

Memoranda Mémorandums

Memoranda are statements concerning the conclusions or recommendations of certain WHO scientific meetings, they are signed by the participants in the meeting.

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Third meeting of the WHO Collaborating Centres on AIDS: Memorandum from a WHO Meeting*

The third meeting of the WHO Collaborating Centres on AIDS (acquired immunodeficiency syndrome), which was held in Washington, DC, on 6 June 1987, brought the Collaborating Centres up to date on the current status of WHO's Special Programme on AIDS, discussed the current position of Collaborating Centres on specific technical questions of international concern, and made recommendations on how the role of the Collaborating Centres could be strengthened through prioritizing of research and training issues and interaction among Collaborating Centres.

SPECIAL PROGRAMME ON AIDS

The Special Programme on AIDS (SPA) was formally established on 1 February 1987. SPA has developed a global strategy for AIDS prevention and control,^a has received pledges of over US\$ 34 million from 12 countries and UNDP for activities in 1987, and has received the unanimous support of the Fortieth World Health Assembly (resolution WHA 40.26), as well as a message of strong support from the 9th seven-nation economic summit (Venice, June 1987).

SPA activities include support to national AIDS programmes (through a national programme support

unit (see below)) and global leadership, cooperation and collaboration (through units for health promotion, surveillance forecasting and impact assessment, and research and development).

A unit for administrative service is attached to the Director's office. Pending the establishment and filling of posts in the programme, activities are ensured by staff seconded within WHO or from countries or by staff recruited as short-term consultants or temporary advisers. It is estimated that by the end of 1987, for example, 20 professional staff will be working at the headquarters level and 12-16 professionals at the regional level.

Activities in the four programme units of SPA

The following updates the progress report^b issued by SPA in April 1987.

(a) *National programme support* Activities have mainly, but not exclusively, been directed towards

* This Memorandum was drafted by the signatories listed on pages 603-604 during the third meeting of representatives from the WHO Collaborating Centres on AIDS on 6 June 1987, which followed the III International Conference on AIDS on 1-5 June 1987 in Washington, DC, USA. A French translation of this article will appear in a later issue of the *Bulletin*. Requests for reprints should be addressed to Special Programme on AIDS, World Health Organization, 1211 Geneva 27, Switzerland.

^a *Strategies and structure: projected needs* (unpublished document WHO/SPA/GEN/87.1).

^b *Progress Report No 1* (unpublished document WHO/SPA/GEN/87.2).

support of countries in the African and American Regions. The workplan of the programme follows that outlined in the Progress Report. An initial visit will have been completed in 41 countries by mid-July and the same number of countries will then have established short-term plans while 14 will have completed medium-term (5 years) plans. The process reached the stage of a donors' country meeting in Uganda in May 1987. Funds were pledged for the full operation of Uganda's national AIDS programme for one year, and to a large extent also for the following four years of the medium-term plan. Similar meetings of donors will be held in Ethiopia, Rwanda and the United Republic of Tanzania during July 1987.

Other SPA activities in support of national programmes include workshops on HIV (human immunodeficiency virus) laboratory diagnosis, and consultants' advice on blood transfusion, laboratory strengthening, epidemiology and health education. Ten workshops held from 1 January to 31 May 1987 have trained nearly 200 laboratory staff. Fourteen further workshops are planned to be held during 1987 in the African, American, Eastern Mediterranean and European Regions and possibly also in the South-East Asia Region. The scope of SPA's support to countries will be expanded to include other areas of training and education, especially regarding case management and epidemiological surveillance.

(b) *Research and development.* An advisory group on behavioural research met to establish priority issues in social and behavioural areas for the next several years. The network of Collaborating Centres on AIDS needs to be strengthened to include behavioural and social aspects of HIV infection. A steering committee will be established to guide research in the areas of sexual behaviour, counselling and social impact of AIDS and HIV infection.

(c) *Surveillance forecasting and impact assessment.* The first priority is to develop methodologies for serological surveys to assure accurate and comparable information on seroprevalence. A protocol for such studies is being developed and will be reviewed by a group of experts in late June 1987. Other priorities included assessing the accuracy and completeness of reported data on AIDS and existing seroprevalence studies, determining the direct and indirect costs of AIDS in developing countries, evaluating the demographic impact of AIDS, and participating in studies to model the HIV epidemic.

(d) *Health promotion.* Following the meeting on educational strategies in June 1986 a manual for a comprehensive strategy intended for national use has been drafted. It will be reviewed in a meeting in July 1987. The public information campaign started with the launching of the WHO AIDS poster on 27 May 1987 and a pamphlet with basic facts on AIDS and HIV infection distributed during the Third Inter-

national AIDS Conference.

