

PD-ABL 615

BASICS **TRIP REPORT**

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DIPHTHERIA CONTROL IN MOLDOVA

April 4-7, 1995

Robert Steinglass

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ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival Project
BCG	Bacillus Calmette-Guerin
CDC	Centers for Disease Control and Prevention
DPT	Diphtheria, Pertussis, and Tetanus Vaccine
DT	Diphtheria-Tetanus Toxoid Combination Vaccine (for use in young children)
EPI	Expanded Programme on Immunization
IEC	Information, Education, and Communication
IICC	Inter-agency Immunization Coordinating Committee
MOH	Ministry of Health
NIS	Newly Independent States
OPV	Oral Polio Vaccine
REACH	Resources for Child Health Project
RSES	Republican Sanitary Epidemiological Station
Td	Tetanus-Diphtheria Toxoid Combination Vaccine (for use in older children and adults)
UNICEF	United Nations Children's Fund
USAID/G	United States Agency for International Development/Global Bureau
WHO	World Health Organization

I. EXECUTIVE SUMMARY

The Republican Sanitary Epidemiological Station (RSES) in Chisinau drafted a plan in mid-March for the control of diphtheria, which has now reached epidemic proportions. The plan has been conceived to aggressively end the epidemic. The writer reviewed the strategies and targets outlined in the plan and advised on ways to bring the draft closer in line with current WHO/UNICEF approaches. The proposed plan currently awaits endorsement by the MOH. Deputy Minister Magdei will brief the President of Moldova on 23 or 26 April on the diphtheria epidemic.

Moldova is demonstrating impressive leadership and taking decisive action to control diphtheria early. Over 400,000 adults have been immunized with Td vaccine since October. Local outbreaks are being rigorously investigated. However, unless financial resources from the international community can be rapidly mobilized, Moldova faces the prospect of a doubling or tripling of diphtheria cases in the Fall. There is nearly a complete stock-out of vaccines to conduct mass immunization of children and adults, and vaccine to control diphtheria has been unavailable from traditional suppliers in Russia. The imminent arrival of the first tranche of vaccines donated by the Government of Japan and procured through UNICEF will enable routine immunization of infants to proceed without interruption. Antitoxin to treat diphtheria cases, antibiotics to slow transmission, and auto-destruct disposal syringes are desperately needed for safe and effective action.

The writer worked with RSES staff to adjust the quantities of commodities expected from UNICEF as part of the Japanese donation to account for the fact that the epidemiological picture has changed dramatically since the vaccine forecasts were prepared last October. A revised forecast of needs will be sent by the RSES to the Ministry of Foreign Affairs in Tokyo and to UNICEF. The writer assisted the RSES prepare a list of additional commodities which need to be funded to stop diphtheria.

The RSES will send a copy of the finalized plan of action to WHO/EURO as soon as it is endorsed. They understand that, with the meeting of the Inter-agency Immunization Coordinating Committee (IICC) for the NIS in late April, the plan should be finalized and approved and sent to WHO/EURO in time for that meeting.

Given the alarming diphtheria situation and the absence of resources to deal with it, USAID/Washington will need to determine how Moldova's needs for commodity support, and to a lesser extent, technical support, can be met by the international community.

Moldova needs to establish realistic priorities within the constraints of available national and donor funding. The writer explained his view that USAID was in agreement with UNICEF in regard to hepatitis B vaccine, that donors were supporting Moldova in order to restore the vaccine supply to levels necessary to provide routine childhood vaccinations and any extra donated resources over and above the requirements for infant immunization would be needed to

control the diphtheria epidemic in Moldova. While hepatitis B is certainly a major problem in Moldova, the writer repeated the conclusions of the immunization policy seminar (convened by the MOH, WHO, and USAID (REACH) in November 1993 at which the immunization calendar was revised) which stated that sustained funding must be found before introducing new vaccines such as hepatitis B.

Due to the competing demands on the limited time available and the absence of the key technical counterpart during the visit, the need for technical assistance from BASICS for diphtheria control could not be resolved during this visit.

II. BACKGROUND

Moldova has been receiving technical assistance from the USAID/REACH and BASICS projects since March 1990. This assistance has focused on strengthening systems and building capacity to more efficiently deliver quality immunization services to the population. In late 1994, the Government of Japan informed Moldova of its willingness to finance a \$500,000 procurement through UNICEF for essential commodities for the immunization program.

In October 1994, the diphtheria epidemic, which has been raging elsewhere in the NIS, hit Moldova. After having achieved 25 years of effective diphtheria control, Moldova reports a ten-fold increase in cases in 1994 as compared with 1993. All age groups and geographic regions are affected.

In January 1995, at a meeting convened in Berlin by WHO and UNICEF and attended by a representative from Moldova, the WHO/UNICEF strategy for diphtheria control in the NIS was presented. Each country agreed to prepare a plan of action to control diphtheria.

III. TRIP ACTIVITIES

A team consisting of Dr. Victor Boguslavsky (Regional USAID Health Office), Dr. Murray Trostle (USAID/Washington Office of Health and Nutrition), and the writer visited Moldova to discuss with RSES officials the actions being taken to control the diphtheria epidemic, and to determine whether or not unmet needs were hampering control. Dr. Boguslavsky participated on 4 April, Trostle on 4-5 April, and the writer on 4-7 April. A list of persons contacted appears in Appendix A.

IV. FINDINGS AND CONCLUSIONS

Diphtheria Situation in Moldova

In 1982, Moldova did not report a single case of diphtheria. Throughout the 1980s, five or fewer cases were reported each year. The annual number of reported cases and deaths, starting in 1990, is as follows:

Year	Cases	Rate per 100,000	Deaths
1990	6	0.14	
1991	14	0.32	
1992	22	0.51	
1993	35	0.80	4
1994	376	8.67	19

The ten-fold increase in diphtheria in 1993 gave Moldova the fourth highest rate of incidence in the former Soviet Union after Tajikistan, Russia, and Latvia. In 1993, diphtheria was reported in 33 of the 44 administrative divisions. A map of Moldova showing the incidence rate in children in 1994 by administrative division appears in Appendix B.

In January and February 1995, 157 cases and 8 deaths have been reported from 24 rayons, and 182 carriers have been found in 18 rayons. All 44 administrative divisions have now reportedly been affected during 1994-1995.

Excellent data exist to permit a thorough description of the cases in terms of age, geographic distribution, seasonality, fatality, immunization status, etc. These data exist in tabular form and await graphic depiction to increase their utility. Detailed case investigation forms are being used to report the particulars of the cases and carriers.

