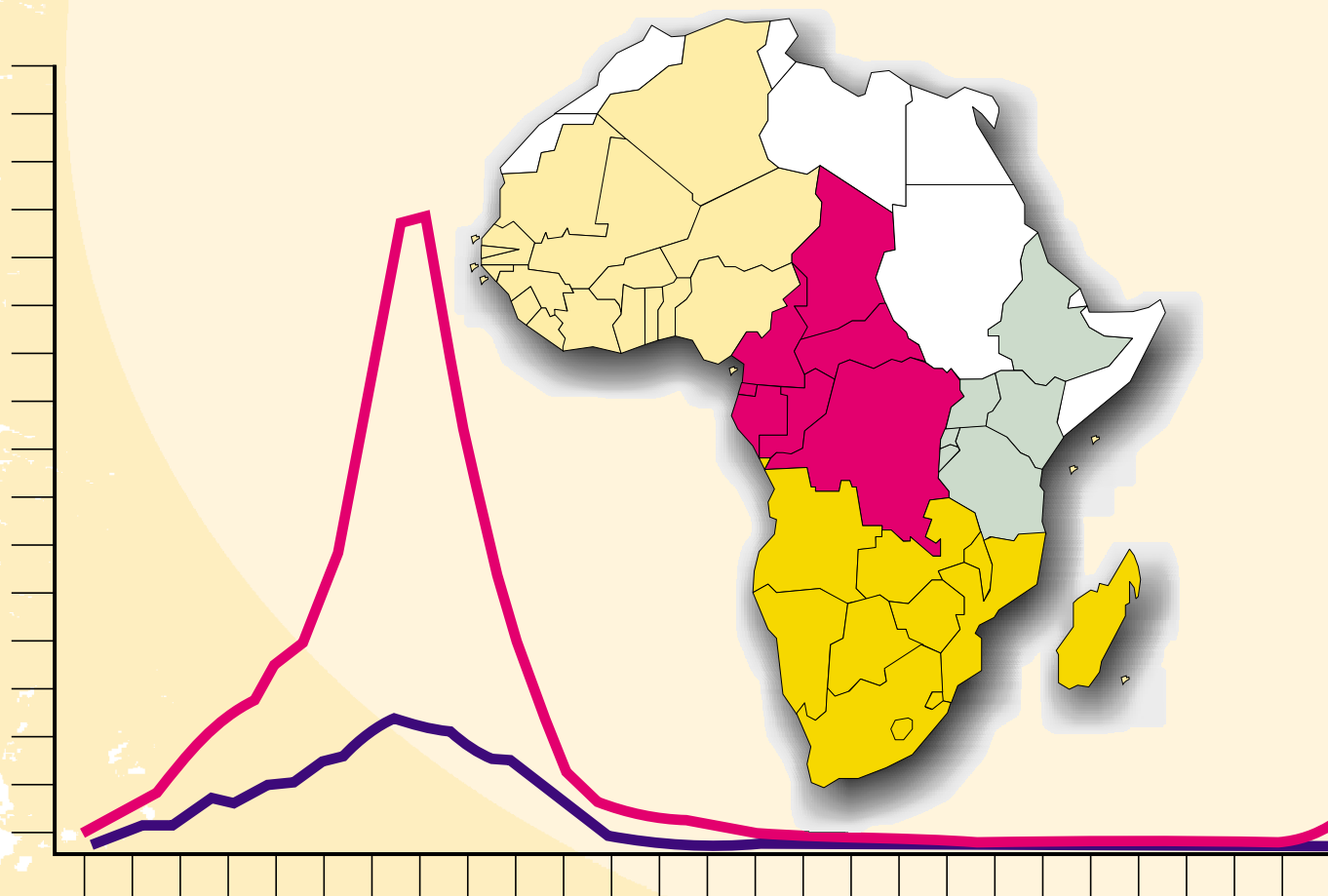


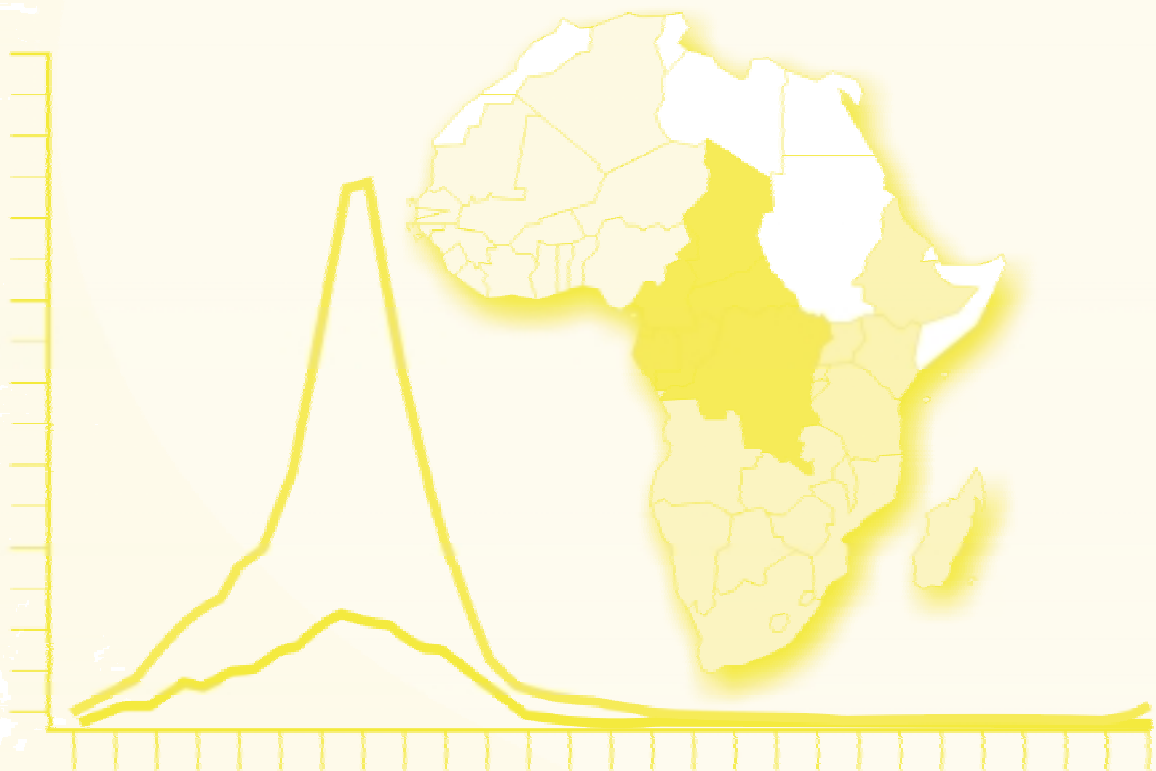
INTEGRATED DISEASE SURVEILLANCE IN THE AFRICAN REGION

A Regional Strategy for Communicable Diseases 1999-2003



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INTERGRATED DISEASE SURVEILLANCE

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EXECUTIVE SUMMARY

In September 1993, through resolution AFR/RC43/R7, the WHO Regional Committee for Africa approved the steps proposed for the strengthening of epidemiological surveillance at various levels of the health system, including the organization of training activities at the district level. Further, the Committee declared the next five years as a period for preventing and combating epidemics of communicable diseases in Member States through improved epidemiological surveillance at the district level.

Despite the increasingly important role of disease surveillance in planning, resource allocation and mobilization, and for early detection and response to epidemic as well as for quantifying the impact of disease prevention and control programmes, existing systems in many Member States are not producing the required relevant information.

Currently, weaknesses in disease surveillance systems in most countries are causing failures to detect epidemics, resulting in the spread of diseases, human suffering and loss of lives. Among other things, weaknesses in data collection, the analysis and use of information for action at all levels and lack of resources and awareness about the usefulness of the system are some of the reasons for weak surveillance systems.

Consequently, the WHO Regional Director for Africa proposed that each Member State should strengthen its disease surveillance system based on an integrated approach, the details of which are presented in this document.

INTRODUCTION

Communicable diseases remain the most important health problem in Africa. The commonest causes of death and illness in the Region are acute respiratory tract infections, diarrhoeal diseases, malaria, tuberculosis, HIV/AIDS/STIs and vaccine preventable infections. Epidemic-prone diseases such as meningococcal meningitis, cholera, yellow fever and viral haemorrhagic fevers, especially Lassa fever and Ebola virus fever, are also prominent health threats in the continent.

A functional disease surveillance system is useful for priority setting, planning, resource mobilization and allocation, prediction and early detection of epidemics and monitoring and evaluation of intervention programmes. Most of the current disease surveillance systems are neither working effectively to measure the health impact of the major diseases nor adequately evaluating current disease control programmes and detecting outbreaks for early intervention.

