

## **COMMUNITY INTERVENTION STUDIES WITH INTERSECTORAL COLLABORATION**

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**Abstract.** Health management without intersectoral collaboration is not a realistic approach. Intersectoral collaboration improves and complements sectoral interaction. Aims of this article is to display strategies of intersectoral collaboration by community intervention studies for improvement of public health and to assess the effect of intersectoral collaboration on the sustainability of public development activities as of Turkish experiences. Examples of intersectoral collaboration were used on 8 population-based intervention studies. Planning, harmony, motivation, follow-up, recording and monitoring were important points of intersectoral collaboration for implementation of all studies. Leader selection, management, coordination and technical units were established. Sector representatives and responsibilities were determined. Procedures of the studies included baseline, internal and final evaluations during the interventions. Interviews, educational activities, consulting, certification and screening activities were done. Successful interdisciplinary communication and health improvement were gained in all studies. Although many community development projects were done in Turkey, continuity of the project activities always seemed as a big problem. This study showed that sustainable development could be provided by only multisectoral approach.

*Keywords:* interdisciplinary communication, multidisciplinary communication, collaboration, sustainable development, public health.

### **AIMS AND BACKGROUND**

Interdisciplinary and multilevel approaches are necessary for public development, health promotion and control of communicable and non-communicable diseases<sup>1,2</sup>. Achieving optimum health and well-being for all members of society lies as much in the understanding of the factors identified by the behavioural, social and public health sciences as by the biologic ones<sup>2</sup>. In order to determine and control the effects of all of these sciences, formation and support of intersectoral collaboration (ISC) are necessities.

In the health literature, the term ISC frequently refers to the collective actions involving more than one specialised agency, performing different roles for a common purpose<sup>3</sup>. The coordination of efforts of sectors as an essential requirement for ISC is highlighted in the 1978 Declaration of Alma Ata which targeted as primary health care goal to achieve ‘an acceptable level of health for all the people of the world by the year 2000’ (Ref. 4).

But this goal remains unmet in many developing countries. In 2000, Millennium Development Goal (MDG) strategies were agreed in order to encourage development by improving social and economic conditions in the world poorest countries. Strategies include eradicating extreme poverty, literacy improvement, reducing child mortality, improving maternal health, fighting disease epidemics such as AIDS, malaria, ensure environmental sustainability and developing a global partnership for development<sup>5</sup>. It was seen that strategies were closely related with health sector and in order to be successful in MDG strategies, ISC is necessary. For example eradication of extreme poverty and hunger was associated with economic development and agricultural sectors, ensuring a sustainable environment was associated with environmental sector, literacy improvement was associated with education sector and health sector.

WHO explains intersectoral action for health as ‘a recognised relationship between part or parts of the health sector with parts of another sector which has been formed to take action on an issue to achieve health outcomes in a way that is more effective, efficient or sustainable than could be achieved by the health sector acting alone’ (Ref. 6).

Problems in the implementation of ISC can be ‘non-health’ strategies (such as to provide safe water) are outside the control of the health sector, or health promotion is not on the agenda of ‘non-health’ sectors for their operational attention. Thus, to build a link road between sectors is critical and necessary<sup>3</sup>.

Health management without ISC is not a realistic approach. ISC improves and complements sectoral interaction. If it has been prepared imaginative, its synergistic effects and the motivation of sectors increase<sup>7</sup>. When the sectors are part of the specified targets, they would take responsibilities and tasks. In this situation the most important point is that specified duties must continue in order to reach the targeted aims. Most of the health promotion activities fall through because of neglecting the sustainability of ISC.

Aims of this article is to display strategies of ISC by community intervention studies for improvement of public health and to assess the effect of ISC on the sustainability of public development activities as of Turkish experiences.

## EXPERIMENTAL

Aydin, located in the west region of Turkey, is a province with an area of 8013 km<sup>2</sup>. Its climate is hot and dry in the summer months, mild and rainy in the winter. It has 17 districts including the center district. The population of the Aydin province in the middle of the year 2010 was 989 862, as 494 499 (49.9%) of the population are women and 495.363 (50.1%) are men<sup>8</sup>. Relatively low level of health, low socio-cultural and economic parameters in some parts of the Aydin province has prompted us to establish multidisciplinary initiatives to make population-based

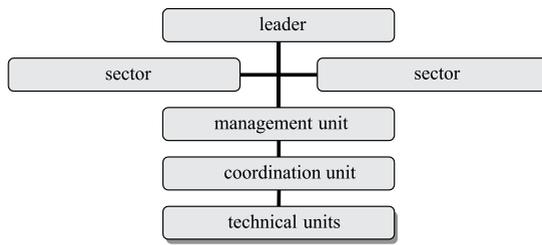
collaborative researches in order to solve the determined problems. We planned to start activities by the year 2000. First we conducted many descriptive studies in some districts of Aydin. We interviewed the residents and the persons who were in leading position in many districts and took their recommendations into account. Then we searched for solutions. Although some different approaches were present for each particular study, general solution was concluded as intervention studies via ISC.

