



Japan International Cooperation Agency

Ex-post Evaluation of “The Infectious Diseases Control Project in the Republic of Turkey”

FINAL REPORT

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MWH Mühendislik ve Müşavirlik Ltd.

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Summary

Evaluation conducted by: JICA Turkey Office

1. Outline of the Project	
Country: Turkey	Project title: Infectious Disease Control Project
Issue/Sector: Health / Medical Care	Cooperation scheme: Project Type Technical Cooperation
Section in charge: Medical cooperation Department	Total cost: (For operational expenses and Equipment Provided)
Period of Cooperation	October 1, 1997 - September 30, 2002
	Partner Country’s Related Organization(s) Ministry of Health Supporting Organization in Japan Bio Medical Science Association National Institute of Infection Diseases
Related Cooperation	Project of Development and Evaluation of Quality Control on Biological Products (January 1993 – June 1996)
1-1. Background of the Project	
<p>JICA assisted the implementation of Turkey’s EPI policy by supporting the Biological Control and Research Laboratories of the Refik Saydam Hygiene Centre Presidency (hereinafter referred to as “RSHCP”) from 1993 to 1996 with the project-type technical cooperation scheme, in the field of vaccine preventable infectious diseases. The project that was conducted between 1993-1996 aimed at improving laboratory techniques of biological control of vaccines and to establish a National Control Laboratory at international level.</p> <p>With the success of this cooperation, the government of the Republic of Turkey requested JICA’s further cooperation to get technical support purposes of monitoring the immunization status of people through epidemiological surveillance and other EPI-related laboratory techniques. With this request, JICA agreed to start a different project-type technical cooperation “Infectious Diseases Control Project” from October 1997 to 2002.</p>	
1-2. Project Overview	
Overall Goal	
To control EPI related infectious diseases.	
Project Purpose	
To establish a laboratory supported epidemiological surveillance system.	
Outputs	
<ul style="list-style-type: none"> a) Laboratory techniques on EPI related infectious diseases are strengthened. b) Management and technical skill for epidemiological surveillance on DPT, polio, measles, and hepatitis B are acquired. c) Technical collaboration between RSHCP and Primary Health Care General Directorate is established d) A serum-bank is established 	

<p>Inputs (as of the Project’s termination)</p> <p>Japanese side:</p> <p>Long term Experts: 9 persons Equipment: 269 million JPY Long term Experts: 26 persons Local cost: 23 million JPY Trainees received: 20 persons (Total : 292 million JPY)</p> <p>Turkish side:</p> <p>Counterpart: 63 persons Facility: Office for Japanese Experts Local Cost: 201.4 billion TL (Approx. 0.54 million US\$) Lab Renovation: 2.66 trillion TL (Approx. 7.17 million US\$)</p>		
<p>2. Evaluation Team</p>		
<p>Members of Evaluation Team</p>	<p>JICA Turkey Office</p> <p>MWH Muhendislik ve Musavirlik Ltd. Turkey</p>	
<p>Period of evaluation</p>	<p>September 26, 2005 – March 3, 2006</p>	<p>Type of Evaluation: Ex-Post Evaluation</p>
<p>3. Results of Evaluation</p> <p>3-1. Summary of Evaluation Results</p> <p>(1) Impact</p> <p>1) Achievement of Overall Goal</p> <p>The project goal of “EPI related infectious diseases are controlled” is a long-term goal, which the project is believed to contribute by demonstrating a surveillance system in 3 cities, as the means of controlling infectious diseases. It is evident that the project will reach its goals in the long-term, if supporting projects and activities are conducted and sufficient resources are allocated to disseminate the technology and extend the pilot experience nation-wide. However, it is observed that health directorates in the pilot cities could comment on the decreased mortality and morbidity, and could relate this with the Project.</p> <p>2) Other Positive Effects</p> <p>The project accomplished a new vision in the Ministry of Health for surveillance of infectious diseases, and established the basis for updating of policies related with surveillance. The works conducted throughout the project brought about a model and helped identification of problems and constraints in the existing system that has been applied for many years.</p> <p>Apart from the high technology that the project brought in together with the installed equipment, the counterpart staff at all project parties became highly conscious and motivated about their work and further development in their careers. They have also established a more organized work system. All contact persons involved in evaluation stated that they gained extensive knowledge from the project.</p> <p>Currently, laboratory data related with infectious diseases are used in surveillance for:</p> <ul style="list-style-type: none"> ▪ early detection of epidemics ▪ verification and classification of epidemics 		

- identification of sensitivity antibiotics and their classification
- analysis of micro-organisms with respect to their types

However, laboratory supported surveillance is fairly new in the country, therefore time is needed in order that sufficient data is collected, analysed and interpreted. This also requires that consciousness should be built upon all practicing medical staff. It is required that further trainings and consciousness building studies are continued at organizational level.

Ongoing cooperation between RSHCP and PHC includes vaccination services, identification of infectious diseases, laboratory based surveillance, infectious disease research. Besides, the two organizational units work together on legislation of surveillance, organize and conduct training programmes and participation in international seminars.

One of the important results of the project is that national project partners have conceived that they have to cooperate for effective surveillance, thereby; they are working in teams in surveillance studies, as an indication of their efforts for removing barriers in working together.

3) Other Negative Effects

No negative effects of the project are found.

(2) Sustainability

1) Technical Aspects

Published scientific bulletins and papers are indications of positive project impacts and also of the progress in the sense that efforts in surveillance are continued.

Problems with equipment maintenance have been the major factor that hinders project sustainability. Calibration and supply of consumable materials are delayed frequently, mainly due to bureaucratic reasons that can be overcome with organizational arrangements.

Two significant steps that imply project sustainability are the notification system which is already in place and the EU funded project on infectious disease control, which are very much depend on the results and outcomes of the JICA Project. The EU Project on infectious diseases aims at accomplishing necessary legal arrangements, training sufficient health personnel through an extensive and effective training programme and defining duties and responsibilities of all stakeholders in the system.

The EPI unit is established as a result of the project plays a key role for the sustainability of the technology transfer. The EPI unit is planned to be restructured in organizational terms so that the unit could serve more actively both in the Infectious Diseases Control Department and also nation-wide.

Despite that it is not a direct result of the project, establishment of the notification system makes big use of the project results. During the project, cases were described for only three diseases for which field guidelines were prepared and are still in use.

Although some contact points has some hesitations about the dissemination potential of the Project, the systematic in various procedures can be disseminated and replicated. Moreover, the regional laboratories are extending their surveillance area to include other cities in their geographical boundaries.

2) Organizational Aspects

The Project accomplished consciousness about the significance of improving the surveillance of infectious diseases, and integration of laboratories in the surveillance system. The Project also enabled discussion of different views about including laboratories within the overall system and forged understanding the importance of proof based medicine. Such conceptual understanding and changes in cognition of organizations are reflected in

various steps of legislation change. The EU Project is developed as an extension of the project and anticipated to lead to necessary legal changes.

Personnel stability is a factor that affects project sustainability but it would be wrong to expect to control. Therefore, it is rather a risk that limits project sustainability. In Turkey, particularly the managerial level has a continuous change of personnel. This has been a factor for the Project, causing loss of time and resources

It is observed that the Project staff has attained a motivation for continuous self-improvement in technical terms, which is another indication of project sustainability.

3) Financial Aspects

Besides the budget allocation of the state, RSHCP puts efforts for raising funds through development of new projects with international funds. The EU Project will be providing 3 million € for the first phase, and about 6 million € is expected for the second phase.

3-2. Factors that have promoted the project

1) Impact

Overall project context and particularly the trainings related with the use of new technology was very motivating for the counterpart staff.

2) Sustainability

The project also enhanced preparation of research papers published in scientific media, which was another means of motivation for sustained interest of the counterpart staff.

3-3. Factors that have inhibited project

1) Impact

As compared to the highly motivated inputs of RSHCP in the project, it is clear that roles of PHC was not well-defined and cooperation among project parties was not sufficiently planned from the beginning. Along with the poor coordination between the national partners, it is also conceived that flow of knowledge and information between project units was rather weak. Today, efforts are concentrated by all parties on the compensation of the gaps in coordination.

2) Sustainability

Instability of personnel within the national partners is another inhibiting factor. Losing trained staff is a particular reason that affected project efficiency and effectiveness. This has also caused inconsistency in common understandings and approaches among the managerial and technical staff.

Another factor that inhibits project sustainability is related with the problems with equipment maintenance. Calibration and supply of consumable materials are delayed frequently, mainly due to bureaucratic reasons that can be overcome with organizational arrangements.

3-4. Conclusions

It can be concluded that the project purpose of establishing a surveillance system as a tool for contributing to the project goal is achieved. Improvement of the system particularly in organizational and legislative aspects are

planned to be achieved with a EU funded project developed as based on the results of the Project.

3-5. Recommendations

Based on the current situation of new activities along with problems confronted, recommendations for project sustainability are made as follows:

- Equipment and material plans should be made for laboratories in order to avoid idle equipment.
- Necessary financial procedures should be defined in order to ensure regular maintenance of project equipment.
- Mechanisms should be developed for better information flow between RSHCP and PHC.
- Coordination between Provincial Directorates of Health and regional laboratories of RSHCP in the pilot cities, PHC and RSHCP should be organized toward more effective and efficient surveillance.
- JICA support can be provided by dispatching a Japanese expert for an overview of the problems particularly related to the use of project equipment, making necessary recommendations for effective and practical solutions.
- A JICA expert can support a coordination team to identify bottlenecks in the existing surveillance system in the pilot cities and suggest practical, concrete and permanent solutions.

3-6. Lessons learnt

Together with the suggestions from the counterparts involved in the evaluation, the Consultants recommendations for similar projects are defined as follows:

- Structures of project partner organizations should be well-analyzed before project planning.
- Participatory and interactive mechanisms that incorporate project staff in project planning and preparation could attain a higher level of consensus among partners.
- Job descriptions should be made very clearly particularly for the counterpart staff involved in the project.
- Risks that can inhibit project sustainability should be defined and necessary measures should be proposed.
- The managerial level should be supplied with continuous information in projects.
- An effective (practically internet-based) media should be established for information sharing throughout project conduct period, which can also be used for attaining project sustainability after the project is completed..
- Besides technical staff, support staff should also be actively included in the Project in order that they can keep up with the technological development.
- Project schedule should be prepared in a clear way and not changed as much as possible.
- Progress reports should be prepared in cooperation among Project partners.
- Complementary steps and follow-up activities should be defined for reaching the project goal.