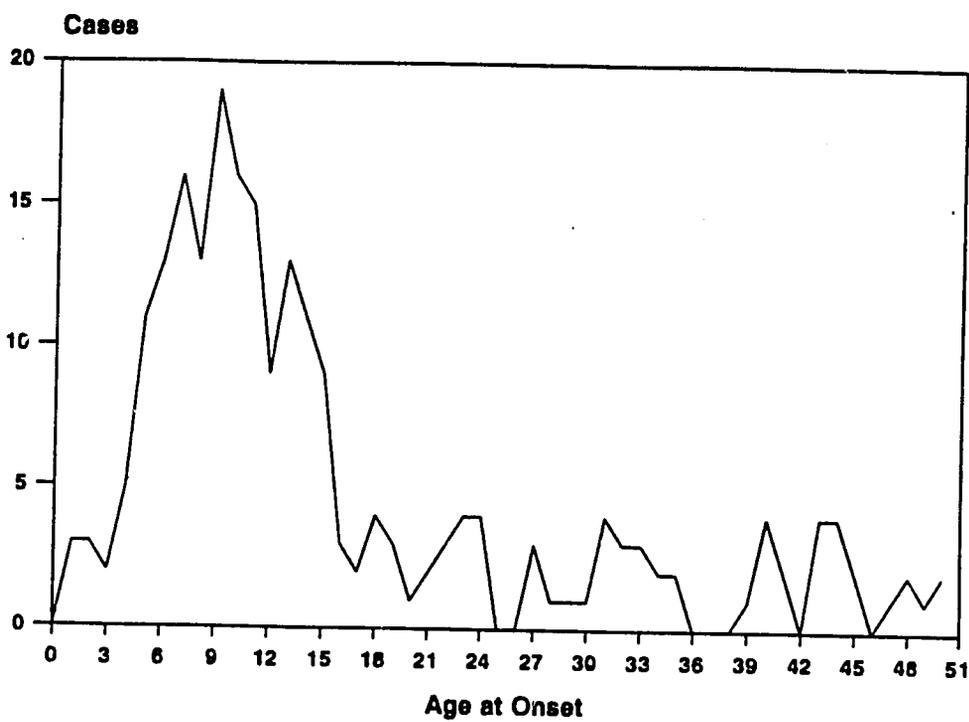
The data were given to the writer, who will forward them to Rafael Harpaz at CDC, who is expected to come to Moldova in June or July on a diphtheria assignment.

In 1994, 59 percent of the cases occurred in children less than 15 years of age. Of the total 376 cases in 1994, 41 percent are children 7-14 years old. The age-distribution of diphtheria cases in 1994 appears in Figure 1.

Diphtheria deaths by age and calendar year appear on the next page(s).

Figure 1

Diphtheria Cases by Age in 1994



Source: Republican SSB

Number of Diphtheria Deaths

age group	1993	1994	1995 (Jan and Feb)
0-5	1	7	2
6-14	1	7	0
15-19	1	1	0
20-29	0	0	2
30-39	1	3	2
40-49	0	1	1
50-59	0	0	0
60+	0	0	0
unknown	0	0	1

Twenty (67 percent) of the 30 deaths with known age from 1993 through February 1995 have occurred in persons less than 20 years of age, and no mortality due to diphtheria has been reported in persons 50 years or older.

On the basis of 4058 serological investigations in 1994, the RSES has concluded that the age groups of 30-50 years are the most susceptible to diphtheria infection.

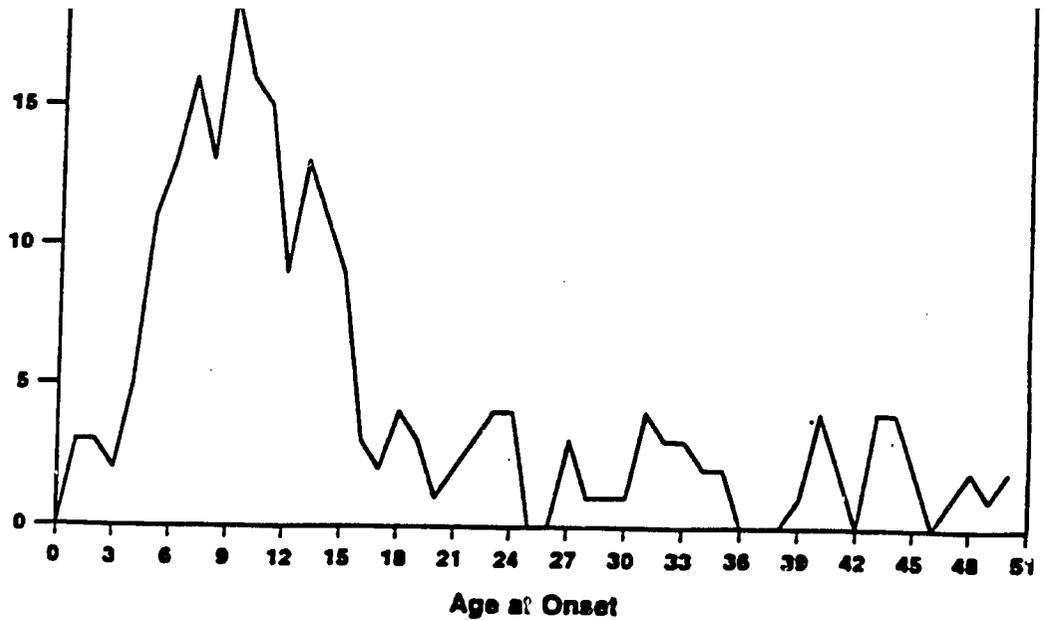
Vaccines and Immunization Coverage

Immunization coverage rates achieved by antigen and year and by specified age appear on the next page. Coverage has remained high during the past few years. In 1994, the immunization coverage rate of infants with BCG was 95 percent; diphtheria and tetanus antigens, 92 percent; pertussis, 86 percent; OPV, 94 percent; and with measles by two years of age, 95 percent.

The following diphtheria toxoid-containing products have been used in Moldova:

Diphtheria vaccine:	Lf content:
a) monovalent diphtheria (AD)	30 Lf
b) monovalent diphtheria-modified (AD-m)	5 Lf
c) Td (ADC-m)	5 Lf
d) DPT-modified (AKDC-m)	10 Lf
e) DPT (AKDC)	15 Lf
f) DT (ADC)	15 Lf

The DPT-m ("d" above) is no longer manufactured.



epidemic SES

Data on immunization coverage
MOLDOVA

YEARS	Population (mln.)	BCG 1year	DTP-3 1year	DTP3+DT2 1year	DTP-4 3years	DTP4+DT3 3years	OPV-3 1year	Measles 2years	Mump 2year
1983	4.08	-	-	85.8	-	84.9	94.9	89.2	31.7
1986	4.12	-	-	90.1	-	88.9	95.6	96.0	72.1
1987	4.22	-	-	-	-	-	-	-	-
1988	4.28	-	-	-	-	-	-	-	-
1989	4.36	-	84.3	87.8	84.3	90.2	91.6	94.1	63.2
1990	4.38	-	81.0	86.5	86.8	91.2	91.1	93.8	84.2
1991	4.36	98.3	80.7	85.6	84.3	89.4	89.3	92.7	85.6
1992	4.35	96.0	83.5	89.2	84.9	90.2	92.8	91.8	84.2
1993	4.35	96.4	69.5	85.3	79.7	88.9	91.8	92.4	70.1
1994	4.34	94.8	85.7	92.3	84.8	91.7	94.2	94.9	62.2

Source: RSES, Moldova

In the past, a considerable number of children are said to have been immunized (inappropriately) for their primary series with DPT-m and with Td. DPT-m is said to have been used widely throughout the 1980s up to 1991. Time on this short visit did not permit examination of the annual records of vaccine use to determine the quantity used of the various diphtheria toxoid-containing vaccines.