#### ISC APPROACH

Rules are important points for ISC. There are at least two sides in sectoral approach; ISC demanding site(s) and invited side(s). ISC leader, administration unit amenable, coordinator, coordination unit workers and technical personnel, constitute the staff. The leader is the person or institution who is in local or central charge. If the ISC has the extension of country-wide, the leader should be the prime-minister. If the ISC would include a single province, the leader should be the governor of the province. Administration unit is made up of project manager, project coordinator and representatives of the sectors. This unit monitors and audits the course of the project and related activities and strategies. ISC should be implemented by 2 coordinators: one of them should be determined by demanding sector and the other one should be an academician who works at an equal position at health sector. Academicians are the best choices as coordinators. Because they have skilled experiences on management and organise procedures by evidence-based approach. The representatives of related sectors take place in administration unit. Technical personnel are in direct contact with the public and perform planning, implementing, monitoring and auditing functions<sup>7</sup>. Central and local governance should give support to these actions. They could constitute partnerships between different sectors. The critical point is the coordination. A common language and a common target must be constituted by the coordinators.

Examples of our studies related with ISC were presented as follows: (1) Acarlar-town of the city of Aydin: prevention of adolescent marriages in a closed community, funded by the European Commission (EC); (2) Umurlu-town of the city of Aydin: reducing of unwanted pregnancy in 10 villages, funded by the EC; (3) Healthy City Project in Aydin; (4) Tobacco-free villages; (5) Healthy ageing-social support for elderly, funded by the EC; (6) Early detection of some preventable diseases and training of 15–49-year old women, funded by the EC; (7) White buildings in Kocarli village; (8) Social development of Kocagur residents.

All studies were performed in compliance with the cycle of planning, sharing of the responsibilities, harmony and motivation. In the phase of planning, organisation schedule was designed (Fig.1) and the leader, administration unit, coordination unit and technical personnel were determined.



**Fig. 1.** Organisation schedule of intersectoral collaboration

Basic intervention study procedures in the studies were: determination of the baseline status about health-related factors, intervention (training and certification of the trainers at houses, coffee houses, mosques, health centers, schools, consulting units, education of the people in the study areas by means of the trainers), monitoring and auditing (determination of the changes in the level of health of the residents during and after the study activities, final evaluation via questionnaire forms, reporting, making announcements).

An example for these studies is presented below in order to describe the methodology:

Example: Name of the project; Acarlar-town of the city of Aydin; Prevention of adolescent marriages in a closed community. Sectors that support that project were European Commission, Turkey Delegation, Ministry of Health, Governorship of Aydin, the District Chief of Incirlioiva, municipality of Acarlar, medical and education faculties of Adnan Menderes University, Adnan Menderes University Foundation (non-governmental organisation (NGO) and owner of the project), Acarlar Secure Motherhood and Adolescent Health Association (NGO), the Head of the Health Department, the Head of the Education Department, Dumlupinar University, nursing school of Dokuz Eylul University (two universities from other cities), Nursing School of Adnan Menderes University. Province governor was selected as the leadership in all studies; Project coordinators were chosen among academicians of the university; Project coordinator and sector representatives who formed the management unit monitored and audited the course of the project and performed activities and strategies; Representatives of related sectors took place in coordination unit; Technical personnel performed planning, implementation, monitoring and auditing activities. At the beginning of the project, protocol agreements were signed with all related sectors for all planned activities and the partners and their responsibilities were determined.

(1) Base-line evaluation: Sexual and reproductive health of 15–49-year old women were determined by questionnaire forms and records of the health center. Legal infrastructure was taken by the governorship, the provincial educational directorate, the provincial health directorate. Data acquisition and criterion by

questionnaire forms and focus group interviews were done by the universities. Financial support was taken by the EC, governor and NGO.

(2) Intervention:

- training activities at house meetings (with educated district representatives) (universities and the provincial health directorate take the responsibility);
- establishing 'Youth Consulting Unit' in Acarlar health centre (universities and the provincial educational directorate take the responsibility);
- peer education by the help of 'Youth Boards' at schools (universities and the provincial educational directorate take the responsibility);
- creative drama studies at schools by professionals, education of students with university youth club members (universities and the provincial educational directorate take the responsibility), 'Reproductive health corner (place)' in coffeehouses and public education by coffeehouse meetings (universities and the provincial educational directorate take the responsibility);
- songs from 2 popular artists in the area and health messages in their CD content;
- a documentary film about project activities (universities take the responsibility);
- publications: handbook of reproductive health, placards, brochures (universities take the responsibility);
- project announcements and obtaining equipment supply (NGO take the responsibility).

