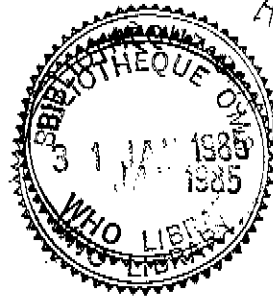




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Workshop on Research Development
 in Childhood Accidents

Havana, 15-16 November 1984

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SUMMARY REPORT

A Workshop on Research Development in Childhood Accidents was organized in Havana, Cuba, 15-16 November 1984, on the occasion of the congress of the ALAPE (Asociacion Latino Americana de Pediatria).

Previous activities of the Global Programme on Accident Prevention have addressed themselves to the problems of country surveys on accidents in childhood (Ankara, 1982) and of accident prevention in childhood (Manila, 1983). In a WHO Workshop on Behavioural and Mental Health Aspects of Primary Health Care, with Particular Emphasis on Maternal and Child Health, some research proposals were put forward, among which epidemiology of injuries in children under five and accidents and injuries in adolescents received high priority. Along these lines and in order to go further in the research action process geared to reducing the toll of young human lives taken by accidents, the objectives of the meeting in Havana were to critically assess some epidemiological research already performed, to improve the tools for further surveys and to identify the broad scope of research activities in prevention of accidental injuries in childhood and adolescence, in a perspective of research development.

In his opening address, Dr C.J. Romer, Manager of the Global Programme, expressed his appreciation to the Cuban authorities for their definite commitment on behalf of children's safety - a priority in the overall country health plan - and for the studies and progress already achieved. He mentioned the peculiar situation of Cuba, a country that, in many respects, can be considered as a developed one in the field of health and education achievements, in spite of many "developing" characteristics. He also thanked both the ALAPE and the IPA (International Pediatric Association) for their involvement in preventive activities, along the lines defined by WHO. He concluded by quoting the slogan of the ALAPE congress "Nada es más importante que un niño".

The chair was then taken by Professor J. Jordan, Director of the Instituto Superior de Ciencias Medicas, Havana, and Professor M. Manciaux was appointed rapporteur.

The Workshop started by the presentation of an analysis of the current situation and historical trends in accident mortality in children, adolescents and young adults which, by updating the existing figures for 58 countries - almost half of them developing - stressed the increasing importance of accidental deaths, especially by road traffic accidents and drowning, as one of the leading causes of death for the ten age-sex groups analysed.^a Even if a decrease started a few years ago in some countries (most of them developed), it is at a lesser pace than for other causes of death, and this overemphasizes the role of accidental injuries in the overall mortality.

As far as morbidity is concerned, the situation is poorly documented, and this fact adds to the interest of the survey performed in Cuba in 1984, using the protocol and the questionnaire prepared by the WHO/IPA/ICC^b Symposium on Accident Prevention in Childhood (Manila, 1983). This survey analysed, in 8 provinces of the country, 3000 cases of accidental injuries in children under 15 years resulting in demands on the health system. This was a joint undertaking, community- and hospital-based, where the results were used in order to sensitize the population and health professionals, and to reorientate some existing preventive activities.

^a Accident mortality in children, adolescents and young adults: analysis of current situation and historical trends: A.R. Taket, M. Manciaux, C.J. Romer. To be published in the World Health Statistics Quarterly, 1985, No. 3.

^b International Children's Centre

A specific interest of this survey has been the establishment of strong correlations between the level of the development of children - a field in which Cuba, in cooperation with WHO, has achieved some interesting nationwide studies - and the risks of particular kinds of accidents. As a conclusion of this preliminary work, it appears that the protocol and the questionnaire prepared in Manila are usable, with some minor adaptations, for simple yet reliable surveys. The group discussed this issue, and agreed on the use of a "common core" of information on each individual accidental injury - which should be minimal, yet precise - to which some supplementary pieces of information could be added for specific purposes: epidemiological surveys, studies of specific injury types, hospital-based surveys, household inquiries, in-depth studies of environmental and/or psychosocial factors, etc. No final conclusion was reached concerning the inclusion of non-accidental (intentional) injuries in childhood; however, the concept of violence to children, whatever its nature, was acknowledged by the group, with reference to a possible classification in accordance with the ICD heading "Violent deaths, including homicides and suicides".

Then the participants concentrated their efforts on the factors at play in causing children's and youngster's accidents. This problem has already received a considerable amount of attention; yet it is far from being solved. A tentative list of psychosocial/environmental factors (see Annex 1) was proposed to the group, who agreed on its usefulness as a check list for classifying data (for instance from the literature) and for preparing surveys.

Psychosocial/developmental factors were identified as major areas for research in the causation of childhood injuries. While the behaviour of children certainly is intimately tied to the nature and likelihood of injury, the vast majority of injuries to children occur as a result of a basic mismatch between the hazards to which children are exposed and their normal developmental abilities to cope with the hazards. Searching for psychologic or behavioural abnormalities or deviancies is therefore unlikely to produce information that will profoundly reduce childhood injuries. Environmental modifications which reduce existing hazards are more likely to be valuable. To discover what environmental changes need to occur, in-depth epidemiological studies need to be undertaken to provide details of the circumstances of injury for specific types of injuries (e.g., burns, drownings, motor vehicle/pedestrian casualties, etc.).