事後評価調査結果要約表

評価実施部署：トルコ事務所

1. 案件の概要	
国名：トルコ	案件名：感染症対策プロジェクト
分野：保健・医療	協力形態：プロジェクト方式技術協力 (現：技術協力プロジェクト)
所轄部署：医療協力部医療協力第2課 (現 人間開発部第4グループ感染症対策チーム)	協力金額：
協力期間	1997年10月1日～ 2002年9月30日
	先方関係機関： 保健省 日本側協力機関： バイオメディカルサイエンス協会 国立感染症研究所他
他の関連協力：生物製剤品質管理プロジェクト (1993年1月～1996年6月)	
<p>1-1 協力の背景と概要</p> <p>トルコ共和国は、予防接種をプライマリー・ヘルス・ケア (PHC) の最有力手段と位置づけ、1987年以來国家予防接種政策を打ち立て、世界保健機関 (WHO) の支援の下、ポリオ、麻疹の根絶に積極的な取り組みを行ってきている。わが国は、この予防接種拡大計画 (EPI) 政策を支援すべく、1993年1月～1996年6月まで生物製剤品質管理プロジェクトを実施し、EPI 関連6品目 (破傷風、ジフテリア、BCG、百日咳、ポリオ、麻疹) のワクチン製造に関する品質管理能力の強化、品質保証国家基準の設定のための協力を行い、中央レベルでの薬品検査体制を整備した。</p> <p>トルコは、上記プロジェクトの第2フェーズとして、予防接種の判定効果等のサーベイランスシステム確立のため、プロジェクト方式技術協力を新たに要請した。これを受け、1997年10月から2002年9月までの5年間にわたって、「感染症対策プロジェクト」が実施された。</p>	
<p>1-2 協力内容</p> <p>(1) 上位目標 トルコにおける EPI 関連感染症が制圧される。</p> <p>(2) プロジェクト目標 実験室データに基づいた流行予測調査システムが確立される。</p> <p>(3) アウトプット (成果)</p> <ol style="list-style-type: none"> 1) EPI 関連疾患 (ジフテリア、百日咳、破傷風、ポリオ、麻疹) の検査技術が強化される。 2) EPI 関連疾患 (ジフテリア、百日咳、破傷風、ポリオ、麻疹、B型肝炎) の流行予測調査を実施するための運営管理と調査技術が習得される。 3) レフィク・サイダム中央衛生研究所 (RSHCP) と保健省公衆衛生総局 (PHC 総局) との技術連携体制が促進される。 4) 血清銀行が設立される。 	

(4) 投入 (プロジェクト終了時)

日本側:

長期専門家派遣	9名	機材供与	2.69億円
短期専門家派遣	26名	ローカルコスト負担	0.23億円
研修員受入	20名		
総額	2.92億円		

相手国側:

カウンターパート配置:	63名
土地・施設提供:	日本人専門家用オフィス
ローカルコスト負担:	2014億トルコリラ (約54万ドル)
実験室改修工事費用:	2兆6625億トルコリラ (約717万ドル)

2. 評価調査団の概要

調査者	JICA トルコ事務所 MWH
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調査期間	2005年9月26日～2006年3月3日	評価種類: 事後評価
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3. 評価結果の概要

3-1 評価結果の要約

(1) インパクト

1) 上位目標に係る達成度

- プロジェクトの上位目標は「トルコにおける EPI 関連感染症が制圧される」であった。パイロット3市においては、プロジェクトの実施により死亡率及び罹患率の減少が見られたが、全国的な展開までには至っていない。

2) その他プラスの効果

- プロジェクトは感染症の流行予測調査について保健省に新たな観点をもたらし、調査関連の政策を進めていく上での基礎を確立した。プロジェクトによりモデルが導入され、長年適用されていた既存システムの問題点や制約を摘出するのに貢献した。
- カウンターパートは各自の業務及びキャリア形成に対して高い意識とモチベーションを持つようになった。また、より組織化された業務システムを確立した。
- 現在、感染症に関する実験室データは流行予測調査において、以下のとおり活用されている。1) 流行の早期発見、2) 流行の検証及び分類、3) 抗生物質感受性の同定及び分類、4) 微生物分析。しかし、実験データに基づいた調査はトルコでは新しいものであったので、十分なデータ収集、分析に時間が必要である。また全ての関係医療従事者間で認識を確立する必要がある。さらに、組織的に、研修や認識向上学習の継続が必要とされている。
- RSHCP と PHC の間で、ワクチン接種、感染症同定、実験室データに基づく調査、感染症研究を含む協力が継続している。さらに、両機関は調査に係る法律制定、研修の実施、国際セミナーへの参加について共同して行っている。
- プロジェクトのもたらした重要な結果のひとつは、効果的な調査のために関係機関が協力すべきであることが認識されたことである。これに関しては、協同することで障壁を取り除き、調査をチームとして行うようになっている。

3) その他マイナスの効果

- マイナスの効果は見られない。

(2) 自立発展性

1) 技術的側面

- 紀要や論文が出されていることは正のインパクトである。またこのことによって、調査の努力が継続されている。
- 機材の保守や消耗品の供給は、しばしば遅れている。
- 本プロジェクトの成果を踏まえて、EUによるプロジェクト（「感染症の届出法」(Notification System)）が実施されている。これは研修や全関係者の役割分担の明確化を通して、法制度整備、人材育成を行うものである。
- プロジェクトによって設立されたEPI（予防接種拡大計画）ユニットが自立発展性において重要な役割を果たしている。EPIユニットは、感染症関連部局内と全国的な関連機関との両方に対して、積極的に業務を実施すべく再編されたものである。
- プロジェクトの直接の成果ではないが、「感染症の届出法」(Notification System)はプロジェクト成果を大いに活用している。プロジェクトで3つの感染症に対してガイドラインが作成されたが、現在も活用されている。
- プロジェクト成果の普及について懸念する向きもあるが、様々な方法によって組織的な普及が行われている。また、地域ラボが管轄地域内の他の都市へも調査地域を拡大してきている。

2) 組織的側面

- プロジェクトは、感染症流行予測調査の改善、及び流行予測調査システムにおけるラボの連携の意義について、意識付けをもたらした。また、プロジェクトはシステム全体の中で様々な観点から議論すること、及び科学的証明に基づくことの重要性を理解させた。このような概念理解や実施機関の認識の変化は、法改正という次の段階に反映されている。EUプロジェクトは本プロジェクトの延長上にあり、必要な法改正に取り組もうとしている。
- 人材確保はプロジェクトの自立発展性に影響を及ぼす要素であるが、人事をコントロールするのは困難である。トルコにおいて管理者レベルは人事異動があり、このことが時間と資源の損失となっている。
- プロジェクトスタッフは自己研鑽に努めており、モチベーションを維持している。

3) 財政的側面

- RSHCPは国際機関との新プロジェクトによる資金確保の努力をしている。EUは第1フェーズとして3百万ユーロ、第2フェーズとして6百万ユーロが予定されている。

3-2 プロジェクトの促進要因

プロジェクト全体の状況及び特に新技術の活用に関する研修は、カウンターパートを非常に刺激した。また、プロジェクトによって研究論文が科学メディアに掲載されるに至ったが、このことはカウンターパートの関心を維持するモチベーションとなった。

3-3 プロジェクトの阻害要因

RSHCPへの十分なインプットと比較して、PHCの役割は十分に定義づけられておらず、プロジェクト関係機関の間での協力体制については、プロジェクト開始時には十分に検討されていなかった。そのため、プロジェクト関係機関間での知識や情報の流れはよいとはいえなかった。しかし現時点では、関係機関の努力によって解消されている。

3-4 結論

プロジェクト上位目標達成に到達するための手段としての、流行予測調査システムの確立というプロジェクト目標は、達成されていると結論付けられる。特に組織面及び法制面でのシステムの改善については、本プロジェクトの成果に基づいて実施されるEUプロジェクトによって計画されている。

3-5 提言（当該プロジェクトに関する具体的な措置、提案、助言）

プロジェクトが直面している現状に基づいて、自立発展性についての提言は以下のとおりである。

- 資機材計画は無駄な機材がないように、ラボにあわせてなされるべきである。
- プロジェクト機材の日常維持管理を確保するために、必要な財政的措置がとられなければならない。
- RSHCP と PHC との間での、よりよい情報交換のメカニズムを作る必要がある。
- 県の保健当局と RSHCP の地方ラボとの連携について、PHC と RSHCP はより効果的・効率的な調査のために、連携を図るべきである。
- 特にプロジェクト機材の活用に関する問題点を把握し、効果的で実際的な解決策を提言するために、JICA は専門家を派遣することが望まれる。
- パイロット 3 市での既存の流行予測調査システムの問題点を把握し、実際的で具体的な解決策を検討するチームに対して、JICA 専門家による支援が望ましい。

3-6 教訓（当該プロジェクトから導き出された他の類似プロジェクトの発掘・形成、実施、運営管理に参考となる事柄）

同様なプロジェクトを実施するとした場合の教訓は、以下のとおりである。

- カウンターパート機関について、プロジェクト計画前に十分に分析されるべきである。
- プロジェクトの計画・準備段階において、プロジェクトスタッフを巻き込む参加型・双方向型のメカニズムがあれば、関係者間でより高いレベルでのコンセンサスが得られたであろう。
- カウンターパートの業務所掌は、明確に定められるべきである。
- プロジェクトのサステナビリティに係るリスクが規定され、必要な方策がとられるべきである。
- 管理者レベルに対しては、プロジェクトについての継続的な情報提供がなされるべきである。
- 効果的メディア（特にインターネット）が、外部との情報共有のために協力期間を通して用いられるべきである。そのことはプロジェクト終了後のサステナビリティを達成するのにも活用できる。
- 技術スタッフに加えてサポートスタッフに対しても、技術開発についていけるように、プロジェクトに積極的に関与させるべきである。
- プロジェクトのスケジュールは明確に準備し、可能な限り変更しない。
- カウンターパート間における協力の進捗報告書が用意されるべきである。
- プロジェクト目標に到達するために、補足的な手段やフォローアップが定められるべきである。