A number of messages on specific issues addressing very precise but sometimes controversial issues will be formulated and disseminated. The Collaborating Centres on AIDS have an important role in advising on issues anticipated to raise public concern and discussion. Informal meetings of small groups of Directors from the WHO Collaborating Centres on AIDS representing the whole network could be arranged quickly. To have maximum impact, the consensus statements should be published widely, for example in medical and scientific journals in addition to the traditional WHO outlets.

Contacts have been established with other United Nations agencies, the European Economic Community, and nongovernmental agencies to strengthen collaboration in fields such as immunization, country projects, education, family planning, and international research.

Special technical questions of international concern

Case definitions of AIDS. The CDC (Centers for Disease Control) case definition of AIDS has been revised: (1) to allow for reporting of cases of severe dementia and wasting syndrome without opportunistic infections or cancer; (2) to include laboratory tests for HIV antibody or antigen; and (3) to permit the diagnosis of a presumptive case of AIDS if standardized tests were not carried out. The new case definition will be published in *Morbidity and mortality weekly report* shortly and will be used in the USA from September 1987.

The former CDC case definition was adopted unmodified by WHO as the CDC/WHO case definition: it is now necessary to consider WHO's position on the revised definition. Moreover, the case definition based on clinical criteria established at the workshop in Bangui in 1985 has now been evaluated in several studies in Africa. The results of these studies should also be considered if the clinical (Bangui) definition is to be revised. As an initial step, the use of the present CDC/WHO and clinical case definitions by countries will be assessed by SPA. The Collaborating Centres on AIDS will review the revised CDC case definition and communicate their recommendations on the suitability of this new definition for WHO.

Other matters. Three consensus statements were prepared during the meeting and adopted:

1. Transmission of HIV (Annex 1)
2. HIV infection and health workers (Annex 2)
3. Present status and future developments in laboratory testing for HIV (Annex 3)

In addition, draft texts on criteria for HIV screening and advice to international travellers were distributed for comment.

FUTURE ROLES OF THE
WHO COLLABORATING CENTRES ON AIDS

LIST OF PARTICIPANTS

Many of the WHO Collaborating Centres on AIDS are actively working with SPA by training laboratory workers, preparing documents, evaluating test kits, and preparing and standardizing reagents and reference material. Technical support has been drawn from several centres to conduct epidemiological assessments in countries in Africa and formulate short-term plans of action. There is scope for expanding their role to include standardization of laboratory techniques, and possibly translation and adaptation of documents and health education and social/behavioural research.

The communication between SPA and the WHO Collaborating Centres on AIDS needs to be improved. It was recommended that better use be made of existing mechanisms for information exchange, including the *Weekly epidemiological record*. A mechanism for regular updates of planned meetings and other events within the programme should be established and such information communicated to all centres. This would help to coordinate research efforts and meetings and avoid duplication.

Important findings which might create media interest or which need to be communicated rapidly to all centres should be sent to SPA for further relaying.

Future actions

(a) Comments on the draft text "Criteria for HIV screening" will be sent by the Collaborating Centres to the one in Antwerp where the final text will be consolidated and forwarded to SPA.

(b) Collaborating Centres will send their comments on the revised CDC case definition direct to SPA.

(c) A meeting of Collaborating Centres was recommended in conjunction with the Fourth International AIDS Conference in Stockholm in June 1988.

(d) SPA will establish closer and more regular communication with the network of Collaborating Centres on AIDS.

(e) SPA will publish and distribute the consensus statements adopted during the meeting.

(f) Prior to next year's meeting, the Collaborating Centres on AIDS will consider ways and means of lending further support to national, regional and global SPA activities, including training and availability of human resources

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*Annex 1**Consensus Statement***Transmission of HIV**

Epidemiological studies in Europe, the Americas, Africa and Australia have repeatedly documented only three modes of HIV transmission:

- (1) Sexual intercourse (heterosexual or homosexual).
- (2) Contact with blood, blood products, or donated organs and semen. The vast majority of contacts with blood involve transfusion of unscreened blood or the use of unsterilized syringes and needles by intravenous drug abusers or in other settings.
- (3) Mother to child—mostly before, and perhaps during or shortly after birth (perinatal transmission).

There is no evidence to suggest that HIV can be transmitted by the respiratory or enteric routes or by casual, person-to-person contact in any situation, including household, social, work, school or prison settings.

Epidemiological and laboratory studies have established that of the "body fluids", transmission seems limited to blood, semen, and vaginal/cervical secretions. Kissing has not been documented to pose a risk of HIV transmission. While unproven, some theoretical risk from vigorous "wet" kissing (deep kissing or tongue kissing) may exist.

