Comments on the paper

HEALTH SECTOR INFORMATION IN A NUTRITIONAL SURVEILLANCE SYSTEM

The epidemiological surveillance of the nutritional status and its incorporation into regular health information systems*

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SUMMARY

It is recognized that the epidemiological surveillance of the nutritional status of the population should form part of the regular statistical information of the health services, so that it may be a prioritary component of the health information system. At the same time, it would be an aggregation and complementary element for the establishment of global surveillance systems on the food and nutritional situation of the most susceptible population groups.

It is proposed that the surveillance of nutritional status be carried out using systems already existing in the majority of health services of the countries for the epidemiological surveillance of communicable diseases. These systems offer favorable conditions and experience which can be utilized for the collection, analysis and diffusion of information on nutrition, for the purpose of applying opportune actions from the preventive, curative and rehabilitation points of view.

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INTRODUCTION

Dr. John Kevany's presentation on "Health Sector Information in a Nutritional Surveillance System" permits to identify the constitutive elements of the system, its scope and possible restrictions, given the actual characteristics of the health services and of the available statistical information.

Our comments are directed to emphasize those aspects that, in accordance to our experience, must receive special consideration for the establishment and operation of these systems if the goal is that surveillance of the nutritional status be a prioritary component of the regular activities of the health services. This applies particularly to the attention of the mother and child in health and welfare family programs.

It is a true and recognized fact to the health and nutrition planners that information on the nutritional status and food situation of the population is not only insufficient and fragmentary, but also quite unreliable and not representative of the situation prevailing in the countries and even in regions or areas of same.[1]

This is partly due to the fact that the health services do not count with adequate mechanisms for the regular collection of basic data on food and nutritional status to undertake their systematic analysis at local level and use them as a diagnosis and prognosis element for action, both from the preventive and curative angles, as well as from the viewpoint of rehabilitation of the nutritional diseases of greater prevalence.

It is necessary therefore to establish simple information mechanisms on nutritional and food status, with emphasis on those groups more susceptible to nutritional deficiencies. These mechanisms must be functionally integrated into the health information systems available in each country.

As an alternative we propose the utilization of the epidemiological surveillance system of communicable diseases, so as to maintain a regular flow of information on the nature and magnitude of nutritional problems, their causes, localization, social trascendence and interrelations with other health problems. Thus, action may be taken opportunely both at the local level itself, which is the source of origin of the data, as well as in the higher levels of the health structure where data would serve for the planning and evaluation of the programs and for the analysis of the tendencies and changes produced in the problem.

Practically all the countries of the Region are operating epidemiological surveillance systems for communicable diseases which may well serve to collect, analyze, transmit and feedback data on the nutritional status of the population. Obviously, in those countries where maternal and child health programs of more tradition and greater development exist, information on nutritional status will be more easily incorporated.

What is evident is that whatever the system used to undertake a surveillance of

the nutritional status, this must be the whole of the activities oriented to achieve an adequate, opportune and permanent knowledge on the nutritional status of the population. This may be obtained through the collection, analysis and diffusion of information, for the purpose of acting on due time and thus correct the problems encountered.

In other words, surveillance of the nutritional status must not be an end in itself, but the information mechanism for action as part of the food and nutrition programs carried out by each development sector. In the case of the health services, primary generators and consumers of said information, surveillance of the nutritional status must be an intrinsic element for the nutrition activities in the local health services, since they are the door of entrance of the community to the formal health system. A conceptual element of importance when approaching the epidemiological surveillance of the nutritional status is to recognize that the community itself must act directly on the diagnosis of its problems, through the search of easily identified symptoms and signs which alert it to detect and report each circumstance to the primary health services. In our opinion, this is the more elemental and representative source of the informative data that integrate the nutritional surveillance system. On the other hand, it will contribute to make the population more conscious of their health and nutrition problems, motivating it to participate more actively in their solution.

Likewise, the fact that the community itself and its formal and informal health elements are the ones to initiate the information process on the nutritional status, gives the necessary dynamism to the system in recognizing the malnutrition cases, to identify the more-at-risk groups, and adopt the immediate actions for control, treatment and prevention.

ORGANIZATION OF THE SYSTEM

It is worthwhile pointing out that the efficiency of a system for the epidemiological surveillance of nutritional status will fundamentally depend upon the organization and logistics to which it is subjected, in order to convert the collection, analysis and presentation of the data into a priority element of the health information process.

Thus, the nutritional status surveillance system must integrate three mechanisms or essential components:

1. *Collection* of the information through the gathering, transmission, processing and presentation of data such as anthropometric measurements (e.g. weight, height, brachial circumference), morbidity and mortality (e.g. infants under 1 year of age, from 1-4 years), etc.

2. *Analysis* and epidemiological *interpretation* of the information obtained by comparing these values with existing norms (e.g. classification of nutritional status by weight/age, weight/height) and indicators constructed on the basis of the secular

tendencies observed (e.g. percentage of malnutrition grades II and III in children under 5 years of age, according to the place or the season of the year), and the analysis of the discrepancies encountered, establishing their possible causes and consequences.

3. *Feedback* or return of the information to the source where the datum originated (primary health service) which requires agile mechanisms for the distribution of reports or bulletins, including recommendations as to the measures to be adopted for its prevention or control.

Obviously, as the level in the health structure ascends, the components and attributes of the nutritional surveillance system acquire greater complexity as to their analysis and interpretation capacity. But the essential factor in the initiation of the process is the community itself, which must be sufficiently motivated and organized to detect those signs or symptoms indicative of a possible nutritional problem (e.g. diarrhea, dehydration, thinness, edema), that forces it to recur to the primary health service.