Because of the above, the WHO Regional Office for Africa proposes to strengthen national disease surveillance systems using an integrated approach. This approach aims at coordinating and streamlining all surveillance activities and ensuring timely provision of surveillance data to all disease prevention and control

programmes. As part of the strengthening process, the Regional Office plans to develop guidelines for a comprehensive integrated surveillance system to be used at community, health facility, district and national levels as well as for the Regional Office itself.

This strategy describes the need for strengthening the disease surveillance system in the African Region and suggests the approach that Member States may adopt in the strengthening process in the next five years (1999–2003).

JUSTIFICATION AND POLICY BASIS

The policy basis for strengthening the surveillance of communicable diseases has emanated from the following resolutions of the World Health Assembly and the WHO Regional Committee for Africa:

- (i) *Resolution WHA22.47* (1969) which requested the Director-General to assist Member States in utilizing their existing services to perform epidemiological surveillance as effectively as possible.
- (ii) *Resolution WHA41.28* (1988) which declared the commitment of WHO to the global eradication of poliomyelitis by the year 2000 and urged all Member States to intensify surveillance to ensure

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identification and investigation of cases and accurate and timely reporting of cases at national and international levels.

(iii) *Resolution WHA48.13* (1995) which urged Member States to strengthen national and local programmes of active surveillance for infectious diseases, ensuring that efforts were directed towards early detection of outbreaks and prompt identification of new, emerging and re-emerging infectious diseases. It also requested the Director-General to draw up plans for improved national, regional and international surveillance of infectious diseases and their causative agents, including accurate laboratory diagnosis and prompt dissemination of case definition and surveillance information, and to coordinate their implementation among Member States, agencies and other groups.

(iv) *Resolution AFR/RC38/R9* (1988) which urged Member States to strengthen the epidemiological surveillance of HIV/AIDS and to report regularly to the Organization on the situation.

