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BASICS **TRIP REPORT**

Technical Assistance in Planning for Disease Control Activities and for Vaccine Cold Chain Development: Turkmenistan

***BASICS is a USAID-Financed Project Administered by
The Partnership for Child Health Care, Inc.***

**Academy for Educational Development (AED)
John Snow, Inc. (JSI)
Management Sciences for Health (MSH)**

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**TECHNICAL ASSISTANCE IN PLANNING
FOR DISEASE CONTROL ACTIVITIES AND
FOR VACCINE COLD CHAIN DEVELOPMENT:
TURKMENISTAN**

19-25 November 1994

Alasdair Wylie

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Also, Ms. Maral Gurbannazarova and Mr. Sergei Agafonov provided very able interpretation and document translation support during the assignment.

ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival
BCG	Bacillus Calmette Guerin
CAR	Central Asian Republics
CDC	Centers for Disease Control and Prevention
CIS	Commonwealth of Independent States
CLM	Commodities and Logistics Management
CRH	Central Rayon (Etrap) Hospital
DPT	Diphtheria, Pertussis, Tetanus
FAP	Feldscher (Medical Assistant) - Accoucheur (Midwife) Post
FSU	Former Soviet Union
ILR	Ice-Lined Refrigerator
MAT	Maternity House
MCHS	Maternal and Child Health Services
MOH	Ministry of Health
NID	National Immunization Day
NIS	Newly Independent States
OPV	Oral Polio Vaccine
PATH	Program for Appropriate Technology in Health
POLY	Urban or Rural Polyclinic
REACH	Resources for Child Health Project
SES	Sanitary and Epidemiological Station or Service
SNID	Sub National Immunization Day
SUB	Rural Rayon (Etrap) Hospital
SVA	Rural Medical Ambulatory Clinic
Td	Adult formulation of Diphtheria/Tetanus
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States Government
WHO/EURO	World Health Organization/Regional Office for Europe

I. EXECUTIVE SUMMARY

A. Purpose and Background

The purpose of this visit, which followed a two-week visit to Uzbekistan, was to discuss with the MOH the planning and technical assistance needs for the proposed national immunization days against poliomyelitis in April/May 1995. Also discussed, in light of recent relevant experience in Uzbekistan, was further technical assistance related to various aspects of vaccine cold chain development, which had been supported during USAID's predecessor REACH project.

From early 1992 the United States government provided funds for an emergency immunization support program in various Newly Independent States of the former Soviet Union. This program, carried out through USAID's REACH project, aimed to provide vaccines and supplies to ensure that infants in these states could be protected against the common vaccine-preventable diseases until regular supply lines for commodities could be reestablished. REACH also provided technical assistance in vaccine cold chain management, immunization policy, and program planning.

USAID/REACH project missions to Turkmenistan under this program had identified needs for vaccines and immunization equipment, four consignments of which were delivered in 1992 and 1993. Technical assistance in immunization policy development was provided with WHO in 1993, and in national immunization program planning, together with UNICEF and WHO in early 1994. From mid-1993 to early 1994, this work was done under a joint initiative with the Government of Japan.

B. Activities

With the BASICS operations officer, discussions were held at the MOH about the scope of technical activities possible under the new BASICS project, and BASICS' recent involvement in Uzbekistan's NIDs against polio. Results and experience from Uzbekistan were presented on 23 November at a well attended meeting of pediatricians and other health facility staff from Ashgabat City.

Various meetings were held during the week at the Republican SES to review the status of vaccine cold chain activities and needs as well as the status of the March 1994 draft plan of activities for the National Immunization Programme. Meetings were held with the resident programme officer of the new UNICEF office to learn about activities to-date and plans. A health sector donor coordination meeting called by UNDP was also attended.

Final discussions were held at the MOH with the BASICS operations officer, and a draft was prepared for the U.S. Embassy.

C. Main Conclusions and Recommendations

1. Planning for the proposed 1995 polio NIDs should take place within the context of the development of a plan to implement an overall polio eradication strategy nationwide.
2. Effective diphtheria control is an urgent priority and merits fast and appropriate technical assistance and commodity support.
3. All WHO and other international agency documents relevant to the planning, implementation, and evaluation of polio eradication and diphtheria control activities should be translated into Russian as rapidly as possible.
4. UNICEF funds available for further cold chain equipment needs should be ascertained as soon as possible so that additional possible funding sources can be rapidly identified.
5. Improved instruction materials for the MK/MF 4010 refrigerator/freezer should be prepared by Vestfrost and approved by suitably experienced field technical personnel.
6. No vaccine should be shipped via Istanbul until it is confirmed that the causes of mishandling and cold chain failure there (since October 1993) have been investigated and rectified.
7. Every effort should be made to persuade the MOH to take the lead in the further development of the draft plan of activities to provide a framework for effective and efficient inter-sectoral cooperation and donor agency coordination.

