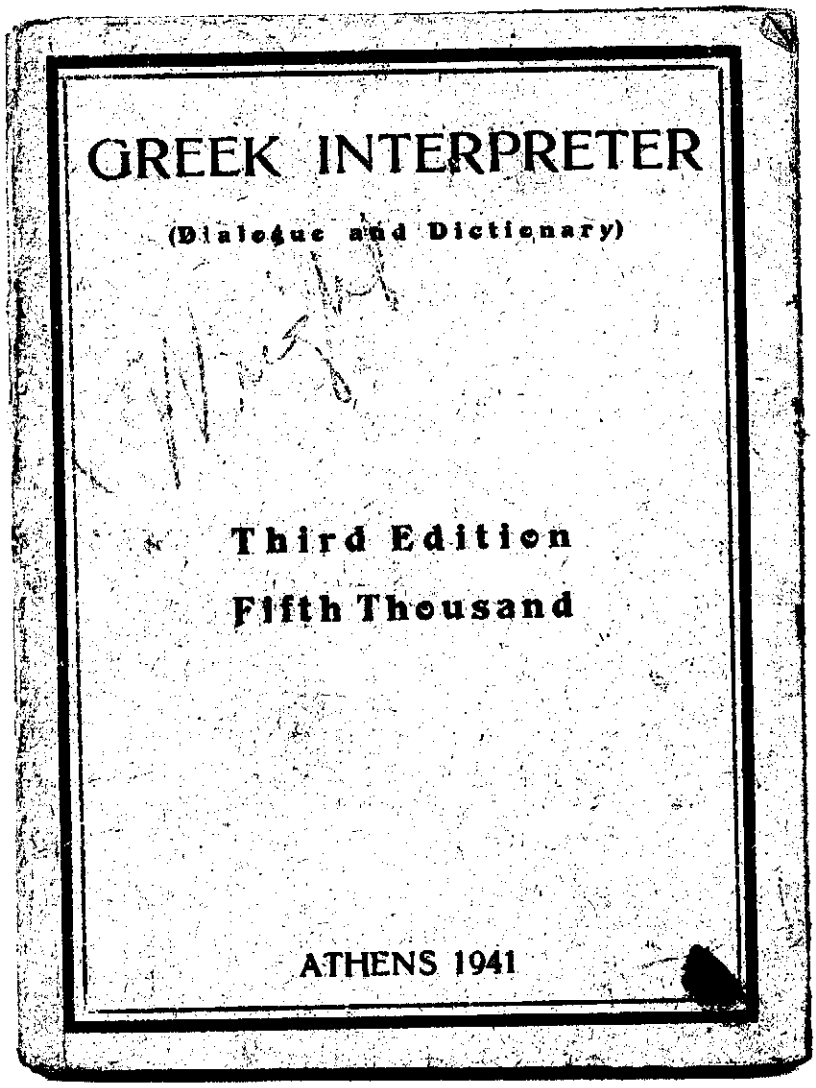
GREEK INTERPRETER
(Dialogue and Dictionary)
Third Edition
Fifth Thousand
ATHENS 1941

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PREFACE

This little book has the one sole purpose to facilitate an Englishman who does not know the Greek language to make himself understood on the spot by a Greek. It is divided into two parts; the dialogue and dictionary.

The dialogues comprehend a sufficient number of phrases necessary for making oneself understood. Further the dictionary contains the most usual words.

We don't intend with this book to give scientific instruction of the Greek language, but as we said before don't want but to make easy the understanding between an English and a Greek. To be read more easily the Greek words have been written with latin letters. Each word has an accent which indicates where to lay stress upon.

THE GREEK ALPHABET

α álfa	ι ióta	ρ rò
β vítta	κ kápa	ς sígma
γ gáma	λ lámvda	τ tàf
δ délta	μ mì	υ ípsilon
ε épsilon	ν nì	φ fì
ζ zíta	ξ xì	χ hì
η íta	ο ómicron	ψ psì
θ thíta	π pì	ω oméga

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω

FIRST PART

Chronology	Chronologia	Χρονολογία
Year	Hrónos	Χρόνος
Month	Mìnas	Μήνας
Week	Evdomáda	Ἑβδομάδα
Day	Iméra	Ἡμέρα
Hour	Öra	Ὥρα

Days	Iméres	Ἡμέρες
Sunday	Kiriakì	Κυριακὴ
Monday	Deftéra	Δευτέρα
Tuesday	Tríti	Τρίτη
Wednesday	Tetárti	Τετάρτη
Thursday	Pémpti	Πέμπτη
Friday	Paraskevì	Παρασκευὴ
Saturday	Sávato	Σάββατο

Months	Mines	Μῆνες
January	Ianuários	Ἰανουάριος
February	Fevruários	Φεβρουάριος
March	Mártios	Μάρτιος
April	Aprílios	Ἀπρίλιος
May	Máios	Μάϊος
June	Iúnios	Ἰούνιος
July	Iúlios	Ἰούλιος
August	Avgustos	Αὔγουστος
September	Septémvrios	Σεπτέμβριος
October	Octóvrios	Ὀκτώβριος
November	Noémvrios	Νοέμβριος
December	Dekémvrios	Δεκέμβριος

GRAMMAR

Auxiliary verbs Eho (I have) íne (I am)

Singular		Present		Plural	
ého	(ἔχω)	íme	(εἶμαι)	éhome	(ἔχομε)	ímetha	(εἴμεθα)
éhis	(ἔχεις)	ísse	(εἶσαι)	éhete	(ἔχετε)	isthe	(εἶσθε)
éhi	(ἔχει)	íne	(εἶναι)	éhun	(ἔχουν)	íne	(εἶναι)

Subjunctive : is conjugated as the present with the differencc that there is preceding «na».

Future : as the present with the differcnce that there is preceding «tha».

Singular		Aorist		Plural	
íha	(εἶχα)	ímin	(ἤμην)	íhame	(εἴχαμε)	imetha	(εἴμεθα)
ìhes	(εἶχες)	ìsso	(ἦσο)	ìhate	(εἴχατε)	isthe	(εἶσθε)
ìhe	(εἶχε)	ìto	(ἦτο)	ìhan	(εἶχαν)	ìssan	(ἦσαν)

There are three articles (masculine «o», feminine «i», neuter «to»). They have two numbers (singular, plural).

The noun (substantive) has likewise three genders and two numbers. The article is always preceding the noun.

Singular				Articles		Plural			
o	(ὁ)	i	(ἡ)	to	(τὸ)	i	(οἱ)	i	(οἱ)	ta	(τὰ)
tu	(τοῦ)	tis	(τῆς)	tu	(τοῦ)	ton	(τῶν	ton	(τῶν)	ton	(τῶν)
ton	(τὸν)	tin	(τὴν)	to	(τὸ)	tus	(τοὺς)	tis	(τὶς)	ta	(τὰ)

Singular	Noun	Substantive	Plural
o anthropos	i gineca	to peei	io anthropi	i gineces	ta pedià
tu anthropu	tif gineces	toù pediù	ton anthrópon	ton ginecòn	ton pediòn
ton ánthropo	tin gineca	to pedi	tus anthrópus	tis ginéces	ta pedia

The verbs are active, passive, reflexive, the first one is conjugated as thc auxiliary verb «eho» the passive verb and the reflexivc verb as the auxiliary verb «ime».

SECOND PART

Dialogue	Diàlogi
Good morning	Caliméra
Good evening	Calispéra
Gooo night	Calinìcta
Do you speak English?	Omilìte Anglicá ;
Yes I do,a few words,no I don't	Né omiló, polì lìgo, óhi
Is there no one who does speak English?	Ine canìs edò pù nà omilì anglicá ;
Yes, I do, he does, I am sorry to say, there is no one	Né egó, aftós, distihòs óhi
What did you say please?	Pòs ìpate paracaló ;
Did you speak to me?	Omilíte sé ména ;
Yes, to you	Né sé sàs (Málista)
What do you want please?	Tì thélete pa·acalò
Are you soldier(aviator,officer)?	Iste stratiótis ; (aeropòros, axiomatikòs)
Yes I am English soldier.	Né ìme Anglos stratiótis
Do you want to come with us?	Thélete nà rthìte masì ;
With pleasure (I' m sorry, I can't).	Polì efharìstos (distihòs òhi)
Where do you want to go?	Pù thélete nà pàme ;
Where you do wish to go.	'Opu thélete sìs.
Let us go to the cinema, (to the bar, etc.)	Pigénome stò kinimatográfo (stò bár, stò...)
Do you like to take a walk?	Thèlete nà páme perìpato ;
As you like (with pleasure, no let us better go to the theater. bar etc.)	'Opos thélete (polì efharìstos, óhi calìtera stò théatro, stò bár, stó...)
Where do you go?	Pù pigénete ;
I' am taking a walk.	Pigéno perìpato
Do you like Ahens? (Greece?)	Sàs arèssi i Athìna (i Elláda) ;
Yes it is very fine.	Né ìne polì oréa.
Where shall we go to day?	Pù thà páme sìmera ;
I beg your pardon, I must leave you. It is late.	Mé sinhorìte prépi nà pigénoìne argà
Do stay still a little.	Mìnete acòmi lìgo

I am sorry I can't, I have some business (I am expected).	Distihòs dén borò ého dulià (mé periménun)
To morrow I shall see you.	Avrio thà sas idò
Where and what hour?	Pù ke pià óra ;
There (or in that place) at three o'clock p. m.	Edo (ís tò tàde méros) stis tris to apójema
How do you do ?	Pós íste ;
How is your health ?	Pós íne i igía sas ;
Thank you, very good.	Polì calà, efharistò
And how are you ?	Kè sís pòs íste ;
I don't feel up too much.	Ime olígon adiáthetos.
Please will you allow me to introduce to you Mr. or Mrs. or M)	Paracalò nà sàs sistísso me tòn kírion (kirían, despinìda)
I am very pleased to make your acquaintance.	Héro polì dià tí gnorimìa
What is your business ?	Tì dulià cànete ;
I am physician, lawyer, professor, merchant, employee, cultivator etc.	Ime iatrós, dikigóros, cathijitìs, émporos, ipàlilos, georgós.
If you please, am I allowed to ask you of what town you are?	Paracalò epitrépete nà sàs rotìsso apò pià póli ìste ;
I am a native of, London, (Glasgow. Oxford etc)	'Ime apò tò Londìno (glascóvi oxfórdi...)
Very fineweather to day (very bad..)	Sìmeron ìne polì calòs keròs (polì cacòs).
Very sunny weather to day	'Ehi polì ìlio
It is raining very much.	Vréhi polì
It is a little cool.	Càni ligo crìo
Stormy weather.	Fissài dinatòs aéras
Do you like drinks ?	Sas arèssi tò piotó ;
What do you like best ?	Tì protimàte ;
TheGreek are very good people	I 'Ellines ìne polí calì ànthropi
The Greek and the English are very good friends.	I 'Ellines ké i 'Angli ìne polì calì fili
Dear friend.	Agapité file
When I return in my native country I shall write to you.	'Otan girisso stín patrìda mu thà sù gràfo
Would you like us to interchange souvenirs ?	Thélete n' andalàxome enthìmia

I am sure we shall be victorious	Ime véveos pos tha nikíssome
Thank you very much.	Efharistò polì
I am much obliged to you.	Sas ìme polì ipohreoménos
You are very good.	Tste polì calòs
What day is to-day ?	Ti méra ìne sìmera ;
What month do we have ?	Ti mìna éhome ;
What is the time ?	Ti óra ìne ;
What time do you have ?	Ti óra éhete ;

Informations — Plirofories

Please where is the...	Pu ìne paracalò tó...
Is it far away ?	'Ine macriá ;
No, it is not, yes it is, a little	'Ohi, dén ìne, Né ìne, ligáki
How much time ;	Póssi óra ;
Five minutes (ten, fifteen...)	Pénde leptá, (déca, decapénde)
Half hour, one hour, two hours etc.	Missì óra, mià óra, diò óres...
Is there tram going ?	Pigéni tram ;
Which one is going there ?	Piò pigéni ;
This one, that one, such and such a...	Aftò ekì, tûto edô, to táde...
Where is the station ?	Pu ìne i stássi ;
There farther up, there below, here, there is no station here	Ekì parapáno, ekì paracáto, edô, dén éhi edô stássi
Where faom does it start for..	Apò pu pigéni sto...
From this street. From that street.Straight along.You shall walk downward (upward).You shall take a turning righthand (lefthand)	Apò aftò to drómo, apò kìno to drómo, ólo ìssa. tha travì xete cáto (páno), tha strìpsete dexià (aristerà)
Where is this street conducting to ?	Aftòs o drómos pu pigéni ;
This street is going to...	Aftòs o drómos pigéni sto...
What street is that ?	Piòs drómos ìne aftós ;
How do you call this place ?	Pos légete aftò to méros ;
Is there a coffee-house (café) in the neighbourhood (American bar, restaurant, hotel)	Ipárhi edô condá cafenìon(bár, estiatórion, xenodohìon ìpnu

Pharmacy,confectioner's shop moving picture, place of amusement, station of first help, police station bookseller's shop, stationer's shop, (grocer's) shop (stores), market. post office, bank, telegraph office etc.	Farmakìon, zaharoplastìon,kinimatográfos, kéntron diaskedásseos, stathmòs próton voithiòn, astinomicò tmima,vivliopolìon, hartopolìon, emporicò catástima, agorà, tahidromion, trápesa, tilegrafion...)
Are there means of communication ?	Ipárhi mésson singinonías :
Of course, there are.	Pos ipárhi
What means of communication are there ?	Tì mésson ipárhi ;
Auto-car, tram, train, steamer, aeroplane ..	Aftokìnito, tram, tréno, plío, aeropláno...
✓Where do you want to go ?	Pu thélete na páte ;
✓I want to go to...	Thélo na páo sto...
What does that mean ?	Ti siméni aftò ;
What building is that ?	Ti spíti ine aftó ;
What is the use of that ?	Is ti hrissimévi aftò ;
What is the matter (what is going on) ?	Ti tréhi ;
✓What happens ?	Ti égine ;
Do you know perhaps where is the...	Mípos xérete pu ine to... ;
I don't know, ask a policeman, do go to an inquiry office.	Den xéro. rotíste éna astifílaca, pigénete s' éna grafíon pliroforión.
✓Where is ?	Pu ine ;
It is upwards (downwards, on the other side).	'Ine epáno (apò káto, apò tin áli meriá).
Do ask elsewhere, I don't know exactly.	Rotíste alú, den xéro acrivós.