(v) *Resolution AFR/RC38/R34* (1988) which requested the Regional Director to collaborate with Member States in the evaluation of their capabilities for the surveillance, prevention and control of diseases in general and of epidemics in particular, and support Member States

in the formulation of simple and effective measures for the surveillance and control of communicable diseases.

(vi) *Resolution AFR/RC38/R13* (1988) which called on all affected Member countries to intensify national surveillance of dracunculiasis and report regularly to WHO, and urged the Regional Director to intensify regional surveillance to monitor trends.

(vii) *Resolution AFR/RC43/R7* (1993) which approved the steps proposed for strengthening epidemiological surveillance at various levels of national health systems, including the organization of training activities at the district level, and declared that the next five years will be devoted to preventing the occurrence of epidemics of communicable diseases in Member States through improved epidemiological surveillance at the district level.

Major Problems

Reviews of national surveillance systems in selected Member States helped to identify the following problems:

(i) Vertical surveillance systems established as a component of specific disease intervention programmes have resulted in duplication of efforts and resources, with different programmes approaching the same agency for the same surveillance activity.

(ii) Health workers fail to report on time the first cases of epidemic-prone diseases that fit standard case definitions. This delay in reporting the earliest suspected cases significantly retards the identification of outbreaks and impedes the effectiveness of the response.

(iii) Collection, analysis, utilization and dissemination of surveillance data at the district level have been inadequate. For the most part, surveillance data are passed from district to national level without adequate analysis. Feedback has also generally been inadequate at every level.

(iv) Little attention has been given to seeking opportunities for integrating surveillance activities to increase efficiency. As a result, each programme organizes programme-specific training courses (including surveillance) for the same health personnel, especially at district and health-facility levels.

(v) Most systems do not include pneumonia and diarrhoeal diseases, which are the first two causes of childhood deaths in Africa. Surveillance of malaria is also deficient. Information collected on diseases which have a highly effective intervention or large outbreak potential and of which the case load is relatively low, is inadequate.

(vi) Inadequate attention has been given to the evaluation of programmes using surveillance data. Large amounts of resources are being put into interventions that are not adequately evaluated.

(vii) Involvement of laboratories in the surveillance system is inadequate. Neither national nor intercountry laboratory networks have been established to fulfill important public health functions, including the confirmation of cases and outbreaks when the specificity of clinical diagnosis is low.

(viii) Supervisory support, completeness and timeliness of reporting are generally inadequate.

Strengthening Disease Surveillance System: An Integrated Approach

Currently, different intervention programmes have their own disease surveillance systems and governments are making efforts to strengthen them in order to get regular and timely surveillance data.

The WHO Regional Office for Africa has proposed to all Member States to adopt the integrated approach for strengthening the disease surveillance system. This approach envisages

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integration of all surveillance activities (e.g. collection, analysis, interpretation and dissemination of surveillance data) at the district level. All supports to implement the integrated disease surveillance system, including training, supervision and resources, both financial and material, from all programmes and donors will be streamlined and directed to districts.

At the central level, all activities to implement the integrated disease surveillance system will be coordinated by a surveillance unit. Data management for routine surveillance system will also be handled by the same unit while specialized analysis could be undertaken in collaboration with the concerned intervention programme.

As part of the implementation of the strategy, the Regional Office has suggested the following actions by Member States:

- (i) Preparing a list of priority diseases for inclusion in the integrated disease surveillance system;
- (ii) Collection of a minimum data (total case and death counts) that will enable monitoring of epidemiological trends and early detection of epidemics and monitoring and evaluation of intervention programmes; and

- (iii) Introduction of case definitions to facilitate case detection by health facilities and communities. *(Two sets of case definitions - one for the community and the other for the health facility - have been suggested and are annexed to this document.)*

Development of Integrated Disease Surveillance System

The need to strengthen the disease surveillance system using the integrated approach stemmed from the following common actions that should be addressed in a coordinated manner:

- (i) Building awareness among clinicians (physicians and nurses attending patients) regarding the use of case definitions and actions, specimen collection and timeliness of reporting through sensitization meetings;
- (ii) Initiating case-based surveillance for selected diseases, including neonatal tetanus, haemorrhagic fever and yellow fever, and for diseases having highly effective intervention or large outbreak potentials but with relatively low case-loads;
- (iii) Strengthening the skills and practices of health personnel in all aspects of surveillance, particularly analysis, utilization and dissemination of surveillance data, at the district, intermediate and national levels, through

integrated in-service training and supervisory support;

(iv) Establishing or strengthening feedback loops at all levels;

(v) Building the capacity of laboratories and strengthening their involvement in the disease surveillance system;

(vi) Monitoring of surveillance activities, including timeliness and completeness of reporting, and

(vii) Having the community participate in disease surveillance activities.

REGIONAL STRATEGY FOR INTEGRATED DISEASE SURVEILLANCE

Long-term Vision

Within ten years from now, all Member States in the African Region would have established a functional integrated disease surveillance system that will ensure a continuous and timely provision and utilization of information to all national disease prevention and control programmes as well as to health services at all levels. With adequate surveillance data, there will be improved prediction, early detection and control of epidemics, enhanced quality of planning, rational allocation of resources and improvement in the monitoring and evaluation

feedback loop. This would result in considerable reduction in morbidity, mortality and disability caused by major communicable diseases.