II. PURPOSE OF VISIT

The scope of work for this visit, the fourth by this consultant to Turkmenistan since September 1993 and which followed a two week visit to Tashkent, Uzbekistan, was:

1. With the BASICS operations officer, meet with MOH officials to present results and lessons learned from NIDs in Uzbekistan, and discuss plans (including BASICS support) for similar NIDs in Turkmenistan;
2. With MOH counterparts:
 - a) document the status of cold chain equipment previously donated by USAID;
 - b) assess the status of the draft Russian language cold chain training manual (developed with REACH support) and agree on a plan for its completion and use in the context of a cold chain training plan for oblasts/rayons;
 - c) review the design and assess the need for any redesign of systems for vaccine stock control and inventory of equipment and supplies, with a possible demonstration of CLM software;
3. With the BASICS operations officer, meet with MOH officials to review the status of the draft national immunization plan (developed with REACH support) and discuss the next steps for implementation, including further technical assistance needed from USAID/BASICS.

III. BACKGROUND

From early 1992, the United States government provided funds for an emergency immunization support program under a program of humanitarian assistance to various Newly Independent States of the former Soviet Union. This program, carried out through USAID's REACH project, aimed to provide vaccines and supplies to ensure that infants in these states could be protected against the common vaccine-preventable diseases until regular supply lines for commodities could be reestablished. REACH also provided technical assistance in vaccine cold chain management, immunization policy, and program planning.

USAID/REACH project missions to Turkmenistan under this program had identified needs for vaccines and immunization equipment, consignments of which were delivered in 1992 and 1993. Technical assistance in immunization policy development was provided with WHO in 1993, and in national immunization program planning, together with UNICEF and WHO, in early 1994. From mid-1993 to early 1994 this work was done under a joint initiative with the Government of Japan.

IV. TRIP ACTIVITIES

With the BASICS operations officer, initial discussions were held at the MOH about the background to this visit including the work since 1992 through USAID's REACH project, the possible scope of technical activities under the new BASICS project, and BASICS' recent involvement in Uzbekistan's NIDs against polio. Results and experience from Uzbekistan were presented on 23 November at a well attended meeting of pediatricians and other health facility staff from Ashgabat City. This meeting included a useful questions and discussion session (Appendix 3).

Various meetings were held during the week at the Republican SES to review vaccine cold chain activities and needs, including equipment and vaccine supplies, training plans and materials, and record keeping and inventory procedures. The Railway SES in Ashgabat City was visited to check the fitting of replacement internal lids which were provided by the Danish manufacturer of a type of refrigerator earlier supplied under US/Japan assistance.

Two meetings were held with the resident programme officer of the new UNICEF office to learn about activities to-date, and plans and possibilities for immunization programme support. A health sector donor coordination meeting called by UNDP was also attended.

With the BASICS operations officer, final discussions were held at the MOH to review possible areas for technical assistance and the status of the March 1994 draft plan of activities for the National Immunization Programme. A draft reporting cable was prepared for the U.S. Embassy.

V. RESULTS AND CONCLUSIONS

A. Planning for NIDs and Disease Control

The MOH reports a national average of 92 percent coverage of infants with three doses of oral polio vaccine in 1993 (range by oblast 87 percent to 97 percent, 92 percent in Mary) and four reported cases of poliomyelitis for the first 10 months of 1994 (three in Mary), compared with two in 1993 (both in Mary) and four in 1992 (three in Mary). Compared with earlier years (Appendix 2) and with neighboring Uzbekistan which had major polio problems in 1993/94 in two southern oblasts because of vaccine shortages, it appears that Turkmenistan has made progress in controlling poliomyelitis with routine primary series OPV3 coverage of at least 90 percent since 1990. Reporting of acute flaccid paralysis and the other elements of a comprehensive polio eradication strategy described in the MOH's March 1994 draft plan of activities for the National Immunization Programme have not, however, been adopted yet, and the planning for 1995 NIDs needs to be seen in this context.

The MOH has conducted sub-national immunization days against polio in certain velayets (oblasts) for some years and said that they would have had NIDs in 1994 if enough vaccine had

been available. They are keen to plan Turkmenistan's participation in the proposed WHO-coordinated region-wide polio NIDs in April/May 1995 ("Operation MECACAR") with the understanding that international agencies can assure sufficient supplies of OPV.