3-7 フォローアップ状況

EXECUTIVE SUMMARY	2
1 INTRODUCTION	8
1.1 BRIEF BACKGROUND OF THE PROJECT.....	8
1.2 DURATION OF TECHNICAL COOPERATION.....	8
1.3 OBJECTIVES OF THE PROJECT.....	8
1.4 OUTPUTS OF THE PROJECT.....	9
1.5 IMPLEMENTING AGENCY.....	9
2 METHODOLOGY OF EVALUATION STUDY	10
2.1 EVALUATION CRITERIA.....	10
2.2 PREPARATION OF QUESTION SETS.....	10
2.3 EVALUATION OF RESULTS.....	11
3 OVERALL EVALUATION OF THE PROJECT	13
3.1 ACHIEVEMENT OF OBJECTIVES AND GOALS.....	13
3.2 IMPACTS.....	14
3.2.1 <i>Contribution to Policies and Strategies</i>	16
3.2.2 <i>Cooperation among Organisations and Units</i>	17
3.2.3 <i>Problems and Solutions</i>	18
3.3 SUSTAINABILITY.....	19
3.3.1 <i>Dissemination of Information</i>	19
3.3.2 <i>Stability of Personnel</i>	19
3.3.3 <i>Equipment Maintenance</i>	20
3.3.4 <i>Supply of Consumable Laboratory Materials</i>	20
3.3.5 <i>Sustained Capacity Building</i>	20
3.3.6 <i>Development of New Projects and Activities</i>	21
3.3.7 <i>Improved Organisational Set-up</i>	21
3.3.8 <i>Extension of Project Outcomes to other Applications</i>	22
3.3.9 <i>Extension of Project in other Cities</i>	22
3.3.10 <i>Improvement of Legislation</i>	23
3.3.11 <i>Financial Aspects of Sustainability</i>	23
4 OVERALL CONCLUSIVE REMARKS	24
4.1 CONCLUSION.....	24
4.2 RECOMMENDATIONS.....	24
4.3 LESSONS LEARNT.....	25
4.4 FOLLOW-UP SITUATION AFTER THE PROJECT.....	26
5 ANNEXES	27
5.1 QUESTIONNAIRE PREPARED FOR THE EXPERTS AT REFIK SAYDAM HYGIENE CENTER.....	27
5.2 QUESTIONNAIRE PREPARED FOR REFIK SAYDAM HYGIENE CENTER MANAGEMENT AND ITS REGIONAL DIRECTORATES.....	31
5.3 QUESTIONNAIRE PREPARED FOR THE MINISTRY OF HEALTH'S LOCAL OFFICES IN ANTALYA, DIYARBAKIR AND SAMSUN.....	36

EXECUTIVE SUMMARY

1. Introduction

The Report presents results of the Evaluation Study regarding the Infectious Diseases Control Project that was on the success of a former cooperation project in the field of vaccine preventable infectious diseases that was conducted from 1993 to 1996. In the Infectious Diseases Control Project that was conducted between 1997-2002, technical support was provided for the purposes of monitoring the immunization status of people through epidemiological surveillance and other EPI-related laboratory techniques. The cooperation was coordinated through JICA. .

Overall goal of the project was set as controlled EPI related infectious diseases, and the project purpose was establishment of an epidemiological surveillance system.

Project outputs are as follows:

- Laboratory techniques on EPI related infectious diseases are strengthened.
- Management and technical skill for epidemiological surveillance on DPT, polio, measles, and hepatitis B are acquired.
- Technical collaboration between RSHCP and Primary Health Care General Directorate is established
- A serum-bank is established

Implementing agencies are as follows:

- Presidency of Refik Saydam Hygiene Centre, Ministry of Health (RSHCP)
- Primary Health Care General Directorate, Ministry of Health (PHC) (included in the activities for establishment of this surveillance system based on the laboratory data.)

Pilot cities were selected at three geographical locations of the country with different socio-economic characteristics. Samsun at the northern part, Antalya at the south and Diyarbakir at the southeastern part of Turkey. Regional laboratories of RSHCP in the pilot cities were improved within the scope of the Project.

2. Methodology of Evaluation Study

The Project has undergone through evaluation at different phases before completion. At these phases efficiency, effectiveness and relevance of the project were considered thoroughly as well as intermediary impacts and early signs of sustainability. This evaluation study focuses on the concrete impacts and sustainability right after 3 years of completion of the project.

Evaluation process included the following steps:

- Preparation of questions sets
- Interviews and distribution of questionnaires
- Evaluation of results of interviews and answers received
- Reporting of evaluation results

Different questions sets (Annex-1) have been prepared with respect to the major counterpart groups, which are:

- Refik Saydam Hygiene Center Presidency, affiliated to the Ministry of Health (RSHCP)
- General Directorate of Primary Health Care under the Ministry of Health (PHC)
- Regional Branch Laboratories (RBL) of RSHCP in the pilot cities
- Provincial Directorates of Health in the pilot cities, as local organizations of the Ministry of Health

The report gives very brief description of contact points that contributed in the evaluation either through interviews or through answers to the question sets. Experts not involved in the evaluation were occupied or did not volunteer to take part in.

3. Overall Evaluation

3.1 Evaluation Results

a) Impacts

The project goal of "EPI related infectious diseases are controlled" is a long-term goal, which the project is believed to contribute by demonstrating a surveillance system in 3 cities, as the means of controlling infectious diseases. It is evident that the project will reach its goals in the long-term, if supporting projects and activities are conducted and sufficient resources are allocated to disseminate the technology and extend the pilot experience nation-wide. However, it is observed that health directorates in the pilot cities could comment on the decreased mortality and morbidity, and could relate this with the Project.

The project accomplished a new vision in the Ministry of Health for surveillance of infectious diseases, and established the basis for updating of policies related with surveillance. The works conducted throughout the project brought about a model and helped identification of problems and constraints in the existing system that has been applied for many years.

Apart from the high technology that the project brought in together with the installed equipment, the counterpart staff at all project parties became highly conscious and motivated about their work and

further development in their careers. They have also established a more organized work system. All contact persons involved in evaluation stated that they gained extensive knowledge from the project.

Despite the general positive answers from RSHCP, PHC staff represented by M. Ali Torunoglu, was not very satisfied with the project owing to the "mistakes" at the planning stage. Role of PHC was not well defined, and staff changes in managerial level furthered unclear points in project description. Although PHC states that the newly established notification system makes great use of the ideas and solid outputs (field guidelines, forms, etc.) of the project, they do not state any contribution of the project in policies and strategies of the Ministry of Health. Moreover, Mr. Torunoglu states that the model surveillance system is not appropriate for the country, which is much different than Japan. He quotes: "It would have been much better to strengthen the existing system rather than introducing a new one."

Currently, laboratory data related with infectious diseases are used in surveillance for:

- early detection of epidemics
- verification and classification of epidemics
- identification of sensitivity antibiotics and their classification
- analysis of micro-organisms with respect to their types

However, laboratory supported surveillance is fairly new in the country, therefore time is needed in order that sufficient data is collected, analysed and interpreted. This also requires that consciousness should be built upon all practicing medical staff. It is required that further trainings and consciousness building studies are continued at organizational level.

Ongoing cooperation between RSHCP and PHC includes vaccination services, identification of infectious diseases, laboratory based surveillance, infectious disease research. Besides, the two organizational units work together on legislation of surveillance, organize and conduct training programmes and participation in international seminars.

One of the important results of the project is that national project partners have conceived that they have to cooperate for effective surveillance, thereby; they are working in teams in surveillance studies, as an indication of their efforts for removing barriers in working together.

b) Sustainability

As a result of the evaluation process, the factors that affect sustainability of the Project are:

- Dissemination of information
- Stability in personnel
- Maintenance of equipment
- Supply of consumable laboratory materials
- Continued capacity building

- Development of new projects
- Improved organizational set-up

Published scientific bulletins and papers are indications of positive project impacts and also of the progress in the sense that efforts in surveillance are continued.

Personnel stability is a factor that affects project sustainability but it would be wrong to expect to control. Therefore, it is rather a risk that limits project sustainability. In Turkey, particularly the managerial level has a continuous change of personnel. This has been a factor for the Project, causing loss of time and resources.

Problems with equipment maintenance have been the major factor that hinders project sustainability. Calibration and supply of consumable materials are delayed frequently, mainly due to bureaucratic reasons, that can be overcome with organizational arrangements.

It is observed that the Project staff has attained a motivation for continuous self-improvement in technical terms, which is another indication of project sustainability.

Two significant steps that imply project sustainability are the notification system which is already in place and the EU funded project on infectious disease control, which are very much depend on the results and outcomes of the JICA Project. The EU Project on infectious diseases aims at accomplishing necessary legal arrangements, training sufficient health personnel through an extensive and effective training programme and defining duties and responsibilities of all stakeholders in the system.

The EPI unit is established as a result of the project plays a key role for the sustainability of the technology transfer. The EPI unit is planned to be restructured in organizational terms so that the unit could serve more actively both in the Infectious Diseases Control Department and also nation-wide. The new organizational model is planned to include a managing director, a public health expert and a computer specialist. This was first planned during the Project, and is still under evaluation.

Despite that it is not a direct result of the project, establishment of the notification system makes big use of the project results. During the project, cases were described for only three diseases for which field guidelines were prepared and are still in use.

Although some contact points were pessimistic about the dissemination potential of the Project, the systematic in various procedures can be disseminated and replicated. Moreover, the regional laboratories are extending their surveillance area to include other cities in their geographical boundaries.

The Project accomplished consciousness about the significance of improving the surveillance of infectious diseases, and integration of laboratories in the surveillance system. The Project also enabled discussion of different views about including laboratories within the overall system and forged understanding the importance of proof based medicine. Such conceptual understanding and changes in

cognition of organizations are reflected in various steps of legislation change. The EU Project is developed as an extension of the project and anticipated to lead to necessary legal changes.

Besides the budget allocation of the state, RSHCP puts efforts for raising funds through development of new projects with international funds. The EU Project will be providing 3 billion € for the first phase, and about 6 billion € is expected for the second phase.

4. Overall Conclusive Remarks

Together with the suggestions from the counterparts involved in the evaluation, the Consultants recommendations for similar projects are defined as follows:

- Structures of project partner organizations should be well-analyzed before project planning.
- Participatory and interactive mechanisms that incorporate project staff in project planning and preparation could attain a higher level of consensus among partners.
- Job descriptions should be made very clearly particularly for the counterpart staff involved in the project.
- Risks that can inhibit project sustainability should be defined and necessary measures should be proposed.
- The managerial level should be supplied with continuous information in projects.
- An effective (practically internet-based) media should be established for information sharing throughout project conduct period, which can also be used for attaining project sustainability after the project is completed..
- Besides technical staff, support staff should also be actively included in the Project in order that they can keep up with the technological development.
- Project schedule should be prepared in a clear way and not changed as much as possible.
- Progress reports should be prepared in cooperation among Project partners.
- Complementary steps and follow-up activities should be defined for reaching the project goal.

Based on the current situation of new activities along with problems confronted, recommendations for project sustainability are made as follows:

- Equipment and material plans should be made for laboratories in order to avoid idle equipment.
- Necessary financial procedures should be defined in order to ensure regular maintenance of project equipment.
- Mechanisms should be developed for better information flow between RSHCP and PHC.

- Coordination between Provincial Directorates of Health and regional laboratories of RSHCP in the pilot cities, PHC and RSHCP should be organized toward more effective and efficient surveillance.
- JICA support can be provided by dispatching a Japanese expert for an overview of the problems particularly related to the use of project equipment, making necessary recommendations for effective and practical solutions.
- A JICA expert can support a coordination team to identify bottlenecks in the existing surveillance system in the pilot cities and suggest practical, concrete and permanent solutions.