As of early April, very little diphtheria vaccine remains in stock. In February of each year the RSES "inventories" the vaccine balance in stock at each rayon. The figures in February were:

DT: none
Td: 10,000 doses
DPT 182,000 doses
diphtheria antitoxin: "very little"

Vaccine is expected to start arriving in April as part of a \$500,000 donation to Moldova by the Government of Japan. The vaccine is being procured through, and delivered by, UNICEF. The quantities of vaccine due to arrive in April and May are as follows:

BCG: 154,000 doses in 20-dose vials
DPT: 190,000 doses in 10-dose vials
DT: 8,000 doses in 10-dose vials
Td: 469,000 doses in 10-dose vials
OPV: 225,000 doses in 10-dose vials
Measles 60,000 doses in 10-dose vials

The RSES does not expect to receive any vaccine from Russia during 1995. Apparently, RSES requested vaccine, but were informed that Russia would not provide any. In 1994, the only diphtheria toxoid-containing preparation which was supplied by Russia was 168,000 doses of Td, which arrived in November. This Td is said to have been purchased by the RSES with lei (local currency), deposited locally into a bank which converted it into rubles. However, interestingly, mumps immunization coverage remained high, at 64 percent in 1994, despite the fact that donors do not supply mumps vaccine. Clearly, the RSES was able to finance the receipt of mumps vaccine from suppliers in Russia.

In 1994, nearly 12 million units of diphtheria antitoxin arrived from Romania, pre-paid in 1993 by the Republican Infectious Diseases Hospital with funds provided by the MOH. RSES staff are unsure which currency was used. Additional small amounts of antitoxin were donated by Germany and provided as a barter exchange with Belarus. RSES staff are unaware whether the Republican Infectious Diseases Hospital will again procure antitoxin in 1995. (In any event, the quantity of antitoxin was not sufficient for the needs, and it was all stored centrally.)

Plan of Action to Control Diphtheria

As a follow-up to an international meeting on diphtheria control in the NIS (convened by WHO and UNICEF in Berlin in January 1995), the RSES drafted a plan in mid-March to control diphtheria in Moldova. This proposed plan awaits endorsement by the MOH. The plan has been conceived to end the epidemic and will require heavy financial support for commodities from the international community. A copy of the draft plan, translated into English during the writer's visit, appears in Appendix C, and will immediately be sent by the writer to WHO/EURO for their information.

The President of the Republic of Moldova plans to convene a meeting with high-ranking officials from the MOH on 23 or 26 April to be briefed on the recently-created national EPI and the diphtheria epidemic.

Since January 1995, the diphtheria crisis has become a regular agenda item for discussion by a high-ranking standing committee of the MOH. It was explained that this group will review the diphtheria situation in three rayons each month. The above-mentioned proposed plan to control diphtheria has been endorsed by this standing committee.

The proposed plan could be made into a more operationally useful document. For example, there is currently little or no discussion on the registration of eligibles for immunization; surveillance, including case definitions, treatment and case investigation protocols; contraindications to immunization; formation of committees with roles and responsibilities for implementation; syringe requirements and handling; and evaluation. However, this is information which RSES staff already have at their disposal; it just needs to be formally written out as a useful tool to guide implementation and, just as important, to attract donor support.

The writer arranged with the authorities in Ukraine and Moldova to have two staff from Moldova observe the implementation of the mass immunization campaigns in Odessa, starting on 10 April. BASICS will finance a three day trip to Odessa for one epidemiologist from the RSES and one from the Chisinau City SES.

Vaccine Required to Implement the Plan, and the Special Case of Hepatitis B Vaccine

The writer calculated the amounts of vaccine which would be required to execute the draft plan prepared by the Moldovan RSES. (See Appendix D) The Moldovan draft plan differs from the WHO/UNICEF strategy in two important ways, (1) two doses of Td are to be given to all persons from 15 to 60 years of age, and (2) one dose to persons over 60 years of age.

The writer then calculated the amounts of vaccine which would be required if the plan were to follow the WHO/UNICEF model in which a single dose of Td is given to adults up to 60 years of age, and two additional doses are to be given to adults in a 20-year age band (e.g., 30-50 year

olds). (See Appendix E) The writer prepared a budget for vaccine/commodities procurement to fit within the \$500,000 available from Japan through UNICEF. (See Appendix F.)

These two variants of vaccine requirements and the budget were discussed on the third and last day of the visit with RSES staff, along with the writer's draft of a proposed letter to be sent to the Government of Japan updating the 1995 vaccine request because of the changed vaccine stock position since last October and the diphtheria epidemic. (See Appendix G) The RSES Head Physician Dr. V.P. Babalau agreed that the RSES would adopt the WHO/UNICEF strategy regarding the immunization of adults. If adults over the age of 60 years were to seek the vaccine, they would be provided with it, but no effort to actively reach this cohort would be taken.

Dr. Babalau agreed that the RSES would finalize and send a copy of the finalized plan of action to WHO/EURO as soon as possible. The RSES understands that with the IICC meeting for the NIS taking place in late April, the plan should be finalized and approved and sent to WHO/EURO in time for that meeting. Dr. Babalau also agreed to study the letter to Japan as soon as possible and make any necessary revisions before sending.

The RSES staff were uncomfortable that Td vaccine requirements did not appear on the writer's proposed letter of request to Japan. They stated that, although they were hopeful that USAID might soon agree to meet the 1995 need for Td vaccines in order to stop the epidemic, it was too risky not to include Td vaccine within the current request for \$500,000 from Japan. The writer agreed on this point. The RSES planned to eliminate their request for laboratory supplies (Appendix H), which had been sent by them to WHO/EURO on 20 February. They would replace the laboratory supplies with some Td vaccine (due to arrive in May from UNICEF and therefore already charged to the \$500,000 account) and disposable syringes.

However, the RSES staff were extremely upset that hepatitis B vaccine had been dropped from the vaccine order, as reported by the writer after a telephone conversation with the UNICEF Supply Division in Copenhagen. The RSES staff claimed that this was the first they had heard that the vaccine would not be supplied. They showed a letter dated mid-February from the Japanese government to UNICEF, copied to the RSES, in which half the 1995 vaccine order, including hepatitis B vaccine, was requested to arrive in April. RSES staff stated that if they had known in October of 1994 when they prepared the 1995 request for vaccines that the donors were unlikely to provide hepatitis B vaccine, they would have tried other means and sources of procurement. They hinted that they had had an opportunity to sign a contract concerning hepatitis B vaccine, but had not done so because of their expectation that the vaccine would be coming through UNICEF. The RSES staff stated emphatically that UNICEF staff should have informed them earlier if they knew that UNICEF would not provide this vaccine. The word "betrayed" was used.

A difficult discussion ensued regarding the need to establish priorities within the constraints of the available national and donor funding. The writer explained his view: USAID was in agreement with UNICEF regarding the procurement of hepatitis B vaccine and that donors were

supporting Moldova to the extent necessary to restore the status quo ante in terms of routine childhood vaccinations. Any extra donated resources over and above the requirements for infant immunization would be needed to control the diphtheria epidemic in Moldova. While hepatitis B was certainly a major problem in Moldova, the writer repeated the conclusions of the immunization policy seminar convened by the MOH, WHO, and USAID (REACH) in November 1993 at which the immunization calendar was revised, which stated that sustained finance must be found before introducing new vaccines such as hepatitis B.

The RSES senior staff stated that they would advise the highest levels of the MOH to discuss the matter of hepatitis B vaccine with the Government of Japan and UNICEF immediately. The writer expressed the hope that continuing discussions about hepatitis B vaccine would not delay the arrival of the first shipments of other vaccines, which are needed urgently to avoid an interruption of routine services and to control the diphtheria epidemic. The writer explained that the new UNICEF global vaccine supply strategy encourages countries to increase self-sufficiency in terms of their supply of standard EPI vaccines before these countries which are dependent on donor assistance can expect to be assisted with hepatitis B vaccine.