There is no evidence to suggest that HIV transmission involves insects, food, water, toilets, swimming pools, sweat, tears, shared eating and drinking utensils or other items such as second-hand clothing or telephones.

*Annex 2**Consensus Statement***HIV infection and health workers**

Reports of HIV infection of a small number of health workers have emphasized the need to adhere to existing guidelines for the prevention of bloodborne infections. Such existing guidelines refer to situations in which there is a possibility of exposure to blood or any body fluid regardless of their source.

Available information indicates that health workers are normally at very low occupational risk of HIV infection. This very low risk can be further minimized if existing guidelines for avoiding any bloodborne infection are rigorously implemented and strictly enforced.

Routine HIV screening of patients to protect health workers should not be implemented without careful and detailed consideration of all the HIV screening criteria developed by the World Health Organization.

Annex 3

Consensus Statement

Present status and future developments in laboratory testing for HIV

The following types of tests are available or under development:

- measurement of antibodies against viral antigens;
- measurement of neutralizing antibodies;
- detection of viral antigens;
- detection of viral RNA or cDNA;
- virus isolation and characterization of virus isolates from various geographical regions.

Measurement of antibodies against viral antigens (anti-HIV)

Determination of anti-HIV should consist of a primary screening test to be followed by confirmation with a second supplemental assay based on a different test principle. Current antigen-antibody binding assays have a high degree of specificity and sensitivity. Second-generation tests using recombinant antigens or future use of synthetic peptides promise to improve sensitivity and particularly specificity. Generally these test systems measure antibodies of the IgG class, but test systems measuring specific IgA and IgM antibodies are also needed and should be developed further.

Although more specific ELISA or other antigen-binding assays may in future make supplemental (confirmatory) tests unnecessary, reactivities indicating presence of anti-HIV obtained with any of the currently available screening tests should be confirmed by another test method. Western-blot (immuno-blot) are the most widely used and reliable tests, but radioimmunoprecipitation (RIPA) or immunofluorescence may be used. The latter should, however, only be used by laboratories with extensive experience with this test system.

Test systems should be developed which detect antibodies to HIV-1 and HIV-2 either together in one test or individually. The antigenic specificities of HIV isolates from different parts of the world should be continuously characterized to ensure that the diagnostic method covers the antigens of the viruses prevalent in a given region. Simplified, less expensive tests should be developed further. These test systems should have at least the same sensitivity as currently used test systems, but a slight decrease in specificity might be acceptable.

Measurement of neutralizing antibodies

Neutralization tests are used for research purposes and for evaluation of antibody responses following vaccination. The biological relevance of the antibodies measured by the various test systems needs further study and all test systems must be standardized, so that the results obtained in different laboratories can be compared.

Detection of viral antigens

The tests available today need further clinical and technical evaluation. They are not recommended for routine diagnosis or screening of blood donors. Increase of HIV p24 antigen in serum has been associated with progression of disease but this does not occur in all cases. Decrease of HIV p24 in serum has been taken as an indication of a decrease of HIV replication and is used for evaluation of the effectiveness of antiviral therapy. These preliminary observations require additional studies. Absence of detectable antigen does not guarantee lack of infectiousness of a given serum, semen, body fluid or organ.

Detection of viral RNA or cDNA

Methods for detection of viral RNA or cDNA in routine diagnostic laboratories are under development and may offer the most sensitive test systems for direct demonstration of HIV in fluids or tissues.

Virus isolation and characterization of virus isolates from various geographical regions

Techniques are still cumbersome and time-consuming but have been considerably improved, so that an almost 100 per cent isolation rate can be achieved if multiple blood samples are examined. An optimized standard protocol should be worked out and made available to laboratories using this technique for basic or clinical studies. Virus isolates should be characterized to monitor the emergence of variant or new antigenic types.

Standardization and reference reagents

All of the above-mentioned test systems need further standardization. International antibody units should be established and appropriate reference reagents (both antigens and antibodies) should be prepared. The WHO Collaborating Centres on AIDS should play an active role in the preparation and evaluation of these reference reagents and WHO standards should eventually be established. WHO should also establish a repository of HIV-1 and HIV-2 as well as simian immunodeficiency virus (SIV) isolates. In addition it would be desirable to prepare a list of available clones of human and simian retroviruses.

HTLV-I and HTLV-II

The prevalence of HTLV-I and HTLV-II in various population groups should be monitored, but there seems to be no current need for general screening of blood or organ donors for HTLV-I and HTLV-II.
