ARMENIAN MONTHLY PUBLIC HEALTH REPORT

Emergency Public Health Information Surveillance System

EPHISS

Emergency Public Health Information Surveillance System (EPHISS NIH/CDC USAID Project)

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INTRODUCTION

We present another issue of Armenian Monthly Public Health Report (AMPHR, 1993,#6).

It is issued within the framework of Emergency Public Health Information Surveillance System (EPHISS) Project. The given project is the result of cooperation of the USA Center for Disease Control and Prevention (CDC) and Armenian National Institute of Health (NIH) and is supported by the US Agency for International Development.

Report #6 is devoted to the results of survey for May 1993. It includes certain dynamic characteristics of basic public health system indicators. This enables us to have the objective data on the state of public health in Armenia for the current period of time.

The estimation criteria include:
1. Demographic indicators
2. Adults-pensioners
3. Pediatric indicators
4. Rate of diseases (infection diseases indicators)
5. Market indicators

EPHISS CDC/NIH USAID project thanks for help and assistance in gathering data and taking part in the project activities:

Minister of Health of the Republic of Armenia	Dr. A. Babloian
Deputy Minister for Maternal Care	Dr. V. Demirchian
Deputy Minister of Sanitation and Epidemiology	Dr. A. Mkrtchian
Deputy Minister of Social Welfare	G. Yeganian
Director of State Sanitation and Epidemiology Station	Dr. P. Dilbarian
Yerevan City Department of Health	Dr. S. Harutunian

Chief Doctors of polyclinics of Yerevan

The Provost and Vice President of
American University of Armenia   Dr. George Gibson

The Staff of American University of Armenia.

Expressing our gratitude to the organizations and persons that support our activity, we are inclined to hope our surveys would facilitate the coordination of joint efforts of state and public, republican and international organizations, determine the policy and tactics of their collaboration.

Dr. Vladimir Davidiants

EPHISS Project Director
June, 05, 1993

The monthly information on Birthrate, Crude and Infant Mortality rate is not yet available. Although the dynamics of long term analysis tells us of Birthrate decrease and the increase of Mortality Rate. And as a result the decrease of population growth rate.

	1985	1990	1991	1992
Birthrate	24.1	22.5	21.6	19.3
Crude Mortality Rate	5.8	6.2	6.5	6.9

The rate per 1000pop.
Source: State Ministry of Statistics
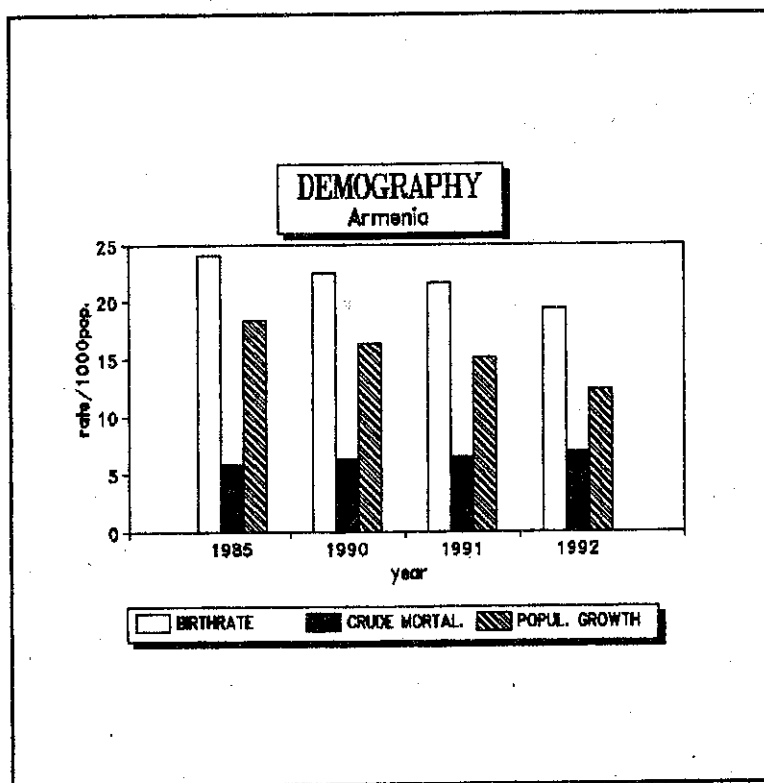
The same dynamics remains during the first months of 1993.So, in the period of January-February 1993 was borne 10100 children and for the same period of 1992- 13600 children.At the same time the number of deaths for January-February 1993 is 4900 and 3900 for the same period of 1992.