The preparation and training for polio NIDs in a country such as Turkmenistan, which not only has some previous experience of sub-national mass vaccination with OPV, but also, like the other states of the former Soviet Union, has large numbers of trained medical and paramedical personnel relative to population, should not, in principle, pose major problems. At the same time, it must be born in mind that in these countries where immunization and other child health interventions are the responsibility of pediatricians and other specialists with equivalent levels of training and experience, an approach to training for NIDs which was developed for countries elsewhere in Asia and in Latin America and geared very much to paramedical and large numbers of lay volunteer personnel, may not be entirely appropriate.

The examples in Appendix 3 of some of the questions asked by an audience of mainly pediatricians from in and around Ashgabat City after the presentation on the NID experience in Uzbekistan illustrate an important point: the knowledge and professional experience of these medical personnel is not a reason for limiting NID training, orientation sessions, and "seminars," although MOH officials in the NIS may often be inclined to do so and to rely on written directives only. They are, rather, a strong reason for planning to provide opportunities at all levels for such personnel, not only to be taught what is to be done, but also to be able, as responsible professionals, to ask questions without inhibition and to discuss the whys and the hows of the NID experience. This training is not likely to occur spontaneously in Turkmenistan or the other NIS and should be an important item in any NID planning agenda, as well as a consideration in the preparation of appropriate field guide materials.

The MOH is also giving high priority to planning for effective special immunization activities to control diphtheria. Thirty-six cases were reported in the first 10 months of 1994 (of which 12 were in Ashgabat City and 14 in Akhal velayet, many reportedly among unvaccinated temporary residents) compared with three cases in 1993, and 22 in 1992, the worst figures since 1989 (Appendix 2). Access to supplies of Td vaccine (adult formulation diphtheria-tetanus) is essential in order to control diphtheria. Since the mid-1994 shipment from Russia, there have been no shipments of vaccine due to the serious diphtheria situation in Russia. Reported diphtheria vaccination coverage in 1993 was noticeably lower than that for polio (Appendix 2), and while this may be explained in part by the arrival of DPT late enough in the year to prevent immunization of all eligible infants in time - hence the sizeable opening stock balance seen at the beginning of 1994 (Appendix 7) - the possibility of the continuation of an unacceptably conservative contraindications policy must also be considered.

The ministry indicated a specific interest in a further visit of BASICS/PATH consultant Dian Woodle to follow up on her previous visits through the REACH project to work with them on preparations for an international tender and bid for vaccine from other sources.

B. Vaccine Cold Chain Development

The distribution of the vaccine cold chain and logistics equipment donated to Turkmenistan under U.S. and U.S./Japan assistance in 1992/93 according to distribution records held at the Republican SES is shown in Appendix 4. Most velayets had submitted reports showing distribution by etrap (rayon) and/or more peripheral units, but these reports are not in a standardized format. In 1994, the Republican SES developed and sent out a new equipment inventory format for use at and between clinic, etrap, and velayet levels which they intended to review with staff from each velayet in turn during a series of meetings in December in Ashgabat. Shown in Appendix 6, it includes all the main categories of cold chain equipment and provides for separate reporting of donated equipment, although it does not require the recording of certain specific detail such as model numbers.

At the request of the Republican SES, a list of further cold chain equipment which was drafted during the March 1994 planning exercise was reviewed, discussed, and redrafted for the ministry to submit to UNICEF for possible funding (Appendix 5). It appeared from discussions with both offices that there had not yet been any working contact between UNICEF (which had established its new office in Ashgabat in April 1994) and the Republican SES on immunization programme matters.

The redrafted equipment list included a voltage stabilizer for the Republican SES cold room which had been upgraded in early 1994, but which had reportedly experienced unanticipated voltage fluctuations in the hot summer months which were sufficient to damage certain electrical components. On this visit, time did not permit a close examination of the cold room or a meeting with the local "Turkmontage" technicians who, it was said, had, at the time had carried out repairs under their maintenance contract with the Republican SES. In discussion, a visit of a consultant engineer familiar with this cold room equipment to assess the operation of the installation was suggested, perhaps together with related work elsewhere in the region.

Two points arose in relation to the Vestfrost model MK/MF 4010, one model of a chest type refrigerator/freezer supplied under the U.S. and US/Japan. 1992/93, assistance. In mid 1994 the manufacturer had sent to Turkmenistan (and apparently to the other countries which had received this equipment) replacement internal covers for the separate refrigerator and freezer compartments, although without adequate instructions, because the originals were reportedly of unsatisfactory quality. On a visit to the Railway SES in Ashgabat City which has two such units, the replacement covers (made of a more flexible foam material than the rigid originals) were found to fit adequately, although were not as easy to remove because there are no finger slots in the top to grip as with the originals.