(3) Monitoring and evaluation; the course of the study was discussed in weekly meetings and necessary interventions were performed in problematic events. Project trainers participated to at least in one training program of district representatives and observed the course of training program. Focus group interviews were realised and main aspects for insolubility of the problems were investigated. Determination of the final condition and the effects of the study was performed by administration of questionnaires and auditing of the records of health unit.

## RESULTS

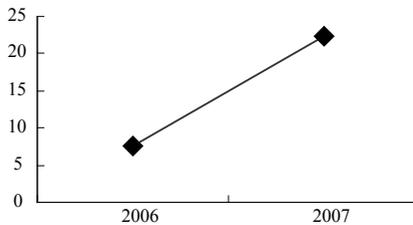
In all studies, general health status increased in study areas via success in interdisciplinary communication. Partners (sectors) and their responsibilities in all studies were:

Governorship, provided financial support, it provided the participation of representatives of related sectors and provincial directorates. It provided legal infrastructure and solved bureaucratic problems. University was responsible for scientific design of the studies, preparation of instruments (educative publications, handbooks about health-questionnaire forms), data collection, and design of the training and consulting activities, monitoring the study activities, evaluation and

scientific reporting of the results. The provincial directorate of health provided the legal infrastructure in order to implement study activities, gave responsibility to the technical staff who knew the region very well and supported the consultation activities of the university. It provided contribution for covering treatment costs of the women who have been diagnosed for some of the determined diseases and have no social security. University and the provincial directorate of health took responsibility for to facilitate accessibility of the residents to health services by means of establishing consulting units (such as youth consulting units, women consulting units), public awareness for the determined health topics and screening activities for some diseases. The Provincial directorate of education carried out the necessary steps for training activities such as planning, certification, legal infrastructure of the trainers. NGOs-supported training activities provided contribution for realisation of consulting units and promotion activities. NGOs made announcements for the public participation to the study activities. Governorship, the office of district governor, the provincial health directorate, the district gendarmerie command and the district public security directorate provided legal infrastructure for implementation of the studies.

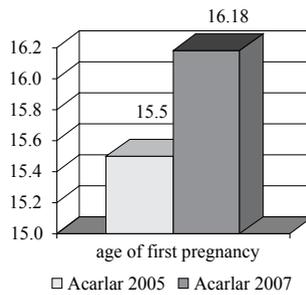
Monitoring, recording and auditing were realised in each stages of planning. Team work encouraged researchers to solve problems effectively and immediately, provided strong relationships between sectors. The inhabitants found the possibility to face-to-face interview with representatives of all sectors and to solve their local problems. They were induced to use local health facilities. Moreover, the quality and quantity of health centre services were improved. Public awareness about their health was provided.

Some results of ‘Acarlar study’ are presented in Figs 2 and 3.



**Fig. 2.** Increase in intrauterine device use (monthly)

The rate of intrauterine device (IUD) use increased from a mean of 7.5 to 22.4 monthly with this study. Mean of marriage age increased from 14.1 to 14.4 with this study. As the quality and quantity of family planning services were increased, the age of the first pregnancy provided to be postponed approximately 0.7 years. Age specific birth rates were decreased in especially below 19 years that was the limit for risky pregnancies.



**Fig. 3.** Age of first pregnancy

After the project finished, we faced with the problem of the sustainability of the activities. Meetings were organised with the participation of all related sectors. Governor took the frontal responsibility and shared the duties to the sectors. In order to provide sustainability, sector responsibilities were explained in details and rules were understood by all of the sectors. A new intervention was planned in the Acarlar district, Public Health Department of Adnan Menderes University took the responsibility of coordination between these sectors. Active participation of the sectors resulted with a big acceleration in activities at a short period by understanding each other. Meetings were conducted monthly. District problems, information about the public and their traditions, responsibilities of the sectors were discussed in the meetings. Monthly reports about the activities would be given to the province government in order to follow up the activities. Activities that were done:

(1) Computer training course was established by the public education directorate in relation with the university staff. Youths (approximately 40 students) trained and computer using was certified. This activity encouraged youth to participate in the project activities. Lessons were learned from this success that university has to be in close relation with the directorates of the government.