PEDIATRIC
AMPHR No.6, May 1993.

During May 1993 (starting from May 12, 1993) we have conducted the survey estimating the indicators in the field of pediatric control. A new system of research has been employed, the preliminary results of which are given below. It includes the collection of anthropometric parameters on the basis of which it is possible to make conclusions on the insufficient nutrition level of children under 5.

The collection of data is carried out daily in 8 polyclinics in Yerevan. Anthropometric data (weight, height) of 4316 children from various age groups (see Tables) have been analyzed. The selection was random. 8 children from each polyclinic were chosen daily, the total number being 778 children.

Children's nutrition has been estimated with the help of weight and height factor. The parameters of each child have been compared with those of the average state and the particular Z-score indicator has been established (Z-score is a number of standard deviations above and below the normal rate). A t the normal state of nourishment Z-score is >-2. At the severe state of nutrition insufficiency Z-score is-2,-3. At the critical stateZ-score is <-3.

The given program was recommended by WHO and the US National Center of Health Statistics. According to it 3% of children under 5 may have Z-score <-2 at the normal rate. The registration of Z-score <-2 in more than 8% of children testifies to the extremely poor state of nutrition. The state of nourishment of those children is estimated as critical. Even if 1% of children have Z-score <-3, the state of their nutrition is regarded as critical.

Frequency of newly created variable "Age Group"

```
1 =  3 - <  6  months
2 =  6 - < 12  months
3 = 12 - < 24  months
4 = 24 - < 60  months
```

12.0

Age Group	Freg	Percent	Cum.
1	93	120%	12.0%
2	195	25.1%	37.1%
3	214	27.5%	64.6%
4	275	35.4%	100%
TOTAL	777	100%	

```
Sum                 = 2225.00
Mean                = 2.86
Standard deviation  = 1.03
```

Frequency of newly created variable "Z-group"
1 = WHZ < -2
2 = WHZ >= -2

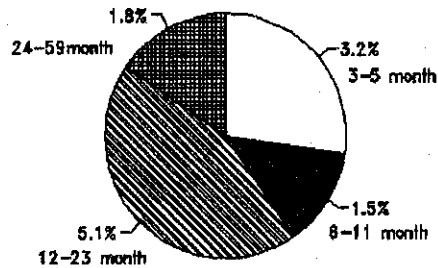| Z-group	Freq	Percent	Cum.
1	22	2.8%	2.8%
2	755	97.2%	100%
TOTAL	777	100%	

```
Sum                 = 1532.00
Mean                = 1.97
Standard deviation  = 0.17
```

Table of Age Group by Z-group

AGE GROUP	Z-GROUP 1 (Z < -2)	2 (Z >= -2)	TOTAL
1 (3-6)	3 3.2% 13.6%	90 96.8% 11.9%	93 12.0%
2 (6-12)	3 1.5% 13.6%	192 98.5% 25.4%	195 25.1%
3 (12-24)	11 5.1% 50.0%	203 94.9% 26.9%	214 27.5%
4 (24-60)	5 1.8% 22.7%	270 98.2% 35.8%	275 35.4%
TOTAL	22 2.8%	755 97.2%	777

```
        Chi square =        6.41
Degrees of freedom =           3
         p value = 0.09328779
```