During this visit, it was also apparent that the staff were not yet able to achieve acceptable temperatures in each of the compartments of the MK/MF 4010 by adjusting the external thermostat and the internal heater coil in the refrigerator compartment. New written instructions, prepared and translated into Russian by Vestfrost in early 1994 and distributed to Turkmenistan

and other countries, were found inadequate on this point as well as on a number of others and had clearly not been reviewed or approved by anyone familiar with the operation of this equipment.

The draft cold chain training manual (the REACH project assisted with this in September 1993) had received no further attention by the Republican SES since March 1994 although a computer diskette with the text of the original Kyrgyzstan manual had been provided by then. The possibilities for getting new and modified text entered into the computer prior to its review and final draft were discussed, and the immunization coordinator proposed that this work could and would be done at the Republican SES which would require close monitoring in case further obstacles arose. The Republican SES plans to conduct cold chain training, including refresher orientation on donated/imported equipment, for personnel from all 120 etrap (rayon) SESs in March 1995, and indicated that technical support during this training would be welcome. This support could provide a suitable opportunity to test a penultimate draft of the new cold chain manual in a training seminar setting.

Data on vaccine supply for 1994 to date were obtained (shown in Appendix 7), and the present vaccine stock record formats were reviewed. Turkmenistan started 1994 with stocks sufficient for several months' needs and had received sufficient quantities of BCG, OPV, DPT, and measles vaccines from Russian manufacturers to meet primary series needs through December 1994. As in 1993, however, it was emphasized that actual deliveries from Russia against contracts placed have remained extremely unpredictable. It was of some concern, therefore, to learn that there had apparently been 1994 UNICEF/Turkmenistan funds which could have been used for commodity assistance, including vaccines, but which it was too late to use the funds, because of apparent lack of appropriate communication between UNICEF and MOH. For primary series vaccine needs for 1995 through 2000 under the Government of Turkmenistan/Japan/UNICEF "Vaccine Independence Initiative" agreement, UNICEF still had not received the necessary formal request from the MOH for deliveries for first quarters of 1995. Assistance was given to improve communications between the two entities, and, in particular, to ensure that the formal request for vaccines was now speedily dealt with.

The UNICEF resident program officer was not aware of the various problems which had occurred with the handling of vaccines at the Istanbul airport over the previous year, and was briefed accordingly. In the absence of firm information about corrective action, any vaccine routed via Istanbul must be considered unnecessarily at risk. Consequently, the MOH and UNICEF/Turkmenistan should insist on other routes.

The present vaccine stock record procedure at the Republican SES is based on a conventional ledger with a separate page for each vaccine and has up-to-date records of all receipt and issue details, including lot numbers and expiry dates. Until recently, stock balances at velayet and etrap levels were collected once a year at the end of the year, but now the Republican SES expects quarterly stock balance reports along with the velayets' quarterly vaccination reports. There was insufficient time to demonstrate the new CLM computer software, but the

immunization coordinator indicated that the possibility of computerizing both vaccine and equipment inventory information was of interest and should be pursued. It is likely that the management of equipment spare parts information - for which there are no recording and reporting procedures yet established - would also benefit from computerization. This could be a major consideration in deciding suitable timing for the introduction of CLM or related software for national level immunization programme use in Turkmenistan. Apart from the obvious issue of computer hardware requirements and procurement, staffing vacancies at the Republican SES must also be taken into consideration in the effort.

C. Plan of Activities for National Immunization Programme

Progress on this document, started in March 1994 with the assistance of a USAID/REACH/WHO/UNICEF consultant team, has effectively stalled. While the MOH expects the Republican SES, specifically the immunization coordinator, to oversee completion of the draft plan (including contributions needed from individuals in institutions or offices outside MOH), it was clear that this person has neither the time nor the authority to pursue this activity. The reported agreement to form a new "policy and planning" unit or office in the ministry following visits by World Bank and WHO/EURO missions concerned with health sector planning might provide an opportunity to properly locate the coordination of the finalization of the immunization program activity planning within the ministry where it belongs. UNICEF's role as the major commodity donor for immunization from 1995 will also be significant and its potential for influence in the planning sphere considerable.

D. General

During final discussions on 24 November, Mr J. Akhmamedov, Chief/ SES, MOH, stated that the ministry much appreciates the commodity and technical assistance received since 1992 from USAID through its REACH project, and welcomed the possibility of a further partnership through the BASICS project, as well as the continuity represented by project consultants already known to the ministry.