Guiding Principles

The main basis of the integrated disease surveillance system is “data collection for action”, implying that only the data necessary for taking action is collected and processed. This can be achieved and sustained by complying with the overall guiding principles of **usefulness, simplicity and flexibility of the system, orientation to a specific action, and integration.**

(i) **Usefulness** refers to the applicability of the data for programme management (monitoring disease trends, detecting/predicting epidemics, quantifying the impact of intervention programmes, etc.). Current systems demand that only data that aid public health decision-making and action should be collected.

(ii) **Simplicity** is the ease of putting the system into practice. The watchword of integrated disease surveillance is to “keep the system as simple as possible” (e.g. case definition, types of data to be reported, reporting tools and procedures.) The simpler the system the easier it will be for clinicians and health workers to complete the reporting form and send it to the next higher level on time.

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(iii) **Flexibility** of the system refers to adaptations in information needs and operations (e.g. revision of lists of priority diseases, case definitions and reporting), with little need for additional staff, time and financial resources. The current approach is designed to be as flexible as possible.

(iv) **Action-specific orientation** in the context of the integrated disease surveillance refers to making information available to specific intervention programmes for action.

(v) **Integration** refers to coordinating all surveillance activities common to all control programmes (e.g. data collection, processing and dissemination, training, supervision, monitoring and evaluation of surveillance system). Specific follow-up actions are left to the different specific intervention programmes.

Other attributes of the surveillance system include **acceptability** and **reliability** of data, **completeness** and **timeliness** of reporting and **specificity** and **sensitivity** of the system.

(i) **Acceptability** reflects the willingness of individuals and organizations to participate in the surveillance system. **Reliability** of data refers to the accuracy and quality of data made available through the system.

(ii) **Completeness** of reporting means that all types of diseases selected for surveillance are reported from all reporting units while **timeliness** refers to the receipt of data before or on the due date. Indeed, failure to make information available on time retards public health action.

(iii) **Specificity** refers to the ability of the system to detect those cases without the specific conditions. It is the proportion of persons without disease who are currently identified by a case definition as not having disease.

(iv) **Sensitivity** refers to the ability of the system to detect a disease, an outbreak, an epidemic or other changes in disease occurrence. It is the proportion of persons with disease who are correctly identified by a case definition as having the disease.

STRATEGIC FRAMEWORK

Strategic Objectives

The strategic objectives of the integrated disease surveillance system are:

(i) To design an integrated disease surveillance system that includes: (a) the principal causes of mortality, disability and morbidity in Africa; (b) the enhanced use of standard case definitions for notification; and (c) case-based reporting on selected diseases;

(ii) To integrate all surveillance activities, including transportation of specimens, training of health personnel on surveillance and supervisory support to districts and health facilities;

(iii) To strengthen surveillance data management (e.g. collection, collation, analysis, interpretation and dissemination) and use of information for decision-making for action, including monitoring and evaluation of intervention programmes; and

(iv) To strengthen the capacity and involvement of laboratories in the integrated disease surveillance system.

Targets

The country targets for the implementation of the integrated disease surveillance system are:

(i) By the end of 1999:

(a) Fifty per cent of all Member States will have assessed their national disease surveillance system as part of the implementation of the regional strategy and formed a central body that will coordinate all surveillance activities;

(b) Thirty per cent of all Member States will have designed and established a national integrated disease surveillance system that will include the principal causes of mortality, disability and

morbidity in Africa, enhanced use of standard case definitions for notification and case-based reporting on selected diseases.

(ii) By the year 2003:

(a) All Member States will have assessed the national surveillance system as part of the implementation of the regional strategy and formed a central body that coordinates all surveillance activities;

(b) All Member States will have designed and established a national integrated disease surveillance system that will include the principal causes of mortality, disability and morbidity in Africa, enhanced use of standard case definitions for notification and case-based reporting on selected diseases;

(c) All Member States will have a functional and integrated disease surveillance system with reinforced data management and use of information for decision-making and action, including monitoring and evaluation; and

(d) All Member States will have reinforced laboratory network that will provide support to the disease surveillance system.

Major Thrusts

Priority diseases or syndromes for integrated disease surveillance

The Regional Office has suggested 18 communicable diseases or syndromes for integrated disease surveillance. Member States are expected to adapt the list to suit the local epidemiological profile, taking into consideration national, regional and international perspectives.

The suggested list of diseases or syndromes and groupings include:

I. Epidemic-prone diseases

Cholera, bacillary dysentery, plague, measles, yellow fever, meningococcal meningitis, viral haemorrhagic fever

II. Diseases targeted for eradication

Dracunculiasis, poliomyelitis

III. Diseases targeted for elimination

Neonatal tetanus, leprosy

IV. Other diseases of public health importance

Diarrhoea (< 5-year old children), pneumonia (< 5-year old children), HIV/AIDS, STIs, malaria, trypanosomiasis, tuberculosis, onchocerciasis

Involvement of laboratories in surveillance activities

By resolution AFR/RC43/R7, Member States were urged to develop well-staffed and properly equipped laboratory services as the first step in the strengthening of disease surveillance systems. The major role of a laboratory in the integrated surveillance system is to provide on time and reliably the confirmation of suspected cases. The laboratory will also essentially monitor drug resistance and changes in the strains of disease agents. This calls for a thorough assessment of the current diagnostic capacity of each country at all levels and the supply of basic laboratory equipment recommended for the level and sphere of activities and the fostering of in-service training for laboratory personnel on relevant laboratory techniques. In addition, strengthening existing laboratory facilities, concentrating on simple and cost-effective techniques for rapid diagnosis and establishing a referral laboratory network by defining the appropriate laboratory activity for different levels are the key steps in the strengthening of the process. It is envisaged that viable referral channels for samples, results and the safe handling of specimens during storage and transportation will be assured.