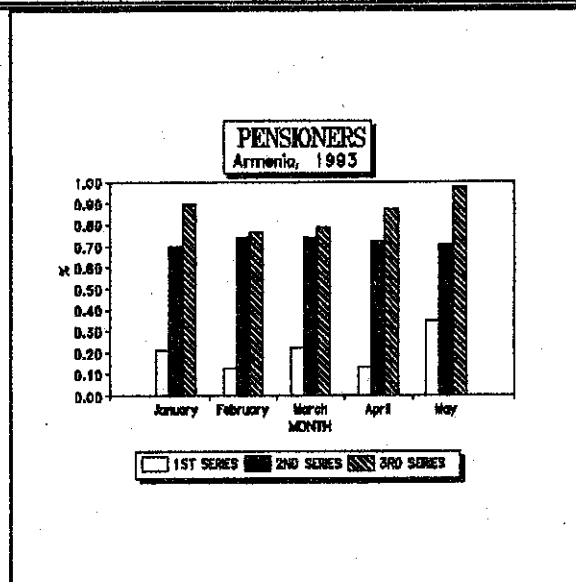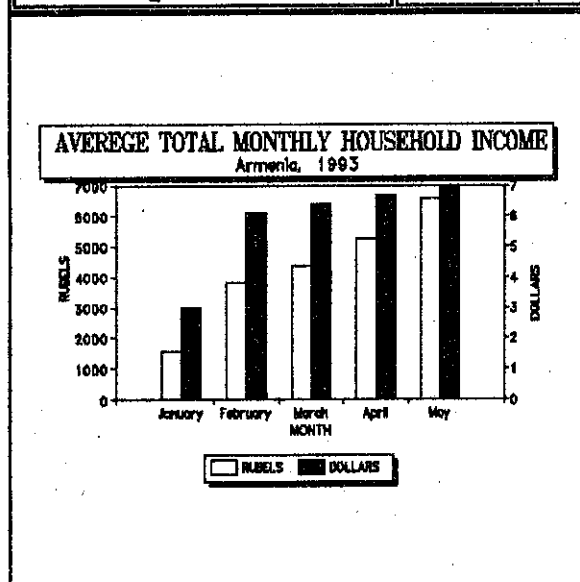**% OF MALNOURISHED 0-5 YEARS OF AGE**
ARMENIA, MAY 1993

```
              1.8%
         24-59month        3.2%
                           3-5 month



                           1.5%
        5.1%               6-11 month
        12-23 month
```

MALNOURISION

AGE	% Malnourished
3 - 6 months (n=93)	3.2
6 - 12 months (n=195)	1.5
12 - 24 months (n=214)	5.1
24 - 60 months (n=275)	1.8

As the Tables show the high rate of children with insufficient nutrition is observed in the age groups of 3-6 and 12-24 months (3.2 and 5.1%, respectively), which emphasizes the urgency to focus attention on the state of nutrition of this group of children.

ADULTS
(Pensioners)
AMPHR No.6,May 1993.

The information on adult pensioners by survey of 37 pensioners randomly selected from the cohort of 400 surveyed in November-December 1992.

Category	Jan. 93	Feb. 93	March 93	Apr. 93	May 93	%Change Apr/May
Weight loss>5kg. since 1 month ago.	20.1%	12.9%	22.2%	13.2%	35.1%	+165.9%
%Diet Worse than last month	69.5%	73.7%	73.7%	71.8%	70.3%	-2.1%
%Cut size or skipped meals	89.8%	76.3%	78.9%	87.2%	97.3%	+11.6%
Avg.Total (rub.) Household(U.S.$) Monthly Income	1555 $3	3823 $6.1	4376 $6.4	5235 $6.7	6545 $6.9	+25.0% +2.9%

AVEREGE TOTAL MONTHLY HOUSEHOLD INCOME
Armenia, 1993

PENSIONERS
Armenia, 1993

Series 1-%Weight loss>5 kg.
Series 2-%Diet worse than last month.
Series 3-%Cut size of or skipped meals.

From the first of June 1993 the sample of pensioners participating in the project surveys is increased to 100 persons.

MARKET INDICATORS
AMPHR No.6, May 1993

The market indicators are given by 15th of May 1993. Data of market basket is collected on the cost of basket of food items for a family of 2 adults and 2 children.

	6 Months Ago	Last Month	This Month (May, 1993)	% Change from 6 Months Ago
Market Basket*	18660 ($46.7)	54196 ($69.0)	72811 ($79.1)	+290% (+70%)
Official Minimum Salary	1200 ($3.0)	3000 ($3.8)	3000 ($3.3)	+150% (+9%)
Petrol 20 l	5000 ($12.5)	5800 ($6.3)	5800 ($6.3)	+16% (-50%)
Rubles/Dollar	400	785	920	+130%

