



SOUTH-EASTERN EUROPE
HEALTH NETWORK

Southeast European Information Systems project: Establishing regional networks and systems for the collection and exchange of social and mental health information

1. Summary:

The goal of the project is to introduce the evidence based approach for collecting and analyzing relevant mental health and social information in nine SEE countries that are involved in the SEE Mental Health Project under the Stability Pact for the region. Computerized information protocol and system for effective clinical and managerial work will be developed for that purpose and will be implemented in the nine pilot Community Mental Health Centres established under the SEE Mental Health Project. The Information system is based on the data gathered using comparable criteria and indicators in the nine countries concerning the target group – persons with mental disorders at risk of social exclusion.

Bulgaria was selected as leading country in the project, where the Regional Project Office is established. The WHO Regional office for Europe, the Council of Europe and the SEE Health Network are the key partners of the project. The Government of the Republic of Greece, the WHO Regional Office for Europe, the Open Society Institute in Sofia and the Swiss Agency for Development and Cooperation were donors of the of the project.

The Country Project Managers of the ongoing SEE Mental Health Project along with one or two national experts are forming the Project Implementation Units in each of the beneficiary countries: Albania, Bulgaria, Bosnia and Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, the Republic of Moldova, Montenegro, Romania and Serbia.

The full project time frame is two years, divided on two components

- *Preparatory phase:* Component One (01.06.2005 – 31.05.2006) preparation for the implementation of the information system and analysis of the national needs for collecting and using mental health information and
- *Implementation phase:* Component Two (estimated starting date 01.06.2007 – 31.05.2008) implementation of the information system and the establishment of a network for regular monitoring, evaluation and management at the project sites.

2. Objectives

The project has two main aims:

- to support the decision makers of the nine countries in the process of implementation and management of the defined mental health policy, by establishing an information system that will serve as a relevant, evidence based tool for making decisions on regional, national, and local level; and
- to improve the quality of health and social services by extending the activities within the community.

Long-term Objectives:

- To develop, strengthen and implement an information system for record keeping and documentation of the process of service provision at individual and local service level, which would generate information allowing for effective monitoring.
- To formulate a system for evaluation and comparison of data gathered in the different countries of the region concerning the target groups, based on comparable criteria and indicators;

Immediate Objectives:

- To provide professionals in the field with reliable information on the clients of the community mental health centres;
- To improve coordination between institutions responsible for the care of the mentally ill;
- To create and maintain an organizational culture of active approach and identification of the persons at risk of social exclusion
- To improve coordination and cooperation amongst countries of the region for in implementing their national mental health policies regarding the target group.

Outputs:

- A reliable methodology for gathering and analysing information based on a standardized medical record system for people in the target group of the community mental health centres.
- Continuity of care guaranteed by prevention of drop-outs from the system of medical and social care of the persons in the target group.
- Exchange of information between SEE countries, providing a solid ground for research and future development of the community psychiatry in the region.
- Establishment of solid grounds for building a local database to be used as an indicator for assessment of the implementation of the mental health policy

3. The creation process of the software ISY-COM

The development process of the information system can be described according to the three major approaches mentioned above (general concept, standardized description forms, practical tool) as one “3-stage” model:

3.1. Phase 1: Concept for the system and consideration of the countries needs for the introduction of information system

The concept for development of information system at national level only for the most marginalized group of mentally handicapped people who became homeless as a result of their mental disease and who had suffered loss of social skills and lack of integration in the society etc., was presented in the beginning of Component One of the project. After analysing a number of conditions, limitations and real needs of the separate countries and according to a

proposal of the regional consultants of the project, it was decided that the system shall re-focus its targets and aims by orientating towards meeting the need of description of the clinical, administrative and management processes in the newly-founding Mental Health Centres in the community of the Project for Mental Health in South East Europe.