Research development was the key point of the discussions. Starting from a very concrete standpoint, some research appeared to be badly needed in order to answer the following questions:

- What efforts in the past have been successful in reducing childhood injuries on a community basis, and why?
- How have countries successfully mobilized multisectoral collaboration for injury control, including the establishment of standing committees?
- What data are available on the circumstances of children's accidents which could be used in to build up preventive actions/programmes?
- What are the consequences of injuries for the child, family, and society?
- What types of information (e.g., disability and cost data) are most likely to influence policy-makers to take action?

Through a more theoretical approach, research to be developed was presented along these lines:

- (1) Epidemiological research on: mortality
morbidity (with follow up surveys aimed at documenting the question of disabilities resulting from accidental injuries)
the relationship between the respective evolution of mortality and morbidity.
- (2) Behavioural research: on psychosocial factors playing a role in causes, circumstances and consequences of accidents/injuries.
- (3) Environmental research, including research on products' safety.
- (4) Research in the socioeconomic field, in order to document such problems as the individual social and national cost of accidents/injuries; the loss of productivity resulting from injuries and the resulting disabilities, the cost/benefit of some preventive measures.

- (5) Health service research, with special emphasis on the impact of accidental injuries on the various levels of health services.
- (6) Health and safety policy research: surveys of safety policies, their enforcement, their results.
- (7) Evaluative research, addressing the questions of quickly passing from research to application, of models for prevention, of the mutual role of various and combined measures in the changes of accidental morbidity/mortality over time.

A crucial point was raised: what should follow research? In other words, how to include the research components in the overall strategy aiming at reducing the rate and severity of accidents/injuries? As a matter of fact, one or another kind of research is present at each stage of the following chain.

Surveys and studies:

- hospital-based, addressing mainly the "injury facet"
- household surveys
school-based surveys
or based on the community at large, providing information on the "accident facet"
- psychosocial, questioning the individual (the victim) and his/her human milieu
- environmental, interested in the agents of the accidents (the products) and, more broadly, in the environment in which accidents occur.

Results

If carefully planned and conducted, surveys provide useful information on black spots, at-risk groups (usually young children - 1 to 4 - and male adolescents), factors at play (psychosocial, either developmental or behavioural, and environmental). The results help identify priority problems insofar as incidence and severity of accidental injuries are concerned.

Priority areas

The previous point only needs to be complemented by the notion of "amenability to prevention" and priority areas are then identified. It is important to concentrate only on one or two categories of accidents at a time and preferably on those for which a preventive programme can prove cost-efficient: in this field too, nothing succeeds like success. It is also important to clearly define the target group(s).

Programme elements

Accidents being multifactoral by nature, preventive programmes must also be multifaceted. In time, they have to consider the pre-, per- and post-event phases. In space, they ought to address several fields for prevention. A mnemonic has been proposed as the key to road accident prevention: the 4E's. They stand for education, enforcement (of the law and regulations), engineering, environment. It could be used as well for other types of accidents, for which engineering means appropriate safety technology.

Consolidated programme

It is then useful to build a comprehensive plan of action. A possible model is the following:

Accidental Injuries

A. Most important categories	B. Things that might be done immediately	C. Things that require changes in basic designs
_____	_____	_____
_____	_____	_____
_____	_____	_____

Evaluation

The evaluation of the programme should be built in, using indicators carefully chosen according to the objective(s) of the programme. The socioeconomic aspects should be an integrated part of any evaluation.

Based on these discussions, the workshop tried to envisage the next stages of the global programme, as far as children and adolescents are concerned. It was proposed to concentrate, in a few countries carefully selected, on one or two categories of accidents, for example burns and poisoning, addressing the following issues: source of information, registration of cases, socioeconomic aspects, resulting disabilities, impact on the various levels of health services. From these surveys, it should be possible to involve professionals as well as policy-makers in specific preventive measures, thereafter to be extended to other target groups, varieties of accidents, countries, etc.

Finally, a session was devoted to the training programmes, that were discussed for various levels of health professionals, community workers, school teachers, children, and the general public. A rather disquieting fact arose from the discussion: the medical doctors are one of the least "informed" categories in the field of "accidentology", that is, epidemiology of accidents/injuries, etiology and nature of accidental injuries, preventive programmes, etc. And the participants strongly emphasized the need for specific training modules, to be prepared in conjunction with IPA, in order to prompt and strengthen the training of medical students. In this respect, four areas can be identified where health professionals can serve a major role in the control of injuries to children:

- identification of hazards: through detailed record-keeping and an awareness of injuries as preventable;
- treatment;
- education: of parents, front-line personnel (nurses, EMT's, etc.);
- advocacy: how to mobilize community resources to address injury reduction efforts.

Greater than the need for a set of facts, is the need for role models in training to demonstrate - in the work in health care facilities and involvement in community efforts - the importance of each of the identified roles.

