were planned, one in the southern territories and the other in the schools.

The campaign in the southern territories has just ended, while the campaign in the schools is entering the active stage. This is therefore a suitable time for making a first assessment and for outlining a programme for 1954-55 which will be based on past experience.

Although it is still too soon to evaluate the results of campaigns now in progress, the experimental treatments carried out in Morocco, especially in the first quarter of 1952, have already yielded sufficient evidence to justify continued mass treatment, and the statistical analysis of this treatment will later provide data valid for all countries where comparable epidemiological and social conditions exist.

The following matters will be discussed below.

General organization

The 1953 campaign

Campaign in the southern territories

Campaign in the schools

Plan for 1954-55 campaign.

GENERAL ORGANIZATION

An executive committee is responsible for the operations involved in the campaign; this committee prepared the programme submitted to the international agencies for their approval.

Its members are:

The Director of the Department of Health
The Assistant-Director, Chief of the
Medical and Social Department

The Director of the Institute of Hygiene,
Chief Medical Officer of the Preventive
Departments

Dr. Pages, WHO Expert

The Chief Medical Officer of the Central
Department for the Prevention of
Eye Diseases

The Campaign Chief Medical Officer

The chief medical officer of the Central Department for the Prevention of Eye Diseases acts as the Committee's general secretary, and is immediately responsible to the Director of the Department of Health. He co-ordinates the activities of the campaign chief medical officer.

The campaign chief medical officer at the operational level is responsible for carrying out the programme with the resources, staff, material and medicaments placed at his disposal. He pays regular visits to the area of operations, reports on their progress and tabulates statistical data for future use.

Inspections carried out by Dr. Pages (WHO Expert), the Director of the Institute of Hygiene and chief medical officer of the preventive departments, and the chief medical officer of the Central Department for the Prevention of Eye Diseases make it possible to observe the progress of the campaign and to adopt whatever action is considered desirable.

1953 CAMPAIGN

CAMPAIGN IN THE SOUTHERN TERRITORIES

The original programme approved by the international agencies involved four operations: "Operation Sulfamides", "Operation Day", "Operation Vitamins", and "Operation Fly".

"Operation Vitamins" could not be carried out during the summer, and will be included in the 1954 programme.

"Operation Fly" was conditional on the provision of a sanitary engineer by WHO, which did not, however, find it possible to send one to Morocco, and it is therefore included in the 1954 programme.

"Operation Sulfamides" was not completed owing to the failure of UNICEF to supply the trisulfamides in time.

"Operation Day" was carried out according to plan.

General organization of the campaign in the southern territories

The campaign was conducted by the chief campaign medical officer based on Marrakesh, where the campaign office and central laboratory were situated. It involved 113,812 persons living in the Dades, Dedra and Draa valleys.

The territory was divided into sectors, a sector ophthalmologist being in charge of technical arrangements in each sector.

In turn, each sector was divided into a number of sub-sectors acting as report centres for the treatment teams.

Each treatment team consisted of a male nurse, a secretary and a driver

The whole population was registered individually according to family and the adults were given a token showing the registration number.

The whole population was also entered in a conjunctivitis register for the purpose of epidemiological control and checking treatment.

The following resources were employed:

(a) Staff

(1) Health Department Staff

The Department of Health fulfilled its original commitments and placed the following personnel at the disposal of the campaign:

Chief campaign medical officer

Three sector ophthalmologists

Eighteen treatment teams, each comprising:

One male nurse

One secretary

One driver.

One administrative and finance officer

One administrative assistant

One bookkeeper

Three secretaries

Three laboratory assistants

Two specimen stainers

One transport officer

Two drivers,

or altogether 69 persons.

To these should be added:

Mobile ophthalmological unit staff:

Two ophthalmologists

Ten male nurses

Photo-lorry and cinema lorry staff

One driver

One cinematograph operator

One photographer.

The staff of the MCW* mobile unit, totalling ten persons, including a pediatrician and two social workers, completed only one month of duty on account of the extremely difficult climatic conditions.

(2) WHO Staff

The WHO ophthalmologist will take up his post on 1 January 1954.

The sanitary engineer is expected to arrive at any moment.

(b) Vehicles

For this campaign UNICEF supplied:

- 14 RENAULT "Prairie" vehicles

- 1 CHEVROLET lorry.

Also, three of the five CHEVROLET vehicles of the BCG section which were garaged in the Central Pharmacy of Casablanca were taken over with the authorization of UNICEF.