Antimicrobial resistance

An increase in antimicrobial resistance in the last few years has affected the treatment and control of important diseases, leading to prolonged illness and duration of epidemics and increased case fatality. Therefore, data will be collected on the following diseases from sentinel laboratories in order to document resistance patterns relating to malaria, tuberculosis, *S. dysenteriae*, chancroid, gonorrhoea, and pneumonia (*S. pneumoniae* and *H. influenzae*).

Data management

Management of surveillance data includes collection, collation, analysis and interpretation of surveillance data and dissemination of information for those who take action or generate reporting.

Data collection

Only basic information on selected priority diseases is collected for routine programme monitoring and evaluation at all levels. However, health facilities are expected to record all necessary information on each individual case for future use. For the routine surveillance system, monthly reporting of total number of cases and deaths (including “zero reporting”) for all the selected diseases, using appropriately designed reporting formats, is recommended. However, each Member State will determine the minimum surveillance

data required for use at national level. Table 1 shows the sources of surveillance data by disease and periodicity of reporting.

For epidemic-prone diseases, immediate notification upon suspicion or diagnosis, followed by weekly reporting during the epidemic period, will be maintained. In addition, other supplemental surveillance systems such as laboratory-based surveillance for antimicrobial resistance and case-based or sentinel-based surveillance systems for other selected diseases will continue to function in the same manner.

The district health office compiles all reports from health facilities and forwards them to the national level. The national level compiles all reports and sends them to WHO country office and to the Regional Office.

Data analysis and interpretation

Data analysis and interpretation are critical at all levels, especially at the health facility and district levels. At the district level, a continuous and systematic collation and analysis of all data reported from the lower level should be made to keep track of the disease situation in the area. Data interpretation is equally emphasized in the integrated approach and should be practised at all levels, with a focus on the health facility and district levels.

Table 1: Sources of surveillance data by disease and periodicity of reporting

Sources of surveillance data	Diseases	Periodicity
Routine reports	All diseases	Monthly
Epidemic reports	Cholera, cerebrospinal meningitis, yellow fever, plague, malaria, viral haemorrhagic fever, measles	Immediately, then weekly
Case-based reports	Neonatal tetanus, poliomyelitis, dracunculiasis	As it occurs, immediately
Sentinel-site reports	Malaria (drug resistance), HIV seroprevalence	Monthly/quarterly/annually

Dissemination of information

Distribution of information to those who are responsible for taking action (e.g. programme managers) or using the information for managing intervention programmes (e.g. programme staff) is an important but often neglected component. Community leaders (at community level), administrators, police and staff of other sectoral and nongovernmental agencies (at district and national levels) are important players. Feedback to those who generated the information (health-care providers) and those who transmitted the reports to the next higher level (intermediate health agencies) will be strengthened.

Decision for action

The decision to take action follows data analysis and interpretation. Specific actions depend on the causes of problems, types of diseases and levels of

structures. Health facility and district health team personnel are expected to take immediate action without waiting for approval from higher levels. The approach is to identify possible solutions for each problem identified during data analysis and interpretation and to take action accordingly, as promptly as possible, at each level.

Communication network

Communication of surveillance data from the health facility level to the national and international levels and back to the community, in the form of feedback, forms an important loop. In this connection, the means of communication used to transmit information are vital. In order to ensure timely transmission of surveillance data, the fastest means of communication, including e-mail, telephone, fax and radio communication, should be used.

The recommendation is that transmission of surveillance data (a) from: health facility to district health office (DHO) could be by telephone or radio; (b) from the DHO to national level could be by telephone, radio, fax, diskette or e-mail; (c) from the national level to the WHO country office could be through e-mail or diskettes; and (d) from the WHO country office to the WHO epidemiological block and the Regional Office could be by e-mail.

Strategic Orientations

Strengthening the disease surveillance system using the integrated approach involves:

- (i) intensifying in-service training, using appropriate training materials, and targeting in particular the district health team and attending physicians, nurses/ and midwives;
- (ii) establishing a focal point or organ for coordinating integrated disease surveillance activities at all levels, particularly at national level;
- (iii) placing systems for computerized data management at central and intermediate levels and simple data presentation tools (e.g. tables and graphs) at district and health facility levels;

(iv) establishing intercountry collaboration and networking to exchange information on diseases of interest at international level;

(v) establishing efficient communication networks within the country for prompt reporting; and

(vi) building the capacity of laboratories, including that of networking, at national and regional levels.

Promotion of integrated surveillance systems

The integrated surveillance system will be promoted at all levels (the community, health-care providers and health authorities including decision- and policy-makers) in order to create well-informed groups with increased sense of responsibility, urgency and ownership and to ensure maximum cooperation. This could be done through sensitization meetings, training workshops, advocacy campaigns using different media channels, including piggy-backing of integrated disease surveillance messages during intervention programme activities.

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Promotion of operational research

Surveillance promotes research by identifying research issues and generating hypotheses which are picked up by researchers. The findings of research could be used to modify and fine-tune control programmes.

IMPLEMENTATION FRAMEWORK

At country level

The community, health-care providers and health-care agencies at district, provincial and national levels are key players in integrated disease surveillance. The task force for emerging and re-emerging communicable diseases can play an advisory role, while a subcommittee for surveillance may be set up. Activities and tasks for each level are outlined below. Member States with provincial or regional structures could adapt the activities to those levels since the functions are essentially the same.