FOOD EXPENSES & MIN. SALARY
EPHISS, Armenia
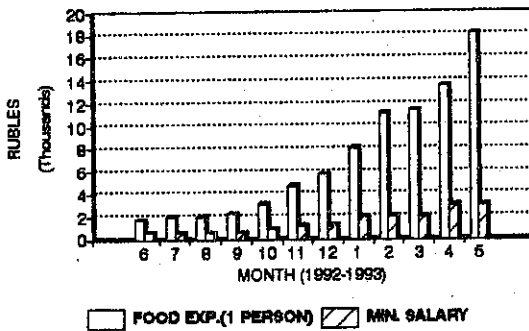
PRICE OF DOLLAR
EPHISS, Armenia
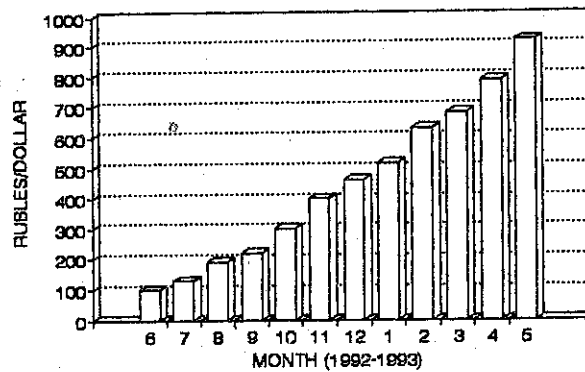
Price of several food products

YEAR	1992	1992	1992	1992	1992	1992	1992	1993	1993	1993	1993	1993
MONTH	6	7	8	9	10	11	12	1	2	3	4	5
	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price
Bread (State)	3	6	6	12	12	35	35	35	45	45	45	60
Bread (Market)	8	14	14	24	30	120	130	150	170	180	180	200
Meat	120	130	150	150	180	200	230	450	700	750	900	1200
Butter	280	210	215	250	300	400	650	1000	1400	1300	1800	1900
Oil	70	70	70	70	70	70	400	800	800	650	650	950
Sugar	110	110	110	110	150	210	270	280	450	380	380	550
Eggs (30)	140	150	120	150	180	350	420	500	1000	780	900	900
Cheese	130	150	150	200	230	320	430	650	1000	1200	1400	1400
Potatoes	20	20	15	25	45	45	50	50	80	80	80	85

The epidemic situation in the republic is tense. Local outbreaks of water-induced infectious diseases are still being registered. If in 1992 5 outbreaks of water-induced diseases were registered, during only 5 months in 1993 their number has increased up to 7. The outbreaks were observed in Vanadzor (455 cases), Artashat region (69 cases), Abovian (15 cases of typhoid), Sevan (17 cases), Ashtarak(47 cases), Idzhevan (32 cases), Nairy, (69 cases). The first three outbreaks were registered in January, February, others - beginning from March till May including. At present there is an outbreak in the town of Goris.

All the outbreaks observed except the one in Abovian are caused by diarrhea diseases, the considerable amount of them by shigella Flexner. All of them were characterized by the typical of water-induced diseases peculiarities, and the water factor of the infection transmission was proved.

In all the cases the infection was caused by the contamination of drinking water by sewage wastes as a result of water pipelines accidents. In the last outbreaks accidents occurred at the pipelines supplying water to several smaller inhabited areas. Due to this reason the outbreaks were of local character and the number of diseases was relatively small.

As is clear from the data presented, in spite of the registration of outbreaks for the period of 4 months in 1993 in comparison with the same period in 1992, the insignificant decrease in the diarrhea diseases rate is observed.This is, to a certain extent, is due to the local character of the current outbreaks and their fast elimination as well as the registration of two bigger outbreaks in Mashtotz area in the city of Yerevan (200 cases) and Ashtarak region (480 cases) during the mentioned period in 1992.
Lately the tendency towards the decrease in the rate of diarrhea diseases has been observed in the republic. The intensive indicators per 100 thousand people have not practically changed for 1991 -1992.

However, additional rate of diseases in connection with the deepening social and economic crisis has increased and,at the same time, the procedure of its registration has deteriorated.

The reason for this paradoxical situation lies mainly in the fallen level of living of population, aggravated communication, growing prices for transportation, food products, etc. That is why patients asked for medical aid in the most critical cases only. The rest of the patients with easier and less critical forms did not go

to hospitals. The active registration of patients by medical service has also aggravated due to the reasons mentioned above.

The tendency towards the increase in measles rate has been observed since February 1993. All the 19 cases have been registered in Yerevan, which is, most probably, connected with the incomplete registration in the regions. Most of the patients are adults (78.9%), which testifies to a relative invulnerability of children to this infection owing to the well-organized planned immunization of this contingent.