* MCW = maternal and child welfare

Owing to the very trying working conditions a large number of vehicles were immobilized and the Department of Health has had to assign additional vehicles for the campaign in order to overcome the shortage.

These include:

- 2 CHEVROLET vans
- 1 jeep
- 2 MATFORD lorries.

The chief campaign medical officer had to use his own car for official journeys.

The Mobile Ophthalmological Groups comprised:

- for the heavy group:
 - 1 jeep
 - 1 lorry equipped with an operating theatre.
- for the light group:
 - 1 jeep
 - 1 RENAULT lorry.
- for the photographic group:
 - 1 lorry.

The M.C.W. and Sanitary Education mobile unit:

- 1 DODGE vehicle with camping trailer
- 1 RENAULT van
- 1 M.C.W. lorry equipped with first aid room and radio
- 1 cinema lorry.

(c) Equipment.

The following equipment was supplied entirely by the Health Department:

Laboratory: Complete equipment with three binocular microscopes.

Mobile ophthalmological units:

The two mobile ophthalmological units each had their complete surgical and sterilizing equipment.

Camping equipment: All staff were provided with new camping equipment and kitchen utensils. The equipment salvaged after the BCG Campaign was gradually brought back into service.

Technical equipment: Sector ophthalmologists were each provided with an ophthalmoscope, operating kit and campaign laboratory equipment for examinations.

Heads of teams received working equipment and the technical supplies necessary for carrying out treatment and check examinations.

Photographic equipment: An improved camera for photographing the eyes, incorporating a Hasselblad camera and a flash apparatus, was employed.

Printed material: Office material: the teams received registers, card indexes, filing cabinets and records which had been brought up to date before the campaign.

(d) Medicaments

Aureomycin ointment and trisulfamides were provided by UNICEF. Owing to delivery delays (during "Operation Sulfamides") the Department of Health provided an advance supply of sulfathiazol.

SECTORS

The OUARZAZATE territory was divided into three sectors and each sector into three sub-sectors covered by a certain number of treatment teams who were under the direction of the sector ophthalmologist.

All the inhabitants were registered.

The teams were deployed as follows:

OUARZAZATE sector:

- Ouarzazate sub-sector: 5,149 inhabitants
1 treatment team
- Skoura sub-sector: 8,912 inhabitants
1 treatment team
- Foum Zguid sub-sector: 6,816 inhabitants
1 treatment team*

* Sector ophthalmological team

BOUMALNE sector:

- Tinerhir sub-sector: 18,549 inhabitants
3 treatment teams
- Bou Malne sub-sector: 5,595 inhabitants
1 treatment team
- El Kelaa (M'gounas) sub-sector: 10,098 inhabitants
1 treatment team

ZAGORA sector:

- Aguz sub-sector: 12,930 inhabitants
2 treatment teams
- Zagora sub-sector: 32,610 inhabitants
4 treatment teams
- Tagounit sub-sector: 13,163 inhabitants
2 treatment teams

Each sector had at its disposal a reserve treatment team attached to the sector ophthalmologist to assist him in epidemiological investigations and intended to be used as a replacement team in case of need. Accordingly, altogether eighteen teams were employed.

OPERATIONS

(a) "Operation Sulfamides"

"Operation Sulfamides" was begun on 17 April and was confined to the Foum Zguid sector; it ended on 29 April.

It involved the administration of sulfamides for five days a week in the following quantities:

50 milligrammes of sulfamide per kilogramme of body weight on the first day,
30 milligrammes of sulfamide per kilogramme of body weight on the second,
third, fourth and fifth days.

Instillation of 1 per cent aureomycin ointment during the absorption of sulfamides.

By means of monthly epidemiological control tests it was possible to observe the progress of the epidemic.

(b) "Operation Day"

Treatment comprised the instillation of 1 per cent aureomycin ointment according to a fixed programme. It was administered to the whole population twice a day for three consecutive days in each month for a period of six months. The people assembled in groups of between 600 and 1,200.

There was an interval of 27 days between the last day on which a given group assembled for treatment and the first day on which it assembled again for the next treatment. Within one month the entire population was treated. Each complete treatment was known as a cycle.

1. Plan of work

The timetable of the cycles was fixed by the chief campaign medical officer in consultation with the local administrative authorities to avoid clashing with local holidays or souk^{1/} days. The plan was first submitted to the sector ophthalmologists who mapped out the programme for each team.

2. Distribution of the work

Each team treated:

- each week, two communities of 1,000 to 1,200 people, i.e. six working days

- each month, eight communities, or about 8,000 to 10,000 people.