At community level

Community leaders or health workers with instructions on how to recognize certain disease or health conditions could be used as contact persons in the community for the purpose of detecting and reporting suspected cases to the

health facility. Tasks at the community level comprise:

- (i) notifying the nearest health facility of the occurrence of disease or health conditions selected for community-based surveillance;
- (ii) supporting health workers during case or outbreak investigations; and
- (iii) using feedback from health workers to take action, including health education and coordination of community participation.

At health facility level

The first opportunity for disease surveillance occurs at this level when the clinician at the health facility sees the patient. At this level clinicians will identify the priority diseases, using the case definition. Tasks at the health-facility level comprise:

- (i) diagnosing and managing cases;
- (ii) responding promptly to any epidemic alert by community leaders;
- (iii) submitting monthly summary reports and weekly reports during outbreaks;
- (iv) collecting specimens, if needed, and sending them to district health office;

(v) making tables and graphs and displaying data for monitoring disease trends; and

(vi) using available data to initiate action at local level.

At district level

At this level, continuous analysis of surveillance data from health facilities is carried out in order to recognize outbreaks or changes in disease trends. The analysis is linked to responses which include investigation of the cause of the change in trends. The required interventions could be measured using the same data sources. Tasks at the district level comprise:

(i) analysing surveillance data from the peripheral level in order to identify epidemiological links, trends and achievement of control targets;

(ii) providing support for the transportation of specimens to the laboratory network for specific diagnosis or confirmation of suspected cases;

(iii) initiating investigation of suspected outbreaks;

(iv) providing feedback to the health facility; and

(v) sending to the central level monthly summary reports on the selected diseases and weekly reports during outbreaks.

At central level

By supporting the district level, the central level plays a key role in ensuring the proper functioning of the system. Analysis of overall disease trends is carried out continuously. The central level liaises with the countries and international agencies to exchange information and mobilize resources. Tasks at the central level comprise:

(i) providing overall support and coordinating national surveillance activities, including the preparation of the national plan of action;

(ii) coordinating timely transportation of specimens to the national reference laboratory, if such service is only available at the national level, and to regional or international reference laboratories and notifying the results;

(iii) analysing data from the district level in order to identify epidemiological links, trends and achievement of control targets;

(iv) providing feedback to district level, possibly the health facility, and, through them, to the community;

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(v) reporting to the WHO country office; and

(vi) preparing national reports on the epidemiological situation.

At the level of the WHO country office

At country level, the WHO country office will be working closely with Ministry of Health and liaising with WHO epidemiological block teams and the Regional Office. Tasks at the WHO country office will include:

(i) providing technical support to the Member State to make an initial assessment of the national disease surveillance system, train personnel involved in the surveillance system and prepare a national plan of action;

(ii) providing resource materials such as training modules, guidelines and manuals;

(iii) mobilizing resources to enhance the strengthening process; and

(iv) providing feedback and disseminating data, whenever necessary, in accordance with WHO's mandate to monitor the cross-border movement of infectious diseases.

At intercountry and regional levels

Intercountry level

At intercountry level, it is necessary to establish mechanisms for the exchange of experiences and information among neighbouring countries, especially on the cross-border movement of infectious diseases. Therefore, countries in each WHO epidemiological block are encouraged to organize regular meetings for exchanges of information and discussions on issues concerning the integrated approach. Meetings of district health teams along common borders should be organized. WHO teams in the epidemiological blocks should take the lead to arrange such meetings. This should be done in close collaboration with sub-regional agencies, WHO country offices and ministries of health.

Regional level

At the regional level, implementation of the strategy is coordinated by the Division of Communicable Disease Prevention and Control, in collaboration with intercountry epidemiologists. The Regional Office has established an Integrated Disease Surveillance Unit under the direct supervision of the Director, Division of Communicable Disease Prevention and Control to coordinate the implementation of the integrated disease surveillance strategy. The Regional Office will support the

WHO teams at the epidemiological blocks to coordinate intercountry meetings.

further strengthened in all Member States to ensure better implementation of the integrated disease surveillance strategy. The main actors and areas of collaboration are summarized in Table 2.

Partnerships

Actors and areas of collaboration

Collaboration and partnership among potential partners at all levels will be

Table 2: Actors and areas of collaboration by level

LEVEL	ACTORS	AREAS OF COLLABORATION
Community	Community leaders	Notify suspected epidemic-prone diseases, based on case definition. Assist investigation.
District	Other governmental sectors	Allow use of their communication facilities. Notify rumours and assist investigation
	NGOs and private practitioners	Report diseases under surveillance. Logistical support - communication and transport facilities.
Central	Other government agencies	Participate in the central coordinating body.
	NGOs and UN agencies	Participate in the central coordinating body. Mobilize and allocate resources.
Intercountry	WHO teams at epid. blocks - Epidemiologists - Laboratory experts Sub-regional agencies	Exchange of information, intercountry coordination and provision of technical support.
Regional	Regional Office, -* DDC and other technical units - Other divisions and appropriate units Regional agencies (OAU) WHO collaborating centres	Same as above

* DDC= Division of Communicable Disease Prevention and Control, WHO/AFRO

MANAGERIAL FRAMEWORK

Resource Mobilization

Financial and material resources

Resources will be required to support training, strengthen communication and laboratory networks and put in place data processing equipment. Governments are expected to mobilize local resources to keep the system going. Governments will also have to look for additional funds from partners to cover initial costs. The Regional Office will play a major role in mobilizing resources both from within and outside the Region to ensure the implementation of the integrated disease surveillance system.