Needs for Technical Assistance for Diphtheria Control

There was insufficient time during this short visit to discuss the need for technical assistance from BASICS for diphtheria control. Furthermore, the key person in the RSES, Dr V. V. Sohotski was on leave and incommunicado in a village throughout the writer's visit.

The RSES expects a visit on diphtheria by Dr. Rafael Harpaz of CDC in June or July. BASICS could offer to send Dr. I. Nedelcu (national EPI manager in Romania), assuming he is available and interested, to participate with Dr. Harpaz on the assignment. These visits will need to be coordinated with WHO/EURO. The current draft plan needs to be made more operational, as mentioned above.

Possible areas for BASICS technical support in diphtheria control, which need to be discussed further, might include:

- assessment (together with CDC) of diphtheria epidemic and operationalization of the strategies in the draft plan of action for diphtheria control;
- IEC, once sufficient vaccine arrives, to launch aggressive mass campaigns; and
- a seminar for pediatricians and epidemiologists to both generate support and launch the mass campaigns.

V. RECOMMENDATIONS AND FOLLOW-UP ACTIONS

MOH

- Finalize letter to Japan revising the 1995 vaccine and commodity requests, and advise UNICEF, WHO/EURO, and USAID accordingly. [MOH: 12 April]
- Send final plan of action for diphtheria control to WHO/EURO before IICC meeting in late April. [MOH: 20 April]

USAID

- Communicate with USAID/Chisinau so that draft reporting cable (Appendix I) is sent to Washington. [USAID/G: 14 April]
- Reply to letter received by Julie Klement on 27 February from Mr. Shotaro Yamamoto in which latter asks for USAID opinion on Moldovan vaccine request. [USAID/G and NIS Task Force: 14 April]

BASICS

- Send WHO/EURO a copy of the draft Moldovan plan of action translated into English during the writer's visit. [BASICS: 11 April]
- Discuss (first in Washington and then with the Moldovan authorities and other collaborating partners) areas for BASICS' technical support for diphtheria control. [BASICS: 1 May]
- Send Moldovan data on diphtheria to Dr. Rafael Harpaz at CDC. He is expected to go to Moldova in June or July on a diphtheria assignment.

APPENDICES

APPENDIX A

Appendix A

Persons Contacted in Chisinau

Dr. Mircea Magdei
Deputy Minister, MOH
Chisinau

Dr. V.P. Babalau
Chief Physician, RSES
Chisinau
726647 or 735786 (office)
729725 (fax)
566893 (home)

Dr. Vladimir Slusari
Head, Epidemiological Department, RSES
Chisinau

Dr. A.A. Melnick
Head, Anti-Epidemic Unit, RSES
Chisinau

Dr. Oleg Benish
Epidemiologist, RSES
Chisinau

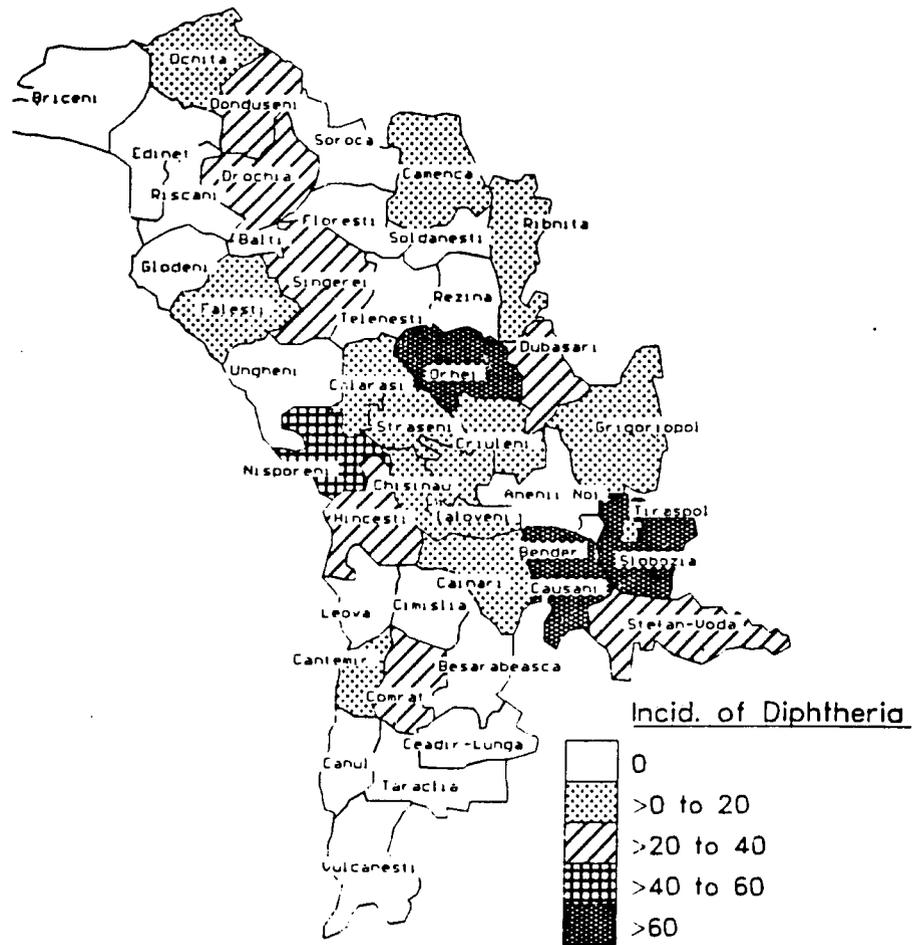
Ms. Elena Granina
Interpreter

Mr. Vladimir Kolteniuk
BASICS Activity Manager

APPENDIX B

1
B

Incidence of Diphtheria in Children Age 0–14 in 1994



Source: Republican SES

APPENDIX C

DECISION

DRAFT (6 APRIL 1995)

On the epidemiological situation of diphtheria
in the Republic of Moldova

----- 1995

(UNOFFICIAL TRANSLATION)

The National Emergency Antiepidemic Commission notes that the level of diphtherian morbidity is sharply increased in the Republic of Moldova. 376 cases of the disease were registered in 1994, including 19 cases with lethal outcome, and 617 hosts of diphtherian agents. The diphtherian cases are being registered in the current year. 157 patients and 182 hosts were registered for the period of January - February. In fact, the Republic is in the epidemic situation.

The following reasons caused the deterioration of the epidemiological situation:

- reduction of the immunity level of the population;
- breaks in supplies of vaccines, serums, syringes, diagnosticums;
- use of not enough effective vaccines in non-optimum terms;
- not timely and not complete immunization of the adult population;
- shortcomings in the medical services of the Republic.