At the store — **Sto katàstima**

✓Do you have please...	Èhete paracaló ..;
✓How much does it cost ?	Pósso stihísi ;
✓Is it good ?	'Ine caló ;
✓Don't you have better quality?	Den éhete calítero ;
It is very dear.	'Ine polí acrivó.

Do you have a cheeper one ?	Éhete fthinótero ;
I don't like the colour (the shape. the quality)	Dén mù aréssi tò hróma (to shìma, i piótis)
Won't it be small for me ?	Mípos ine micró mu ;
Will you give me an other one?	Mù dinete éna àllo ;
Would you send it to the hotel ?	Borìte nà tò stìlete stò xenodohìon ;
In case it should be small may I return it ?	Eàn íne micrò boró nà tó epistrépso ;
Till what hour the store will be open ?	Os tí óra ine aniktó tó katàstima ;
May I try !	Boró nà cámo dokimí ;
Do you have foreign books ? (English, French etc.)	Éhete xéna vivlìa ; (Anglicà Galicà...)

At the American bar. — **Stò bàr**

you have beer, (wine, liqueur, champagne) !	Èhete bíra ; (crassì, likér, sampánia ;
Will yon give me a glass of beer (a bottle) ?	Mù dinete éna potìri bìra (mia fiáli ;)
An other glass of champagne,	Acòmi éna potìri sampánia
A (French, Turkish) coffee !	Èna café (Galicó, Túrkico) !
What pastries do you have ?	Tì pástes éhete ;
Are they fresh ?	Ine fréskes ;
✓A glass of water, please !	Èna potìri neró, paracaló !
The account, please !	Tò logariasmó, paracaló ;
The account is not exact.	O logariasmós dén íne sostós.
Will you make a detailed account.	Kánete mu analitícó logariasmó.
Do put it all on the account.	Válteta óla stó logariasmó.

At the restaurant. — **Stò estiatórion**

What dishes do you have ?	Tí fagità éhete ;
We have meat, fish,vegetables, beans, salads, cheese etc.	Èhome créas, psária lahanicá, óspria, salàtes, tirià c.l.p.
Do you have fish (meat etc.)?	Èhete psária (créas...)
What fish do you have ?	Tí psária éhete ;

Boiled fish, fried fish, baked fish, grilled fish.
Give me a dish of meat.
Roastbeef with macaroni and a plate of vegetables please.
Give me some cheese.
Bring me some bread please.
Do you have good wine ?
Bring me half an oka.
Waiter, another glass of wine
Waiter, the account please.

Psári vrastó, tiganitó, tù fúrnu, tís sháras...
Dóste mu mià merída créas
Rosbíf mé macarónia ké mía hòrta paracaló
Dósse mu lígo tirí.
Férte mu psomí paracaló.
Ehete caló crassí ;
Férte missí ocá
Garsón lígo crassí acómi
Garsón to logariasmó paracaló

At the hotel.

Do you have a room !
I want a good room.
May I see the room !
I don't like this one.
Don't you have an other one !
All right. Give me this one.
Where is the water-closet !
In the morning do bring me the breakfast in my room.
To morrow do call me very early in the morning.
At what o'clock !
At five o'clock (six, seven, eight etc.)
Please I dont want to be disturbed.

Stò xenodohíon ipnu

Èhete domátion ;
Thélo éna caló domátion
Boró nà idó tó domàtio ;
Dén mù arréssi aftó
Dén éhete àlo ;
Calà aftó nà mù dóssete
Pù íne tó cabiné ;
Tó proí ná mù férete tó prógevma stó domàtion
Avrio nà mé xipnissete polí enorís.
Tí óra ;
Stís pénde, (éxi, eptà, októ...

Paracaló nà mí mé enohlíssi canís.

Accident

What is the matter !
Some one had an accident.

Some one had an accident !
Where did yon hurt yourself !
Exactly there.

Distíhima

Tí tréhi ;
Càpios ktipíthike (travmatístike).
Ktipíthike canís ;
Pù ktipíssate ;
Edó acrivós.

Does it ache very much ?
Yes very much, no not much.
Where does it ache !
Don't move
Give me rolls of bandage, some iodine, some cotton-wool some spirit, some ether.
Do go please to the chemist's to bring remedies.
Do quickly call a taxi !
Do help me please to transport him.
At the hospital as please
At the hospital as quickly as possible.

Ponáte polí' ;
Né polí', (óhi lígo)
Pu ponáte ;
Min kinísete.
Dóste mu epídesmo, lígo ió-dio, lígo vamvàki, lígo inópnevma, lígo ethéra.
Pigénete paracaló séna farmakíon na férete fármaca.
Fonáxete grígora éna taxí.
Voithíste me paracalò na ton metaférome.
Sto nossocomíon paracalò.
Sto nossocomíon ósso Borís grígora.

THIRD PART

A

arm	vrahíon	Βραχίων
a	énas, mía, én	ἕνας, μία, ἕν
and	ké	καί
at	is	εἰς
are	ímetha, ísthe, íne	εἴμεθα, εἶσθε, εἶναι
apple	mílo	μῆλο
after	metà	μετὰ
against	enandíon	ἐναντίον
air	aéras	ἀέρας
again	pálin	πάλιν
angry	thimoménos	θυμωμένος
almost	shedôn	σχεδὸν
attempt	apópira	ἀπόπειρα
attention	prossohí	προσοχὴ
all	ólos, óli	ὅλος, ὅλοι
any	canénas, iosdípote	κανένας, οἱοσδήποτε
animal	zóon	ζῷον
among	metaxí polón	μεταξὺ πολλῶν
about	trigíro, perí, perípu	τριγύρω, περί, περίπου
ant	mirmíngi	μυρμήγκι
America	Ameriki	Ἀμερικὴ
arch	apsís, camára, tóxon	ἀψίς, καμάρα, τόξον
act	práxi	πράξη
amusement	diaskédassi	διασκέδαση
answer	apándissi	ἀπάντηση
as	tósson... ósson	τόσον... ὅσον
	os, ópos, cathós	ὡς, ὅπως, καθὼς
amount	possón, possótis	ποσόν, ποσότης
argument	filonikía, sisítissi	φιλονικεία, συζήτηση
agreement	simfonon, simfonía	σύμφωνον, συμφωνία
able (I am able)	icanòs (díname)	ἱκανὸς (δύναμαι)
authority	exussía, afthendía	ἐξουσία, αὐθεντία
adjustment	diefthétissi	διευθέτηση

automatic	aftómatos	αὐτόματος
account	afígissi	ἀφήγηση
addition	logariasmòs	λογαριασμὸς
angle	gonía, ápopsi	γωνία, ἄποψη
apparatus	siskeví	συσκευὴ
attraction	élxi, thélgitron	ἕλξη, θέλγητρον
art	téhni, callitehnía	τέχνη, καλλιτεχνία
army	stratòs	στρατὸς
attack	epíthessi	ἐπίθεση

B

body	sóma	σῶμα
back	ráhi, ópisthen méros	ράχη, ὄπισθεν μέρος
bent	ligisménos	λυγισμένος
between	metaxí	μεταξὺ
box	cutí	κουτί
bread	psomí	ψωμὶ
black	mávro	μαῦρο
basin	lecáni	λεκάνη
bottle	bucáli	μπουκάλι
bitter	picròs	πικρὸς
before	prin	πρὶν
button	cubí	κουμπὶ
book	vivlío	βιβλίο
bad	cacòs	κακὸς
bag	sácos, tsánda	σάκκος, τσάντα
broken	spasménos	σπασμένος
bite	dángoma	δάγκωμα
breath	anapnoí	ἀναπνοὴ
blood	éma	αἷμα
bone	cócalo	κόκκαλο
brain	mialò	μυαλὸ
brown	castanós, café	καστανός, καφὲ
boot	bótta	μπόττα
boy	agóri	ἀγόρι
brother	adelfòs	ἀδελφὸς
baby	morò	μωρὸ
bed	kreváti	κρεββάτι
birth	génissi	γέννηση
but	allà	ἀλλὰ
be	íne	εἶναι

building	ctírion	κτίριον
base	vàssi	βάση
by	parà, dià mésson	παρά, διὰ μέσον
bright	lambrós	λαμπρὸς
burn	éngavma	ἔγκαυμα
boiling	vràson, vràsin	βράζων, βράζειν
backet	cuvàs	κουβᾶς
board	sanída	σανίδα
brick	túvlo	τοῦβλο
bit	comàti	κομμάτι
basket	calàthi, cofíni	καλάθι, κοφίνι
branch	clàdos	κλάδος
bird	pulí	πουλὶ
blue	kianùs	κυανοῦς
because	dióti	διότι
bee	mélissa	μέλισσα
bridge	géfira	γέφυρα
bath	bànio, lutró	μπάνιο, λουτρὸ
ball	sféra, tópi	σφαῖρα, τόπι
brush	vùrtsa scùpa	βοῦρτσα, σκούπα
band	orhístra	ὀρχήστρα
blow	ktípima, físsima	κτύπημα—φύσημα
breke	fréno	φρένο
better, best	calíteros—càlistos	καλύτερος, κάλλιστος
boat	vàrca, caràvi	βάρκα. καράβι
bell	cabàna, cudúni	καμπάνα, κουδούνι
beautiful	oréos	ὡραῖος
blade	filon hàrtu	φύλλον χάρτου
business	epangelmatiki ergassia	ἐπαγγελματικὴ ἐργασία
being	ón, ússa, iparxi	ὤν, οὖσα, ὕπαρξη
become	gínome	γίνομαι
burst	écrixi spàssimo	ἔκρηξη, σπάσιμο
brass	brúdsos	μπροῦντζος
balance	issoropia—issosigion	ἰσοροπία—ἰσοζύγιον
belief	pepíthissi	πεποίθηση
based	písti	πίστη
breathing	pnéon, pnéin, pnoí	πνέων—πνέειν—πνοὴ
behaviour	diagogí, simperiforà	διαλογή, συμπεριφορὰ
burned	caménos	καμένος
boulb	volvós, lampióni	βολβός, λαμπιόνι
butter	vútiro	βούτυρο

C

chest	stíthos	στῆθος
chin	pigúni	πηγούνι
cup	flitsàni	φλυτζάνι
come	érhome	ἔρχομαι
cloth	ífasma	ὕφασμα
coat	saccáki, panofóri	σακκάκι, πανωφόρι
cut	shisménos,comménos	σχισμένος, κομμένος
cloud	sínnefo	σύννεφο
clear	éthrios, safís	αἴθριος. σαφὴς
cold	críos	κρύος
cover	sképasma	σκέπασμα
cook	mâgiros, magírissa	μάγειρος μαγείρισσα
colour	hróma	χρῶμα
cry	kravgí	κραυγὴ
cough	víhas	βῆχας
complete	telioménos—télios	τελειωμένος, τέλειος
chalk	kimolía, àsvestos	κιμωλία, ἄσβεστος
crush	thrymmatismòs	θρυμματισμὸς
coal	cárvuno	κάρβουνο
crack	rígma, ràgisma	ρῆγμα, ράγισμα
curtain	curtína	κουρτίνα
care	epimélia, mérimna	ἐπιμέλεια, μέριμνα
cotton	vamvàki	βαμβάκι
country	exohí, hóra, patrís	ἐξοχή, χώρα, πατρὶς
car	càro	κάρρο
cat	gàtos	γάτος
cow	agelàda	ἀγελάδα
curne	cambíli, cambí	καμπύλη. καμπὴ
comes	érhete	ἔρχεται
clean	catharòs	καθαρὸς
cunent	révma	ρεῦμα
cruel	sklirós	σκληρὸς
circle	kíclos	κύκλος
change	résta, psillà, allagí	ρέστα,ψιλλά,ἀλλαγὴ
clock	orológion	ὡρολόγιον
collar	collàro, giacàs	κολλάρο, γιακᾶς
comb	kténi	κτένι
cord	shiní. spàgos	σχοινί σπάγγος
common	kinós	κοινὸς
chain	alissída	ἁλυσσίδα

church	eclissía	ἐκκλησία
cheap	fthinòs	φθηνός
card	càrta	κάρτα
certain	véveos, orisménos	βέβαιος—ὡρισμένος
credit	pístossi	πίστωση
committee	epitropí	ἐπιτροπή
competition	sinagonismòs	συναγωνισμός
copper	halcòs	χαλκός
chief	arhigòs	ἀρχηγός
company	etería—sintrofía	ἑταιρεία—συντροφιά
complex	símplegma	σύμπλεγμα
condition	catàstassi—óros	κατάσταση—ὅρος
cause	etía	αἰτία
chemical	himicòs	χημικός
cork	fellós, póma	φελλός, πῶμα
conscious	sinesthanómenos	συναισθανόμενος
control	élenhos kiriarhía	ἔλεγχος, κυριαρχία
chance	tíhi, efkería	τύχη, εὐκαιρία
comparison	sígrissi	σύγκριση
connection	sindessi, shéssi singinonía	σύνδεση, σχέση, συγκοινωνία
cake	pítta, glíkisma	πήττα, γλύκισμα
camera	fotografikí mihaní	φωτογραφική μηχανή
carriage	amâxi metaforà	ἁμάξι, μεταφορά
cheese	tirí	τυρί
comfort	ànessi—parigoría	ἄνεση παρηγορία
crime	énglima—paranomía	ἔγκλημα—παρανομία