Human resources

The staff required to implement the strategy will be mobilized by governments. WHO will provide technical support to ministries of health to build national expertise for ensuring sustainable system development.

Coordination

Coordination mechanisms will be strengthened under the leadership of the ministry of health to support the implementation of the integrated disease surveillance strategy. Coordination of activities instead of structures will be the focus of the strategy.

At district level

District health management committees could be entrusted with the responsibility of coordinating the integrated disease surveillance system. District health managers are expected to assume leadership as the secretariat of the committee and to coordinate the work of the partners including community representatives at the district level. Technical advisory committees, chaired by district health managers, could be established to provide support on technical matters.

At central level

All potential partners (e.g. other sectoral agencies such as ministries of agriculture, the interior and defence, universities, UN agencies, and bilateral and non-governmental organizations) need to be approached to form a central-level committee to support ministries of health in the coordination and streamlining of inputs for the surveillance system. Member States, with task forces in place for the control of emerging and other communicable diseases, could be given the additional task of coordinating the integrated disease surveillance system. In addition, a technical advisory committee could be constituted to advise the coordinating committee on technical matters and to serve as a link to public health action.

Monitoring and evaluation

Monitoring of the process and the outcome of the integrated disease surveillance strategy will be developed to ensure the quality of the surveillance

system. This will be done through supportive supervision and regular review meetings. Relevant indicators will be developed as part of the Integrated Disease Surveillance Guidelines.

CONCLUSION

A strong disease surveillance system is the foundation of an effective disease prevention and control programme. Strengthening of the surveillance system through an integrated approach is, therefore, the preferred strategy for the African Region.

The success of this strategy will depend on the willingness of health-care providers to report all cases and deaths seen at their facilities. It will also depend on the diligence of health officials and personnel at all levels to analyse and disseminate information to all those responsible for taking action and to provide feedback to the peripheral level. Without doubt, commitment by both policy-makers in terms of resource allocation and all partners in terms of technical and financial support will contribute significantly to the success of the strategy.

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ANNEX 1

CASE DEFINITIONS TO ASSIST COMMUNITIES IN NOTIFYING DISEASE OCCURRENCE TO HEALTH FACILITY

DISEASE/CONDITION	CASE DEFINITION
Acute flaccid paralysis (AFP)	Any acute paralytic disease
Neonatal tetanus (NNT)	Any newborn that becomes unable to suck or feed
Measles	Any person with fever and rash
Yellow Fever	Any person with fever and yellowing of eyes or yellow skin
Pneumonia	Any person with rapid breathing or difficulty in breathing
Acute watery diarrhoea	Any person with watery diarrhoea and sunken eyes
Diarrhoea with blood	Any person having diarrhoea with visible blood in the stool
Cholera	Any person aged 5 years or more, with lots of watery diarrhoea
Meningitis	Any person with fever and neck stiffness
Plague	Any case with painful swelling of lymph nodes under arms or in inguinal area, or cough with chest pain and fever in an area known to have plague
Haemorrhagic fever	Any case or death with high fever, with bleeding from the nose or mouth, a large amount of bloody diarrhoea, red urine or blood spots on the skin
Malaria	Any case of high fever
Tuberculosis (TB)	Any person with cough of 3 weeks or more
AIDS	Any person with a large weight loss or diarrhoea for more than a month
Male genital ulcer disease	Any adult male with ulcer on penis or genital area
Female genital ulcer	Any adult female with ulcer in the genital area disease
Male urethral discharge	Any adult male with clear or white fluid draining from the penis

ANNEX 2

CASE DEFINITIONS FOR USE AT THE HEALTH FACILITY
(Health station only. Assumes no TB sputum examination capability)

DISEASE/CONDITION	CASE DEFINITION
Acute flaccid paralysis (AFP)	Any child <15 years old or person at any age, with acute flaccid paralysis, which the clinician feels is poliomyelitis
Neonatal tetanus (NNT)	Any neonate with a normal ability to suck or cry during the first two days of life, and who between 3 and 28 days of age cannot suck normally, and becomes stiff or has convulsions or both
Measles	- Any person with fever and maculopapular (non-vesicular) rash, and cough, coryza, or conjunctivitis (red eyes)
Yellow fever	Any person with acute onset of fever, followed by jaundice within two weeks of onset of first symptoms
Pneumonia non-severe	Cough or difficult breathing, and breathing faster than 50/min for child 2-12 months, faster than 40/min for child 1-5 years, and no chest indrawing, stridor or danger signs
Pneumonia severe	Cough or difficult breathing, and any danger sign or chest indrawing or stridor in a calm child. Danger signs: For child 2 months to 5 years: not able to drink or breast-feed, vomiting everything, convulsion. NOTE: Chest indrawing + recurrent wheeze = asthma, probably not pneumonia.
Acute watery diarrhoea with some dehydration	Any child with watery diarrhoea and two or more of the following characteristics: restless, irritable, sunken eyes, tears absent, mouth and tongue dry, drinks eagerly; skin pinch goes back slowly.
Acute watery diarrhoea with severe dehydration	Any child with watery diarrhoea and two or more of the following characteristics: lethargic, unconscious, very sunken eyes, tears absent, mouth and tongue very dry, drinks poorly or not able to drink; skin pinch goes back very slowly.
Diarrhoea with blood	Diarrhoea with visible blood in the stool
Cholera	- In an area where the disease is not known to be present, severe dehydration or death from acute watery diarrhoea in a patient aged 5 years or more, or - In an area where there is a cholera epidemic, acute watery diarrhoea, with or without vomiting in a patient aged 5 years or more
Meningitis	Any person with sudden onset of fever (>38.5° C rectal or 38.0° C axillary) and one of the following signs: neck stiffness, altered consciousness or other meningeal sign