In order to eliminate the epidemic and fulfil the Statement of the Government of the Republic of Moldova # 584 dated August 3, 1994 " About Affirmation of The National Programme on Immunization", the National Emergency Antiepidemic Commission

DECIDES:

- I. The Ministry of Health of the Republic of Moldova should:
 - I.1. introduce the corrections into the current immunization schedule, calculate the additional needs in financial means; present the application to the Ministry of Finance of the Republic of Moldova.
 - I.2. work out the ways of surveillance on the immunization against diphtheria of those, who leave or enter the Republic of Moldova.
 - I.3. create a working team for anti-diphtherian campaign, draw in the necessary specialists, including those from other departments.
 - I.4. work out additional preventive measures and also those for anti-diphtherian campaign.
2. Ministry of Finance of the Republic of Moldova should:
 - 2.1. apportion some financial means, including the hard currency, for purchases of vaccines, serums, syringes in accordance with the request of the Ministry of Health of the Republic of Moldova.
3. To prohibit until the special order:
 - 3.1. employments into health care facilities, into trade and public catering net, transport institutions, institutions for children and teenagers, into Institutes and Universities, into institutions of the communication and consumer services of non-immunized against diphtheria without valid reasons (counter - indications).
 - 3.2. employment into all types of institutions for children and teenagers, into secon-

B

dary special institutions, Institutes and Universities and receiving of scheduled patients into any hospital, if they were not immunized without valid reasons (counter-indications).

- 3.3. inoculation in children's preschool institutions and for adults at their working places. To immunize these contingents in their territorial medical facilities in their places of residence.
4. District, city Executive Committees, mayors offices should :
 - 4.1. in April - May 1995 conduct a meeting of district-city EAC on preventive measures and anti-diphtherian campaign.
 - 4.2. provide necessary financial assistance to city-district SESes, and also the assistance in getting petrol and transport for elimination of the diphtheria epidemic.
5. Give the right to the State Sanitary Surveillance specialists fine juridical and physical persons for their shortcomings in the organization and performance of immunization works (Article 42 of the Code About Administrative Shortcomings).

The Head of the National
Emergency Antiepidemic
Commission

V. Bulgari

ORDINANCE No.....

Chief Sanitary Doctor
Republic of Moldova

1. The Republic of Moldova is in the state of the diphtheria epidemics.
2. The establishments of the Chief Sanitary Inspectorate (CSI) have revealed a number of violations in the organization of vaccination, storage and transportation of vaccines and the quality of disease - prevention events. Health workers maintain low responsibility for covering the appropriate groups of population with immunization. Due to the above I decree:

1. Chief sanitary doctors of the cities and regions must:
 - 1.1 Use wider the measures of administrative enforcement to those, who are guilty of violations of the immunization work. (Administrative Misdemeanors Code, Art. 42).
 - 1.2. If the requirements of the CSI are repeatedly ignored, submit the materials to the Administrative Commissions of municipal and regional councils and to the procurator's offices.
2. Chief of the Chief Directorate of Health of Kishinev, Head of the Municipal Department of Health, Chief Doctors of the regions must:
 - 2.1. On their personal responsibility ensure implementation of the CSI's requirements in vaccination by the departmental specialists.
 - 2.1 Take into account the immunization work quality of the doctors and paramedical (middle level) personnel of pediatric and therapeutic profiles when determining salary tariff grades and additions to salaries, reattesting etc.
 - 2.3 envisage possibility of material incentives of the specialists when reaching the results, stipulated by the National Immunization Plan (NIP).

Chief Sanitary Doctor
Republic of Moldova

M.V.Magdei

**Ministry of Health
Republic of Moldova
Order**

In connection with deterioration of the epidemiologic situation on diphtheria in the Republic of Moldova I order:

- 1. To approve a programme of actions against diphtheria in the Republic of Moldova (annex).
Length of action of section II - until further notice**
- 2. To set up a group for fight against diphtheria in the MOH of the Republic of Moldova (RM)
To appoint chief Epidemiologist of the MOH of RM Mr. Malovata S.K the leader of the group**
- 3. Heads of health facilities, primarily municipal and regional SES doctors are to :
3.1. under their personal responsibility organize implementation of section II of this programme and of other directive documents of MOH of RM on diphtheria prevention and control.**
- 4. Control over implementation of this order is placed on Vice-Ministers Kimerchuk P.I. and Magdei M.V.**

Minister

T.V.Moshniaga

Approved
by the order
of the
Minister of
Health of RM

Action Plan of Control and Fight against Diphtheria in the Republic of Moldova

Section I

1. Treatment and Disease-Prevention Directorate (TPD) of MOH of RM, the Plan and Finance Dept. (PFD) of MOH, National Center for Hygiene and Epidemiology (CHE) must:
 - 1.1. Prepare a request to the Ministry of Finance and to appropriate the necessary amount of anti-diphtheria vaccines, taking into account possible additional requirements:
2. Chief of the TPD of MOH Valovei V.M. must:
 - 2.1. Appoint an inspector of TPD as responsible for disease-prevention and fight against the infectious diseases. and for immunization
3. TPD of MOH, Sanitary-Epidemiologic Directorate (SED) of MOH, PFD of MOH, National Center for Protection of Mother and Child, Moldavian Scientific Research Institute of Preventive and Clinical Medicine (MSRIPCM) must:
 - 3.1. Hold in May-June a scientific-practical conference on diphtheria, inviting the specialists from European Bureau of WHO, Romania, the Ukraine, Russian Federation.
 - 3.2. Organize and hold 2 week refresher course on organization of immunization work for pediatricians in 1995.
 - 3.3. Revise the curricula and syllabi of all refresher courses and qualifications improvement for all levels., increasing the number of hours devoted to immunology and immunization.
4. SED of MOH , MSRIPCM, NCHE must :
 - 4.1. Elaborate regulations to monitor diphtheria immunization status for the persons entering and exiting from Moldova.
5. Association MOLDOVAFARM must:
 - 5.1. Ensure the necessary amount of the country's needs in antibiotics (eritromicine, bicilline) to treat the persons that have been in contact with diphtheria cases (carriers)

SECTION

1. Leaders of health centers and facilities, mainly doctors of municipal and regional CHEs must:
 - 1.1. Ensure implementation of additional actions on immunization of the population, based on the scheme below:
 - 1.1.1. Children under 3 (born 1992-94) should be covered by DPT vaccination at min.95%
 - 1.1.2. Children under 3, if justifiably contraindicated and allowed not to be vaccinated by DPT should be vaccinated by DT vaccine.
 - 1.1.3. Children under 3, vaccinated with Td receive an additional dose DT, not until 12 months after the latest vaccination.
 - 1.1.4. Children between 3 and 7, incl. 1st Grade (academic year 1995-96) are given an additional dose of DT not until 6 months since last vaccination.
 - 1.1.5. Children between 8 and 14 (academic years 1981-87) are vaccinated with an additional dose of ~~DT~~^{AD-m} not until 6 months since the last vaccination.
 - 1.1.6. Children of 11-14 years old, initially vaccinated with Td, 2 months after receiving monovalent diphtheria vaccine (5LF) have another Td vaccination.
 - 1.1.7. Children at the age of 15 receive a booster of TD. Td.
 - 1.1.8. Adults, vaccinated in 1994-95 receive Td once, not before 45 days since the last vaccination.
 - 1.1.9. All the other adult population up to the age of 60 receive Td twice, with 1.5-2 months interval.
 - 1.1.10. Adults above 60 receive a booster of Td once.
 - 1.2. Prohibit use of Td for vaccination, as well as for the first and the second booster.
 - 1.3. Ensure that the groups of high risk are vaccinated on the priority basis. The groups of risk are to be considered:
 - employees of health facilities, trade, catering, transport, preschools and schools tending up to adolescent age, vocational and secondary technical schools, higher education establishments, communications, public and

* [editor: AD-m (monovalent diphtheria-modified with 5LF) although ASOS agrees Td can be substituted.]