The intervals between the end of one cycle and the beginning of the next were used for the repair of vehicles and as rest periods for the staff.

3. Hours of work

The inhabitants were expected to assemble at 7 a.m. and 5 p.m. The teams had to leave camp early enough to allow for the length of the journey. Towards the end of the summer the hour of the afternoon assembly was put forward so that treatment could be completed by nightfall. In most cases the teams did not return at mid-day, for in summer even a short journey in the middle of the day is likely to lead to engine trouble and involves heavy wear on the tyres.

^{1/} Weekly market attended by the people from the neighbouring countryside. Some very important souks attract crowds of several thousands. On those days it is practically impossible to assemble the inhabitants for treatment.

It should be pointed out that from June onwards the maximum daily temperatures in these areas vary between 40° Centigrade (104° Fahrenheit) and 50° Centigrade. The heat does not begin to diminish until the onset of the rains in October.

4. Technical control tests

The object of these was:

- to determine the efficacy of the treatment in halting the progress of acute seasonal conjunctivities which is an aggravating factor for trachoma.
- to ascertain, in the pilot section of a community, the effect of "Operation Day" on the development of trachoma and on germ carriers.

Control test for regularity of treatment - This was carried out in every cycle after the last assembly, so that the rate of absenteeism could be estimated.

Control sectors

There were often serious difficulties in the selection and use of control sectors. The very idea of control sectors was opposed by the local administrative authorities who prophesied a hostile reaction from the inhabitants and said that they would seek treatment clandestinely by infiltrating into assemblies in neighbouring communities. From the humanitarian point of view, it seemed difficult to deny treatment to one community and yet to grant it to all the others. As the campaign covered a continuous line of valleys from Tirnrhir to M'Hemid, fertile and populous lands in a desert of stone, the control sectors had to be chosen outside this area. They therefore showed rather different epidemiological conditions because of their isolation and the higher altitude.

Despite their isolation the people protested on the occasion of the second periodic control against the discriminatory measure which affected them and expressed their dissatisfaction by marked absenteeism which impairs the value of the control experiment. We had conclusive evidence that some infected persons came down to the valleys to receive treatment there.

Consumption of ointment

Estimates based on trials of the tubes, specially designed for this purpose by UNICEF, were found to be accurate.

Self-treatment

In the Skoura sector, where the Department of Health had treated 9,000 individuals in 1952 by the method followed in "Operation Day", tubes of ointment were distributed on three occasions (July, August and October) to be used by families themselves.

The epidemiological control test was carried out at the time of distribution.

Health education

From the beginning of the second cycle onwards the treatment teams instructed adults how to apply the ointment.

By the end of the campaign all the adults concerned had applied the ointment to their eyes at least once as directed by the staff. A basic education film (produced in Morocco) on treatment of the eyes by instillation was shown and excited much interest. It helped the work of the team leaders.

Absenteeism

Except in the control sectors this was remarkably low; adults attended regularly for treatment. Absenteeism increased markedly in the fifth cycle when the able-bodied men were needed for agricultural work.

Laboratory work

Altogether, 12,008 examinations have already been carried out. Each microscopic slide consists of a conjunctival and a corner smear.

WORK OF THE MOBILE OPHTHALMOLOGICAL UNITS

The mobile ophthalmological units carried out 4,141 surgical operations in the course of "Operation Day".

The results

(a) Conjunctivitis. The statistical material assembled is being analysed. Only the results of the three first cycles are known. However, a general opinion can be formed on the basis of the partial results received, particularly those from the Ouarzazate pilot sub-sector.

Normally, acute seasonal conjunctivitis starts in June, reaches its peak in September-October and then declines, disappearing completely by the end of November.

The inhabitants consider that, as a result of the treatment, the summer of 1953 was the most unusual in human memory, "saif balash ramad" or the summer without conjunctivitis.

There can be no question of special epidemiological conditions. A very widespread investigation has shown that everywhere else the conjunctivitis epidemic followed its normal course.

It is clear, despite the relative lack of controls, that the therapeutic effect on conjunctivitis was very marked, but the campaign against conjunctivitis is only the first phase in the campaign against trachoma.

(b) Effect on trachoma - the results of the 1953 campaign are not available as their evaluation will not be completed until January or February. However, a recent examination of a community of 1,049 people who were treated in 1952 during the Department of Health's preliminary campaign and re-treated this year as part of the trachoma campaign shows that:

- the percentage of serious cases and cases of moderate severity which was 58.6 per cent before treatment, fell to 29.2 per cent by the end of 1952 and to 9.2 per cent by the end of 1953.