D

drink	potòn	ποτὸν
do	pràtto	πράττω
down	càto	κάτω
dry	stegnós, xirós	στεγνός, ξηρὸς
daughter	kóri	κόρη
door	pórta	πόρτα
drain	ohetós, avlàki	ὀχετός, αὐλάκι
danger	kíndinos	κίνδυνος
damage	zimía	ζημία
dog	skilí	σκυλί
does	pràtti	πράττει

dirty	acàthartos	ἀκάθαρτος
drop	stagóna, ptóssi	σταγόνα, πτώση
distance	apóstassi	ἀπόσταση
day	iméra	ἡμέρα
disease	nóssima	νόσημα
dust	coniortòs	κονιορτὸς
driving	odigón, odòn	ὁδηγῶν, ὠθῶν
deep	vathís	βαθὺς
direction	catéfthinsi	κατεύθυνση
doubt	amfivolía	ἀμφιβολία
dear	acrivòs—agapitòs	ἀκριβὸς—ἀγαπητὸς
dress	endimassía—fórema	ἐνδυμασία, φόρεμα
drawer	sirtàri	συρτάρι
doing	pràtton	πράττων
delicate	leptòs	λεπτὸς
disgust	aïdía	ἀηδία
debt	hréos	χρέος
distribution	diamoní	διανομὴ
discussion	sisítissi	συζήτηση
discovery	anacàlipsi, diapístossi	ἀνακάλυψη, διαπίστωση
decision	apófassi, apofacistikótis	ἀπόφαση, ἀποφασιστικότης
digestion	hónefsi, pépsi	χώνευση, πέψη
division	diéressi, ipodiéressi	διαίρεση, ὑποδιαίρεση
dead	necròs	νεκρὸς
death	thànatos	θάνατος
desire	epithimía, póthos	ἐπιθυμία, πόθος
dependant	exartiménos	ἐξαρτημένος
degree	vathmòs	βαθμὸς
detail	leptoméria	λεπτομέρεια
development	anàptixi, exélixi	ἀνάπτυξη, ἐξέλιξη

E

ear	aftí	αὐτί
eye	màti	μάτι
end	télos, àcri	τέλος, ἄκρη
east	anatolí	ἀνατολὴ

every	écastos	ἕκαστος
earth	hóma, gi	χῶμα, γῆ
error	làthos	λάθος
English	anglikós, anglikí glóssa	ἀγγλικός, ἀγγλικὴ γλῶσσα
edge	àcron, hílos	ἄκρον, χεῖλος,
ever	càpote, poté	κάποτε, ποτὲ
England	Anglía	Ἀγγλία
even	acómi, ké	ἀκόμη καὶ
every one	cathénas	καθένας
equal	íssos	ἴσος
early	enoris	ἐνωρὶς
electric	ilectricós	ἠλεκτρικὸς
experience	pira	πεῖρα
expert	empirognómon, idicós	ἐμπειρογνώμων, ειδικός
elastic	elastikós	ἐλαστικὸς
example	paràdigma	παράδειγμα
expansion	periptossi epéctassi	περίπτωση ἐπέκταση
Englishman	Anglos	ἄγγλος
existence	íparxi	ὕπαρξη
Egypt	Egiptos	Αἴγυπτος

F

face	próssopon	πρόσωπον
foot	pódi	πόδι
finger	dàctilo	δάκτυλο
front	próssopsi	πρόσοψη
food	trofí	τροφὴ
fruit	frúto	φροῦτο
fork	pirúni	πηρούνι
from	apó	ἀπὸ
Friday	paraskeví	παρασκευὴ
family	icogénia	οἰκογένεια
father	patéras	πατέρας
fall	ptóssi, péssimo	πτώση, πέσιμο
friend	fílos	φίλος
floor	pàtoma	πάτωμα
fire	fotià, pircaïà	φωτιά, πυρκαϊὰ

flame	flóga	φλόγα
far	macrán	μακρὰν
full	gemátos	γεμᾶτος
fold	ptihì	πτυχὴ
frame	pléssion	πλαίσιον
fear	fóvos	φόβος
feeling	ésthima	αἴσθημα
farm	agróktima	ἀγρόκτημα
field	horáfi	χωράφι
forward	embrós	ἔμπρὸς
feather	pteró	πτερὸ
flight	ptíssi	πτήση
fowl	pulericó	πουλερικὸ
flower	lulúdi	λουλούδι
fly	míga	μίγα
flat	epipedos	ἐπίπεδος
fich	psàri	ψάρι
form	morfí, shíma	μορφή, σχῆμα
first	prótos	πρῶτος
five	pénde	πέντε
fifteen	decapénde	δεκαπέντε
forty	saránda	σαράντα
fifty	penínda	πενήντα
flag	siméa	σημαία
fourth	tétartos	τέταρτος
fifth	pémptos	πέμπτος
feeble	adínatos	ἀδύνατος
fixed	stereoménos, ametàvlitos	στερεωμένος, ἀμετάβλητος
false	psevdís, psécticos	ψευδής, ψεύτικος
frequent	sihnós	συχνὸς
fertile	gónimos	γόνιμος
female	thilicós, ginekios	θηλυκὸς—γυναικεῖος
force	dínami, vía	δύναμη, βία
future	mélon	μέλλων
fact	gegonós	γεγονὸς
fight	màhi, pàli	μάχη, πάλη

G

get	lamvàno	λαμβάνω
give	díno	δίνω,

go	pigéno	πηγαίνω
good	calòs	καλὸς
green	pràssinos	πράσινος
great	megàlos	μεγάλος
group	omás	ὁμάς
glass	gialí, potíri	γυαλί, ποτήρι
goat	trágos, catsíca	τράγος, κατσίκα
garden	kip s	κῆπος
growth	vlàstissi	βλάστηση
gives	díni	δίνει
grain	cóccos	κόκκος
grey	grísos	γκρίζος
grip	laví	λαβὴ
guide	odigós	ὁδηγὸς
glove	gànti	γάντι
gold	hrissós	χρυσὸς
gun	tuféki—canóni	τουφέκι—κανόνι

H

hand	héri	χέρι
head	kefáli	κεφάλι
have	écho	ἔχω
hair	malliá, tríha	μαλλιά, τρίχα
heart	cardiá	καρδιὰ
hat	capéllo	καπέλλο
happy	eftihís	εὐτυχὴς
he	aftòs	αὐτὸς
her	dicós tis	δικός της
his	dicós tu	δικός του
help	voíthia	βοήθεια
horn	kérato	κέρατο
horse	àlogo	ἄλογο
has	échi	ἔχει
hearing	acoí—acúon	ἀκοὴ—ἀκούων
him	aftòn	αὐτὸν
half	missó	μισό
harbour	limáni	λιμάνι
hollow	kílos, cúfios	κοῖλος, κούφιος
hook	gàntsos, agístri	γάντζος, ἀγκίστρι
humour	diàthessi, kéfia	διάθεση, κέφια

hope	elpís	ἐλπὶς
history	istoría	ἱστορία
hormony	armonía	ἁρμονία
hate	míssos	μῖσος

I

is	íne	εἶναι
I	egò	ἐγὼ
in	én	ἐν
ill	aftò	αὐτὸ
into	méssa	μέσα
its	dicós tu	δικός του
if	eàn	ἐὰν
ink	melàni	μελάνη
institute	institùton	ἱνστιτοῦτον
island	nissí	νησὶ
increase	àfxissi	αὔξηση
industry	viomihanía	βιομηχανία
invention	efévressi	ἐφεύρεση
impulse	óthissi, ormí	ὤθηση, ὁρμὴ
instrument	ergalíon—órganon	ἐργαλεῖον—ὄργανον
ice	pàgos—pagotò	πάγος—παγωτὸ
insuranee	asfália	ἀσφάλεια
iron	sídiros	σίδηρος

J

Join	énosi	ἕνωση
jump	pídima	πήδημα
journey	taxídi	ταξίδι
jewel	polítimon cósmima	πολύτιμον κόσμημα
judge	dicastís	δικαστὴς

K

knife	mahéri	μαχαίρι
knee	gónato	γόνατο
knot	cómvos	κόμβος
keeps	filátti	φυλάττει

kick	clotsià	κλωτσιὰ
kind	evgenicòs	εὐγενικὸς

L

leg	skélos	σκέλος
left	aristeròs	ἀριστερὸς
lip	hílos	χεῖλος
long	makrís	μακρὺς
let	epitrépo	ἐπιτρέπω
low	hamilòs	χαμηλὸς
light	fòs	φῶς
lock	klidonià	κλειδωνιὰ
learning	manthànon	μανθάνων
letter	gràmma	γράμμα
little	olígos	ὀλίγος
leaf	fílon	φύλλον
line	grammí	γραμμὴ
land	xirà, gi, hóra	ξηρά, γῆ, χώρα
level	stàthmi, epípedon	στάθμη, ἐπίπεδον
like	sán, ómios	σὰν, ὅμοιος
look	vlémma, matià	βλέμμα, ματιὰ
loud	dinatòs	δυνατὸς
laugh	gélio	γέλιο
last	teleftéos	τελευταῖος
late	argà, argoporiménos	ἀργὰ-ἀργοπορημένος
leather	petsí	πετσὶ
lift	anelkistír	ἀνελκυστὴρ
less, least	oligóteron, elàhiston	ὀλιγώτερον, ἐλάχιστον
longer	macróteros	μακρότερος
linen	linó, aspróruha	λινὸ, ἀσπρόρρουχα
loss	apólia	ἀπώλεια
limit	órion, sínoron	ὅριον, σύνορον
lead	mólivdos	μόλυβδος
liquid	refstò	ρευστὸ
living	zondanòs	ζωντανὸς
love	agàpi	ἀγάπη
library	bibliothíki	βιβλιοθήκη

M

mouth	stóma	στόμα
milk	gàla	γάλα

make	cataskevàso	κατασκευάζω
man	àndras	ἄνδρας
married	pandreménos	παντρεμένος
mother	mitéra	μητέρα
match	spírto	σπίρτο
mark	simàdi, stóhos	σημάδι, στόχος
much	polís	πολὺς
monkey	píthikos maimù	πίθηκος, μαΐμοῦ
mountain	vunó, óros	βουνό, ὄρος
me	emé	ἐμὲ
minute	leptòn	λεπτὸν
month	mínas	μῆνας
move	metakínissi	μετακίνηση
medical	iatrikòs	ἰατρικὸς
more, most	perissóteron	περισσότερον
mass	màsa, soròs	μάζα, σωρὸς
motion	kínissi	κίνηση
market	agorá	ἀγορὰ
money	hríma	χρῆμα
mixed	anamemigménos	ἀναμεμιγμένος
metal	métallon	μέταλλον
mine	orihíon—nàrki	ὀρυχεῖον, νάρκη
menager	diahiristís	διαχειριστὴς
male	arsenikòs	ἀρσενικὸς
measure	métron	μέτρον
mind	nús—pnévma	νοῦς - πνεῦμα
music	mussikí	μουσικὴ
map	geografikòs hàrtis	γεωγραφικὸς χάρτης
meat	kréas	κρέας
mist	katahnià	καταχνιὰ
moon	fengàri	φεγγάρι
memory	anàmnissi	ἀνάμνηση

N

neck	lemòs	λαιμὸς
not	dén	δὲν
needle	velóni	βελόνη
number	arithmòs	ἀριθμὸς
narrow	stenòs	στενὸς
nothing	típote	τίποτε

normal	canonikòs	κανονικὸς
nerve	névron	νεῦρον

O

on	epí	ἐπί
oppesite	andíkri, antíthetos	ἀντίκρυ, ἀντίθετος
orange	portocàli	πορτοκάλλι
other	àllos	ἄλλος
out	éxo	ἔξω
only	mónon	μόνον
or	I	ἢ
over	epàno—apó	ἐπάνω ἀπὸ
open	aniktòs	ἀνοικτὸς
old	ilikioménos—paleòs	ἡλικιωμένος, παλαιὸς
one	énas	ἕνας
owner	idioktítis	ἰδιοκτήτης
oven	fúrnos	φοῦρνος
ornament	stolídi	στολίδι
office	grafíon	γραφεῖον
opinion	gnómi	γνώμη
organisation	orgánossi	ὀργάνωση
observation	paratírissi	παρατήρηση
operation	liturgía	λειτουργία
offer	prosforá	προσφορά
order	táxi, diatagí, tágma	τάξη, διαταγή, τάγμα