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- communal services;; persons of amoral mode of life and persons frequently leaving and returning to Moldova.
- 1.4. Specify that when found of carrying the titre of antibodies to diphtheria equal or below 0.015ME the persons in question are subject to vaccination:
 - children under 7 - with 2 doses of DT with 45 days interval, with subsequent booster of DT5 (?) 12 months later.
 - persons above 7 are vaccinated twice with Td or 5LF, depending on immunity to tetanus.Persons with titre 0.03 - 0.06 ME are subject to revaccination if there is more than 2 years left till the next booster.
 - 1.5. When admitted to closed type facilities persons belonging to the personnel and special contingent are to be examined for diphtheria . If found to lack age revaccination they are given boosters. Once a year a bacteriological examination is done along with an otolaryngologist examination and sanation of chronic otoringologocal pathology.
 - 1.6. Differentiate all cases of diphtheria and carrying into local and imported. (out of Moldova).
 - 1.7. Set up immunologic commissions in municipal and regional SESs and polyclinics. Introduce 1 full salary or half-salary position of the immunologist or send an internist (therapeutic) doctor to specialization course on immunology.
 - 1.8. Determine, that the only contraindication against diphtheria vaccines administration can be allergic reaction. to this particular preparation.
 - 1.9. Return to health facilities Form 112.25, to be used for entering the data on immunizations.
 - 1.10. Submit detailed requirements of vaccines for 1995-96 to the National CHE.
 - 1.11. Take measures on early isolation and examination of cases, as well as on improvement of anti-epidemic measures in the outbreak locations..
 - 1.12. Take additional steps to socially mobilize the public, the mass media.

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APPENDIX D

Appendix D

Immunization Strategy in Draft RSES Plan for Diphtheria Control (March 1995) and Vaccine Quantities to Implement the Strategies

The following target groups correspond to lines in the proposed draft plan to control diphtheria in Moldova. Population figures have been provided by the RSES and do not appear in the draft plan itself.

- 1.1.1) children <3 years (born 1992-1995): 231,000 children to get DPT primary series
- 1.1.2) children <3 years with contraindications to DPT: 6000 children to get DT primary series
 $6000 \times 3 \text{ doses} \times 10 \text{ wastage} \times 1.25 = 225,000$
- 1.1.3) children <3 years who received Td: 12,800 children to get one dose of DT (after an interval of 12 months elapses since last Td)
 $12,800 \times 1 \text{ dose} \times 1.3 \text{ wastage} = 16,640$
- 1.1.4) children 3-7 years (including First Class, 1995-96 academic year): 300,000 children to get one dose of DT (after 6 months elapses since last dose)
 $300,000 \times 1 \text{ dose} \times 1.3 \text{ wastage} = 390,000$
- 1.1.5) children 8-14 years (academic years 1981-87): 565,115 children to get one dose of Td (after 6 months elapses since last dose)
 $565,115 \times 1 \text{ dose} \times 1.2 \text{ wastage} = 678,138$
- 1.1.6) children 11-14 years who received primary series with Td: 16,085 children to get two doses of Td (after 2 month minimum interval since last dose) (RSES prefers to use monovalent diphtheria vaccine-modified for the first of the two doses, but this is unavailable.)
 $16,085 \times 2 \text{ doses} \times 1.2 \text{ wastage} = 38,604$
- 1.1.7) children 15 years: 90,000 children to get one dose of Td.
 $90,000 \times 1 \text{ dose} \times 1.3 \times 1.25 = 146,250$

1.1.8) adults already vaccinated in 1994-95: 592,800 adults to get one dose of Td (with minimum interval of 45 days since last dose)

$$592,800 \times 1 \text{ dose} \times 1.25 \text{ wastage} = 741,000$$

1.1.9) all other adults 16-60: 1,993,400 adults to get two doses of Td with 1.5-2 month intervals

$$1,993,400 \times 2 \text{ doses} \times 1.25 \text{ wastage} = 4,983,500$$

1.1.10) adults 60 years and more: 561,500 adults to get one dose of Td.

$$561,500 \times 1 \text{ dose} \times 1.25 \text{ wastage} = 701,875$$

Total Population: 4,350,000

Total DT: 631,640

Total Td: 7,289,367

APPENDIX E

Appendix E

Vaccines Required According to Steinglass' Proposed Revision (7 April 1995) of the Immunization Strategies in Draft RSES Plan for Diphtheria Control

The following target groups correspond to lines in the proposed draft plan to control diphtheria in Moldova. Population figures have been provided by the RSES and do not appear in the draft plan itself. Changes proposed by Steinglass appear in italics.

- 1.1.1) children <3 years (born 1992-1995): 231,000 children to get DPT primary series
- 1.1.2) children <3 years with contraindications to DPT: 6000 children to get DT primary series
- 3000 X 3 doses x 10 wastage x 1.25 = 112,500*
[6000 children was changed to 3000]
- 1.1.3) children <3 years who received Td: 12,800 children to get one dose of DT (after an interval of 12 months elapses since last Td)
- 12,800 x 1 dose x 1.3 wastage = 16,640*
- 1.1.4) children 3-7 years (including First Class, 1995-96 academic year): 300,000 children to get one dose of DT (after 6 months elapses since last dose)
- 300,000 x 1 dose x 1.3 wastage = 390,000*
- 1.1.5) children 8-14 years (academic years 1981-87): 565,115 children to get one dose of Td (after 6 months elapses since last dose)
- 565,115 x 1 dose x 1.2 wastage = 678,138*
- 1.1.6) children 11-14 years who received primary series with Td: 16,085 children to get two doses of Td (after 2 month minimum interval since last dose) (RSES prefers to use monovalent diphtheria vaccine-modified for the first of the two doses, but this is unavailable.)
- 16,085 x 2 doses x 1.2 wastage = 38,604*
- 1.1.7) children 15 years: 90,000 children to get one dose of Td.
- 90,000 x 1 dose x 1.3 x 1.25 = 146,250*

1.1.8) adults already vaccinated in 1994-95: 592,800 adults to get one dose of Td (with a minimum interval of 45 days since last dose)
[target group eliminated: see 1.1.9 and 1.1.11)

1.1.9) all other adults 16-60: 1,993,400 adults to get two doses of Td with 1.5-2 month intervals

$1,993,400 \times 1 \text{ dose} \times 1.25 \text{ wastage} = 2,491,750$
[2 doses changed to 1 dose]

1.1.10) adults 60 years and more: 561,500 adults to get one dose of Td.
[changed to no vaccination above 60 years of age]

1.1.11) *NEW CATEGORY*
20 year age band of adults (e.g., 30-50 years) to get two additional doses of Td. The first of these two doses is given a minimum of 1.5-2 months after previous dose, and the second of these two doses is given a minimum of 6 months after the first dose.