At the same time, mild cases, or clinically inactive forms, increased from 29.6 per cent to 91.8 per cent.

At the beginning of the campaign, the whole population was infected with trachoma.

As already noted, the mass treatment of conjunctivitis seems therefore to have a remarkable effect on the incidence of trachoma. In districts where trachoma is strongly endemic and in scattered communities where the treatment recommended by WHO (instillations 3 or 4 times a day for 60 days) would be difficult to apply, the mass campaign would seem to be the most promising course of action; as health education of the population improves, the treatment of patients by their relatives will gradually take the place of treatment by health teams.

THE SCHOOL CAMPAIGN

The campaign which is planned to cover 55,320 pupils, will be carried out in stages at the request of Dr. Maxwell Lyons, the WHO expert. With his agreement, Marrakesh, a town in southern Morocco with approximately 10,000 schoolchildren suffering from trachoma, has been chosen for the first stage.

At the same time a trachoma diagnosis campaign is being conducted in the schools at Casablanca, which has been selected for the second phase of the school campaign, and where it is expected that there will also be 10,000 cases including many mild infections which respond quickly to treatment.

General Organization - In its main outlines this is a resumption of "Operation Day" and the latter's staff and equipment will be transferred to it, with the exception of the mobile ophthalmological units, which will return to the Southern Territories.

Schoolchildren suffering from trachoma have been divided into two groups, after detailed clinical examination:

- A pilot group with
 - 3,179 Moslems
 - 2,096 Jews
 - An extensive treatment group with
 - 5,295 Moslems
 - 1,424 Jews
 - a control group of 600 children
- 11,984

The following plan of treatment has been determined in agreement with the WHO expert, Dr. Maxwell Lyons:

- 3-1 per cent instillations of aureomycin a day for 60 days.

In the experimental group, severe category II cases of trachoma and category III cases will be given treatment for 90 days.

The pupils will be medically examined at the end of the treatment, in June 1954 and in October-November 1954, so that treatment can be resumed or sulfamids given, if necessary.

Staff - Tests made in January 1953 in the schools in Rabat, where 800 schoolchildren were treated three times a day for two months, showed that an assistant in charge of the instillation treatment can treat no more than 250 children owing to the time lost in going from one classroom to another. Treatment in the classroom is essential, as it is the only means of reconciling the claims of treatment and education.

Provision has therefore been made for 40 assistants to apply the instillation treatment, and one male nurse to take charge of each team of 4 assistants, a total staff of 50.

The laboratory and general services will remain in operation.

Two ophthalmologists will supervise a sector each.

The diagnosis operation will be completed by 26 December.

Treatment will begin on 6 January. An ophthalmologist will continue the diagnosis campaign in Casablanca (40,000 pupils), and the treatment there will be carried out during the third term of the 1953-1954 school year.

CONCLUSION

The two parts of the 1953 campaign, the campaign in the Southern Territories which is now completed, and the School Campaign which is entering its active phase, are proceeding according to plan.

The campaign in the South has been a complete success psychologically. The inhabitants of areas in which trachoma is widespread, who have passively endured epidemics of seasonal conjunctivitis with their accompanying complications, have been introduced to a simple treatment within their grasp. The campaign has created a demand for treatment, the first requirement for success.

It is essential now to facilitate self-treatment or treatment of the patient by his family, first, by the free distribution of tubes of ointment and, later, in the second phase, by arranging for the sale of medicaments. No general conclusions can be drawn from the campaign in the South until the statistics have been analysed but it can be stated on the basis of the results already available that:

- (1) "Operation Day" has had a remarkable effect on the cases of epidemic conjunctivitis responsible for the reactivation of trachoma. Nevertheless the incidence in the case of children under two years is relatively high and must be reduced by giving the mothers more training in hygiene and by distributing ointment in the course of the campaign.
- (2) "Operation Day" has an effect on trachoma. This effect is particularly marked in the sector where treatment has been given for two successive years.

These considerations will guide us in planning the 1954-1955 campaign.

PLAN FOR THE 1954 CAMPAIGN

The campaign will be divided into two parts:

(1) Campaign in the Southern Territories

This will incorporate two phases and will be conducted in two territories:

Observation of the development of eye diseases and supervision of self-treatment in the Ouarzazate territory where "Operation Day" has just been completed.