MORBIDITY

Category	April 1992	October 1992	March 1993	April 1993	% Change 6 mon.	% Change 1 year
Diarrheal illness	12.66 (462)	20.42 (745)	7.92 (295)	11.54 (430)	- 43.5	- 8.85
Brucellosis	1.81 (66)	1.70 (62)	1.15 (43)	0.67 (25)	- 60.6	- 62.9
Tuberculosis	0.44 (16)	0.77 (28)	0.19 (7)	0.40 (15)	-48.05	-9.09
Polio	-	-	-	-	-	-
Measles	0.05 (2)	0.08 (3)	0.11 (4)	0.35 (13)	+337.5	+600.0
Viral Hepatitis	5.07 (185)	13.35 (487)	8.43 (314)	6.85 (255)	- 48.7	+35.1
Hepatitis A	3.95 (144)	12.36 (451)	7.44 (277)	6.01 (224)	-51.4	+52.2

The rate is per 100.000 population. The survey summarizes the data from all regions of Armenia.

# COMPARATIVE PARAMETERS OF MORBIDITY FOR JANUARY–APRIL 1993, WITH THE SAME PERIOD OF 1992.
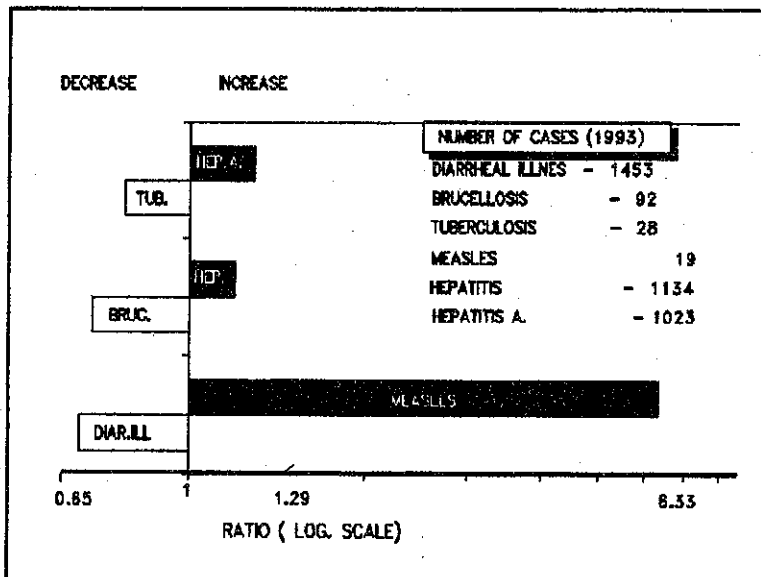
Ratio of current 4- month (Jan.-Apr. 1993) total data to the data of the same period of 1992.
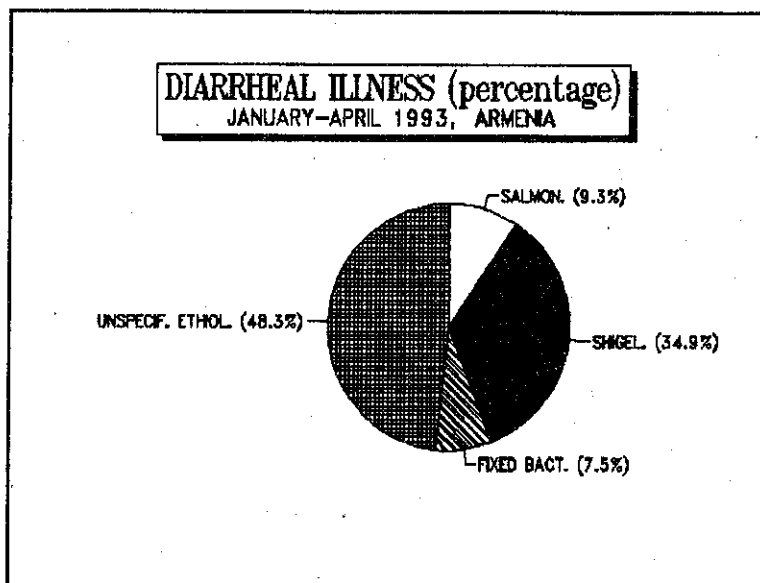
CONVENTIONAL SIGNS