There were discussions about the insufficient personnel in the separate centres, as well as the lack of skills for working with specialized computer systems. It was focused on the importance of acquaintance and training of the people, who will work with the system not only for the validity of the data, but also generally for their motivation to work with the system.

A field of tension, in which the software development team had to "manoeuvre" was created during the initial discussions and consultations. Often the representatives of the countries expressed their needs of more and better structured information for the clients using the services of the centres, but at the same time they saw problems in the standardized description and encompassing of the information. In the frameworks of the system development, the consideration of all criticism and recommendations in the development process turned out to be the most efficient step for overcoming those uncertainties. In this way many unexpected ideas were considered during the software development and the problems, which looked hardly surmountable at the beginning, were solved in a partnership manner. The system was more and more considered as help, which will be useful in the everyday work in the centres without dominating on the work of the professionals.

3.2. Stage 2: Software development

At this stage the work was focused on the mutual definition and development of the system's components together with the National coordinators and experts, who showed interest in this work. The description of the customer information was fully dependable on the profiles and the services of the separate centres. Initially, a *Catalogue of the clients' characteristics and the nature of the activities and services* was prepared on the basis of the participants' past experience. That catalogue provided a very differentiated picture of the scope and the nature of the collected information for the clients and the service processes in the centres in the different countries.

Before the start of the project, the information for the Centres' activities has been gathered by client/out-patient cards and notebooks and computers were not ever used for that purpose. Half-standardized questionnaires/information sheets were often used for that purpose and most of them were prepared in accordance to the requirements of the funding institutions. The experience from such systematized database strongly varies from centre to centre and is different in terms of content and scope as well. Also, there is no internal uniform standard for description of the clients and the work in the separate centres. Thus, one organization (centre) describes by different indicators its clients who are in different fields of service (out-patient, day care facility, protected facility...). There is no systematic experience for unification of the form of information in neither of the following cases: when the client is transferred from one service to another or receives services in different fields of service.

Within the frames of one centre, the people working there have different practices for record-keeping of the information. In some of the centres, the description of the supplied services is assigned only to some of the employees, usually to those with lower professional rank. Evidence for the services supplied has not been required so far and the computers have not been used for similar purpose.

3.2.1. Development of a common *Catalogue of the clinical and administrative characteristics*

The first common *Catalogue of the clinical and administrative characteristics*, valid for all the countries in the region was prepared on the basis of the collected information from the countries. The requests and the needs of the National coordinators and the centres managers, participated in the first and the second conferences of the project were considered. Many of the items of the catalogue were discussed and corrected in order to correspond as much as possible to the real possibilities for gathering of information in the different countries. A series of questions concerning the relevance of the separate items were discussed: 1. what is the meaning of the separate item for the service process in your facility?; 2. Do you generally collect this information?; 3. Do you think that the missing information can be collected?

The answers to these questions and the adding to the common *Catalogue* depicted the situation in the countries:

- in all centres and facilities the professionals need structured information for their clients;
- the necessary and available data are not the same in the separate centres, but they have one common information core;
- the demand for more information increases with the increase in the services, but so do the possibilities for its collection;
- the scope of the necessary information depends on the purposes and the intensity of the service, but also on the active involvement of the employees as well.

This refers mostly to the facilities which, apart from the out-patient, have available other open structured programs (Social skills training, Therapeutic food diets, Art therapy etc.). Three groups of employees can be differentiated:

- one relatively small group, which rejects the record-keeping;
- one group, which considers record-keeping important, but is afraid that through the systematic data collection and analysis, the access of the clients to the facilities is endangered.
- one group, which is interested in and motivated to collect information for the clients and would use this information for the planning and the evaluation of the facilities.

Such differences in the acceptance and the meaning of the implementation of the information system make the development of separate modules of the system very important for its appropriate implementation and access to the information. So it is necessary to have the possibility to collect all relevant data but, at the same time, each facility must have the possibility to define the flow of necessary information, corresponding to the services it offers. Last but not least, due to the requirement for secure access to the information in the records, filtering and regulated access to the data must be integrated.