Despite minor planning problems that stemmed from insufficient experience of local partners in similar projects and rapid change of personnel since the project start-up, it is observed that counterpart project staff is highly satisfied about their participation in the project and about project results. Current problems that risk project sustainability are related with the effective use of project equipment. The major problem is related with the maintenance issue as described in preceding sections. As for the legal and institutional factors that inhibit replication and dissemination of the project, those are dealt with in the EU project that is built upon the knowledge and new visions accomplished as a result of the JICA project.

1 INTRODUCTION

1.1 Brief Background of the Project

The Project entitled "Infectious Diseases Control Project", that is subject to evaluation in this Report was developed in 1997. The Project had a background of experience that dated from the beginning of 1990s. It was the policy of the government of the Republic of Turkey to conduct the Expanded Programme on Immunization (hereinafter referred to as "EPI") as the most efficient means to promote its Primary Health Care activities and to implement various EPI related projects under the technical guidance of the World Health Organization (hereinafter referred to as "WHO").

JICA assisted the implementation of Turkey's EPI policy by supporting the Biological Control and Research Laboratories of the Refik Saydam Hygiene Centre Presidency (hereinafter referred to as "RSHCP") from 1993 to 1996 with the project-type technical cooperation scheme, in the field of vaccine preventable infectious diseases. The project that was conducted between 1993-1996 aimed at improving laboratory techniques of biological control of vaccines and to establish a National Control Laboratory at international level.

With the success of this cooperation, the government of the Republic of Turkey requested JICA's further cooperation to get technical support purposes of monitoring the immunization status of people through epidemiological surveillance and other EPI-related laboratory techniques. With this request, JICA agreed to start a different project-type technical cooperation "Infectious Diseases Control Project" from October 1997 to 2002.

1.2 Duration of Technical Cooperation

Five years from October 1, 1997 to September 30, 2002

1.3 Objectives of the Project

The main objective of the project was to set up a model surveillance system for EPI related infectious diseases which would promote the immunization strategies and upgrade the function of RSHCP, and establish a laboratory supported epidemiological surveillance system by executing epidemiological survey within the framework of RSHCP. Thus, it was expected that the model surveillance system would maintain reliable data for taking control measures against infectious diseases and functioning by sending data and analysing results to be sent to the PHC to formulate immunization strategies, implementation plans and evaluation of the results.

The project document indicated the overall goal and project purpose as follows:

- Overall Goal: EPI related infectious diseases are controlled.

- Project Purpose: A laboratory supported epidemiological surveillance system is established.

Pilot cities were selected at three geographical locations of the country with different socio-economic characteristics. Samsun at the northern part, Antalya at the south and Diyarbakir at the southeastern part of Turkey. Regional laboratories of RSHCP in the pilot cities were improved within the scope of the Project.

1.4 Outputs of the Project

- Laboratory techniques on EPI related infectious diseases are strengthened.
- Management and technical skill for epidemiological surveillance on DPT, polio, measles, and hepatitis B are acquired.
- Technical collaboration between RSHCP and Primary Health Care General Directorate is established
- A serum-bank is established

1.5 Implementing Agency

- Presidency of Refik Saydam Hygiene Centre, Ministry of Health (RSHCP)
- Primary Health Care General Directorate, Ministry of Health (PHC) (included in the activities for establishment of this surveillance system based on the laboratory data.)

2 METHODOLOGY OF EVALUATION STUDY

2.1 Evaluation Criteria

The Project has undergone through evaluation at different phases before completion. At these phases efficiency, effectiveness and relevance of the project were considered thoroughly as well as intermediary impacts and early signs of sustainability. This evaluation study focuses on the concrete impacts and sustainability right after 3 years of completion of the project. In this respect;

- Impact of the program is evaluated in terms of existing status of the surveillance system and associated project components, whether the established system, the transferred technologies and equipment are used as planned with the project.
- Sustainability is evaluated in terms of factors that foster or inhibit implementation of the surveillance system (i.e. staff stability, continued capacity building, maintenance of equipment, cooperation of organizations/departments, etc.)

2.2 Preparation of Question Sets

Different questions sets have been prepared with respect to the major counterpart groups, which are:

- Refik Saydam Hygiene Center Presidency, affiliated to the Ministry of Health (RSHCP)
- General Directorate of Primary Health Care under the Ministry of Health (PHC)
- Regional Branch Laboratories (RBL) of RSHCP in the pilot cities
- Provincial Directorates of Health in the pilot cities, as local organizations of the Ministry of Health

Question sets have been prepared at two levels: directors and their staff. Contact points are not necessarily persons that took part in the project, but those that are currently in the situation of evaluating the current situation as related with the impacts of the project, as they are affected by the results and are in the situation of managing them.

Questions have been directed through two means: written question forms forwarded through fax or internet, and interviews with contact points available.

Question sets are appended in Annex.

2.3 Evaluation of Results

Evaluation is made through analysis of results from interviews and questionnaires with 10 contact persons who took part in the project as designated counterparts. A brief description of counterpart departments that were consulted is made below:

Refik Saydam Hygiene Center Presidency (RSHCP)

RSHCP is the national reference laboratory established to provide necessary laboratory services of production, control and diagnosis, with the aim of protecting public health in the country. The departments involved in the Project are Biological Control and Research Directorate, Communicable Diseases Research Directorate, Virology Laboratory, Tuberculosis Research and Reference Laboratory. The pertinent departments in the pilot cities are the regional branch laboratories of RSHCP in Antalya, Diyarbakir and Samsun. Laboratory based surveillance studies are continued for all bacterial and parasitory factors defined in the notification system.

General Directorate of Primary Health Care (PHC)

PHC is a general directorate of the Ministry of Health. In the context of control of infectious diseases, its main responsibilities include provision of all kinds of protective health services while ensuring of public participation in such processes, and conducting of vaccination and immunization services and combat against infectious, epidemic and social and degenerative diseases.

Regional Branch Laboratories of RSHCP

The pilot regional laboratories of RSHCP in Antalya, Diyarbakir and Samsun are essential components of the surveillance system. Besides their laboratory functions, the regional laboratories have a coordinating role between the centre in Ankara and with local health organizations. Samsun and Diyarbakir RBLs have actively participated in the evaluation study.

Provincial Directorates of Health

Within the project context, provincial directorates of health under the Ministry of Health are responsible for supporting field studies by collecting samples, informing of possible disease cases, conducting of vaccination, etc.

The counterpart experts that took part in the evaluation process are briefly described below. Experts not involved in the evaluation were occupied or did not volunteer to take part.

Ali Murtaza Yilmaz, director of the Samsun RBL.

Aysegul Gozalan, micro-biologist at the Epidemic Diseases Research Directorate, is responsible for the Epidemiology Unit.

Bahadir Sucakli, deputy director at the of Diyarbakir Directorate of Health. He was not involved in the project but participated in the evaluation with his comments on the existing situation of surveillance works and suggestions on project sustainability.

Berrin Esen, head of Epidemic Diseases Research Department and chief of microbiology and clinical microbiology department. She played a key role in the project success as the project coordinator.

Berrin Korhasan, Chief of Infectious Diseases Department at the Samsun Directorate of Health.

Demet Kurtoglu, Public Health Doctor, currently working in the Epidemiology Unit under the Communicable Diseases Research Directorate. She was responsible for the sero-epidemiological surveillance.

Deniz Aksu, health technician; employed in Diyarbakir during the project and assigned in Ankara after the project.

Erdinc Ozoglu, deputy director at the Samsun Directorate of Health.

Erdal Bolukbasi, deputy director at the of Antalya Directorate of Health. He was involved in the project and uses the surveillance system effectively.

Fatih Bilgin, director of Infectious Diseases Department at the Diyarbakir Directorate of Health.

Feza Uzen, biologist in the microbiology laboratory in Samsun RBL.

Gülnur Tarhan, biologist at the Tuberculosis Reference and Research Laboratory, had an important role in the project particularly in the bio-safety related topics.

Ibrahim Halil Yilmaz is responsible for technical services regarding equipment maintenance in all laboratories of the RSHCP. He was dispatched to Japan to participate in a 2-months course on the project equipment.

Ismail Ceyhan, microbiologist and chief of Tuberculosis Reference and Research Laboratory, was specialized in bio-safety and was promoted to his current position after termination of the project.

Mehmet Ali Torunoglu, head of Infectious and Epidemic Diseases at PHC. He was assigned to his position in the PHC in 1999, and he was included in the project in 2001.

Nilay Coplu, microbiologist and head assistant at the Communicable Diseases Department. She has been working in the same position in this department. She is currently working on the surveillance of pertussis and tetanus.

Recep Kesici, director of the Diyarbakir RBL.

Tulay Yalcinkaya, head of the AIDS-Hepatitis Laboratory under the Virology Laboratory.

Vedat Dorman, director of Infectious Diseases Department at the Diyarbakir Directorate of Health. He was assigned in his position in 2001 and was not involved in the Project. He participated in the evaluation with his comments on the existing situation of surveillance works and suggestions on project sustainability.

3 OVERALL EVALUATION OF THE PROJECT

3.1 Achievement of Objectives and Goals

As stated in the first chapter above, the project goal of "EPI related infectious diseases are controlled" is a long-term goal, which the project is believed to contribute by demonstrating a surveillance system in 3 cities, as the means of controlling infectious diseases. It is evident that the project will reach its goals in the long-term, if supporting projects and activities are conducted and sufficient resources are allocated to disseminate the technology and extend the pilot experience nation-wide.

It should be noted that some of the contact points who took part in the evaluation process did not answer the questions whether the project contributed to any decrease in infectious diseases locally or country-wide. This is anticipated that the project goal was kept too high to be reached with the activities conducted within the time period from project completion to the evaluation date.

According to Berrin Esen, the head of Infectious Diseases Department and Turkish Side Coordinator of the Project, there is not a direct impact of the project, in terms of reaching the project goal. Rather than contribution in goal achievement, she thinks that the project helped changing the point of view of the Ministry of Health in surveillance of infectious diseases. She explains this as: "Before the Project, the Ministry had already been conducting disease control programmes. However, in these programmes, laboratory and field components were not well-cooperated. The project accomplished cooperation between two major units of the ministry: PHC and RSHCP. In this way, disease control programmes were more actively implemented. Moreover, the project established the basis for updating of policies related with surveillance of infectious diseases that had been applied since long-ago. Updating of surveillance works with respect to EU directives was also commenced within the project duration, which made up the basis for a set of directive development studies."

She furthers her opinions by the fact that the project did not aim at a numerical decrease of infectious disease in the short term. This was an issue discussed throughout the project, and consensus was reached that such a result would be a benefit in the long term.