$1,200,000 \times 2 \text{ doses} \times 1.25 \text{ wastage} = 3,000,000$

Total Population: 4,350,000

Total DT: 519,140

Total Td: 6,354,742

APPENDIX F

Appendix F

Line Budget Estimate for \$500,000 Donation from the Government of Japan Being Procured Through UNICEF in 1995

a)	BCG vaccine in 20-dose ampules: 154,000 doses @ \$.07/dose	\$10,780
b)	DPT vaccine in 10-dose vials: 380,000 doses @ \$.09/dose	34,200
c)	Measles vaccine in 10-dose vials: 120,000 doses @ \$.17/dose	20,400
d)	Measles vaccine in one-dose vials: 25,000 doses @ \$.75/dose	18,750
e)	OPV in 10-dose vials: 450,000 doses @ \$.095/dose	42,750
f)	DT (pediatric) vaccine in 10-dose vials: 519,140 doses @ \$.09/dose	46,723
g)	Diphtheria Antitoxin in vials of 10,000 I.U.: 7500 vials @ \$15/vial	112,500
h)	Antibiotics for treatment and prophylaxis of children and adults: intramuscular procaine penicillin G and intramuscular benzathine penicillin	8,400
l)	Disposable Syringes for BCG: 247,500 syringes @ \$.056/syringe	13,860
j)	Laboratory Supplies and Reagents for 150,000 Investigations (see attached list)	<u>103,535</u>
	Sub-total:	\$411,898
	+ 6% commission:	24,714
	+ 10% freight:	41,190
	buffer:	<u>22,198</u>
	GRAND TOTAL:	<u>\$500,000</u>

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APPENDIX G

Appendix G

Draft Letter Proposed by Steinglass to Be Sent by the MOH to Japan to Update 1995 Moldova Request for Vaccine

(see text of report for agreed modifications to following letter)

Mr. Shotaro Yamamoto
NIS Assistance Division
Ministry of Foreign Affairs, Japan
Tel: 81-3-3580-3311 (ext 2756)
Fax: 81-3-3592-0343

7 April 1995

Dear Mr. Yamamoto,

Based on the latest balance of vaccines in stock reported from each rayon in February 1995, the Republican SES finds it necessary to request the Government of Japan to adjust the vaccine order for 1995. Also, after the vaccine forecast was first prepared in October 1994, an epidemic of diphtheria has gravely affected Moldova. Therefore, within the agreed amount of \$500,000 donated by your government, the 1995 request for vaccine may please be adjusted and communicated to UNICEF as follows:

- a) **BCG vaccine and diluent in 20-dose ampoules:**
7,700 ampoules, or 154,000 doses

This amount of vaccine will arrive in April. No more BCG should be called forward during 1995 as sufficient stocks exist.

- b) **DPT vaccine in 10-dose vials:**
38,000 vials, or 380,000 doses

This figure is unchanged from the earlier request. The first half is expected to arrive in April, and the second half in September, as already planned.

- c) **Measles vaccine with diluent in 10-dose vials:**
12,000 vials, or 120,000 doses

This figure is also unchanged from the earlier request. The first half is expected to arrive in April and the second half in September, as already planned.

- d) Measles vaccine with diluent in one-dose vials:**
25,000 vials, or 25,000 doses

This is a new request, supported by a recent detailed assessment. It will be more economical to use single dose vials in the many health facilities which serve small populations.

- e) Oral Polio Vaccine (OPV) with droppers in 10-dose vials:**
45,000 vials, or 450,000 doses

This figure is also unchanged from the earlier request. The first half is expected to arrive in April and the second half in September, as already planned.

- f) DT (pediatric) vaccine in 10-dose vials:**
51,914 vials, or 519,140 doses

This vaccine is required to immunize children from 3-7 years of age (a high risk group for diphtheria in Moldova), children <3 years old who received Td earlier, and children <3 with valid medical contraindications to DPT. In April, 8,000 doses are expected to arrive from the Japan donation through UNICEF. We request that half of the remaining 511,140 (255,570) doses arrive URGENTLY in May to permit us to begin to immunize school children, and that the other half (255,570) arrive in early September.

- g) Diphtheria Antitoxin in vials of 10,000 I.U.:**
7500 vials

This is a new request. We have a critical shortage of this life-saving treatment. It should arrive as soon as possible.

- h) Antibiotics for treatment and prophylaxis of children and adults**
intramuscular procaine penicillin G and intramuscular benzathine penicillin (see Attachment 1)

This is a new request, which is essential for proper management of cases and contacts. It should arrive as soon as possible.

- i) Disposable Syringes for BCG:**
247,500 syringes

This was requested earlier and should arrive as soon as possible.

- j) Laboratory Supplies and Reagents for 150,000 Investigations**
(see Attachment 2)

This is a new request, which is needed to confirm diagnoses and make appropriate treatment and control decisions. It should arrive as soon as possible.

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As is customary with procurement through UNICEF, we would appreciate it if all vaccines would have a minimum of 18 months' life from the date of arrival in Moldova to the date of expiry.

In addition to the above items, which we estimate will cost \$500,000 when shipping and fees are added, we have a need for additional commodities and assistance to end the diphtheria epidemic, which we would be grateful for you to consider. These appear in Attachment 3.

Thank you for your kind assistance during these troubled times. I am also copying this letter to our friends at WHO/EURO, UNICEF, and USAID in the hope that they may also be able to assist.

Sincerely,

Minister of Health

cc: Hyuk-soo Kwon, UNICEF, Copenhagen (FAX: 45-35269421)
Bruno Martin, UNICEF, Geneva (FAX:
Colette Roure, WHO/EURO (FAX: 45-39171818 or 45-39171851)
Susan Sutton, USAID/Moldova
Julie Klement, USAID/Washington

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Attachment 1 to proposed letter to Japan

Antibiotics for Treatment and Prophylaxis of Diphtheria Cases and Contacts

RSES TO NOTE WELL: The following figures must be closely reviewed by clinicians and epidemiologists with experience in treating and controlling diphtheria in suspected cases and contacts. I have based my calculations on *Diphtheria: Manual for the Management and Control of Diphtheria in the European Region, WHO/EURO (Copenhagen, 1994)* and *WHO/UNICEF Strategy for Control of Diphtheria in the NIS, WHO/EURO (13 January 1995)*.

Treatment

700 cases expected in 1995

2100 suspect cases need treatment. 40 percent adults and 60 percent children.

intramuscular procaine penicillin G:

adults: 1,200,000 I.U./day x 14 days x 840 cases
(\$2.60/case)

children: 25,000 I.U./[kg/day] (average 600,000 I.U.)
600,000 I.U. x 14 days x 1260 cases
(\$1.80/case)

Prophylaxis

21000 close contacts, 70 percent > 6 years old, and 30 percent < 6 years old.

intramuscular benzathine penicillin:

adults: 1,200,000 units x 14,700 contacts
(\$.20/contact)

children: 600,000 units x 6,300 contacts
(\$.10/contact)

Attachment 3 to proposed letter to Japan

Additional* Commodities and Assistance from External Assistance Which Are Required to End the Diphtheria Epidemic

1)**	Td (adolescent/adult preparation) vaccine in 20 dose-vials 317,750 vials, or 6,355,000 doses	\$540,175
2)**	Auto-destruct non-reusable disposable syringes with disposal box 6 million syringes	\$720,000
3)	Technical assistance for planning, social mobilization, laboratory strengthening, and epidemiological surveillance.	\$100,000
4)	Laboratory supplies and reagents for additional 150,000 investigations	\$103,535
5)	Hepatitis B vaccine in 10-dose vials 9288 vials, or 92,880 doses	\$52,481
6)	Hepatitis B vaccine in one-dose vials 125,000 vials, or 125,000 doses	\$100,000
7)	Cold chain equipment and steam sterilizers, including reusable syringes/needles kits	\$150,000
8)	Laboratory equipment	\$100,000

(all prices on numbers 1 - 8 exclude cost of shipping and handling)

* additional to supplies provided through UNICEF with \$500,000 donation from the Government of Japan.