P

put	théto	θέτω
part	méros, tmíma	μέρος, τμῆμα
pencil	molívi	μολύβι
plate	piáto	πιάτο
potato	patáta	πατάτα
pin	carfítsa	καρφίτσα
point	ehmí—simíon	αἰχμή—σημεῖον
pull	trâvigma	τράβηγμα
push	spróximo	σπρώξιμο
pley	péximo, pegnídi	παίξιμο, παιγνίδι
pain	pónos	πόνος
pleasure	efharístissi	εὐχαρίστηση
punishmant	timoría	τιμωρία
pipe	pípa	πίπα
property	idioktissía	ἰδιοκτησία
powder	púdra, scóni	πούδρα, σκόνη
place	théssi, tópos	θέση, τόπος
paint	bogiás	μπογιᾶς
picture	icóna	εἰκόνα
paper	hartí	χαρτὶ
pen	péna	πέννα
political	politicós	πολιτικὸς
page	selís	σελὶς
plant	fitón	φυτὸν
plough	alétri	ἀλέτρι
person	próssopon	πρόσωπον
please	paracalò	παρακαλῶ
parcel	déma, pakéto	δέμα πακέτο
parallel	paràllilos	παράλληλος
pocket	tsépi	τσέπη
porter	ahthofóros, thiroròs	ἀχθοφόρος, θυρωρὸς
position	topothessía	τοποθεσία
pleased	efharistiménos	εὐχαριστημένος
poor	ptohòs	πτωχὸς
prison	filakí	φυλακὴ
public	dimóssios	δημόσιος
polish	lústro	λοῦστρο
payment	pliromí	πληρωμὴ
profit	kérdos, ofélia	κέρδος—ὠφέλεια
produce	proïónda	προϊόντα
protest	diamartiría	διαμαρτυρία
pump	trómpa	τρόμπα
possible	dinatós	δυνατὸς
probable	pithanòs	πιθανὸς
power	dínami, exussía	δύναμη—ἐξουσία
past	perasménos	περασμένος
present	paròn	παρὼν—παρὸν
purpose	scopòs	σκοπὸς
peace	iríni, issihía	εἰρήνη, ἡσυχία

Q

quite	endelós, arketá	ἐντελῶς, ἀρκετὰ

question	erótissi, zítima	ἐρώτηση, ζήτημα
quick	grígoros,	γρήγορος,
quality	piótis	ποιότης,

R

rice	rísi	ρύζι
reading	diàvasma	διάβασμα
rest	anàpafsi	ἀνάπαυση
rain	vrohí	βροχή
red	cókinos	κόκκινος
roof	stégi	στέγη
road	drómos	δρόμος
rough	trahís	τραχύς, ἀνώμαλος
ray	aktís	ἀκτίς
river	potamós	ποταμὸς
round	strongilós	στρογγυλὸς
roll	tíligma, roló	τύλιγμα, ρολὸ
run	tréximo	τρέξιμο
rate	rithmós, tahítis	ρυθμός, ταχύτης
rule	canón	κανὼν
reason	lógos, aformí	λόγος, ἀφορμὴ
request	étissi	αἴτηση
reward	andamiví	ἀνταμοιβὴ
relation	shéssi. singenís	σχέση, συγγενὴς
regret	lípi	λύπη
respect	sevasmós	σεβασμὸς
reaction	andidrassi	ἀντίδραση
representation	andipróssopos	ἀντιπρόσωπος
rhythm	rithmós	ρυθμὸς

S

Straight	efthís,	εὐθύς,
Seat	càthisma	κάθισμα
Side	plevrà	πλευρὰ
Spoon	cutàli	κουτάλι
Soup	súpa	σούπα
Sweet	glicós	γλυκὸς
Scissors	psalídi	ψαλίδι
Sharp	ehmirós,	αἰχμηρός,

School	Sholion	σχολεῖον
Sort	ídos	εἶδος
Sky	uranós	οὐρανὸς
Sun	ílios	ἥλιος
Summer	calokéri	καλοκαῖρι
South	nótos	νότος
Shut	clistós	κλειστὸς
Stomach	Stómahos	στόμαχος
Shirt	ipocàmisso	ὑποκάμισο
Shoe	papútsi	παπούτσι
Short	kondós	κοντὸς
Sock	càltsa	κάλτσα (κοντὴ)
Stocking	sàltsa	κάλτσα (μακρειά)
Sister	adelfí	ἀδελφὴ
Still	acómi	ἀκόμη
She	aftí	αὐτὴ
Sad	lipiménos	λυπημένος
Small	micrós	μικρὸς
Stone	pétra	πέτρα
Support	stírigma	στήριγμα
Street	odós	ὁδὸς
Smoke	kapnós	καπνὸς
Steam	atmós	ἀτμὸς
Screw	vída	βίδα
Stage	Stathmós	σταθμὸς
Soft	malacós	μαλακὸς
Safe	asfalís	ἀσφαλὴς
Smooth	ílos, omalós	λεῖος, ὁμαλὸς
Such	tétios	τέτοιος
Spade	ftiàri	φτυάρι
Slope	plagià,	πλαγιά,
See	vlépo	βλέπω
Stretch	éctassi	ἔκταση
Seem	fénome	φαίνομαι
Someone	càpios	κάποιος
Swim	colímbima	κολύμβημα
Sound	íhos	ἦχος
Step	víma, vathmís	βῆμα, βαθμὶς

Spaee	hóros	χῶρος
Square	platìa, tetràgono	πλατεῖα, τετράγωνον
Say	légo	λέγω
Star	ástro	ἄστρο
Send	stélno—rlhno	στέλνω, ρίχνω
Slow	vradís	βραδὺς
Sudden	efnídios	αἰφνίδιος
Surprise	ékplixi	ἔκπληξη
Sea	thàlassa	θάλασσα
Strong	dinatós	δυνατὸς
Structure	cataskeví	κατασκευὴ
Stamp	grammatóssimo	γραμματόσημο
Secretary	grammatefs	γραμματεὺς
Separate	horismós	χωρισμὸς
Shake	cúnima	κούνημα
Suggestion	prótassi	πρόταση
Simple	aplós	ἁπλὸς
Sience	epistími	ἐπιστήμη
System	sístima	σύστημα
Scale	climax	κλίμαξ
Spring	ánixi	ἄνοιξη
Secret	misticós	μυστικὸς
Society	kinonía—sílogos	κοινωνία, σύλλογος
Song	tragúdi	τραγούδι
Strange	perfergos	περίεργος
Shame	entropí	ἐντροπὴ
Serious	sovarós	σοβαρὸς
Sex	fílon	φύλλον
Snow	hióni	χιόνι

T

take	pérno	παίρνω
that	ekínos	ἐκεῖνος
table	trapési	τραπέζι
taste	géfsi	γεῦση
to	is, prós, tón	εἰς, πρός, τὸν
tongue	glóssa	γλῶσσα
there	ekí	ἐκεῖ
together	masí	μαζὶ
tooth	dónti	δόντι

trousers	pantalóni	πανταλόνι
they	aftí	αὐτοὶ
thing	prágma	πρᾶγμα
though	an, ke	ἄν, καὶ
till	méhri	μέχρι
time	hrónos	χρόνος
turn	strofí	στροφὴ
tamorrow	àvrio	αὔριο
to day	símera	σήμερα
to night	apópse	ἀπόψε
train	tréno	τραῖνο
than	parà, apó	παρά, ἀπό
trouble	enóhlissi	ἐνόχληση
ticket	issitírion	εἰσιτήριον
tall	ipsilós	ὑψηλὸς
thick	hondrós	χονδρὸς
thin	leptós	λεπτὸς
true	alithinós	ἀληθινὸς
trick	téhni	τέχνη
there	ipàrhi	ὑπάρχει
trade	embórion	ἐμπόριον
transport	metaforà	μεταφορὰ
thought	sképsi	σκέψη

U

use	hrísi	χρήση
us	imàs	ἡμᾶς
unable	anícanos	ἀνίκανος

V

value	axía	ἀξία
violent	sfodrós	σφοδρὸς
verse	stíhos	στίχος

W

work	ergassía	ἐργασία
writing	gràpsimo	γράψιμο
wet	vregménos	βρεγμένος

wind	ànemos	ἄνεμος
warm	zestòs	ζεστὸς
weather	keròs	καιρὸς
winter	himónas	χειμῶνας
white	àspros	ἄσπρος
woman	ginéca	γυναῖκα
wall	tíhos	τοῖχος
wood	xílo	ξύλο
window	paràthiro	παράθυρο
wound	pligí	πληγὴ
what	tí ; óti	τί ; ὅ,τι
wool	malli	μαλλὶ
wing	ptérix	πτέρυξ
well	kalòs	καλῶς
when	ótan	ὅταν
walk	perípatos	περίπατος
wise	frónimos	φρόνιμος
word	léxi, lógos	λέξη, λόγος
watch	orológion	ὡρολόγιον
whistle	sfiríctra	σφυρίκτρα
wax	kerí	κερὶ
wire	tilegràfima	τηλεγράφημα
weight	vàros	βάρος
waste	spatàli	σπατάλη
wrong	esfalménos	ἐσφαλμένος
without	ànef, horís	ἄνευ, χωρὶς
war	pólemos	πόλεμος

Y

youug	nearòs	νεαρὸς
yellow	kítrinos	κίτρινος
yesterday	htés	χθὲς

PUBLIC HEALTH, MEDICIEN AND SANITATION IN BULGARIA

Prepared for the Surgeon General's Office

of the U. S. Army

By Alexandra Feldmahn

September 1943

With a Foreword

By Alice G. Carr, R. N., LL.D.

Director Public Health Nursing, Near East Foundation

NEAR EAST FOUNDATION
17 WEST 46TH STREET
NEW YORK, 19, N. Y.

DISTRIBUTION OF STATE HOSPITALS IN BULGARIA—1930

(Simplified from Annual Report — [illegible] Directorate)

PICTOGRAPH CORPORATION

IDENTIFICATION

This report was prepared by the daughter of Leonty E. Feldmahn, Near East Foundation Director of Public Health and Welfare for Bulgaria. Mr. Feldmahn at this writing is still within the confines of Nazi-controlled Bulgaria. The daughter, Alexandra Feldmahn, is a pre-medical student in the United States. She grew up in her father's work and is well informed on the state activities to which the work was related especially in providing the practice training for 192 village doctors and 782 midwives in the state courses. This was in addition to the Foundation's service to Bulgarian agriculture.

Although not Bulgarian but a descendent of old Russian stock, Alexandra Feldmahn is well equipped with the Bulgarian language for presenting the factual record from the official reports of that country. Therein lies the chief value of the report.

She likewise has been cordially given access to the reports of the Rockefeller Foundation which formerly advised the Bulgarian Minister of Public Health, provided a number of fellowships in sanitary engineering and public health and conducted important malaria control and drainage in that country.

Also the report has been checked by Alice G. Carr, R.N.LL.D. Near East Foundation Director of Public Health Nursing for the Balkans who has written the forward.

Miss Feldmahn after receiving her B. A. as a pre-medical student at Brown University in 1942 became graduate assistant in the Department of Physiology at Mount Holyoke College and is also assistant executive secretary of the World Student Service Fund.

Most of the statistical information in this report is quoted from the annual report of the Bulgarian Public Health Directorate of 1930 (Bulgaria: Glavne Direktzia na Narodnoto Zdrave 1930) and from various documents of the League of Nations Conference on Rural Life, 1939.

Laird Archer

FOREWORD

It has been my good fortune, as a member of Near East Foun-dation to go through Bulgaria to see there not only our own Medical-Social projects, but also the interesting developments in public health that were being made by earnest interested officials.

War has thrown all this into retrospect. We wonder what post-war courage there will be for taking up all this difficult work again.

In the ten years preceeding 1940 Bulgaria's interest in public health was commensurate with her neighboring states. Indeed, there seems to have been a Balkan health renaissance. Necessity for a higher level of life seemed to converge upon these states. This was to be attained through that greatest of assets the strength of the people, and in order to achieve anything along these lines the people had to be kept well.

Keeping well involves so many things that we must of necessity go into food production, distribution, sanitation, education,- especially along the lines of self-help,- and recreation.

In the various projects that our organization fostered the Bulgarian people found answers to many of their questions. Peasant people are hard working. They have to begin their undertakings in small ways; as an example it is with pleasure that we recount the beginnings of a huge movement in child welfare as follows: A highly educated man, a refugee himself, began telling stories to wandering refugee children he saw everyday as he walked through a grove. These meetings became interspersed with simple games, peasant dances, community singing. Then the big boys and some men deepened a low place in the grove, put in an earthen pipe drain, filled the place with good water and behold, a wading pool,- later a swimming pool.

Then the Near East Foundation was approached for furtherance of this potential in self help, took it on.

In bad weather meetings were then held in a small house on the edge of the grove. A nurse came, giving lessons in health to mothers and children. A doctor came, a teacher of hand crafts, health gymnastics took care of many a bad posture heading into disease. Home visits, clinic service,- a Medical Social Center.

Out of this has grown a nation wide movement in child welfare with 450-500 centers as described above bringing huge returns in human soundness.

Since garden and farm produce, earnings, leisure-time employment, knowledge of crafts are essential to human betterment, schools and programs were involved for these. At last there was a Near East Foundation advisor in the Ministry of Agriculture for years.

Bulgaria's government has gone a long way on the path toward health. The people all through are interested in what to do for themselves. In little out of the way villages at all kinds of hours one comes upon a studious peasant or a group of peasants figuring how to raise, arrange and more intensively come by what is possible from small holdings. Schools teach it: it is becoming everybody's interest. But they are very poor.

Overpopulation has been one of the curses of many of these small countries. It brings its own poverty, lack of opportunity, contact with what goes on outside. This and the sad exploitation by many conquering east-west migrations have kept Bulgaria down.

There is need for education, capital, trade of a much more generalized and wider scope than heretofore, Medical Service, Sanitation, and the use on a grand scale of resources which could be turned to the use of the underprivileged.

Recent years saw some of this coming as foreign specialists were invited in to study the problems which a complicated terrain imposed upon the populations. Bulgaria was learning from them but war stopped the application.

Alice G. Carr, R.N., LL, D.