The primary health services must be adequately integrated into the general health structure, so as to facilitate reference of patients when necessary (e.g. child with advanced protein-energy malnutrition and concomitant infectious process) and due notification of the datum is made at the levels with responsibility of accumulative registry and interpretation.

According to the peculiar health structure prevailing in each country the central levels should establish a minimum surveillance record for the collection and subsequent analysis of the information corresponding to a determined geographic area. The other levels of the system must support and complement each other to correct or improve the nutritional surveillance system. The usual supervision teams should include among their regular functions, the revision of the information mechanisms acting at the same time as support and in-service training elements for the local health personnel.

The training and supervision of the personnel responsible for operating the nutritional surveillance system must receive particular attention to ensure that they clearly understand its objectives, and especially realize the immediate usefulness derived from the system for the adequate management of the health and nutrition problems. If this is not established as an intrinsic element for its development, obtaining the voluntary participation of the health personnel would present difficulties; rather, it could give rise to negative attitudes in considering that this information is one of the many demanded by the superior levels of the health structure to control the performance of the local personnel.

In a schematic way and as example, training of professional health personnel in relation to the nutritional status surveillance must contribute to their acquiring the necessary ability to interpret epidemiologic variables such as the following:

- Nutritional status according to location, time and population group;
- Identification of the more-at-risk groups for suffering from nutritional deficiencies (e.g. protein-energy malnutrition);
- Associated factors in terms of geographic areas and social, ethnic, cultural or economic characteristics;
- Hypothesis on the causal or predisposing factors;
- Comparison of data on incidence and prevalence of specific deficiences (e.g. excessive morbidity caused by nutritional anemias and alarm limits);
- Control measures;
- Evaluation of short and mid-term corrective actions.

As far as actions of nutritional surveillance are concerned, these will depend – as previously stated – on the health structure level. For illustration purposes those activities indispensable to carry out in a primary health system which counts with a permanent auxiliary staff (e.g. nurse auxiliary or health promoter) are identified:

Surveillance of the pregnant woman:

- Early detection and registration of the pregnant woman;
- Periodic control and recording of weight;
- Identification of malnutrition signs (e.g. conjuntival pallor).

Surveillance of the newborn:

- Early detection and registration of the newborn;
- Periodic control and recording of weight and height;
- Identification of malnutrition signs (e.g. weight under 2,500 g).

Surveillance of the preschool child:

- Detection and registration of preschool children;
- Periodic control and recording of their weight and height;
- Classification of nutritional status according to norms (e.g. weight/age or weight/height curves).
- Identification of malnutrition signs (e.g. conjunctival pallor, edema, emaciation).

This series of actions to control the nutritional status of the mother and child should be accompanied in each case by:

- Transmission of information to the superior level in the health structure (e.g. condensation of data in simple numeric accummulation tables, by age groups);
- Reference of the case (mother or child) to the superior level of attention according to the country's norms;
- Simple analysis of the information with community leaders to adopt preventive or control actions;
- Recording of data in the epidemiological surveillance system;
- First analysis and interpretation of the information.

Finally, the superior levels of the nutritional status surveillance system must count with the necessary facilities to compute, should this be the case, to consolidate the information received from the local levels, analyze it, feedback it in accordance to the established mechanism, and transmit it to other sectors or units where a single global nutritional system will be eventually established.[2]

POSSIBLE RESTRICTIONS

In theory, it is possible to establish a nutritional status surveillance system as stated. In practice, difficulties will be encountered which, if overcome, will permit the establishment of all or part of the system. What is feasible is to carry out at the local level of the health structures (e.g. primary health services) minimal activities as those previously described in the control of the nutritional status of mothers and children, with ample participation of the community.

Restrictions of technical type related to measurements and indicators of nutritional status could be identified and corrected, fundamentally depending on the situation prevailing in each country, the development of its health structures, the existing information systems, the availability of trained personnel to establish and supervise the surveillance activities, the quality of the existing equipment (e.g. scales for weight collection, infantometers or height scales, etc.), the standardization achieved in the taking of measurements and, above all, on the motivation, at all levels, of the health personnel.[3]

In accordance with our experience, a permanent effort of the nutrition specialist will be required (physician and nutritionist-dietitian) to demonstrate the feasibility of establishing nutritional status surveillance systems.

FUTURE ACTIONS

The countries who so wish it, will receive technical cooperation from international organizations such as PAHO/WHO and its specialized centers INCAP and CFNI to develop collaborative programs on nutritional surveillance systems. Concrete steps have already been taken in this direction by some countries (Honduras, El Salvador, Colombia and St. Kitts) for the development of nutritional surveillance models and their verification in experimental areas, a procedure which will eventually permit their incorporation into regional or national coverage systems.

We are sure that as a result of this Colloquium held as part of the IV Latin American Nutrition Congress, there will be many SLAN colleagues who will assume decided leadership in promoting the establishment of epidemiological and nutritional surveillance systems in various countries of the Region.

RESUMEN

INFORMACION DEL SECTOR SALUD EN UN SISTEMA DE VIGILANCIA NUTRICIONAL

Se reconoce que la vigilancia epidemiológica del estado nutricional debe formar parte de los sistemas usuales de información estadística de los Servicios de Salud, a fin de que sea componente prioritario de la informática en salud y a la vez, elemento de agregación y complementaridad para el establecimiento de sistemas globales de vigilancia sobre la situación alimentaria y nutricional de los grupos más susceptibles de la población.

Se propone realizar la vigilancia del estado nutricional, utilizando los sistemas que existen en la mayoría de los servicios de salud de los países, para la vigilancia epidemiológica de las enfermedades transmisibles. Estos sistemas tienen condiciones favorables y experiencia utilizable para la recolección, el análisis y la difusión de la información en nutrición, con el propósito de actuar oportunamente, desde el punto de vista preventivo, curativo y de rehabilitación.

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