No.of line	Region or city	No.of line	Region or city
1	Kotaik	23	Martuni
2	Vaik	24	Masis
3	Amasia	25	Meghri
4	Ani	26	Nairi
5	Aparan	27	Noemberian
6	Aragats	28	Armavir
7	Ararat	29	Hrazdan
8	Artashat	30	Sevan
9	Artik	31	Sisian
10	Akhurian	32	Spitak
11	Ashtarak	33	Stepanavan
12	Bagramian	34	Talin
13	Vardenis	35	Tumanian
14	Goris	36	Taush
15	Gugark	37	Echmiadzin
16	Ashotsk	38	c. Yerevan
17	Eghegnadzor	39	c. Giumri
18	Ijevan	40	c. Vanadzor
19	Tashir	41	c. Dilijan
20	Kamo	42	c. Jermuk
21	Kapan	43	c.Charentsavan
22	Krasnoselsk		
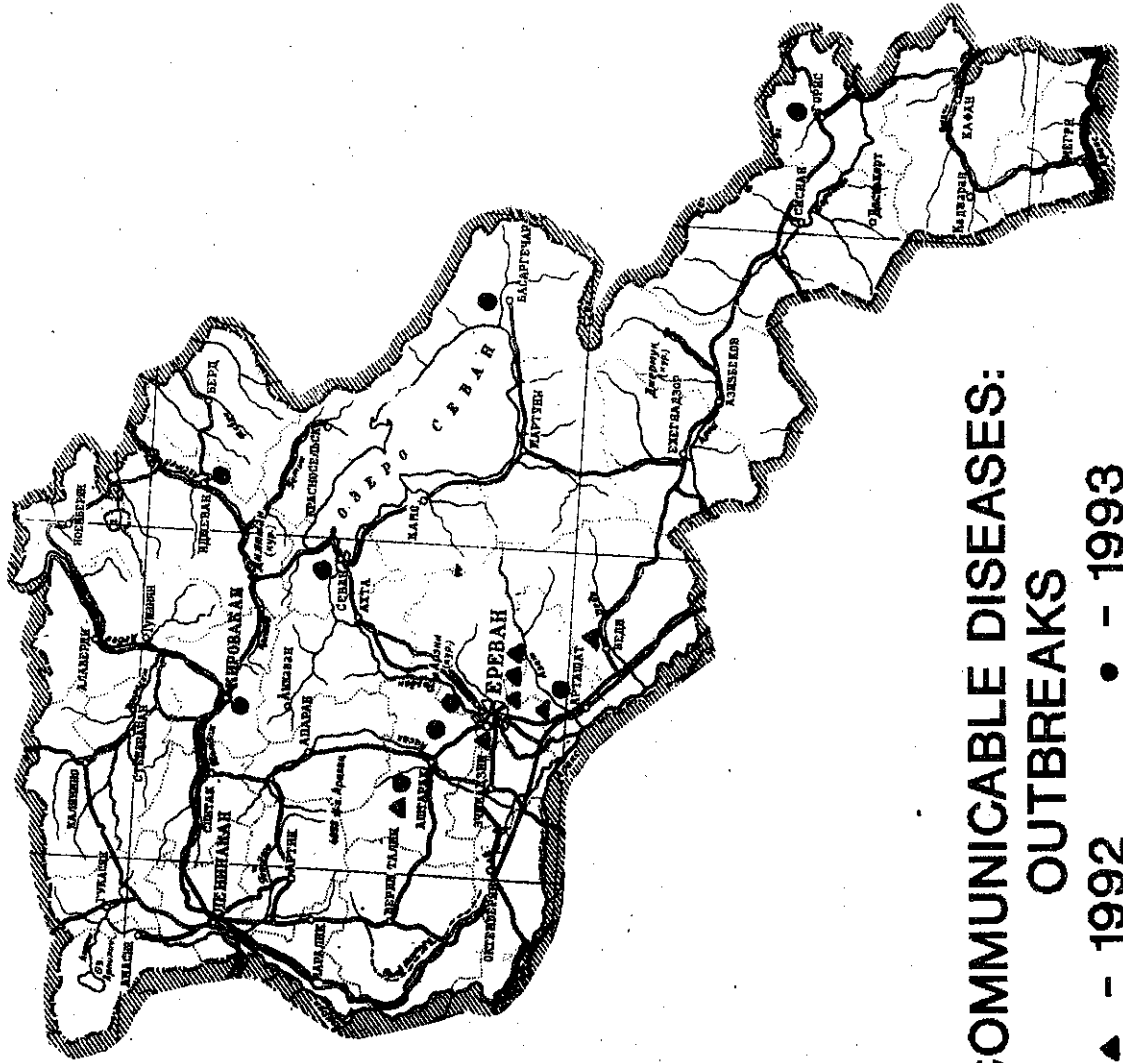
COMMUNICABLE DISEASES:
OUTBREAKS

▲ - 1992   ● - 1993