OUTLINE FOR MEDICAL AND SANITARY DATA
(Surgeon General of the Army)

I. PUBLIC HEALTH ORGANIZATION: (page 4) (National and local)- Organizational outline (verbal or graphic) indicating services rendered. Number and distribution of personnel. Efficiency and deficiencies. Reports. Other agencies (governmental, church, private, etc.) interested in public health.

II. FOOD: (Page 11)
- a. Meat; availability, types, source, quality, inspection, storage.
- b. Dairy products; dairy control and inspection, adequacy of supply, pasteurization, method of distribution.
- c. Fruits and vegetables; types, availability, cultivation and handling.
- d. Flour; source, quantity, period of safe storage.
- e. Beverages; potability of water used in preparation, methods of preparing, dangers.
- f. Inspection of food handlers, shops, restaurants and markets. Every 20 days.
- g. Cold storage; Ice-manufacturing plants (source of water, distribution, storage).

III. WATER: General and/or local areas. (Page 17)
- a. Source; streams, lakes, springs, wells - shallow, deep, artesian - rain.
- b. Amount; adequacy; reserves; additional supply available.
- c. Methods of water storage; treatment (sedimentation, chlorination, filtration and boiling); reserve supplies of chemicals to treat water (liquid chlorine, hypochlorite, etc.); supervision of water treatment; methods of distribution in various parts of the area.
- d. Prevalence of water-borne diseases (typhoid fever and paratyphoid fevers; bacillary dysentery and amebic dysentery; infectious jaundice (i.e., leptospirosis); bilharziasis (i.e. schistosomiasis).

IV. SEWAGE: (Page 20) Type (water-borne, septic tanks, pit privies, bored-hole, pan system, none); by natives and by other population groups; use of human excrement as crop fertilizer.

V. INSECTS, ANIMALS AND PLANTS THAT ARE OF MEDICAL IMPORTANCE TO MAN (Page 21)
- a. Insects: carriers of disease and noxious (Mosquitoes; prevalence species, diseases they carry, where they breed, measures for their control, estimate of effectiveness); lice; ticks, flies; i.e., house, tsetse, sand, etc.; gnats; fleas; ants, i.e., army, fire, etc; and other insects).
- b. Dangerous animals
- c. Poisonous plants and fruits (when eaten; when touched).
- d. Poisonous or dangerous snakes.
- e. Poisonous or dangerous fish.
- f. Others

VI. MEDICAL FACILITIES: (Page 22)

a. Hospitals, sanatoriums, clinics, dispensaries, number, ownership, beds, equipment, i.e., operating rooms, surgical instruments, X-ray (type); drugs; medicines; dressings, etc.; adequacy for cival and military use; screening; local reputation; buildings that can be converted to hospital use. Electrical current - voltage. cycle, availability.

b. Medical practitioners: doctors, i.e., European, native, missionary, company, private, government, military; native dressers; dentists; midwives; nurses, i.e., European, native; laboratory technicians.

c. Laboratories: type, equipment, ownership, local repuation.

d. Drug supplies: General, with particular reference to quinine and atabrin.

VII. DISEASE INFORMATION: (Page 33)

Prevalent diseases and special disease problems of the native and of white inhabitants.:

a. Venereal diseases (syphilis, gonorrhea, chancroid, granuloma venereum, lymphogranuloma inguinale); incidence; clinics, prostitutes; street walkers; districts; control.

b. Intestinal diseases: typhoid fever, paratyphoid fevers, bacillary dysentery and amebic dysentery; common diarrhea; cholera.

c. Insect-borne diseases: yellow fever, malaria, dengue, papatacci (sandfly), typhus fevers (epidemic or louse-borne, tick-borne, and endemic or flea-borne types); sleeping sickness; relapsing fever; filariasis; and elephantiasis.

d. Respiratory group of diseases: influenza, pneumonia, common colds, diphtheria, measles, mumps, meningitis, poliomyelitis, tuberculosis (extent, control, type-human, bovine).

e. Other communicable diseases: smallpox, chicken pox, leprosy, schistosomiasis (bilharziosis), leptospirosis (infectious jaundice), tropical ulcer, trachoma, totanus, kala-azar, yaws.

f. Other diseases: rheumatic fever; articular rheumatism; nutritional deficiency diseases (beri-beri, pellagra, scurvy, etc.);

g. Diseases of the skin: abscesses; mycotic (fungus infections), i.e., dhobie itch, athlete's foot, ringworm, crotch itch, etc.; guinea worm; Congo floor maggot; oriental sore.

h. Intestinal parasites: roundworm, hookworm, tapeworm, pinworm, thread worm.

VIII. CONTROL MEASURES: (Page 44)

a. Quarantine measures: maritime and general.

b. Specific information concerning control of yellow fever (inspection of vaccination certificates, length of quarantine, aeroplane inspection and fumigation.)

c. Compulsory vaccinations; vaccinations which, though not compulsory, are commonly used.

d. Vermin control measures: insects (draining, dredging, dusting, screening, oiling, etc.) Rats - poisoning, trapping, etc. - other animals or insects. Proximity of native and white habitations.

IX. DISEASES OF ANIMALS: (Page 44)

a. Of importance to man: boving tuberculosis, undulant fever, echinococcosis, rabies, anthrax, psittacosis, sylvatic plague.

b. Confined to animals: hoof and mouth diseases, rinderpest, equine encephalomyelitis, glanders.

X. Recreation: type and availability. (Page 45)

BULGARIA

POPULATION AND AREA -

Lying in the center of the Balkan peninsula, Bulgaria occupies an area of 103,146 square kilometers (not including Southern brudja, ceded to Bulgaria as a result of the Bulgarian-Roumanian treaty of September 7, 1940).

The population at the end of 1938 was 6,400,000 with an average density of 62 per square km.

Bulgaria is a nation of rural people, deeply attached to the soil - 98.3% of the communities are villages and only 1.7% are towns. A large number of the towns are only such in a purely administrative sense, differing little from a village in their economic and social features.

The per cent of the population, classified as "rural" was 78.6 according to the national census in 1934. The 1939 Conference on Rural Life (League of Nations) gives the following figures for % population occupied in agriculture in relation to total occupied population:

Bulgaria	81%
Yugoslavia	79%
Roumania	78%
Lithuania	77%
Poland	76%
Greece	54%
Gt. Britain	6%

Bulgaria therefore has the highest per cent of rural population of all European countries.

Some Georgraphical Data

There are several chains of mountains running through Bulgaria; the average altitude of the country is 480m. above sea level.

The precipitation is low and irregular. The area immediately south of the Danube river has a transitional steppe climate and a broader zone of the valley has a transitional continental climate. Rainfall is often torrential and in the months of June and July, especially, often great damage and fluctuation in crops is caused.

Three successive bad crops have been reported in the years of the war.

The soil is poor in nitrogen and phosphorus. Little manure is available because of the relatively small number of livestock and its poor feeding as well as the system of grazing and selling dung to the garden areas or burning it for fuel in the poorest regions.

Of the total area - 10,314,620 hectares (1935-1936) - 60.93% is non arable and 39.07% arable. The arable land is divided as follows -

Corn land	78.44%
Fallow land and balks	11.06
Permanent plantations (vineyards, mulberry and rose plantations)	6.93
Natural meadow land	3.57
	100.00%

Almost all the land is divided into very small lots, owned by the individual peasants. The average size of a field is only 0.4 hectares, an orchard - 0.14 and a vegetable garden about 0.32 hectares.

PUBLIC HEALTH AND ENVIRONMENTAL FACTORS INFLUENCING PUBLIC HEALTH

I. PUBLIC HEALTH ORGANIZATION

The organization of the Public Health services in Bulgaria has progressed very rapidly in the last ten or fifteen years. The following is an outline of the structure of the national organization and the division of the various functions of the Directorate of Public Health as it was presented in a report by Dr. Golosmanoff at the request of the League of Nations Health Division in 1926, as the basic structure of the organization has not radically changed in the last few years -

The Directorate of Public Health.

This forms a part of the Ministry of the Interior. It is almost autonomous however, and its Director has wide powers and maintains direct relations with the other ministries.

The Directorate of Public Health sees that health laws and regulations are properly applied, watches public health in general and reports on it every year; organizes campaigns against epidemics, inspects pharmacies and public health institutions and supervises the exercise of medical and allied professions.

The Directorate is divided into five departments, viz.:

1. Public Health
2. Infectious diseases
3. Hospitals, etc.
4. Pharmaceutics
5. Financial services

The following also come under the control of the Directorate: the Chemical Institute (Public Health Department), the Bacteriological and Public Health Institutes (Infectious Diseases Department), the Central Depot of Pharmaceutical Products and Public Health Material (Pharmaceutical Department).

The heads of departments act as chief inspectors of their respective departments. They have assistant chiefs and subordinate staffs under their orders.

1. Public Health Department

Its functions are the following:

a) Urban sanitation (water supply, drainage, etc.)
b) Reclamation of marsh-land, conservation of waterways, land drainage etc.
c) Medical inspection of schools, prisons, factories and hospitals
d) Preparation and application of hygienic regulations in regard to streets and public institutions
e) Inspection of food supplies
f) Preparation of building schemes proposed by the Directorate

The head of the Public Health Department is a doctor of medicine. He is assisted by an engineer and architect.

2. Infectious Diseases Department

The department has the following duties:

a) It watches the spread of infectious diseases and epidemics in the neighboring countries
b) It supervises the epidemic conditions of the country
c) It sees that laws, regulations and circulars relating to campaigns against infectious diseases are properly observed, and supervises the services and operation of public health stations on land and sea frontiers
d) It submits proposals for the erection of frontier medical stations, bacteriological stations, isolation and disinfection centers
e) It supervises the operation of the disinfection services and supplies them with staff
f) It recruits bacteriological and epidemiological specialists
g) It inspects institutes of bacteriology and hygiene, and the depots of serums, vaccines, medicaments and disinfecting material necessary to combat infectious diseases.

The head of the Infectious Diseases Department is a doctor of medicine. He is assisted by an epidemiological specialist, a chief inspector for malaria and an inspector for tuberculosis and venereal

diseases. He also has under his orders a subordinate staff and an engineer to operate disinfecting appliances.

The malaria section though forming a part of this department, is in practise very largely independent.

3. Hospital Department

The duties of this department are as follows:

a) It deals with the administration and working of hospitals, sanitaria, etc.
b) It supplies material and appliances to these establishments and also to quarantine stations, ambulances, etc.

It is directed by a chief medical officer.

4. Pharmaceutical Department

This department has the following functions:

a) It inspects pharmaceutical depots and state pharmacies
b) It supplies them with medicines, bandages, disinfecting materials
c) It controls, jointly with the malaria department, the quinine monopoly
d) It issues licences to chemists (private, communal and state dispensaries) and wholesale chemists; supervises their professional activities and also the quality and price of the articles they supply to the public
e) It settles questions connected with the importation of medical materials

The pharmaceutical department is directed by a chief chemist, assisted by another qualified chemist.

5. Financial Service Department

This department prepares the budget of the Directorate of Public Health which has to be passed by the Parliament. The budget, on an average, is about 2.5% of the national budget.

Eight comptrollers, representing the Ministry of Finance, are attached to this section.

The directorate also has a medical statistician who collects and arranges the data supplied in the annual reports of the provincial medical officers and the periodical and special reports sent in by the various health authorities.

II. Advisory Organizations of the Directorate of Public Health

The General Medical Council consists of ten members, viz., the Director of Public Health, the chief of the Army Medical Service, the president of the Bulgarian Medical Association, six doctors and one member chosen from among the judges of the Court of Appeal or Cassation.

The functions of the General Medical Council are as follows:

1. It examines and discusses health laws and regulations.
2. It has to approve the budgets of the Health Directorate and the health budgets of the provinces and large towns.
3. It takes necessary measures to prevent the entry into the country of persons suffering from infectious diseases and to prevent persons suffering from endemic diseases from moving from one part of the country to another.
4. It draws up the official pharmacopeia and fixes the prices of medicines.
5. Its approval has to be secured for the opening of new pharmacies or the closing of existing ones, and for the opening of private hospitals and sanatoria.
6. It supervises the analysis of mineral waters.
7. It holds qualifying examinations for doctors, pharmacists, dentists and midwives; it supervises the exercise of the medical and pharmaceutical professions, obstetrics, dentistry etc., and settles questions relating to professional ethics.

The Council meets twice a week and also holds special meetings when necessary. Its decisions become mandatory on approval by the Minister of Interior and Public Health.

Attached to the Council is a Pharmaceutical Committee, composed of the head of the Pharmaceutical Department and two chemists. This committee attends the meetings of the General Medical Council when it is dealing with pharmaceutical questions.

Rockefeller Foundation Fellowship

Some thirty-six of the men who are holding the most responsible positions in the National Organization of Public Health are Rockefeller Foundation fellows having highly specialized training

Local Health Organization

The number of regions into which Bulgaria is divided was reduced to seven a few years ago (the centers of these regions are the following large cities--Sofia, Plovdiv, St. Zagora, Burgas, Shumen, Pleven and Vidin). There is a medical officer heading the public health services in each of these regions, who is responsible to the Director of Public Health.

Under the regional medical officer there are the doctors in charge of medical districts (corresponding to the administrative subdivisions of the region) and then the men in charge of one or a number of small communities.

There is a regional Health Council, consisting of the prefect and the regional doctor, three other doctors, an engineer, an architect, a veterinary surgeon, a judge, the inspector of schools and the mayor of the capital of the region. The decisions of the Regional Medical Council are subject to approval by the General

Medical Council.

The organization of the Rural Health Services was given great impetus by the Rural Hygiene Conference which met in Geneva in 1931, but the services are still very inadequate.