Although they agree in the end, Mr. M. Ali Torunoglu from PHC has a different point: "The project design matrix was too ideal to be executed and to reach its goal. For instance, the goal of decreased mortality and morbidity can not be achieved in the whole country by conducting the study in 3 pilot cities." He points that the project was inefficient in certain ways: "The project was set on two tiers: On one side, RSHCP was strengthened in terms of laboratory technologies; on the other side a surveillance system was established. Despite the improved laboratory technologies, the field studies did not result in a realistic surveillance system that can be implemented. It should be recognised that surveillance has already been in the agenda of Turkey since 1935, hence it is not a concept learnt with the project. Moreover, the Japanese system does not apply with the situation in Turkey as affected by various factors. In this respect, even the project title is too idealistic and is wrong."

In this respect, the same positive conclusion cannot be taken for PHC, as it is with the RSHCP. This is owed to the probability that the role of PHC in the project was not well-defined, thereby causing open points in conceiving of the overall project concept. It comes out as a matter of project ownership so that outputs are adopted and sustained with concerted efforts.

In terms of the differences between Japan and Turkey, Mr. Torunoglu notes that there is a homogeneity in Japan, which does not hold for the case of Turkey. He points that "it is hard to adapt such a system to the conditions of the country. Japan does not have a similar legislation, and does not have a notification list of infectious diseases. The project has certain contribution in implementation of the notification system. An EU funded project is underway to attain implementation of the laboratory based notification system."

On the other hand, it is clear that project has already accomplished concrete results. Mr. Recep Kesici, the director of the Diyarbakir RBL, states that the results of the laboratory based surveillance studies affected the vaccination policies in a positive way.

It is observed that health directorates in the pilot cities could comment on the decreased mortality and morbidity, and could relate this with the Project. However, they were unable to give exact numbers. According to Erdinc Ozoglu of the Samsun Directorate of Health, the number of cases that end up with mortality is decreased.

3.2 Impacts

Almost all contact points stated that they acquired extensive knowledge and experience through the project. Some highlights of experts regarding their satisfaction from the project are stated below.

Ms. Demet Kurtoglu worked on operation of the laboratory based surveillance system and evaluation (by laboratory tests) of immunity level against diseases that can be prevented by vaccination. According to her, the project enabled an environment to work with the Japanese experts in close collaboration, which enhanced her learning and developing laboratory skills. Her position since the project continues, where she can work actively with her knowledge and experience from the project, and she also takes part in new projects.

According to Ms. Deniz Aksu of RSCHP, technology transfer has been quite effective: She acquired auto-control during all stages of the laboratory tests conducted within the project, which she effectively applies in her current works. She improved her skills in the tests which require a very high level of sensitivity. The project accomplished awareness on the importance of the sensitivity. Although she was employed in Diyarbakir during the project, the technology was no more used there after the project completion, so she was assigned in Ankara to use the knowledge and experience she acquired from the project. In this respect, the change in her position fosters dissemination of knowledge from the project.

However, as Deniz Aksu adds, the project was constrained with some other factors that stemmed from the planning stage. When she was assigned in Ankara, she was replaced in Diyarbakir with another technician that worked on measles but was not trained in the same context as her. At this point she emphasizes that the staff was hesitant in participation in project training or post-project knowledge

dissemination sessions. She states that the staff should have been made aware of the context and significance of the project. If possible, staff that is aware of the significance of the project could have been selected.

Another bottleneck of the project is that Diyarbakir did not have the same system as in Ankara. Furthermore, she was neither technically guided nor supported in Diyarbakir. According to Ms. Aksu, the project could be better planned in terms of allocation of staff and equipment in Ankara and pilot cities.

In the context of the project, laboratory based surveillance was conducted for typhoid fever, diphtheria and poliomyelitis in Diyarbakir. Existing surveillance studies are on diarrhea and food intoxication. Results of the surveillance studies are informed to the Ministry of Health.

Ms. Nilay Coplu states that she acquired great experience through the project, too. She worked using the ELISA method, which was much more different than the usual kits. Standardization studies accomplished great experience in statistical comparison of different methodologies, and also brought about a new way of thinking. She furthered her vision by working with other techniques in Japan when she was sent for training within the context of the project.

Ms. Aysegul Gozalan who participated in training in 3 centers in Japan states that it was great opportunity to observe the technical and managerial capacity of laboratories in Japan and to compare with RSHCP. Working with the Japanese experts enabled her develop her knowledge and skills in both laboratory analyses and epidemiological studies. She states that the Epidemiology Unit is one of the most significant Results of the Project supported through JICA.

Ms. Gülnur Tarhan states that, the RSHCP laboratories are improved to serve at the bio-safety level 3, as a result of the project. Trainings (bio-safety, molecular diagnosis) have very much contributed to improved knowledge and skills of participant experts, that still guide most of the experts' works today.

Ms. Tulay Yalcinkaya pointed that before the Project, most of the studies were focused on viral infections, and the Project furthered epidemiological studies. She states that she improved her knowledge and experience by working together with the Japanese experts.

Samsun RBL was the main pilot city. Mr. Ali Murtaza Yılmaz, the regional director, notes that they have gained extensive experience and the laboratory established within the scope of the Project is in use today with no problems. Ms. Feza Uzen, counterpart in Samsun RBL, states that she acquired great experience and knowledge in laboratory-based surveillance, sero-epidemiological studies, infectious disease control and bio-safety topics.

Laboratory based surveillance system established with the project still continues today. Ms. Gozalan, the head of the EPI Unit states that the surveillance studies can be made for all diseases in the notification list. Recep Kesici, director of Diyarbakir RBL, noted that current surveillance work is on diphtheria, pertussis and measles. The director uses in-service trainings as a way of disseminating project knowledge. There is sufficient capacity (staff, budget, equipment) to continue the surveillance studies. The Directorate cooperates with universities and Provincial Directorates of National Education.

The provincial directorates of health in the three pilot cities had an important role in the surveillance system and made use of the project results in various ways. The status of vaccination and the results

were better monitored, approach to infectious disease control was changed, and greater support was taken from the regional laboratories of RSHCP in disease diagnosis. It was possible to early detect and control diseases with laboratory-based diagnosis. As a result of the project, it is now possible to prevent epidemic cases. It is understood that effectiveness of the health directorates very much depend on the improvement of the regional laboratories, which they mention as the major output of the project.

Currently, all researches are continued except for the sero-prevalence studies at the health directorates. They do not face problems in cooperation with regional laboratories of the RSHCP. However, provincial health directorates have not been involved in new projects.

Bahadır Sucaklı and Vedat Dorman of the Diyarbakir health directorate effectively use the surveillance system established but underlines the lack of communication and cooperation with the Diyarbakir RBL. This inhibits timely and adequate feedbacks in surveillance. Bahadır Sucaklı also points that the Project and its outcomes are not well known at the directorate level. He suggests that a "coordination team" in continuous contact with the pertinent organizations would maintain project sustainability.

Erdal Bolukbasi and Fatih Bilgin of Antalya health directorates mention that the main contributions of the Project were the technology support in disease diagnosis in possible cases, and training of relevant staff. Antalya health directorate also faces problems with the regional RSHCP laboratory such as availability of sampling kits, timely transport of results and availability of equipment and materials for transportation of biological materials. Erdal Bolukbasi and Fatih Bilgin also note the need for improvement the sampling and transportation system in a more practical way by supply of equipment and materials and allocation of responsible staff with clear job descriptions.

3.2.1 Contribution to Policies and Strategies

According to Mr. Ali Torunoglu from PHC, the project did not contribute in the policy and strategies of the PHC during the project period. This is partly because the inclusion of the department was planned toward the end of the project. He explains this situation with a major problem stemming from the project planning stage: "PHC should have been included from the beginning. At the beginning, the purpose was to strengthen the RSHCP, but later it was conceived that PHC should be included as a project party." Though, he adds that disease control plans are made with respect to the results of surveillance studies received from RSHCP, eventually shaping up policies and strategies.

Currently, laboratory data related with infectious diseases are used in surveillance for:

- early detection of epidemics
- verification and classification of epidemics
- identification of sensitivity antibiotics and their classification
- analysis of micro-organisms with respect to their types

However, laboratory supported surveillance is fairly new in the country, therefore time is needed in order that sufficient data is collected, analyzed and interpreted. This also requires that consciousness should be built upon all practicing medical staff. It is required that further trainings and consciousness building studies are continued at organizational level.

3.2.2 Cooperation among Organisations and Units

Fostered cooperation between RSHCP and PHC is both an impact of the project and also an issue of sustainability. Cooperation is significant particularly regarding laboratory-based surveillance. From the views of contact points, it can be concluded that the cooperation between RSHCP and PHC has been strengthened as a result of the project. Both parties are more aware of the need for joining their powers and collaborating toward effective disease control programmes and research studies.

PHC is the main executing agency for many health programs conducted in Turkey. RSHCP plays an important role in this process with its laboratory services. Its advantage is that it has become a reference laboratory for various infectious diseases, as accredited by WHO. Programs are made and managed at overall level by PHC that also plans field works included in the programmes.

PHC is currently conducting works in cooperation with RS: measles immunization, polio eradication, diphtheria control, legionella control program, flue program, aids program. In general, RSHCP collaboration is geared to provision of reference laboratory services.

Ongoing cooperation between RSHCP and PHC includes vaccination services, identification of infectious diseases, laboratory based surveillance, infectious disease research. Besides, the two organizational units work together on legislation of surveillance, organize and conduct training programmes and participation in international seminars.

RSHCP participates in PHC's process of policy and strategy making, particularly in the topics of vaccination, surveillance, bacteriology and virology laboratory services, data from the serum bank, epidemic research.

A case of diagnosis of a new disease (Q Fever) in 2002 and continued research in 2003 led to identification of Crimean-Congo hemorrhagic fever (CCHF), which had not occurred before until then. In cooperation with international organizations, recognition of one new disease and one that was not observed for several years was attained. RSHCP took the leading role in commencing activities for raising awareness in the areas where the diseases were seen, and for taking necessary measures. These works have established the basis for the Ministry of Health to initiate a specific programme that included publishing of circulars and organization of training sessions.

The Diyarbakir RBL has been in continuous cooperation with PHC on infectious disease observations, identification of communicable diseases and laboratory based surveillance. The director of Diyarbakir RBL Recep Kesici states that the regional laboratory contributes to the policies and strategies of the PHC, with their work on surveillance and bacteriology and virology laboratories. In this respect, he notes that surveillance studies have been the major mechanism that PHC has made use of the directorate's works for policy planning.

As for Demet Kurtoglu of RSHCP, she is in continuous cooperation with PHC, mainly on evaluation of vaccination services, identification of communicable diseases, laboratory based surveillance and monitoring of infectious diseases. She believes that the level of cooperation with PHC will strengthen through the EU funded project on Epidemiological Surveillance that has commenced as of 29 September 2005, in cooperation with the World Health Organization.