VI. RECOMMENDATIONS

A. Planning for NIDs and Disease Control

- Planning for the proposed 1995 polio NIDs should take place within the context of the development of a plan to implement an overall polio eradication strategy nationwide.
- Particular emphasis should be given to the orientation of pediatricians and other specialists in settings which do not inhibit questions and open discussion.

- Effective diphtheria control is an urgent priority and merits fast and appropriate technical assistance and commodity support.
- All WHO and other international agency documents relevant to the planning, implementation, and evaluation of polio eradication and diphtheria control activities should be translated into Russian as quickly as possible.

B. Vaccine Cold Chain Development

- Experience with the new equipment inventory forms should be reviewed in early 1995 and any appropriate modifications made.
- UNICEF funds available for further cold chain equipment needs should be ascertained as soon as possible so that additional possible funding sources can be identified.
- The upgraded cold room should be assessed the next time a consultant engineer is in the region.
- Improved instruction materials for the MK/MF 4010 refrigerator/freezer should be prepared by Vestfrost and approved by suitably experienced field technical personnel.
- The new internal compartment covers for the MK/MF 4010 need to be re-designed. They should be provided (in the factory) with rings through which string or light rope loop handles can be fitted
- Progress on the draft cold chain manual should be closely monitored and, if necessary, supported to ensure that it will be available for testing during planned March 1995 cold chain training.
- Once vaccine delivery at the beginning of 1995 is confirmed, the MOH should regularly write every three or four months to UNICEF (depending on supply frequency agreed upon) to confirm vaccine quantities needed and target date(s) of arrival.
- No vaccine should be shipped via Istanbul until it is confirmed that the causes of mishandling and cold chain failure there since October 1993 have been investigated and rectified.

C. Plan of Activities for National Immunization Programme

- Every effort should be made to persuade the MOH to take the lead in the further development of the draft plan within the context of its overall health sector planning, with a particular emphasis on the disease control strategy elements of the plan, to provide a

framework for effective and efficient inter-sectoral cooperation and donor agency coordination.

APPENDICES

APPENDIX 1

APPENDIX 1

List of Main Contacts

Ministry of Health

1. J. Akhmamedov, Chief, Sanitary and Epidemiological Service
2. A. Kaka, Main Specialist, Epidemiology Service

Republican Sanitary and Epidemiology Station

1. Bekjan Chariev, Chief Doctor
2. Greta Bedareva, Chief Epidemiologist/Immunization Coordinator

US Embassy

1. Douglas B. Archard, NDCM
2. Caryn R. McClelland, Political-Economic Officer

UNICEF

Serap Maktav, Resident Programme Officer

UNDP

Omer Ertur, Resident Representative

TICA (Turkish International Cooperation Agency)

1. Oguz Yayan, TICA Representative, Turkmenistan
2. Cemil Ozcan M.D., Consultant (Chairman, Dept of Public Health, Inonu University and Adviser to Minister of Health, Turkey)

World Bank (Visiting Health Sector Mission)

1. Michael Mills, Principal Human Resources Economist
2. Rita Klees, Environmental Health Specialist

WHO (Visiting Mission)

B. Serdar Savas M.D., Regional Adviser, Health Care Policies and Systems, WHO/EURO
Copenhagen

Interpreter/Translator

Maral Gurbannazarova (443447; new fax 443686 "PROKOP for Marina Amansarieva for Maral G.")

APPENDIX 2

APPENDIX 2

Polio and Diphtheria, Reported Cases and Vaccination Coverage

Turkmenistan 1988 - 1993

	<u>Polio</u>		<u>Diphtheria</u>	
	<u>Cases</u>	<u>Cov OPV3</u>	<u>Cases</u>	<u>Cov DPT3</u>
1988	41	80%	39	74%
1989	1	82%	75	76%
1990	40	90%	4	80%
1991	16	89%	4	79%
1992	4	90%	22	81%
1993	2	92%	3	73%
1994 (10 months)	4		36	

Reported Coverage (%) by Velayet (Oblast), Turkmenistan, 1993

	<u>Polio</u>	<u>Diphth.</u>	<u>Pert.</u>	<u>Msls</u>	<u>Mumps</u>
Ashagabat C.	92	64	59	72	61
Akhal	97	73	71	87	81
Mary	92	76	73	84	59
Dashchovuz	89	65	64	87	66
Lebap	92	82	80	87	84
Balkan	87	65	63	79	67
Turkmenistan	92	73	70	84	70

Notes: Polio, Diphtheria, Pertussis: 3 doses in 1st year
Measles, Mumps : 1 dose in 1st or 2nd year

Age wise vaccination reports are not yet used so % coverage for primary series OPV or DPT does not necessarily represent percentage (%) coverage by 1 year of age.