The number of sanitary officers who are physicians has been steadily increasing 264 (23.3%) in 1921, 610 (46.8%) in 1930. At the beginning of 1938 there were 952 rural centers in operation. There was a doctor in charge of the center in 638 cases or 64.7%, the rest were managed by a "feldsher", men who acquired some medical training in the army during the last war and have really rendered an important service in many cases because of the shortage of doctors.

Doctors expecting to receive positions in the government health organizations are now required to serve two or three years in rural medical centers after graduating from medical school.

There were 357 midwives working in connection with these centers. The number of public health nurses is small in Bulgaria, but it is impossible to find any figures, because for some reason they are not listed separately in any statistics on medical personnel.

To give some idea of the remoteness of the majority of these rural health centers from larger towns and better facilities - only 9% were near a railway and 20% connected by decent roads.

Some additional statistics may add to the picture -

36% - had a public water supply
20% - had electricity
27% - radio equipment
27% - a bank
71% - a 'reading room' (not really a library)

The equipment available in most of these rural medical centers is very inadequate. The nearest hospital often is not nearer than 20

miles. Usually there is no pharmacist in a village and a doctor often has to prepare his own prescriptions.

Other Agencies working on Health Problems

1. Bulgarian Red Cross - was founded in 1883 and since 1884 belongs to the International League of Red Cross Societies.

The Red Cross operates a large hospital in Sofia and since 1900 has started a training school for nurses, the only one in the country. Around 1937 - 38 the new director of the organization introduced a great many "reforms" - first aid training on a large scale, improved ambulance service, increase Junior Red Cross activities etc.

2. Save the Children Union - member of the International Organizatior

This organization has been very active in improving the welfare and health of children. It sponsors a number of different kinds of institutions -- creches, orphanages, summer camps, playgrounds, etc.

(See appendix for a detailed classification of the 4,122 institutions for child welfare).

3. Anti-Tuberculosis Society - spreads "propaganda", maintains some dispensaries and one or two schools for children predisposed to t.b. ('open air' schools).

4. Rockefeller Foundation - had an anti-malaria center in Petrich and helped the Directorate of Public Health in all its programs against malaria. The Foundation also made a substantial grant towards the establishment of an Institute of Public Health for bacteriological and serological services and research.

5. The Near East Foundation - has been very much interested in problems of public health in connection with all its demonstration programs. Some results that it obtained in its Health Consultation and Education programs are given in the appendix. The chart giving

information on the Health and Training project in Koniovitsa is an example of how the Foundation attacks the problems of health, education, agriculture and welfare simultaneously.

II. FOOD

According to the Institute of Agriculture in Sofia, the annual per capita consumption of foodstuffs is as follows -

Flour (or bread)	353.0 kg.	776.6lbs
Meat (pork, lamb, mutton, etc.)	22.0 kg.	48.4 "
Poultry	4.3 kg.	9.46"
Preserved meat	1.3 kg.	2.86"
Fish	0.45kg.	0.99"
Lard	4.8 kg.	10.56"
Butter (from cows,ewes,buffaloes)	1.1 kg.	2.42"
Vegetable oil (sunflowerseed oil mostly)	5.7 lt.	
Milk (cows,ewes,buffaloes)	65.7 lt.	
Cheese and similar products	9.5 kg.	20.9 "
Eggs	71 pcs.	
Sugar	2.0 kg.	4.4 "
Salt	12.1 kg.	26.6 "
Rice	2.7 kg.	5.94"
Beans	12.5 kg.	27.50"
Potatoes	17.5 kg.	38.50"
Fresh vegetables	109.0 kg.	239.8 "
Preserved vegetables	0.5 kg.	1.1 "
Fresh fruits	24.0 kg.	32.8 "
Grapes	70.7 kg.	155.54"
Wine	40.0 lt.	
Brandy	1.5 lt.	

a. Meat - In the Peasant diet pork is most commonly consumed, then lamb and mutton. This fact becomes significant when compared with the table below showing the figures for meat production in Bulgaria, etc.

The figures for meat production in Bulgaria (League of Nations Statistical Book for 1941, in metric tons 000's)**

	1933	1934	1935	1936	1937	1938	1939*
Beef and veal	21.1	22.4	21.4	21.0	19.3	19.3	19.7
Mutton and goat	17.6	17.0	16.0	16.1	15.8	15.5	15.7
Pork	7.0	6.5	8.0	9.8	8.7	9.1	7.6
Total	45.7	45.9	45.4	46.9	43.8	43.9	43.0

A very large and modern slaughterhouse has been recently completed in Sofia. Although the slaughtering of animals is done by more primitive methods in most parts of the country, the required veterinary control and stamping of all meal is rigidly observed. In recent years every butcher shop in Sofia acquired modern electric refrigeration.

In the years of the war due to bad crops and lack of feed resulting from it as well as requisitioning for export to Germany, the number of cattle in Bulgaria has greatly decreased.

Meat rationing in Bulgaria has been very strict. On October 26, 1942, the OWWI gave the following figures for meat rations in -

Bulgaria	7.1	ounces weekly
Germany	12.1/2	" "
Britain	31.0	" "
U.S.A.	40.0	" "

*The figures for 1939 are estimated.

**000's = thousands

b. Dairy Products -

Butter - is seldom seen on a peasant's table. The fat intake in rural districts is inadequate and is mainly in the form of lard and vegetable oil.

Butter was produced in creaneries on an average of 0.65 thousands of metric tons during the period 1935 to 1938. No margarine production.

Milk - as far as I know there are no pasteurization plants in the country. Since bovine tuberculosis is not uncommon, milk is usually boiled for safety.

There are just a few modern farms that supply milk in sealed bottles. Usually it is brought to the large cities by the individual peasants who deliver it from door to door, measuring it out in a metal litre container from their large jug.

Most cities require inspection and certification of the milk distributors. Milk is often tested for specific gravity, at least, by inspectors who stop the milkmen as they come into the city. There must be some general requirements for fat content, total solids, etc., but no exact information is available here.

Cheese - "kashkaval", a big yellow cheese is produced in considerable amounts and available for export. Another variety of cheese is the white "sirene" which is one of the most common foods in the country.

The amount of cheese produced in creameries (it is hard to estimate amounts produced by individual families for their own consumption) has been steadily increasing -

1934	9.6	(metric tons 000's)
1935	10.8	" " "
1936	11.4	" " "
1937	12.2	" " "
1938	14.0	" " "

c. Fruits and Vegetables -

Many sections of the country where the soil is not too favorable for cereal crops have in recent years been encouraged to specialize in growing various fruits and vegetables with amazing results.

The several varieties of "dessert" grapes grown in Bulgaria are extremely fine. Large quantities are available for export. Strawberries, cherries, apples, pears and dried prunes are some of the other fruits in which different sections of the country specialize.

Germany was the only available market for these products, as the neighboring countries produce similar products and transportation to England and France was too expensive. It is probably right to say that there is one benefit only that Bulgaria derived from sending about 70.00% of its export to Germany and that is that all products had to measure up to high standards of packing, size etc. which had very good effect on the growers.

Under the direction of one of its recent ministers of Agriculture, the growing of tomatoes was very well developed in Bulgaria, Peppers are an important constituent of almost every Bulgarian dish and so are grown in large quantities. String beans, beans, onions, garlic, cabbage etc. can be seen in huge piles on any market day in the summer and are sold very cheaply by the peasants who bring these products to the city in order to get money to buy salt, matches and the few other necessities that the almost self-sufficient peasant family needs.

The process of canning is developing rapidly, but the canning industry is still young with the result that factory canned goods are rather expensive and although vegetables are available in great quantities during certain seasons the diet of the peasant is almost

entirely dried beans, sauerkraut and dried peppers in the winter.

The Near East Foundation has been encouraging home canning with great success achieved both in rural communities and in the poorer section of Sofia where it has its demonstration center. In its Divlia project (comprising 9 rural communities) the bringing of a canning machine to the village for a few weeks and instructing the women in using it has resulted in 19,800 pounds of vegetables saved for the winter months in 1937 and 13,800 pounds in 1938.

d. Flour -

The government controls the milling industry and the following numbers are usually used to designate the different kinds of flour - as it is used in the bakeries of large towns and cities.

#0 - first 10% of grain (approximate) used for pastries, rolls, and cakes

#3 - next 60% of grain (approximate) used for white bread

#4 - remaining 30% of grain (approximate) used for brown bread

Bread is the basis of the Bulgarian diet. The consumption of sugar is extremely low (2 kg. annually per capita) because of the very heavy tax on the sugar which puts it out of reach for the largest part of the population; therefore the carbohydrate requirements are filled from a less concentrated but more available brown bread. Daily average consumption in the rural population is .957 kg (2.1 lbs) of bread! The average composition of this peasant bread is 53% wheat, 31% maize, 15% rye, and 1% barley and other substances peas, potatoes, etc. Compare this with the average composition of bread in the nation as a whole: 73:98% wheat, 18.29% maize and 7.73% rye.

CEREAL PRODUCTION

		1925-29	1930-34	1936	1937	1938	1939
WHEAT	P-	11015	14387	16425	17666	21487	19365
	A-	1077	1246			1395	1229
MAIZE	P-	6674	7898	8715	8593	5323	----
	A-	676	704			700	618
RYE	P-	1862	2460	2080	2384	1879	2457
	A-	194	227			188	181
BARLEY	P-	2657	3225	3224	3229	3548	3338
	A-	227	246			225	228
OATS	P-	1058	1036	1360	1465	891	1279
	A-	137	127			144	111
RICE	P-	140	155	233	158	191	
	A-	7	7			8	8

Production - P - in quintals 000's
Area - A - in hectares 000's

The average yield per hectare is one of the lowest in Europe.

11.9 quintals for wheat

10.6 " " rye

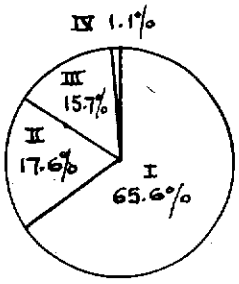
13.3 " " barley

9.0 " " oats

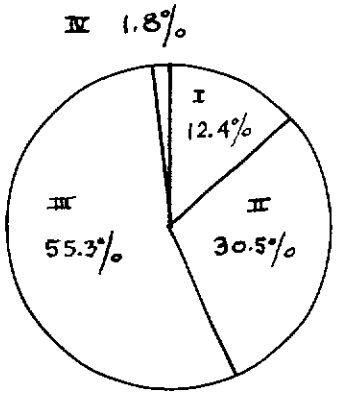
12.8 " " maize

SOURCES OF WATER SUPPLY FOR PERCENTAGE OF POPULATION

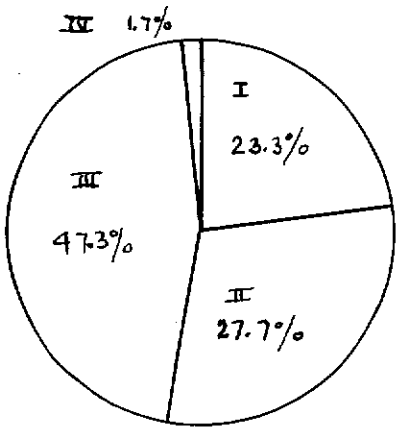
CITIES



VILLAGES



TOTAL



I MODERN SYSTEM
II OLD SYSTEM
III WELLS
IV DIRECTLY FROM RIVER

(Public Health Directorate Annual report - 1980)

III. WATER

Detailed information on the water supplies in Bulgaria is not available. Just a few years ago a large project for supplying Sofia with adequate water was completed. Excellent water from the Beli Isker River in the high Rila mountains are brought to the capital (approx. 220 km.) and there are large reservoirs on the slopes of Vitosha mountain. Chlorination and Filtration, to my knowledge, are the methods used for the purification of the water. This new supply of water, (a beautiful piece of engineering) - not only greatly benefits Sofia, but it is also extremely important for the villages and towns through which the water is channeled.

But even this large supply of water does not mean that every home has running water by any means. From the Near East Foundation survey of a 1000 homes in Koniovitsa, a suburb of Sofia, the following information is available -

	1932	1935	1938
Water supply in the yard	3.9	49.4	57
Water supply from street taps	96.1	50.6	33.3
Water supply in homes	--	--	9.7
Canalization	--	--	--

(Note: The good residential sections in Sofia as well as in all other large towns are near the center of the city; a "suburb" usually means a rather poor section very much like a village in all respects)

As far as the rest of the country goes - the information given in the Annual Report of the Public Health Department in 1930 is still mostly unchanged.

The accompanying chart gives graphically what per cent of the urban and rural population derives its water from what sources - wells, old types of fountains or modern supplies.

Public Health

In 1930 the / authorities made 2966 tests of samples of drinking water. These bacteriological examinations proved that only 905 or 39.7% of the samples analysed were good, the rest were all unsatisfactory and 844 or 29% were "very poor". The authorities fully realized that when only one-third of the drinking water was acceptably clean - a serious problem of inadequate water supply was on hand.

In some regions like Varna and Kustendil the water is very hard as there are large deposits of limestone in the vicinities of these cities. Since typhoid fever and bacillary dysentery are endemic in many parts of the country boiling the drinking water is an important precaution when the supply is unknown. To my knowledge leptospirosis and bilharziasis do not occur in Bulgaria.

According to the League of Nations Conference on Rural Life (1939) 31% of the total population of Bulgaria is using a modern supply of drinking water (77% of the urban population and 18% of the rural population). The Bulgarian government estimates that 2,500,000,000 levas or approximately $25,000,000 would be necessary to provide every inhabited district in the country with reliable drinking water.