This effort should be pursued hand in hand with the continuous training of health care workers at primary level, and with the development of community based self-help programmes in injury control, two issues that were discussed at some length by the group.

However, at any level, the training of health and health related personnel in the field of safety promotion and accident prevention should not be organized in isolation. It has to be both as interdisciplinary as possible and developed as an integrated part of the overall curriculum.

Finally, in addition to these considerations on the training necessities, the participants agreed on the following set of conclusions and recommendations.

Recommendations

1. Statistical data

It is important to collect mortality data, though rough, in a reliable manner. Whenever possible, N and E code of the ICD should be used. Absolute numbers, rates, repartition by causes, age, sex, time trends and ranking amongst the main causes of mortality should be tabulated in each country, following the guidelines provided by WHO.

Some morbidity data on accidental injuries should be published on an ad hoc basis, providing details on the exposed population, the severity and the outcome of the injuries, etc. Various sets of indicators have to be used in order to document these various aspects, including the socioeconomic consequences of accidents.

2. Information

In reviewing, classifying, storing and retrieving various kinds of information (statistical data, results of investigations, scientific publications, reports on preventive and intervention programmes, etc.), the importance of developmental, behavioural, social and environmental factors can not be overestimated.

A common method should be adopted for a multicentric review, using a network of collaborating centres. In this endeavour, WHO should function as a clearing-house of any relevant information dealing with accidents and injuries in childhood and adolescence, with the Regional Offices collecting the information from their member countries, and the Global Programme for Accident Prevention working as a central point.

This information should be then tailored according to the needs and demands of various categories of users, in order to better acquaint them with the problem, and to help them to prepare relevant research action programmes.

In this respect, and for information, health and safety education and training purposes, there is a dearth of suitable audiovisual materials on accident prevention. Transcultural material might be developed by WHO and support given for national productions and adaptations.

3. Research action methodology

The combination of several types of surveys (hospital- or community-based, household registration or ad hoc surveys) can provide a large amount of information on the occurrence of accidents and injuries in a given setting. This would allow the use of this available knowledge in order to plan relevant intervention programmes.

In any survey, prevention activity, research or intervention programme, a relevant cluster of indicators has to be prepared beforehand and to be used for monitoring and evaluation.

The risk strategy should be developed, keeping in mind that it represents a methodologically demanding approach, however potentially rich in results, and facilitating the evaluation process.

4. Management of programmes

Wherever they exist, the national commissions for accident prevention have proven to be useful, at least when they used to work on an interdisciplinary basis and promote community participation. Such bodies should be established in all countries.

There should be international cooperation in the interchange of information, experiences, educational material, training modules - possibly through WHO.

No research programme should be launched without an evaluation mechanism and a preventive outcome, both being planned from the very beginning.

Finally, all work aimed at preventing children's accidents or at minimizing their consequences should be integrated at all levels of health programmes and services.

Annex 1

LIST OF PSYCHOSOCIAL/ENVIRONMENTAL FACTORS

1. Personal - family level

1.1 The child (or adolescent)

- 1.1.1 Stage of development: physical, intellectual, psychological, social
 - 1.1.2 Sex. Overall personality. Behaviour.
 - 1.1.3 Experience. Awareness of risk.
 - 1.1.4 Handicap: motor, sensory, mental deficiency.
 - 1.1.5 Alcohol and drug use/abuse.
-

1.2 The family

- 1.2.1 Form and composition. Origin (migrants)
 - 1.2.2 Economic and educational background
 - 1.2.3 Social status (current)
 - 1.2.4 Intrafamily relationships. Stresses and conflicts.
 - 1.2.5 Child rearing practices. Educational methods.
 - 1.2.6 Awareness of risk.
-

2. Community, social level

2.1 The community

- 2.1.1 Urban, rural, semi-urban community
 - 2.1.2 Traditional, transitional, modern community
 - 2.1.3 Existing solidarity (or supportive) network(s)
 - 2.1.4 Existing resources for accident prevention/care (PHC)
-

2.2 The services

- 2.2.1 Services and programmes of prevention care
 - 2.2.2 Health services: accessibility, use
 - 2.2.3 Health and safety education
 - 2.2.4 Educational services: availability, use
 - 2.2.5 Services and programmes for sports, physical exercise
-

2.3 The social system

- 2.3.1 Level of development of the country, the region
 - 2.3.2 Society's value on
 - children (males/females)
 - childrens' wellbeing
 - 2.3.3 Level of awareness of accidents as a problem
 - 2.3.4 Political system: legislation, regulations, local authorities
 - 2.3.5 Health and social system
 - 2.3.6 Economic and commercial system
 - 2.3.7 Information (health information) system
-

3. Physical environment level

- 3.1 Housing patterns
- 3.2 School, sport and playgrounds: location, building, access ...
- 3.3 Roads and transport networks
- 3.4 Product safety: measures and programmes
- 3.5 Chronological parameters: time of the day, day of the week, season
- 3.6 Other parameters: specify