Completion of "Operation Day" and related operations in the Tafilalet territory where the epidemiological and climatic conditions are the same as those encountered in Ouarzazate territory.

Ouarzazate territory

"Operation Day" attempts to eliminate trachoma gradually by attacking acute seasonal conjunctivitis.

After the systematic prophylactic campaign organized as part of "Operation Day", "self-treatment",^{1/} made possible by the instruction in hygiene given in the course of the campaign, is expected to provide protection at the family level against the epidemic disease and eliminate the endemic disease. The only action then taken is to distribute the ointment for instillations.

The remarkable results obtained in treating trachoma over a period of two years in the Skoura pilot sector where "Operation Day" was repeated in two successive seasons make it necessary to reconsider this idea.

Resumption of prophylactic treatment, or at least supervision, is essential during the second year if the whole responsibility for continuous prophylactic treatment is not to be left exclusively to individuals with insufficient education.

We consider that in 1954 a team should be left in each of the three sectors of the Ouarzazate territory in which "Operation Day" has just been completed. The team would be responsible for:

- observing cases of conjunctivitis
- holding a monthly prophylactic treatment session
- distributing ointment at the rate of one 2 gr. tube per family with an additional tube for each infected person.

^{1/} "Self-treatment" means treatment of the patient by his family.

The inhabitants would be warned that in the event of a recrudescence of conjunctivitis as a result of failure to carry out the instructions given, the systematic treatment of the population would be considered. We are convinced that to avoid the undoubted inconvenience of assembling for treatment, the inhabitants will, if provided with the necessary material, treat themselves regularly.

Family treatment on this basis will make it possible:

- (1) to reduce the incidence of conjunctivitis which is still high in the case of children under eight years old and particularly children under two.
- (2) to treat trachoma by eliminating the serious forms and accelerating cicatrization.

We consider that the following staff and vehicles are required for the Ouarzazate territory:

- one ophthalmologist with a vehicle and driver,
- 3 health teams, each including:
 - one male nurse
 - one secretary
 - one driver
- 3 female nurses based at ERFOUD who will supervise the home treatment of young children in the ERFOUD sector
- 2 mobile ophthalmological units, one light, one heavy, will be assigned to the Tafilalet territory, comprising:
 - 3 ophthalmologists
 - 10 nurses.

In addition there will be the staff of the cinema unit, the photographic service and the Maternity and Child Welfare convoy.

"Operation Sulfamide"

"Operation Sulfamides" will be carried out by the sector ophthalmologist, assisted by his team. It will not therefore require any special staff.

"Operation Fly"

This will depend on the arrival of the sanitary engineer who will decide on the time and place and make arrangements for the execution of the programme. The general estimates given in plan 55 continue to apply.

"Operation Vitamins"

Duration: 6 months - between January and June

This will be carried out through a maternity and child welfare centre. Four hundred babies will be treated.

Transport and staff will be supplied by the medico-social service.

SCHOOL CAMPAIGN

School facilities, especially in rural areas, are being provided on an increasingly large scale by the Moroccan Education Service and the number of schoolchildren, the group most severely affected by trachoma, is therefore growing larger year by year.

Even taking into account the patients cured this year at Marrakesh (campaign in progress) and Casablanca (the campaign for the second term of 1953), it can be estimated that there will still be 40,000 cases of trachoma among schoolchildren to be treated in Morocco.

The detailed organization of the 1954 school campaign largely depends on the directives given by the WHO expert in ophthalmology. Our estimates will therefore relate only to the normal treatment of trachoma (instillations three times a day for sixty days) on the understanding that, if necessary, this treatment will be supplemented in the case of severe category II and category III cases of trachoma by further instillations and by treatment with sulfamides. On the conclusion of "Operation Day", staff will be assigned to this campaign.

ESTIMATES OF EXPENDITURE

Before giving detailed estimates of expenditure, special attention should be drawn to the transport problem.

The campaign in the south was extremely hard on motor vehicles, of which a bare minimum had been provided. Normal operations would have been impossible if the Department of Health had not given assistance at great inconvenience to itself and if the medical staff had not used their own private cars.

It is considered essential that new vehicles should be provided for the 1954 plan.

In the first place, each team must have a vehicle at its disposal. Time is lost if two teams use the same vehicle as they never work in groups.