INTERGRATED DISEASE SURVEILLANCE

DISEASE/CONDITION	CASE DEFINITION
Plague	Any person with rapid onset of fever, chills, headache, severe malaise, prostration, with: extremely painful swelling of lymph nodes, or cough with blood-stained sputum, chest pain and difficulty in breathing
Viral Haemorrhagic fever	Illness with onset of fever and at least one of the following signs of bleeding: bloody diarrhoea, bleeding from gums, bleeding into skin (purpura), bleeding into eyes and in urine
Malaria, simple	Fever or fever with headache, back pain, chills, sweats, myalgia, nausea, vomiting
Severe malaria	Any person hospitalized with a primary diagnosis of malaria that has positive blood smear for malaria <i>(Hospitals or in-patients only. Exclude out-patient health facilities.)</i>
TB-Pulmonary	Suspected person is any person with cough of 3 or more weeks. <i>(Refer suspected cases for sputum examination.)</i>
Smear-positive pulmonary TB	A patient with symptoms of TB, plus an initial positive sputum examination, plus positive second sputum
AIDS	Any person that fits the case definition being used by the country
Male genital ulcer disease	A male with an ulcer on the penis or scrotum, with or without inguinal adenopathy
Female genital ulcer disease	A female with an ulcer on the labia, vagina, or cervix, with or without inguinal adenopathy
Male urethral discharge	A male with discharge from penis
Onchocerciasis	In an endemic area, a person with fibrous nodules in subcutaneous tissues
Trypanosomiasis	Early stage: A painful chancre originating as a papule and then evolving into nodule at the primary fly bite site. There may be fever, intense headache, insomnia, painless lymphadenopathy, anaemia, local oedema and rash. Late stage: cachexia, somnolence, and central nervous system signs.
Leprosy	A person showing clinical signs of leprosy with or without bacteriological confirmation of the diagnosis and requiring chemotherapy (excludes individuals released from treatment)
Dracunculiasis	Individual exhibiting or having a history of skin lesion with the emergence of guinea worm within one year of skin lesion

ANNEX 3

AFR/RC48/R2: Integrated epidemiological surveillance of diseases: Regional strategy for communicable diseases

The Regional Committee,

Recalling World Health Assembly resolutions WHA22.47, WHA41.28 and WHA48.13 on the epidemiological surveillance of communicable diseases adopted by the World Health Assembly in 1969, 1988 and 1995 respectively;

Recalling also Regional Committee resolutions AFR/RC38/R24 and AFR/RC43/R7 relating to the evaluation and strengthening of national epidemiological surveillance systems, particularly to ensure early detection and the effective control of epidemics;

Aware of the weakness of national epidemiological surveillance systems and the pressing need to have, at all times, appropriate information on disease trends and on the effectiveness, efficacy and impact of interventions of disease control programmes;

Acknowledging that the integrated approach applied to epidemiological surveillance was likely to enhance cost-effectiveness; and

Having reviewed the report of the Regional Director contained in document AFR/RC48/8 as well as the report of the Programme Subcommittee relating thereto;

1. APPROVES the regional strategy for integrated surveillance of diseases as presented in document AFR/RC48/8;

2. CALLS UPON Member States:

(i) to carry out, if not yet done, an exhaustive evaluation of their systems for epidemiological surveillance of diseases in order to identify their weaknesses and their needs in terms of human, financial and material resources, including means of communication;

(ii) to evaluate the laboratory component of disease control programmes so as to provide it with the resources needed to contribute to epidemiological surveillance, and to the surveillance of bacteria and parasite resistance to drugs;

(iii) to take the necessary steps, including resource allocation, to implement the regional strategy for the surveillance of diseases by giving special focus to the integrated approach;

(iv) to effectively participate in intercountry cooperation activities in the spirit of subregional cooperation protocols adopted collectively through, *inter alia*, rapid notification of epidemics to WHO and neighbouring countries; and

(v) to effectively use the available epidemiological data in taking decisions on priority setting and resource allocation.

3. REQUESTS international partners concerned with the epidemiological surveillance of diseases in Africa to provide support to the countries and the World Health Organization in the implementation of the present strategy; and

4. REQUESTS the Regional Director:

(i) to provide support to Member States to enable them implement the present strategy;

(ii) to pursue the effort to put in place technical teams in the epidemiological blocs in order to provide the countries with the technical support they need in the implementation of epidemic preparedness and rapid response to epidemics within the framework of subregional cooperation protocols and corresponding plans of action;

(iii) to mobilize regular budget resources and extrabudgetary resources to support the implementation of the strategy at country, epidemiological bloc and regional levels; and

(iv) to report to the Regional Committee every other year on the implementation of the strategy.

Tenth meeting, 2 September 1998

Notes



**Regional Strategy for Communicable
Diseases (1999-2003)**