Source: Republican SES, Ashgabat

APPENDIX 3

APPENDIX 3

Some questions asked after presentation of Uzbekistan NID experience and results, Ashgabat, Nov 23, 1994)

1. Source of imported vaccines?; was it tested before use?; we can't read (English/French) inserts with imported vaccine.
2. Cases of polio in vaccinated children in Uzbekistan?
3. Give OPV, or extra one after, if child has diarrhoea on NID?
4. Give OPV to 0-7 day olds even if first routine dose OPV already given in maternity House?
5. Routine OPV series interval stays same after NID doses or is adjusted in light of timing of NID dose?
6. Measles or DPT vaccination just before NID OPV dose a problem?
7. Stop measles vaccination for a month after NID?
8. Give OPV in remote areas where no clinic/pediatrician?
9. All NID target children done same day or over several days?
10. Were hospitalized children included in NID?
11. How long will WHO polio vaccination program go on? - "we've been doing this for years already."

APPENDIX 4

APPENDIX 4

**TURKMENISTAN: DISTRIBUTION OF COLD CHAIN/LOGISTICS EQUIPMENT
DONATED UNDER US AND US/JAPAN ASSISTANCE 1992 AND 1993##**

	Refrigerators (Ref) and Freezers (Fzr)								Cold Boxes & Vacc. Carriers			Thermo- meters	Steam Sterilizers@		Reusable Syringe Kits		Ref. Repair Tool kits
	TFW-791 Ice-pack Fzr	MK30 2 Ice-lined Ref	HF-5506 Fzr	MK20 2 Ice-lined Ref	SB-300 Fzr	MK14 2 Ice-lined Ref	MK/MF-4010 Ice-lined Ref/Fzr	RCW 42EG Elec/g as Ref	Igloo 20l	Igloo 4.4l	Thermos 1.7l		Single Rack	Double Rack	Small "A"	Large "B"	
ASHGABA T CITY*	-	2	1	-	-	7	2	-	5	90	63	158	24	13	68	26	-
AKHAL VELAYET	1	2	1	9	8	38	3	6	12	190	180	514	132	46	244	92	-
MARY VELAYET	1	2	1	13	10	46	12	11	15	350	300	827	164	67	308	134	-
DASHCH-OVVZ VELAYET	1	2	1	10	10	69	4	10	14	310	300	887	174	44	325	88	-
LEBAP VELAYET	1	2	1	13	13	84	11	10	17	320	344	1037	187	47	348	95	-
BALKAN VELAYET	1	2	1	10	8	66	9	7	10	102	93	286	63	18	130	36	-
REPUBLICAN VELAYET	1	2*	1	-	-	-	-	-	107	30	-	15	1	1	1	1	6
TOTAL	6	14	7	55	49	310	41	44	180	1392	1280	3724	745	236	1424	472	6

Notes:

* Plus cold room upgrade

Incl. Railway and Airlines SESS

Excluding disposable syringes (total 425,000) and icepacks (total 62,280)

@ Each with hard water pad

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APPENDIX 5

APPENDIX 5

Cold Chain/Logistics Equipment Needs, Turkmenistan

28 Nov 94

"DP item...." refers to list in March 1994 draft national plan of activities, page 25, original English version of list.

"E/.." codes refer to WHO/UNICEF EPI Product Information Sheets.

A. Central Vaccine Store, Republican SES

1.	Voltage stabilizer for Rep SES Cold Room (Specification to be provided by USAID/BASICS)		1
2.	Spare parts for Rep SES Cold Room (list attached)	(DP item 15)	1 set
3.	Refrigerant 134a, 13.5 kg cylinder	(DP item 14)	3
4.	Chest freezers Vestfrost HF5506	(DP item 5)	3
5.	Voltage stabilizers Galatrek FF500/4R	(DP item 9)	3
6.	Spare parts sets for item 3, HF5506	(DP item 7)	10 sets**
7.	Thermorecorder ink (E6/28 #1812E)	(DP item 19)	10
8.	Thermorecorder charts (E6/28 # 3016)	(DP item 20)	10 box