Some 8,000 samples of water are analysed yearly by the various laboratories both before and after tapping in an attempt through bacteriological tests to control the supplies of drinking water and check water borne diseases.

Note: Bulgaria used to be divided into 16 districts until a few years ago when the new administrative division into 7 regions was introduced. The following are some statistics on the type of water supplies in 1930, according to regions.

DISTRICTS	TOTAL POPULATION	% GETTING WATER FROM: DIRECT FROM RIVER	WELLS & SPRINGS	CRUDE PIPES	MODERN SUPPLIES	MOD. SUPPLIES IN CONSTRUCTION
1. BURGAS	484.028	1.2%	36.4%	40.4%	22.0%	4.4%
2. VARNA	230.410	1.0%	26.1%	37.5%	36.3%	1.1%
3. VIDIN	278.123	2.8%	60.5%	27.1%	9.6%	--
4. VRATSA	392.410	1.8%	61.8%	26.5%	9.9%	1.7%
5. KUSTENDIL	243.577	3.4%	54.2%	16.6%	25.8%	--
6. MSTANLI	183.793	0.9%	74.7%	24.1%	0.3%	0.6%
7. PASHMAKLI	68.814	1.1%	44.7%	47.4%	6.8%	--
8. PETRICH	186.167	9.4%	21.7%	64.1%	4.8%	0.8%
9. PLOVDIV	562.458	2.3%	46.3%	15.4%	36.0%	5.1%
10. PLEVEN	431.494	2.9%	42.1%	44.4%	10.6%	5.5%
11. RUSSE	341.959	1.2%	46.2%	27.8%	24.8%	4.8%
12. SOFIA	642.066	1.2%	30.9%	14.2%	53.7%	1.7%
13. ST. ZAGORA	326.503	0.5%	55.8%	15.3%	28.4%	2.4%
14. TURNOVO	505.692	1.6%	51.7%	25.7%	21.0%	1.6%
15. HASKOVO	245.432	0.4%	75.9%	19.8%	3.9%	3.5%
16. SHUMEN	360.199	--	47.4%	37.4%	15.2%	--
FOR THE WHOLE COUNTRY:						
Population	5.483.125	96065	2579646	1526967	1280447	138980
Per Cent		1.7%	47.3%	27.7%	23.3%	2.5%

(Modified from the Annual Report of the Public Health Directorate - 1930)

IV. SEWAGE

There is no canalization or any form of drainage system in the villages of Bulgaria. Most of the peasant houses have a very primitive privy in the backyard which is moved a few yards away when the pit gets filled. Most of these structures are extremely unhygienic and provide an ideal breeding place for flies. Often their location is not well chosen and they may be draining into a river passing thru the village and thus can cause the spread of many an epidemic.

Railroad stations and parks in the larger cities usually have public toilets, often just a series of pit privies but decently clean as a rule. The Railroad Dept. employs several physicians and one of their duties is to check on all the sanitary facilities on railroad stations, which guarantees a certain amount of control.

The Near East Foundation in its health propaganda program has advocated the building of simple hygienic privies (one type with a cement slab) which are about 150 lv. (approx. $1.50) in cost and are therefore within the reach of most villagers especially since they can do most of the necessary work themselves in setting them up. By the use of lectures illustrated with slides as well as demonstrations such as the building of the new type of privies in the school yards and one or two houses in the village the Foundation has succeeded in demonstrating their advantages and the Bulgarian peasant is eager to learn and adopt new ideas if somebody helps him to see the point. On its playground in Koniovitsa, the N.E.F. has privies with deeply bored holes and the hundreds of people who come to study and observe the Koniovitsa project never go thru without a lecture on how simply these can be bored and how hygienic they are!

Larger cities often find that their sewage system is not adequate when many modern houses are built. In some reports of the Public Health Department there is mention of the fact that the sewage system of Sofia e.g. is not without fault (apparently the problem of disposal is not too adequately solved) but specific information is lacking. The system is gradually expanded and improved, though. Modern toilets are beginning to appear even in some of the "suburbs". In Koniovitsa e.g. while in 1932 100% of the toilets were primitive pits, in 1938 7% were modern and only 1.43% still in the category of "primitive pits."

Garbage collecting. - In large cities such as Sofia, Plovdiv, Varna etc. there is a very good system of garbage collecting. Up to a few years ago one-horse carts were used, but now most of the collecting is done by modern garbage trucks, owned by the municipality and the horse carts are used only for collecting the snow from the streets in the winter.

V. INSECTS, ANIMALS AND PLANTS THAT ARE OF MEDICAL IMPORTANCE TO MAN

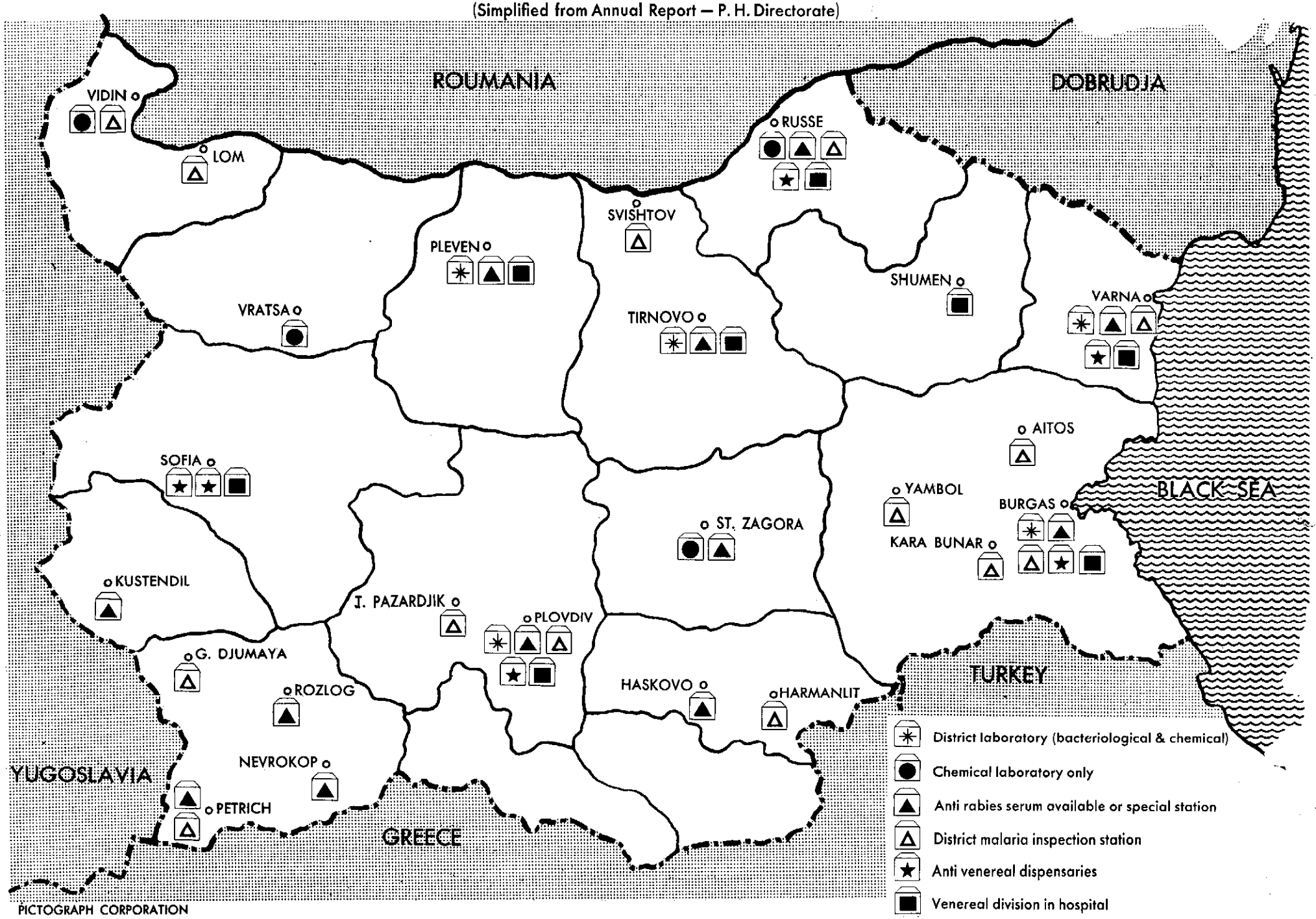
Mosquitoes present the most serious problem and in the regions around Petrich and Bourgas often carry malaria. Paris greening and the introduction of gambusia have been the most effective weapons against them.

The amount of soap used per capita in Bulgaria is not too great and consequently lice are not uncommon, although as a rule the Bulgarian peasant, especially if he lives in the mountains, is clean. With many dogs and cats around fleas do not lack to complete the picture of rural life.

Ants, fire flies, etc. can be found most anywhere in the country but do not present any problem.

DISTRIBUTION OF LABORATORIES, DISPENSARIES AND INSPECTION STATIONS IN BULGARIA—19

(Simplified from Annual Report — P. H. Directorate)



PICTOGRAPH CORPORATION

There are hardly any dangerous animals. Wolves come close to isolated villages in the winter, bears and wild boars (in the Rodopi Mts.) are found in the forests of some of the mountains.

There is no poision ivy in Bulgaria! No unusual poisonous plants or fruits that one has to know. There are one or two varities of poisonous snakes - not to be found frequently and to my knowledge there are no dangerous or poisonous fish along the Black Sea or the Danube.

VI. MEDICAL FACILITIES

a. Hospitals -

A large number of the hospitals in Bulgaria are maintained by the central government or the municipalities. However many private physicians, specialists in the various fields of Medicine have their own private hospitals - smaller in size and more expensive than the state hospitals. Unlike many other countries there is hardly any philanthropic support of hospitals in Bulgaria.

In 1939 the Bulgarian government reported (at the League of Nations Conference on Rural Life) that it had one hospital bed for every 600 people in the country. Even other Balkan countries, such as Roumania and Yougoslavia had one bed for each 200 inhabitants as far back as in 1930 (Bulgaria at the time had 1 bed per each 670 people.)

The state hospitals are divided into I, II and III classes according to the number of personnel, beds, equipment etc. The IIIrd. class type, usually a single physician with very inadequate facilities, has never been popular and is gradually disappearing as people learn to seek more specialized help offered by the larger hospitals. Some of these little "hospitals" have been turned into sanatoria or "climatic stations" for convalescents. Large hospitals are both

more economical to run and more trusted by the population.

Many new hospitals have been recently completed in Bulgaria - such as the very modern hospital for contagious diseases in Sofia or the large hospital for workers with attached dispensary where social security makes excellent care available, again in Sofia. The annual report of the Public Health Directorate in 1930 gives the list of state hospitals and a map of their location, which follow here -

STATE HOSPITALS IN BULGARIA - 1930
(arranged alphabetically)

NAME OF TOWN	CLASS OF HOSPITAL	NO.BEDS	NO.OF DIVISION
Aitos	III	20	
Balbunar	III	30	
Bela	Insane asylum (men)	200	
Bela Slatina	II	25	
Belogradchik	III	10	
Berkovitsa	Climatic station	30	
Breznik	III	16	
Burgas	I	230	V
Chepelare	Climatic station	40	
Chirpan	" "	150	
Dupnitsa	II	80	
Drenovo	Climatic station	30	
Elena	III	20	
Elhovo	III	35	
Eski Djumaya	III	30	
Ferdinand	II	40	
Gabrovo	II	40	
Gorna Orehovitsa	III	15	
Haskovo	I	400	IV
Iskarets	Sanatorium (t.b.)	180	
Karlovo	II	40	
Karlukovo	Insane asylum(women)	160	
Kotel	III	35	
Kula	III	20	
Kustendil	I	86	II
Ldjene	Climatic station	15	

NAME OF TOWN	CLASS OF HOSPITAL	NO.BEDS	NO.OF DIVISIONS
Lom	II	100	
Iovetch	I	300	IV
Lukovit	III	20	
Malko Turnovo	III	19	
Nevrokop	II	30	
Nikopol	III	70	
Nova Zagora	III	25	
Orehovo	III	50	
Orhane	III	30	
Osman Pazar	III	40	
Panagurishte	III	20	
Pazardjik	II	250	
Pashtera	Climatic station	40	
Petrich	I	30	
Pirdop	Climatic station	30	
Pleven	I	198	V
Plovdiv	I	600	VII
Popovo	III	20	
Radomir	III	30	
Razgrad	II	80	
Razlog	III	20	
Russe	I	300	VI
Samokov	III	40	
Shumen	I	192	IV
Sevlievo	II	40	
Sliven	II	120	
Sofia	I	320	VI

NAME OF TOWN	CLASS OF HOSPITAL	NO. BEDS	NO. OF DIVISIONS
Stara Zagora	I	500	VI
Swichtov	II	80	
Teteven	III	34	
Troyan	III	20	
Trun	Climatic station	50	
Turnovo	I	210	IV
Varna	I	300	V
Varna	Children's Sanatorium	200	
Vetren	III	20	
Vidin	I	176	
Vratsa	I	86	
Yambol	II	60	

TOTAL - (in 1930)

15 First-class hospitals (64 divisions)	3926 beds
13 Second-class hospitals	980 beds
28 Third-class hospitals	711 beds
	5617 beds
2 T.B. Sanatoria	270 beds
1 Children's sanatorium	200 beds
2 Hospitals for the aged	360 beds
1 Maternity hospital	183 beds
9 Climatic stations	410 beds
	1423 beds

The most recent information available (1939) gives the following figures for hospitals in Bulgaria.