PHC and RSHCP worked together on the Notification of Infectious Diseases programme that was developed in 2001 and actively commenced in 2004.

The Virology Unit has planned to conduct a study in partnership with non-governmental organizations and in cooperation with the Ministry of Health and universities, thus extending the range of its target groups and possible future partners essential for public awareness raising on various topics.

3.2.3 Problems and Solutions

In general there are no major problems between PHC and RSHCP in their joint programmes, which is a result that the project partners eventually expected as a contribution of the Project. Mr. Torunoglu notes that "the minor problems that are reflected through the project arise from the planning stage, which was guided by the Japanese part". He also draws attention to the issue of separation of roles and responsibilities between the two organizational units: RSHCP and PHC. Most of the problems generate from the practice that RSHCP acts as if it is an autonomous organization. Policies and strategies on surveillance of infectious diseases are under the responsibility of the Ministry of Health. However, RSHCP publishes the results of surveys in periodicals, which should have been shared before being published. Results of the field studies of the Project is an example; data was published in scientific periodicals before they were sent to PHC.

Mr. Torunoglu adds that although field guidelines and forms prepared for diphtheria, pertussis, legionella are a beneficial result, as a side impact of the project, "field" side of the project is rather weak, and that it would be wrong to anticipate any reflection of the field work to the country-wide scale.

As for the problems of cooperation mainly between RSHCP and PHC, solutions are sought at the institutional level. An organizational restructuring is currently under discussion. There is a possibility that a CBC type unit to be established. The idea may be a result of the inspiration from the Project. However, Mr. Torunoglu thinks that the system based on sero-surveillance is not applicable and realistic as he quotes: "It would have been much better to strengthen the existing system rather than introducing a new one."

Despite some gaps in cooperation between RSHCP and PHC, there are also positive signs for sustainability of the project by maintaining cooperation between RSHCP and PHC. For instance, PHC and RSHCP have made up a group named Immunization Consultancy Group, made up of members from universities, RSHCP and PHC, which is a very good environment to share knowledge and information. PHC is the secretariat for this group.

PHC and RSHCP come together frequently, not periodically but whenever necessary. They have teams on the basis of infectious diseases, such as the Measles Team and the Polio Team, made up of members of both PHC and RSHCP.

Another problem can be mentioned as related with the serum-bank. The serum list has to be updated but problems are faced in using the relevant software, which causes lags in the periodic updating process.

3.3 Sustainability

Factors that affect project sustainability are:

- Dissemination of information
- Stability in personnel
- Maintenance of equipment
- Supply of consumable laboratory materials
- Continued capacity building
- Development of new projects
- Improved organizational set-up

3.3.1 Dissemination of Information

Although dissemination of surveillance results is an indicator of sustainability of project outcomes, it is also a problematic issue. As noted in earlier sections, RSHCP is responsible for transferring the results of surveillance studies to the PHC. However, RSHCP, being very active in presenting results at national and international platforms ignores the knowledge transfer before being published or presented.

RSHCP publishes Monthly Epidemiology Reports and press bulletins (5 bulletins in 2005), average of 10 scientific papers published in 3-4 seminars every year. Though, seminars are too scientific to serve public awareness.

3.3.2 Stability of Personnel

Personnel stability is a factor that affects project sustainability but it would be wrong to expect to control. Therefore, it is rather a risk that limits project sustainability. In Turkey, particularly the managerial level has a continuous change of personnel. For instance, as Mr. Torunoglu indicates, the general director and department chief visited Japan at the beginning of the Project, but were assigned in different positions after they returned. This caused loss of human resources, financial resources and time, and may have also caused reasons for problems in coordination among partners as well as misunderstandings of the overall project concept by some of the counterparts.

Although 45 days was not sufficient for a 4-months training programme, Mr. Ibrahim Halil Yilmaz gained quite much experience when he was dispatched to Japan towards the end of the project, and his training was ended as the project was over. However, another personnel who also participated in the training changed his career after he returned from Japan.

Besides the negative impacts of instable personnel, there are also positive changes that some personnel have been promoted or assigned in new positions where they can serve more effectively with their knowledge and skills from the Project.

3.3.3 Equipment Maintenance

A critical staff responsible for the maintenance of project equipment is Mr. Ibrahim Halil Yilmaz. According to Mr. Yilmaz, most of the problems he confronts during his work are related with availability of spare parts of project equipment. For some of the equipment, there are no local representatives of the equipment sales companies. Moreover, some of the equipment can not be operated for this reason. It is much more expensive to import them. Other local spare parts that are available can be used without problems.

Equipment purchased in the laboratories after the project is mostly in the form of supportive equipment, and some new equipment are also purchased and installed.

Calibration of equipment is another bottleneck that constrains sustainability of the project technology. Most of the equipment is not calibrated, some (i.e. laminar flow equipment) are calibrated by the RSHCP staff. Some, such as the autoclave and incubator installed within the project context have not been calibrated since they were installed as the sales companies are not communicated in this regard. Although some of the maintenance works is made by own means of RSHCP, it is essential that maintenance is made by the pertinent equipment companies. Main bottlenecks are rooted in bureaucratic procedures. For instance, despite the long-life and strength of the automatic pipettes used in the ELISA tests, lack of calibration causes too many repetitions, thus loss of consumable laboratory materials, time and work power.

3.3.4 Supply of Consumable Laboratory Materials

Consumables related with the project equipment can be supplied but with delay from time to time. An equipment can be shut down for some months until the required materials are made available. The budget for supply of consumables is managed through two mechanisms: Administrative and Financial Affairs and the Revolving Fund of the RSHCP. The latter mechanism has more flexibility, but is not sufficient to overcome the problems mentioned. Despite delayed supplies, material plans are in place so as to supply required materials. Main reason for the delay is bureaucracy in procurement processes.

3.3.5 Sustained Capacity Building

It can be generalized that all laboratories work effectively with high workload, except for the serum bank. Despite the heavy workload, experts of RSHCP are regularly participating in in-house on-the-job trainings as well as in seminars and conferences. New partnership projects are also a good tool to improve experts' technical capacities.

Capacity building at experts level is not limited to surveillance issues. Mr. Ibrahim Halil Yilmaz has participated in other training programmes as well, such as GMP (Good Manufacturing Practices), GLP (Good Laboratory Practices), validation and Turkish Standards Quality Management. Other experts have furthered their knowledge on various topics of public health control.

3.3.6 Development of New Projects and Activities

The project provided great motivation for new activities and projects. Using the knowledge and experience he acquired from the project, Mr. Ibrahim Halil Yilmaz took part in installation of a new laboratory within RSHCP in 2003. The new laboratory serves for performance measurement of sterile spaces. After the JICA project was over, emphasis was given on this new laboratory. Technical support is still required for effective operation and management of the new laboratory.

The EU Project on infectious diseases aims at accomplishing necessary legal arrangements, training sufficient health personnel through an extensive and effective training programme and defining duties and responsibilities of all stakeholders in the system.

Besides the EU Project, RSHCP developed a project together with WHO for diagnosis and classification of food-based infections, however the project could not be implemented due to insufficient resources. Another application to EU funds was related with surveillance of antibiotic resistance, but was not accepted for its limited impacts. With the new visions acquired from the project, Ms. Aysegul Gozalan is involved in a WHO project in Lyon, about epidemiological and microbiological researches in epidemic situations.

3.3.7 Improved Organisational Set-up

The EPI unit is established as a result of the project plays a key role for the sustainability of the technology transfer. As the Epidemiology Unit, they have prepared 20 reports on epidemiological surveys, which are in general considered comprehensive and sufficiently acceptable. (Though, different answers are received for the number of epidemiology reports, between 3-20). However, problems may occur in interpretation of results, which may result from lack of sufficient data, delay in transfer of samples to the laboratory, bad conditions of transferred samples, lack of information in filled in forms or insufficient inventories with patients affected by the infectious disease. Such problems are assessed as disorders in the general system in terms of insufficiently made job descriptions and undefined responsibilities. Delays have occurred also due to late information on epidemic situations, thus late arrival at the region to be studied, eventually causing insufficiencies in epidemiology reports, particularly regarding tools and methodologies.

Currently, as the Epidemiology Unit, they are working on Group D infections within the scope of notification list, in cooperation with the parasitology laboratory.

The Monthly Epidemiology Report prepared in cooperation with PHC is published to present the analysis results obtained in the epidemiology unit. The report is distributed to the health departments throughout the country.

Sufficient capacity exists for sustaining the surveillance system in numerical terms. New financial resources can be created, though. The root of the problem that constrains efficient use of this capacity is the organizational failures in appropriate allocation of staff with full job descriptions not attained till today. The legislative framework is not sufficient to address these factors. The new notification system is geared to compensate such failures, however, in practice; problems pertain particularly in relation to integration of the laboratories and of lab-based data to the overall system.

The EPI unit is planned to be restructured in organizational terms so that the unit could serve more actively both in the Infectious Diseases Control Department and also nation-wide. The new organizational model is planned to include a managing director, a public health expert and a computer specialist. This was first planned during the Project, and is still und evaluation.

The EPI unit is one of the core partners of the EU Project entitled Improvement of the Epidemiological Surveillance and Infectious Diseases Control System in Turkey.

3.3.8 Extension of Project Outcomes to other Applications

Despite that it is not a direct result of the project, establishment of the notification system makes big use of the project results. During the project, cases were described for only three diseases for which field guidelines were prepared and are still in use. Case descriptions are updated during preparation of field guidelines for all diseases. Notification of these diseases is continued as defined. The project brought about verification of those diseases not only clinically but also in the laboratory-based way, and information about getting samples from suspected patients. Today, in case of suspect cases are confronted as related with diphtheria, pertussis and measles, samples are taken and transferred to the RSHCP laboratories with respect to the guidelines prepared within the project.

Among several applications that make use of project outcomes, another extended impact is related with the use of laboratories established within the project scope. The Samsun RBL has integrated the surveillance equipment together with the microbiology laboratory where numerous tests are made, not limited to infectious diseases. This comes up as a way of making economy, as otherwise project equipment could have been left idle for long time periods until an infectious disease case arises or an epidemic is of suspect. Currently in Samsun, samples are sent to the central laboratories of RSHCP in Ankara for significant cases such as the avian influenza. There is need for reorganizing the coordination between the regional laboratories, directorates of health and RSHCP so as to attain economically and time efficient surveillance with high quality.

Before disseminating the technology acquired as a result of the project, there are tasks and procedures left undone. For instance, development works are still continued as related with the analysis of anticore titration levels at low levels for the tetanus using the ELISA method. The methodology is tested for other diseases such as diphtheria and pertussis and additional personnel have been allocated in the pertinent laboratories for improving and extending the technology transfer from the project.