** includes sets of spares for 7 freezers previously supplied;
content of spares set to be advised by Vestfrost.

B. Equipment at Health Facilities

9.	Refrigerator Vestfrost MK142 E3/57	(DP item 1)	64-300 ##
10.	Spare parts sets for item 9.	(DP item 2)	10-50
11.	Steam sterilizer kit, 1 rack, E9/08	(DP item 3)	200
12.	Sterilizer syringe kit "A", E8/07	(DP item 4)	600
13.	Foam insert for vaccine carrier Thermos 3504, E4/18	(DP item 12)	1750
14.	Thermometer E6/27	(DP item 18)	1000
15.	"Stopwatch" monitor cards, E6/40 (in Russian)	(DP item 17)	1000
16.	Polio specimen collection kit E11/02	(DP item 16)	100
17.	Syringe incinerator boxes E 10/08	(DP item 13)	1000

64 more were to have be supplied under 1993 US/Japan assistance but funding limitation prevented; Rep SES estimates up to 300 may be required, subject to inventory exercise to be conducted with all Oblasts in December 1994.

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C. Other Spare Parts

18.	Refrigerator filter/driers	(DP item 11)	600@@
19.	Thermostat 7038016 (for Vestfrost MK 142, MK 202, MK/MF 4010)	(DP item 10a)	250
20.	Fan Motor 220V 291 20 73-00/0	(DP item 10b)	10
21.	Fan Blades 291 12 73-01/5 (20 and 21 for Electrolux TFW 791)	(DP item 10c)	10
22.	Internal heater thermostat	(DP item 10d)	20
23.	12V transformer (22 and 23 for Vestfrost MK/MF 4010)	(DP item 10e)	20

@@ to go with spare compressors supplied earlier

Recommended Spare Parts for Upgraded Cold Room

(See Appendix 6) (Item A2) (J. Pott, USAID/REACH Consultant, March 1994)

Ref: UNICEF Purchase Order No. CCS 930873 dt 20 Sept 1993

Description		Quantity	
1.	Coil for contactors	1Kl.2, 1Kl.3, 1Kl.6, 1Kl.7	4 (1 each)
2.	Coil for contactor	1Kl.1	1
3.	Complete contactor	1Kl.2	1
4.	Complete contactor	1Kl.1	1
5.	Complete contactor	1Kl.7	1
6.	MCB	1Fl.3, 1 Fl.2	2 (1 each)
7.	MCB	1Fl.4, 1Fl.5, 1Fl.6	3 (1 each)
8.	Mains switch	Q1	1
9.	Control switch	1Sl.4	1
10.	Coil stop valve	1 Kl.5 (delivery line stop valve)	1
11.	Expansion valve (complete)		1
12.	Condenser pressure stat.	HP KP5	1

Source: Annex 7 to J.Pott March 1994 Turkmenistan USAID/REACH trip report, slightly modified after telecon with Pott 11/94

APPENDIX 6

APPENDIX 6

Inventory form for cold chain equipment

(Translated from Russian; form developed by Republican SES mid 1994 for use at velayet (oblast) SES, etrap (rayon) SES and immunization facility level)

- * on velayet SES form only
- ** on velayet and etrap SES forms only
- ## on "immunization room" form only

 Cold Chain Equipment Inventory of.....
 Velayet/Etrap SES/ "Imm. Room", in.....Velayet/Etrap

<u>Name</u>	<u>Quant</u>	<u>Rec'd under humanitarian assistance</u>	<u>Working</u>
1. Icepack Freezer*			
2. Vaccine Freezer**			
3. Vaccine Refrig.			
4. Cold Box (20 liter)			
5. Vaccine Carrier			
6. "Thermos"			
7. Thermometer			
8. Ice-packs			
9. Sterilisers##			
10. Reusable Syr.##			

Date.....

Chief Doctor.....

Staff.....

APPENDIX 7

APPENDIX 7

Vaccine supplies to Turkmenistan, 1994 (up to 11/25/94)

<u>Vaccine</u>	<u>Received</u>		<u>Annual requirement</u>
	<u>Date</u>	<u>Doses</u>	(Draft plan Mar 94, <u>Source</u> pp. 26 & 27)

BCG

1/01/94	431,200	bal end 93 @	
2/24/94	6,000	Russia	
7/11/94	132,000	Russia	

Total	569,200		466,500 Primary # 480,000 Revacc.

OPV

1/01/94	490,000	bal end 93 @	
1/04/94	630,000	Russia	
11/16/94	29,000	Russia	

Total	1,149,000		864,500 Primary # 468,000 Revacc.

DPT

1/01/94	470,000	bal end 93 @	
5/30/94	210,000	Russia	

Total	680,000		750,000 Primary # 156,000 Revacc (+ 312,000 Td)

Measles

1/01/94	305,000	bal end 93 @	
1/06/94	122,000	Russia	
6/10/94	2,000	Turkey (don)	

Total	429,000		344,000 Primary # 240,000 Revacc.