The requirements are as follows:

Medical Director of the Campaign	1 vehicle
Liaison car	1 vehicle
WHO ophthalmologist	1 vehicle
"Operation Fly": Sanitary Engineer	1 vehicle
Transport Lorry	1 vehicle
Campaign for the Tafilalet territory	
Sector ophthalmologists and their teams	2 vehicles
Health teams	17 vehicles
Campaign in the Ouarzazate territory	
Ophthalmologist	1 vehicle
Health teams	3 vehicles
Spare vehicles to replace those undergoing repair and periodic overhaul	3 vehicles (ex B.C.G.)
Total	31 vehicles

The following vehicles belonging to the Department of Health are not included in this total:

- 7 vehicles for the mobile ophthalmological units
- 1 cinema van
- 1 photographic van
- 4 vehicles belonging to the Maternity and Child Welfare convoy

The following vehicles belonging to UNICEF are at present in use:

RENAULT desert vehicles	14
CHEVROLET truck	1
B.C.G. vehicles	3
CHEVROLET carry-alls (expected shortly for the 1953 campaign)	3
Total	21 vehicles

The three ex B.C.G. vehicles are badly worn and, although they have been repaired, can only be used as replacements.

The transport depot equipped and set up at Ouarzazate for the 1952 campaign has been very active and carried out a great many repairs locally.

A similar depot will be operated under identical conditions at ERFOUD for the 1954 Southern Campaign. Satisfactory maintenance and repair will however be possible only if sufficient vehicles are available for operations and to replace vehicles under repair.

In addition to the three CHEVROLET carry-alls which are expected, the following additional vehicles are needed for the campaign:

Liaison car	1
Utility vehicles of the CHEVROLET carry-all type	9

1955 - 1956 CAMPAIGN

It is perhaps premature to draw up a plan for 1955. The discoveries which are constantly being made in the field of antibiotics may necessitate the replanning of the campaign against eye diseases and trachoma. The general principles will however remain the same.

- Mass campaign to reduce the sources of infection
- School campaign to cure and educate the young generation.

Mass Campaign

The Ouarzazate territory will be under the supervision of a team which will act as a "fire brigade".

Self-treatment by individuals under the supervision of an ophthalmologist and three teams will be applied in the Tafilalet territory.

"Operation Day" will continue in two areas:

(a) The Agadir area

In the oases to the south of the Anti-Atlas epidemiological conditions are in every way comparable with those already encountered in the territories of Ouarzazate and Tafilalet.

Goulimine	40,350 inhabitants
Akka	17,550 "
Tatta	15,747 "
Total	<u>73,647 inhabitants</u>

The Bou-Izakarn territorial hospital and its ophthalmological service with 80 beds available will provide hospital backing.

(b) The Fez area

Moulouya Plain	64,990 inhabitants
Guercif	23,688 "
Outat el Hadj	26,026 "
Missour	15,286 "
Total	<u>64,990 inhabitants</u>

After the pre-Saharan territories, this is one of the parts of Morocco worst affected by trachoma.

General total: 148,637 inhabitants coming under "Operation Day".

If necessary, 10,000 inhabitants will be treated with sulfamides.

School Campaign

This will include:

- new pupils not covered by previous campaigns,
- trachoma cases that have not responded to treatment.

It is difficult to estimate how many schoolchildren will require treatment.

However, the school expansion programme provides for an increase of 30,000 pupils in 1955.

Taking into account cases of trachoma which have not responded to initial treatment there will be about 30,000 cases to treat in 1955.

The 1955 campaign will therefore be very similar to the 1954 campaign.

The relative importance of "Operation Sulfamides", "Fly" and "Vitamins" will be determined in the course of the 1954 campaign.

It is therefore considered that the general estimates of expenditure for 1954 will apply in 1955-56.

CONCLUSION

In its closing section, the report contains the following conclusion.

The first results obtained have proved beyond doubt that mass campaigns had a very beneficial effect both on acute conjunctivitis and on trachoma contracted by children in an infected family environment.

The popular success of "Operation Day" throughout the Quarzazate area provides valuable encouragement for the future work. We are convinced that after systematic treatment in areas where trachoma is most prevalent, the task will soon be simplified. As a result of the spontaneous publicity which accompanies the mass campaign, it will be sufficient to provide the more advanced peoples of the Atlantic seaboard with the necessary medicaments in order to stamp out conjunctivitis epidemics and reduce the incidence of trachoma to manageable proportions without risk of complications. Action by the Department of Health will then be confined to the supervision of family treatment.

In the meantime, however, mass campaigns are necessary. Prompt arrangements have to be made for repeated mass campaigns to be carried out regularly for three years at least, before trachoma can be eliminated from those areas where climatic and social conditions are so favourable to its growth.