** essential commodities required to rapidly and safely end the diphtheria epidemic.

APPENDIX H

Regulament 300000 investigativu in
diphtheria of Moldova Republic for 1995

Denomination	Measure	Norm consumption for 1000 investigations	Quantity for 300.000 investigations stipulated in 1995	Price \$ us	Total
1. Tinsdale selectiv Midium	kg	1	300	250	75.000
2. Blood ogar	kg	1,5	105	165	17.325
3. Chocolate agar	kg	1,5	105	165	17.325
4. Amies transport medium	l	1	300	120	36.000
5. M.Pizu	kg	0,2	40	200	8000
6. Loefflers serum slopes	kg	0,2	60	156	9.360
7. Muller-Hinton	kg		160	116	18.560
8. Basa medium agar the Elek test	kg		60	250	15.000
9. Broth with urea	l	1,0	10	50	500
10. Diagnosticum for serologies	compl.		100	100	10.000
Total;					207.070

Sent by MOH MOLDOVA
to WHO/EURO on 20 Feb'95

APPENDIX I

Appendix I

Proposed Cable to Be Sent to Washington Based on Visit of Trostle, Boguslavsky and Steinglass

A TEAM CONSISTING OF DR. VICTOR BOGUSLAVSKY (REGIONAL USAID HEALTH ADVISOR), DR. MURRAY TROSTLE (USAID/W OFFICE OF HEALTH AND NUTRITION), AND ROBERT STEINGLASS (EPI COORDINATOR, BASICS) VISITED MOLDOVA TO DISCUSS WITH MOH OFFICIALS ACTIONS BEING TAKEN TO CONTROL THE DIPHTHERIA EPIDEMIC AND DETERMINE WHETHER OR NOT UNMET NEEDS WERE HAMPERING CONTROL. BOGUSLAVSKY PARTICIPATED ON 4 APRIL, TROSTLE ON 4-5 APRIL, AND STEINGLASS ON 4-7 APRIL. THE FOLLOWING TEXT WAS SUBMITTED BY STEINGLASS.

THE DIPHTHERIA EPIDEMIC WHICH BEGAN IN RUSSIA IN 1990 AND SPREAD TO UKRAINE AND ELSEWHERE IN THE NIS HAS NOW REACHED MOLDOVA, WITH NEARLY ALL THE 44 ADMINISTRATIVE DIVISIONS REPORTING CASES DURING THE PAST SIX MONTHS. FOLLOWING 25 YEARS OF EXCELLENT CONTROL, INCLUDING ONLY FIVE OR FEWER CASES REPORTED ANNUALLY THROUGHOUT THE 1980'S, REPORTED CASES HAVE INCREASED TEN-FOLD FROM 35 CASES IN 1993 TO 376 CASES WITH 19 DEATHS IN 1994. DURING FIRST TWO MONTHS OF 1995, 157 CASES AND 8 DEATHS HAVE BEEN REPORTED. ALL AGE GROUPS ARE AFFECTED, WITH CHILDREN LESS THAN 15 YEARS OLD CONTRIBUTING 60% OF THE TOTAL IN 1994. BY COMPARISON, THE USA WITH 60 TIMES THE POPULATION OF MOLDOVA REPORTS FEWER THAN 3 CASES EACH YEAR.

THE REPUBLICAN SANITARY EPIDEMIOLOGICAL STATION (RSES) IN CHISINAU DRAFTED A PLAN IN MID-MARCH FOR THE CONTROL OF DIPHTHERIA. THE PLAN HAS BEEN CONCEIVED TO AGGRESSIVELY END THE EPIDEMIC. STEINGLASS REVIEWED THE STRATEGIES AND TARGETS OUTLINED IN THE PLAN AND ADVISED ON WAYS TO BRING THE DRAFT CLOSER IN LINE WITH CURRENT WHO/UNICEF APPROACHES. THE PLAN AWAITS ENDORSEMENT SHORTLY BY THE MOH. DEPUTY MINISTER MAGDEI WILL BRIEF THE PRESIDENT OF MOLDOVA ON 23 OR 26 APRIL ON THE DIPHTHERIA EPIDEMIC.

MOLDOVA IS DEMONSTRATING IMPRESSIVE LEADERSHIP AND TAKING DECISIVE ACTION TO CONTROL DIPHTHERIA EARLY. OVER 400,000 ADULTS HAVE BEEN IMMUNIZED WITH TD VACCINE SINCE OCTOBER. LOCAL OUTBREAKS ARE BEING RIGOROUSLY INVESTIGATED.

HOWEVER, UNLESS FINANCIAL RESOURCES FROM THE INTERNATIONAL COMMUNITY CAN BE RAPIDLY MOBILIZED, MOLDOVA FACES THE PROSPECT OF A DOUBLING OR TRIPLING OF DIPHTHERIA CASES IN THE FALL. THERE IS NEARLY A COMPLETE STOCK-OUT OF VACCINES TO CONDUCT MASS IMMUNIZATION OF CHILDREN AND ADULTS. VACCINE TO CONTROL DIPHTHERIA

HAS BEEN UNAVAILABLE FROM TRADITIONAL SUPPLIERS IN RUSSIA. THE IMMINENT ARRIVAL OF THE FIRST TRANCHE OF VACCINES DONATED BY THE GOVERNMENT OF JAPAN AND PROCURED THROUGH UNICEF WILL ENABLE ROUTINE IMMUNIZATION OF INFANTS TO PROCEED WITHOUT INTERRUPTION. ANTITOXIN TO TREAT DIPHTHERIA CASES, ANTIBIOTICS TO SLOW TRANSMISSION AND SYRINGES ARE DESPERATELY NEEDED FOR SAFE AND EFFECTIVE ACTION.

STEINGLASS WORKED WITH RSES STAFF TO ADJUST THE QUANTITIES OF COMMODITIES EXPECTED FROM UNICEF AS PART OF THE JAPANESE DONATION TO ACCOUNT FOR THE FACT THAT THE EPIDEMIOLOGICAL PICTURE HAS CHANGED DRAMATICALLY SINCE THE VACCINE FORECASTS WERE PREPARED LAST OCTOBER. A REVISED FORECAST OF NEEDS WILL BE SENT BY THE RSES TO THE MINISTRY OF FOREIGN AFFAIRS IN TOKYO AND TO UNICEF. HE ASSISTED THE RSES TO PREPARE A LIST OF ADDITIONAL COMMODITIES WHICH NEED TO BE FUNDED TO STOP DIPHTHERIA.

GIVEN THE ALARMING DIPHTHERIA SITUATION AND THE ABSENCE OF RESOURCES TO DEAL WITH IT, MISSION URGES USAID/W TO DETERMINE HOW MOLDOVA'S NEEDS FOR COMMODITY SUPPORT AND, TO A LESSER EXTENT, TECHNICAL SUPPORT CAN BE MET BY THE INTERNATIONAL COMMUNITY.

MISSION ACKNOWLEDGES USUAL EFFECTIVE AND TIMELY TECHNICAL SUPPORT FROM GLOBAL BUREAU AND BASICS.