(2) Province Social Services Directorate staff educated women in the district. Women were encouraged to participate in social activities such as going to the cinemas or theatres.

(3) Education and cultural activities center was opened by the province government. A parkland was established with the support of the government. The province social services directorate staff in relation with the university prepared questionnaire forms in order to determine the district base-line status about health and public demands or expects from the sectors. University analysed the results and announced it to the sectors. Training activities were done with the university staff about the necessities of the district.

(4) The province education directorate started to do training activities at schools (especially last-term students) about the risks of early marriage.

(5) The province youth and sports directorate organised sport competitions for the youths for a better social development. Summer camping activities were planned for almost 200 students every year in order to learn how to join in group activities and share responsibilities.

(6) The province agriculture directorate trained public on commercial growing of hothouse flowers and raising stocks.

(7) Turkish work institution preferred workers living in the Acarlar district for new job opportunities.

(8) The province government gave financial support (approximately 170 000\$) in order to establish a kindergarten for the district. It was the first kindergarten in the district and opened in a four-month period.

## DISCUSSION

If the rules are implemented, ISC will be successful. In all studies that were performed in the province of Aydin, the synergistic effect was increased with well planned ISC. The units (leader, management unit, coordination unit and technical unit) that were formed in the context of sectoral approach performed their duties in compliance with each other according to their amenabilities. The compliance and motivation of the units and sectors were supported and successful consequences were obtained. Organisational structures of the sectors were well analysed before the study. Sectoral responsibilities and amenable persons were determined in activity plans and collaboration areas were limited. The staff was motivated at each stage and the background for maintaining the collaboration was prepared. The responsibilities were shared at each step and monitoring, recording and auditing were performed.

In other national studies, various interventions with the approach of ISC were performed. Although successful consequences were obtained, it was seen that public development activities can not continue after the project finished. In various projects that were realised in the province of Sanliurfa, the collaboration between World Health Organisation, UNICEF, United Nations, Governorship, the provincial health directorate, the provincial educational directorate, the provincial religious directorate and the provincial social services directorate was developed and successful consequences in the fields of safe pregnancies and child and adolescent health were obtained<sup>1</sup>. In another study that was performed in the province of Mersin, the Mersin university, the provincial social services directorate, the Mersin state hospital, the Mersin chamber of pharmacists and the Mersin municipality worked in collaboration to determine health status and risks of children who worked and lived at streets and necessary recommendations were made in order to improve public awareness<sup>9</sup>. Another project with ISC at national scale was realised in the

province of Adana and similar studies were conducted in the fields of support of literacy and primary school education, occupational and health training<sup>10</sup>.

Many studies revealed that intersectoral development programmes results in improved health behaviour and better health outcomes. One of the international studies that was performed in the USA in the body of National institutes of health with ISC was behavioural and social sciences research. The aim of this study was to extend healthy life and reduce burdens of illness and disability<sup>2</sup>. In another study that was performed in the USA (tobacco harm reduction research) interdisciplinary collaboration received reasonable importance<sup>11</sup>. Another study with similar methodology was TREC (National Cancer Institute Transdisciplinary Research on Energetics and Cancer) study<sup>12</sup>. In the reduction of food-borne zoonoses, ISC method was used in Germany and Europe<sup>13</sup>. Another study in Australia analysed the process of ISC from the perspective of early childhood health and well-being<sup>14</sup>.

Positive developments were provided with ISC in studies that were performed in the province of Aydin. Health sector alone can not be adequate to protect and develop health. The contribution of the governorship and the provincial health directorate is very important to improve health services. Prevention of infectious and noninfectious diseases is not possible before improving the infrastructure by the municipality and providing medical expenditures like vaccinations by the Ministry of health. Despite qualified training and information efforts, positive consequences might not be seen if service and material demands of the public related with health (provision of necessary materials for family planning, accessibility to health services, etc.) were not met.

In the Acarlar study, the use of IUD increased notably as a result of interventional activities. Training activities, motivation of health personnel to administer IUD and informing the inhabitants via home visits improved reproductive health of the women. In the context of the same project, the society was informed intensively about the health risks of early marriages and adolescent pregnancies. But as the society was of closed type, there were difficulties in changing some traditional behaviour (such as early marriages), only limited improvement could be provided during a year period. Nonetheless, pregnancies at earlier ages that could affect mother and child health were reduced significantly.

## CONCLUSIONS

As a consequence, ISC is an important and effective way of public development and improvement of public health. Directors of the government and academicians must take roles, responsibilities and tasks, be aware of the importance of ISC. Neglecting utilisation of ISC is unlikely to be a valuable option if the main and desired purpose is to provide a 'sustainable public development'.

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