3.3.9 Extension of Project in other Cities

As noted before, according to the views of PHC through words of Mr. Torunoglu, pilot cities with different characteristics were selected, but this did not have the potential to disseminate the project results elsewhere in the country.

It is evident that establishment of similar technology and the overall surveillance system in other regions requires financial resources. Yet, it is important that the systematic in various procedures can readily be disseminated and replicated. Moreover, the regional laboratories are extending their surveillance area to include other cities in their geographical boundaries.

3.3.10 Improvement of Legislation

The Project accomplished consciousness about the significance of improving the surveillance of infectious diseases, and integration of laboratories in the surveillance system. The Project also enabled discussion of different views about including laboratories within the overall system and forged understanding the importance of proof based medicine. Such conceptual understanding and changes in cognition of organizations are reflected in various steps of legislation change. The EU Project is developed as an extension of the project and anticipated to lead to necessary legal changes.

3.3.11 Financial Aspects of Sustainability

Besides the budget allocation of the state, RSHCP puts efforts for raising funds through development of new projects with international funds. The EU Project will be providing 3 billion € for the first phase, and about 6 billion € is expected for the second phase.

4 OVERALL CONCLUSIVE REMARKS

4.1 Conclusion

The project goal of achieving control of epidemic diseases is rather vague, whether it is put forth for the pilot cities or for the overall country. In any aspect, it is too far to reach a decision at the time of evaluation.

Yet, to make a conclusion for the local level of pilot cities, it is observed that the surveillance system has contributed to decreased epidemic cases. However, numerical estimations cannot be made by pertinent experts.

As compared to the highly motivated inputs of RSHCP in the project, it is clear that roles of PHC was not well-defined and cooperation among project parties was not sufficiently planned from the beginning. Along with the poor coordination, it is also conceived that flow of knowledge and information between project units was rather weak. Today, efforts are concentrated by all parties on the compensation of the gaps in coordination.

It can be concluded that the project purpose of establishing a surveillance system as a tool for contributing to the project goal is achieved. Improvement of the system particularly in organizational and legislative aspects is planned to be achieved with a EU funded project developed as based on the results of the Project. It is anticipated that the new project will compensate for the bottlenecks in cooperation between RSHCP and PHC.

Laboratories established in pilot cities are used for other laboratory services besides surveillance. This attains economy particularly when there are no epidemic or infectious disease cases.

The project technology has attained dissemination of knowledge and skills for other infectious diseases that were not included within the project. Today, surveillance of DPT, AIDS, Hepatitis B and Hepatitis C are made besides others.

As an indirect impact of the project, the notification system has made use of the concepts and visions developed as a result of the Project. The field guidelines prepared within the project are used for the notification system today.

4.2 Recommendations

Based on the current situation of new activities along with problems confronted, recommendations for project sustainability are made as follows:

- Equipment and material plans should be made for laboratories in order to avoid idle equipment.
- Necessary financial procedures should be defined in order to ensure regular maintenance of project equipment.

- Mechanisms should be developed for better information flow between RSHCP and PHC.
- Coordination between Provincial Directorates of Health and regional laboratories of RSHCP in the pilot cities, PHC and RSHCP should be organized toward more effective and efficient surveillance.
- JICA support can be provided by dispatching a Japanese expert for an overview of the problems particularly related to the use of project equipment, making necessary recommendations for effective and practical solutions.
- A JICA expert can support a coordination team to identify bottlenecks in the existing surveillance system in the pilot cities and suggest practical, concrete and permanent solutions.

4.3 Lessons Learnt

Together with the suggestions from the counterparts involved in the evaluation, the Consultants recommendations for similar projects are defined as follows:

- Structures of project partner organizations should be well-analyzed before project planning.
- Participatory and interactive mechanisms that incorporate project staff in project planning and preparation could attain a higher level of consensus among partners.
- Job descriptions should be made very clearly particularly for the counterpart staff involved in the project.
- Risks that can inhibit project sustainability should be defined and necessary measures should be proposed.
- The managerial level should be supplied with continuous information in projects.
- An effective (practically internet-based) media should be established for information sharing throughout project conduct period, which can also be used for attaining project sustainability after the project is completed..
- Besides technical staff, support staff should also be actively included in the Project in order that they can keep up with the technological development.
- Project schedule should be prepared in a clear way and not changed as much as possible.
- Progress reports should be prepared in cooperation among Project partners.
- Complementary steps and follow-up activities should be defined for reaching the project goal.

4.4 Follow-up Situation after the Project

Despite minor planning problems that stemmed from insufficient experience of local partners in similar projects and rapid change of personnel since the project start-up, it is observed that counterpart project staff is highly satisfied about their participation in the project and about project results. Current problems that risk project sustainability are related with the effective use of project equipment. The major problem is related with the maintenance issue as described in preceding sections. As for the legal and institutional factors that inhibit replication and dissemination of the project, those are dealt with in the EU project that is built upon the knowledge and new visions accomplished as a result of the JICA project.

5 ANNEXES

5.1 Questionnaire prepared for the experts at Refik Saydam Hygiene Center

The purpose of the study is to evaluate the outcomes of the Infectious Diseases Control Project that was conducted by JICA, in terms of its impacts and sustainability. MWH Müh. Müş. Ltd. has been awarded with the contract to perform the evaluation study. The information you supply will be beneficial for JICA for the organization of fruitful future programs.

This Questionnaire addresses different departments, which were involved in the Project, at the Refik Saydam Hygiene Center. Please provide your answers according to the following main headings; General Questions, Questions related to your Department, Laboratory Surveillance Studies and Others.

We would like to thank you for your contribution.

NAME - LASTNAME:

1. Position:
2. Department:
3. Occupation:
4. Position between 1997-2002:
5. Are you knowledgeable about the Project?

GENERAL QUESTIONS

6. Did you acquire new knowledge and experience through the project? Please explain.
7. Has your position/duty changed after the project? If yes, what changed? Does this change prevent you to disseminate the knowledge that you gain through the project?
8. For which topics you are currently in collaboration with the General Directorate of Basic Health Services of the Ministry of Health ?

- a. Review of vaccination
- b. Determining epidemic diseases
- c. Surveillance
- d. Epidemiological diseases
- e. Serum Bank
- f. Others (explain)

GENERAL DIRECTORATE OF EPIDEMIOLOGICAL DISEASES RESEARCH LABORATORIES

- 9. What type of problems you are experiencing with the laboratory studies at the General Directorate of Epidemic Disease Research?
- 10. Which problems were resolved?
- 11. Were there any equipment procured for the General Directorate of Epidemic Disease Research after 2002, when the project was completed?
- 12. Can laboratory consumables be supplied regularly to the General Directorate of Epidemic Disease Research after 2002 when the project was completed?
- 13. What is your assessment about laboratory services of General Directorate of Epidemic Disease Research in terms of its quantity and quality?
- 14. Were there any problems experienced about Serum Bank? Please briefly explain the problems and how they were resolved?

DIRECTORATE OF EPIDEMIOLOGICAL DISEASES RESEARCH - EPIDEMIOLOGY UNIT

- 15. How many Epidemiological review reports were prepared so far by Epidemiology unit? (approximately)

16. Do you think that those reports are satisfactory? Please give a little explanation on the parts/sections that you think were not satisfactory? (Introduction-reasoning, methodology section, presentation of findings section, results and suggestions sections,...)
17. Have any of the studies at your laboratory been published in national or international periodical, paper or book?
18. Have you presented any study, which was done, at your laboratory in a national or international meeting or symposium?

VIROLOGY DEPARTMENT

19. What kind of problems have been experienced at the Laboratory in Virology Department?
20. How many of them were resolved permanently?
21. Were there any equipment purchased for the Department of Virology after 2002, when the project was completed?
22. Can laboratory consumables be supplied regularly to the Department of Virology after 2002, when the project was completed?
23. What is our assessment on the laboratory services of the Department of Virology in terms of its quantity and quality?
24. Is there any increase in demand for epidemiological survey after 2002 ?

LABORATORY SURVEILLANCE STUDIES

25. Currently for which epidemiological diseases you are conducting laboratory survey at the RSHC?
26. Are the results of the surveillance studies announced to relevant public bodies regularly? What are the tools used? (conference, participating meetings, symposium, internal education, etc...)

OTHERS

27. Are there any problems being experienced during the maintenance of the laboratory equipment? Please explain.
28. Do you collaborate with any authority/institution other than Ministry of Health to improve studies on epidemiological diseases control?
- a. Universities
 - b. Ministry of National Education / General Directorates
 - c. Ministry of Labour and Social Security
 - d. Ministry of National Defense
 - e. Other Ministries (please explain)
29. Are there any in-house training programs on the control of epidemiological disease that you attended? Please explain.
30. Have been involved in a new project, which allows you to benefit from your technical earnings from the Project? Please explain.
31. We would like to thank you for your collaboration. Is there any important issue that you would like to mention?

THANK YOU VERY MUCH

5.2 Questionnaire prepared for Refik Saydam Hygiene Center Management and its Regional Directorates

The purpose of the study is to evaluate the outcomes of the Infectious Diseases Control Project that was conducted by JICA, in terms of its impacts and sustainability. MWH Müh. Müş. Ltd. has been awarded with the contract to perform the evaluation study. The information you supply will be beneficial for JICA for the organization of fruitful future programs.

This Questionnaire addresses different departments, which were involved in the Project, at the Refik Saydam Hygiene Center. Please provide your answers according to the following main headings; General Questions, Questions related to your Department, Laboratory Surveillance Studies and Others.

We would like to thank you for your contribution.

NAME - LASTNAME:

1. Position:
2. Department:
3. Occupation:
4. Position between 1997-2002:

Are you knowledgeable about the Project?

GENERAL QUESTIONS

5. Do you think that the Project contributed to decrease in infectious diseases and resulting casualties?
6. What is the Ministry of Health's policy on the control of infectious diseases? Do you think that the project contributed to the improvement of this policy?
7. For which topics you are currently in collaboration with the General Directorate of Basic Health Services of the Ministry of Health?
 - a. Review of vaccination
 - b. Determining epidemic diseases
 - c. Surveillance
 - d. Epidemiological diseases
 - e. Serum Bank
 - f. Others (explain)

8. Do you contribute to the development of policy and strategy of General Directorate of Basic Health Services of the Ministry of Health?
9. If you contribute to the development of policy and strategy of General Directorate of Basic Health Services, for which topics you contributed?
 - a. Vaccination services – including side effects of vaccination
 - b. Surveillance studies
 - c. Bacteriology / virology labs
 - d. Information received from Serum Bank
 - e. Epidemiological investigation
 - f. Others (please explain)
10. Has the Ministry of Health benefited from any of your studies and develop/built strategy/policy upon?
11. Do you think that as a result of the project a decrease in the number of epidemiological diseases achieved? Please indicate a ratio.
12. How many people in you department were trained within the context of the Project?
13. Please indicate that how many people's position has been changed upon project's completion?