3.2.2. Three types of information are to be collected by the system:

1. Mandatory information, which is compulsorily required by the system;
2. Optional information, which is available when needed and
3. Information without access possibility, which cannot be accessed by unauthorized personnel in every facility.

In order to meet these requirements, two options connected with the client's profile during the entering of the personal information, were provided for:

1. By names – saving which includes at least the first and the family name of the client. In this way the services, which are provided can be categorized in a longer period of time;
2. By number – i.e. the client is automatically assigned a number, which identifies him/her in the facility.

3.2.3. The principles, which were followed during the development of the ISY-COM system, referred to the requirement that the system should be open in order to allow additional changes during the stages of testing and development in the different countries. This openness corresponds to the desire of the team the system to be well accepted by the employees in the centres. The basic principles for database development were followed:

- No conflicts inside the system;
- Consistency (to meet the condition that the available information, entered in the database must not be contradictory. For that purpose, the dependencies of the information flows must be in harmony with each other. In this sense, data can only be entered if the internal system conditions are met – description of the service is not possible, if the client for whom it is meant does not exist. Errors must be avoided by entering given information in the system only once and it should be indicated in the respective points, that this has already been done);
- Option for extension (the program must have the possibility for extension at any time without disruption of the existing structures);
- Scaling option (neither the program, nor the database should limit the number of users or the quantity of information, necessary to be saved);
- High efficiency quotient/Performance (the quick access to the most important fields must be ensured, regardless of the total quantity of data, entered in the base);
- Easy operation;
- Clarity;
- User friendly. The masks of the initial screens and the configurations of the windows for information entering must be configurable by the separate centres and facilities, depending on their programs and services.

3.3. Stage 3: Testing and implementation in the practice of the software ISY-COM

The development process of ISY-COM between the team of the Regional Office of the project, the National offices in the separate countries, the Regional experts and consultants and the software company Intera-X followed its own dynamics which, in the beginning of the project, could not be foreseen and planned. So the final product went out of the initially described task. There were over 7 interim versions between the initial and the current software versions during the working process. Three of the versions contained major revisions of the whole concept for the software. The rest of the versions were needed to comply more strictly to the task and to the needs of different types of information, expressed by the centres or to remove errors and problems in the software. In the beginning of the testing period there were several program failures, which hindered a lot the testing process in the chosen pilot centres. A procedure for keeping a contact between the responsible employee in the centre, the Regional coordinator and the software company was established in order to remove these problems.

After the testing period and the related revision of the tool, one information system for computer backed-up database was developed, with which the processes of the mental health care in the community of the countries from the South East European region can be described and analyzed. After more than 10 facilities and over 20 experts at various levels (psychiatry,

psycho-social rehabilitation, information systems and computer technologies, psych-social policy etc.) took part in the development of the ISY-COM system, now it's going to be implemented in as many facilities and centres in the countries as possible. In Bulgaria, the implementation of the system in the practice at a national level is guaranteed with its inclusion in the National Health Care Strategy 2007-2012 of the Ministry of Health.

3.4. Usage possibilities

In order to use and evaluate the information from ISY-COM in the customer service process, the employees in the centres have three options available:

- Data output for the purposes of reports and accounts;
- Using the laid evaluation options (statistics);
- Export of data for consecutive processing and analysis by calculation of tables or statistical programs.

3. Trainings, adaptation and use of the software ISY-COM

The content of the software was adapted for the contexts and then translated into the different national languages of the partner countries, participating at the project (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Moldova, Romania, Serbia and the FYROM). A Manual for the work with the information system was developed and translated into the 9 national languages. Trainings for the work with the software were prepared and performed at the Community Mental Health Centres in the 9 countries. The feedback from the countries is very positive and they consider the software as a practical tool for the support of the everyday clinical and administrative work, for the planning of the service and for the evidence based recommendations to the policy makers at local, national and regional level.