Td

5/30/94	250,000	Russia	

Total	250,000		312,000 Revacc

Notes:

incl 25% reserve stock (3 months equiv), and, for OPV, DPT, Msls backlog, unimmunized children from 1993 primary series.

@ breakdown of end 93 balance:

	BCG	OPV	DPT	Msls
Republican SES	2,200	90,000	240,000	205,000
Oblast/Rayon SESs	429,000*	400,000	230,000	100,000
incl UNICEF Oct 93	120,000	300,000	300,000	120,000
US/Japan Dec 93	-	-	170,000	115,000

* large stocks of Russian BCG vaccine building up in field in late 1994, much with 12/94 expiry date, because no revaccination done since early 1993 because of lack of tuberculin for testing.

(source: Republican SES, Ashgabat)

APPENDIX 8

APPENDIX 8

Draft reporting cable to USAID/Washington, 25 Nov 94

Subject: Visit of BASICS consultant Alasdair Wylie

1. BASICS consultant Alasdair Wylie visited Ashgabat 19 to 25 November with BASICS Operations Officer Lyndon Brown to present to MOH results of recent National Immunization Days (NIDs) against poliomyelitis in Uzbekistan, discuss planning of similar activities in Turkmenistan and to discuss further technical assistance on various aspects of vaccine cold chain development which had been supported through the predecessor REACH project.
2. Uzbekistan NID results and experience were presented on 23 November at a well attended meeting of pediatricians and other health facility staff from Ashgabat City, and were also discussed at the Ministry of Health. Ministry is keen to plan Turkmenistan's participation in proposed WHO coordinated region- wide polio NIDs in April/May 1995 ("Operation MECACAR"). Ministry reports national average 91% coverage of infants with 3 doses of oral polio vaccine in 1993 (range by oblast 86% to 95%) and 4 reported cases of poliomyelitis (3 in Mary oblast) for first 10 months of 1994 compared with 2 in 1993 (both in Mary) and 4 in 1992 (3 in Mary).
3. Ministry is also giving high priority to planning for effective special immunization activities to control diphtheria, 36 cases of which reported for first 10 months of 1994 (of which 12 in Ashgabat City and 14 in Ahal oblast, many reportedly among unvaccinated temporary residents) compared with 3 in 1993 and 22 in 1992. Access to supplies of Td vaccine (adult formulation diphtheria-tetanus) essential for control measures is a serious problem because none now available from traditional Russia sources in view of serious diphtheria situation there and in other NIS. Ministry indicated to Brown and Wylie a specific interest in early further visit of BASICS consultant Diane Woodle to follow up on her previous visits through REACH project to work with MOH on preparations for international tender and bid for vaccine from other sources.
4. During discussions with Ministry and Republican SES health officials on vaccine cold chain issues, specific interest was expressed in BASICS technical assistance in the areas of identification of further cold chain equipment needs, finalisation of cold chain training manual, technical support during planned training sessions for rayon level health staff planned for March 1994, and improvement of record keeping and inventory procedures for equipment and supplies including the possibility of appropriate computerisation. Present status in all of these areas was briefly reviewed and discussions also held with local UNICEF program officer on possible activities which UNICEF may be able to fund including equipment and training.
5. Status of vaccine supplies for routine immunization of infants: Turkmenistan started 1994 with stocks sufficient for 3 to 6 months requirements and has received sufficient quantities of BCG, OPV, DPT and Measles vaccines from Russian manufacturers to meet primary series needs through December 1994; as in 1993, however, it is emphasised that actual deliveries from Russia against contracts placed have remained extremely unpredictable. It has been a matter of concern, therefore, to learn that there have apparently been 1994 UNICEF Turkmenistan funds which could have been

used for commodity assistance including vaccines but which it is now too late to use, because of apparent lack of communication between UNICEF and MOH. For primary series vaccine needs for 1995 through 2000 under the Government of Turkmenistan/Japan/UNICEF "Vaccine Independence Initiative" agreement, UNICEF had still not received necessary formal request from MOH for deliveries for first quarters of 1995 and Wylie assisted in overcoming an apparent communication problem between the two parties.

5. During final discussions 24 November Mr J. Akhmamedov, Chief, Sanitary and Epidemiological Services, Ministry of Health, stated that the Ministry much appreciates the commodity and technical assistance received since 1992 from USAID through its REACH project and welcomed the possibility of a continued partnership through BASICS and the continuity represented by project consultants already known to the Ministry.

(end)