GENERAL DIRECTORATE OF EPIDEMIOLOGICAL DISEASES RESEARCH LABORATORIES

14. What kind of problems have been reported to you related to laboratory studies at General Directorate of Epidemiological Diseases Research?
15. How many of the problems were resolved permanently?
16. Were there any equipment procured for the General Directorate of Epidemic Disease Research after 2002, when the project was completed?

17. Can laboratory consumables be supplied regularly to the General Directorate of Epidemic Disease Research after 2002 when the project was completed?
18. Has any personnel been appointed to the General Directorate of Epidemiological Diseases Research after 2002, in order to improve laboratory services, apply new techniques?
19. What is your assessment of the laboratory services of General Directorate of Epidemic Disease Research in terms of its quantity and quality?
20. Has any problem been reported related to Serum bank?
21. If there is any problem, have they been resolved permanently/temporarily or they still exist?

DIRECTORATE OF EPIDEMIOLOGICAL DISEASES RESEARCH – EPIDEMIOLOGY UNIT

22. How much Epidemiological review report was prepared so far by Epidemiology unit? (approximately)
23. Do you think that those reports are satisfactory? Please give a little explanation on the parts/sections that you think were not satisfactory? (Introduction-reasoning, methodology section, presentation of findings section, results and suggestions sections,...)
24. Have any of the studies at your laboratory been published in national or international periodical, paper or book?
25. Have you presented any study, which was done, at your laboratory in a national or international meeting or symposium?

VIROLOGY DEPARTMENT

26. What kind of problems have been experienced in the Laboratory of Virology Department?
27. How many of them were resolved permanently?
28. Were there any equipment purchased for the Department of Virology after 2002, when the project was completed?

29. Can laboratory consumables be supplied regularly to the Department of Virology after 2002, when the project was completed?
30. Has any personnel been appointed to the General Directorate of Epidemiological Diseases Research after 2002, in order to improve laboratory services, apply new techniques?
31. What is our assessment on the laboratory services of the Department of Virology in terms of its quantity and quality?
32. Is there any increase in demand for epidemiological survey after 2002 ?

LABORATORY SURVEILLANCE STUDIES

33. Currently for which epidemiological diseases you are conducting laboratory survey at the RSHC?
34. Would you summarize the impacts of laboratory epidemiological surveillance studies on national health policies? (especially on fight against epidemiological diseases)
35. Are the results of the surveillance studies announced to relevant public bodies regularly? What are the tools used? (conference, participating meetings, symposium, internal education, etc...)
36. Are there sufficient resources in terms of equipment/manpower/financing to improve and sustain laboratory surveillance system?
37. Is the information system, which was set up by the Project still sustainable?
38. Was the system, which was set-up in pilot cities, disseminated to other cities?

OTHERS

39. Are there any problems being experienced during the maintenance of the bacteriology and virology laboratory equipment? Please explain.
40. Do you collaborate with any authority/institution other than Ministry of Health to improve studies on epidemiological diseases control?
 - a. Universities

- b. Ministry of National Education / General Directorates
- c. Ministry of Labour and Social Security
- d. Ministry of National Defense
- e. Other Ministries (please explain)

41. Were there any in-house training programs on the control of epidemiological disease that you attended? Please explain.
42. Did the Project contribute to the development of related legislation? Especially, during the EU approximation process.
43. Were there any future plans made after the project had been completed? Are there any sufficient resources to implement these plans? Are there any international funds available?
44. What are the plans and projects to disseminate the technology transfer achieved by the Project?
45. Have you made any attempt to develop a new project based on your technical and knowledge gains from the Project? Please explain.
46. In order to make projects sustainable what kind of specs should be a part of the projects?
47. Would you like to be involved in a similar project again?
48. We would like to thank you for your collaboration. Is there any important issue that you would like to mention?

THANK YOU VERY MUCH

5.3 Questionnaire prepared for the Ministry of Health's Local Offices in Antalya, Diyarbakır and Samsun

This questionnaire should be filled out by the deputy manager who is responsible for epidemiological diseases and vaccination and department head of epidemiological diseases.

The purpose of the study is to evaluate the outcomes of the Infectious Diseases Control Project that was conducted by JICA, in terms of its impacts and sustainability. MWH Müh. Müş. Ltd. has been awarded with the contract to perform the evaluation study. The information you supply will be beneficial for JICA for the organization of fruitful future programs.

We would like to thank you for your contribution.

NAME - LASTNAME:

1. Position:
2. Department:
3. Occupation:
4. Position between 1997-2002:
5. Are you knowledgeable about the Project?
6. Did outcomes of the project contribute to your Directorate's activities?
7. If you answered to the above question as YES, to which activities did the outcomes of the project contribute? Please explain.
 - f. Vaccination services – including its side effects
 - g. Surveillance studies
 - h. Epidemiological survey
 - i. Others (please explain)
8. Has your Directorate been working on the development of control of epidemiological diseases based on which activities of the regional hygiene centre or public health laboratory?
9. Please indicate the studies that are currently on going in collaboration with your Directorate and regional hygiene centre/public health laboratory?

10. In which epidemiological diseases control programmes, the regional hygiene centre or public health laboratory were involved? Please explain.
11. Do you receive data on the control of epidemiological diseases either from the regional hygiene centre or public health laboratory? Please explain.
12. How did you use laboratory based surveillance data?
13. Was regional hygiene centre or public health laboratory involved in studies that you have performed or planned on the control of epidemiological diseases after 2002? Please explain.
14. Please summarize the contribution of "Control of Infectious Diseases Project, 1997-2001" on the control of epidemiological diseases in your town.
15. Please summarize the effects of the Project on morbidity and mortality.
16. Did the project contribute to surveillance studies that you are currently conducting? Please explain. (method development, guide preparation, form preparation, etc.)
17. Have you conduct any surveillance study on the evaluation of vaccination services, the status of epidemiological diseases? Please explain.
18. Please indicate the problems that you faced during the cooperation with the regional hygiene centre or public health laboratory on the control of epidemiological diseases.
19. Have attempted to develop a new project based on the experience you gained from the Project? Please explain.
20. What kind of characteristics should a project has in order to be sustainable? Could explain by a sample from your own organization?
21. We would like to thank you for your collaboration. Is there any important issue that you would like to mention?

THANK YOU VERY MUCH

Abbreviations

DPT	Diphtheria-pertussis-tetanus
EPI	Expanded Programme on Immunization
EU	European Union
PHC	General Directorate of Primary Health Care
RBL	Regional Branch Laboratory
RSHCP	Refik Saydam Hygiene Center Presidency
WHO	World Health Organization

Assessment of the
“The Infectious Diseases Control Project in The Republic of
Turkey”

Prepared by:

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1. INTRODUCTION

Biological Control and Research Laboratories of the Refik Saydam Hygiene Center Presidency (RSHCP) started a project-type technical cooperation scheme with the support of JICA, on infectious diseases that can be prevented by vaccination, in order to create an EPI policy in Turkey between the years 1993 and 1996.

With the success of this project, Republic of Turkey, asked JICA for the continuation of the cooperation so that more technical support can be obtained for monitoring the immunization condition in the population through epidemiological surveillance and other EPI-related laboratory techniques. As a result of this demand, JICA decided to start a new project-type technical cooperation under the title of “Infectious Diseases Control Project” from October 1997 to 2002.

An ex-post evaluation study has been carried out for the project implemented and the expert dispatched in March, 2006.

2. ASSESSMENT OF THE REPORT OF THE EX-POST EVALUATION STUDY

The goal of the project is to establish a lab-supported epidemiological surveillance system and thus to provide a means to control EPI-related infectious diseases. This project has been realized within a frame that is planned consistent with the well-defined targets. The benefits of the project are summarized in what follows:

- a. Increase in the lab-supported technical capabilities for EPI-related infectious diseases has increased.
- b. A technical cooperation between ARSHCP and Primary Health Care General Directorate has been established.

- c. Administration of the technical education necessary for the epidemiological surveillance of DPT, polio, measles, and hepatitis B and realization of the surveillance.
- d. Establishing a serum bank
- e. A better understanding and emphasis of the importance of infectious diseases surveillance and the laboratory integration in the collection of this surveillance data
- f. Creating an information flow by publishing the obtained results in scientific platform
- g. Starting the preliminary organizations necessary for upcoming projects
- h. A repeated emphasis on the importance of evidence based medical research
- i. The infrastructure development for these new technological systems and the education of the staff on these changes provided a positive motivation for everyone involved in the project.

The shortcomings of the project are as follows:

- a. The duties of PHC within the project frame were not defined well and a strong cooperation among project parties was not reached due to insufficient planning from the beginning. As a result of the poor quality of communication, the information flow between the project units could not be establish as strongly as needed.

Structures of project partner organizations should be well-analyzed before project planning. A common vision between the partners should be reached. The duties and responsibilities of each party should be clearly defined. The risks of the projects should be predicted and necessary precautions should be taken to minimize the occurrence of these risks. The

management should be supplied with continuous information on the progress of the projects. All available means for communication should be utilized for information sharing – especially internet based tools.. The project should actively involve the support personnel right beside the technical personnel. A project flow diagram should be prepared and be abode by unless there are extraordinary circumstances. Project progress reports should be prepared with the cooperation of all project partners.

3. CONCLUSION

This project has successfully completed the epidemiological surveillance of DPT, polio, measles and hepatitis B using lab-supported surveillance systems. The data obtained through the surveillance will prove extremely helpful in controlling infectious diseases. In addition, through the EU funded project, the planned changes in the organization and legislative aspects will improve the system further.

The report has a good description of the project background, overall goal, outputs and also the implementation of the project. It evaluates the project in details in terms of impact and sustainability of the system. The question sets were well designed in order to evaluate the former and recent situations related with the project. However the number of counterpart experts that took part in the evaluation process is not well enough to represent a profile of the organization especially if it is one from the one institution. During the evaluation process of the report it should be kept in mind that there might be some personal commands or prejudice of some representatives and they shouldn't be accepted as a general consent. If much more experts could be included in the evaluation process multi-lateral and many sided opinions could be gained .Additionally the number of scientific papers which might have been listed in the project evaluation report as an quantitative indicator would be a good indicator for the sustainability by dissemination of the information and by the sustained capacity building.

4. RECOMMENDATIONS

The supply of necessary laboratory tools and materials should be planned.

The financial resources necessary for the project should be determined and the financial phase should be started as soon as possible.

A clear channel for communication and coordination between RSHCP and PHC should be provided. This way, the surveillance would become more effective.