75 hospitals, total	8644	beds	under the Department of Public Health
3 municipal hospitals -	82	beds	
5 State hospitals	1434	beds	under other Government Departments
91 private hospitals	1834	beds	
Total: 174 hospitals -	11994*	beds	

*(this figure appears as 11,912 in the Bulgarian pamphlet No. 28 of the League of Nations Conference on Rural Life - 1939)

As everywhere else schools and large government buildings can be converted into hospitals in an emergency. There are very few schools in Bulgaria with living accomodations for the students (the American college of Sofia is an exception - all the students (around 500) and staff live on the campus, about 7 or 8 miles outside of Sofia).

It is extremely difficult to give any estimate as to the quality and amount of supplies in the hospitals of Bulgaria from the information on hand. The "1st. class" hospitals are equipped comparatively well. Most of the larger hospitals have acquired x-ray machines and other modern equipment comparatively recently. The private hospitals are very well equipped as a rule.

The largest clinics and dispensaries are attached to the big public hospitals, such as the Red Cross Hospital, the University clinic and the Workers' hospital in Sofia.

Electricity - most of the towns in Bulgaria are provided with electricity, but in 1939 only 230 villages (or 4.06%) had any electricity. The current is alternating (120 or 150 volts).

Medical Practitioners -

Most of the doctors are Bulgarians, except for a number of doctors who came to the country as refugees after the last war.

Since the facilities of the University of Sofia are quite limited, many students go to other countries for their training. Every candidate must pass a special examination before the Medical Council, before acquiring the right to practise in the country. In 1931, a special detailed study was made of the medical profession in the country. It was found that at the time -

25%	of	all	the	doctors	(501)	were	graduates	of Austrian universities
17%	"	"	"		(391)	"	"	" German "
16%	"	"	"		(378)	"	"	" Bulgarian university
11%	"	"	"		(263)	"	"	" Russian universities
11%	"	"	"		(250)	"	"	" French "
8%	"	"	"		(189)	"	"	" Yugoslavia "
4%	"	"	"		(100)	"	"	" Czech "
8%	"	"	"		(258)	"	"	" all other "

Out of the total of 2330 doctors, 355 (or 15%) were women. It is to be noted that doctors graduated from German speaking universities are in a predominant majority (Austrian and German university graduates form 42%; if Czech universities and the University of Zagreb, which were German speaking before the last war, are added - more than 50%). It is evident then that most of the Bulgarian doctors speak German and are familiar with German scientific literature.

The number of doctors has been steadily increasing in the past years. There is a great concentration of doctors in the cities, which can be partially explained by the fact that most of the

spitals are in larger towns as well as the biggest private practice.

There were 2330 doctors in 1931 -

One doctor for every 2525 persons of the total population
" " " " 760 persons of the urban population
" " " " 9595 persons of the rural population

27% of all the doctors were in the capital, Sofia -

One doctor for every 403 persons in the capital

There is no school of Dentistry in Bulgaria (the University of Sofia was supposed to receive an appropriation for the opening of a dental faculty in 1940 or 1941, there is no information as to whether the faculty was opened or not). Most of the dentists are concentrated in the larger towns, especially since the rural population is not accustomed to seek their help.

The School of Nursing of the Bulgarian Red Cross is the only one in the country. Its graduates, as well as a number of Russian nurses (refugees) hold all the positions. In recent years the organization for the training of nurses was greatly improved. The standards for admission to the school were raised, the teaching reorganized etc. Earlier attempts to develop Public Health Nursing proved rather unsuccessful - but it has now been introduced as part of the regular curriculum in the school of nursing (the head nurse of the Near East Foundation Health Center in Koniovitsa was called in 1941 to teach the subject at the school.)

The midwife is an extremely important person in hundreds of isolated communities where no doctor is available (and certainly no nurses; as rural nursing is not at all developed). Good courses for training of midwives have been established in connection with the Maternity Hospital in Sofia. All the midwives are responsible to

the district doctors and are under their supervision.

There is a good faculty of chemistry at the University of Sofia, but special courses for Laboratory technicians are not likely to be available. The Institute of Public Health trains a number of technicians; many study abroad.

c. Laboratories -

Section 127 of the Law of Public Health provides that the production of serums and similar products will be done exclusively by the state and at the same time allows the state to monopolize the buying of vaccines, serums, etc. from abroad.

The Microbiological section of the Institute of Public Health supplies not only the government health services but also private physicians. Here are the figures for the production of various biological products for 1930 and 1931 -

d. SERUMS (in litres)		1930	1931
Against -			
Diphtheria	Produced -	49.4	139.5
	Used -	93.9	137.3
Tetanus	Produced -	93.5	178.5
	Used -	31.0	---
Streptoccocus	Produced -	60.5	96.9
	Used -	62.0	84.3
Scarlet fever		---	20.06
		10.0	9.6
Dysentery	Produced	---	44.5
	Bought	44.0	15.0
	Used	---	47.5

VACCINES (in litres)		1930	1931
Typhoid	Produced -	822.0	590.0
	Used -	822.0	590.0
Dysentery		23.4	40.0
		23.4	40.0
Streptoccocus		6.0	5.0
		6.0	6.0
Gonococcus		2.0	---
		3.0	---
Variola		3.7	1.5
		2.2	1.8
Rabies		25.0	91.8
		25.0	91.8
Diphtheria anti-toxin		301.0	165.0
		296.0	150.0
Scarlet fever anti-toxin			
	Used -	3.0	

f. TOXINES (in litres)

Diphtheria	420.0	250.0
	437.0	250.0
Tetanus	60.0	100.0
	60.0	100.0
Dysentery	20.0	80.0
	15.0	75.0
Streptoccocus	80.0	50.0
	75.0	46.0
Scarlet fever	---	40.0
	---	42.0

Prepared for sale in the form of ampules

28600	44800

bottles

15000	10500

No anti-anthrax serum was produced because there are no stables at the disposal of this division. This serum is either prepared by the Veterinary bacteriological institute or imported from abroad.

Serums for meningitis, pheumonia, snake bites and other biological products which are not used frequently are all imported as the cost of their production in small quantities would be too high.

g. Drugs -

Most of the patented medicines are imported. The numerous products of Bayer, Scherring etc. are available at any pharmacy.

The Pharmaceutical Division of the Directorate of Public Health controls the standards and determines the prices of drugs.

The government has a monopoly on quinine. Large scale free distributions of the drug are made in areas where malaria is endemic (e.g. in 1929 - 1285 kgm. were distributed free and in 1930-1014 kgm.) There are some facilities for preparing quinine and other tablets in the country - to what extent the drugs are imported as raw materials is hard to determine.

At the end of 1930 there were a total of 581 registered pharmacists in Bulgaria. There is no school of Pharmacy in Bulgaria, so they are all graduates of foreign schools. Pharmacies are usually given on concession to qualified men. Many of these concessions are permanent and often remain in one family.

In 1930 there were -

229 private concession pharmacies

36 municipal pharmacies

30 temporary concessions

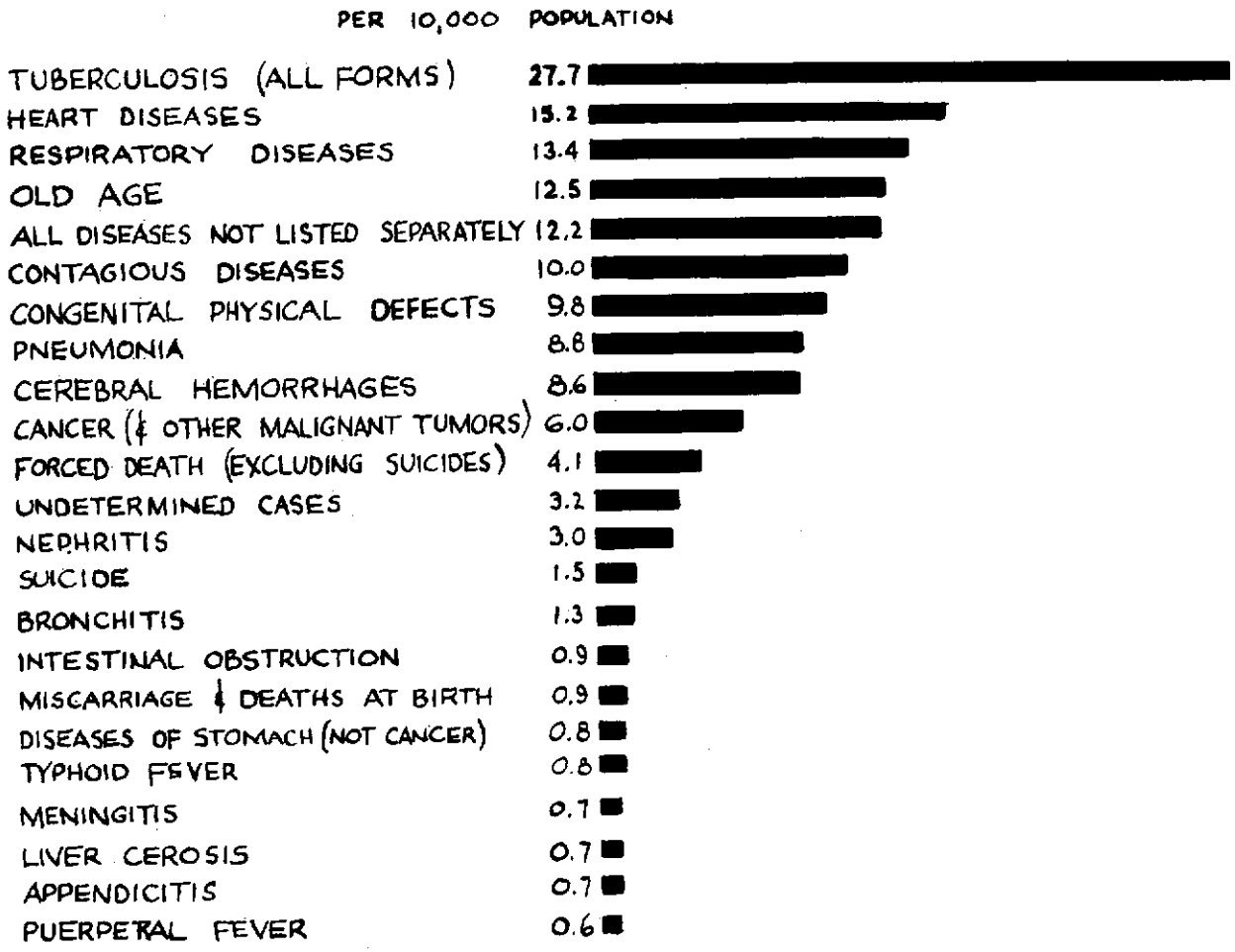
52 "drogerri" (usually no prescriptions are made but all patented medicines and various supplies sold, often wholesale)

Sterilized gauze, bandages and cotton were packaged in a small plant in Sofia.

APPENDIX

DEATH RATES ACCORDING TO CAUSES OF DEATH,

AVERAGE FOR 1927-1930



VII. DISEASE INFORMATION

In 1925 for the first time the national budget included a sum for the organization of a special service, in connection with the Central Health Organization, for fighting "social diseases".

This service was gradually expanded, included in the National Public Health Law (passed in 1929), to cover all the work in connection with tuberculosis, venereal diseases, infant mortality, alcoholism and trachoma, but the development of this work has been rather slow because of lack of finances as well as the complexity of all these problems.

The machinery by which sanitary officers reported all cases of "notifiable" diseases to the Directorate of Public Health was well established in Bulgaria before the war. Since many doctors have been mobilized during the period of war, many sections of the country do not have enough medical personnel at present and sanitary statistics are probably not complete.

The number of cases and deaths from a number of diseases are given on the following page. These are the "corrected statistics" of the League of Nations Health Office (figures checked by the responsible national authorities before they are published by the League).

a. Venereal diseases -

The peasant population is almost completely free from venereal diseases. Most of the sources of contagion can be traced to the larger cities. Because of the nature of the problem, there is really no adequate information as to the extent of these diseases for the whole population.

In the period of 1926-1930 anti-veneral departments were opened in eight state hospitals (these are marked on a map in the appendix).

In a special conference on Syphilis, held in 1[illegible], a total of 7794 cases were reported as known, 850 (or 11%) being in the first stage. Around a million examinations were made by special traveling teams of examiners in the years between 1925 and 1929 and the per cent of population having venereal diseases was found to be 0.95%.

In the last war the incidence among the soldiers was quite low - 120 cases out of 125,000 men (0.68%).

The university clinic is one of the largest hospitals in Sofia. Out of the 63,645 patients treated in the clinic (1921-1930) 787 cases of ulcus durum and 1152 cases of lues secundaris were discovered. Among the 40,000 workers examined by the Sofia dispensaries for workers - 121 cases of venereal diseases were discovered (2% in women and 1% in men).

Treatment of venereal diseases is free in any of the eight state hospitals that have special departments. Through popular education people are urged to report their cases to the health authorities.

All prostitutes, mostly found in large cities, are supposed to be registered with the police office in the city and submit themsleves to a medical examination at regular intervals.

b. Intestinal diseases -

Typhoid fever is endemic not only in most of the towns but also in many villages. In the number of deaths occuring from contagious diseases, it is usually in the first or second place. The disease occurs much more frequently in towns than in villages (91.0 cases per 100,000 urban population and an average of 52.7 cases per 100,000 of rural population). More than 30 epidemics occured in scattered villages between 1926 and 1930. The towns of Kustendil, Vidin, Turnovo and Shumen are most frequently affected.

Only five cases (4 in 1925) of paratyphoid fever were reported between 1921 and 1930.

Epidemics of dysentery are not infrequent. The mortality rate (16.5 - 23.7%) is rather high. Voluntary immunization is made available in the regions affected by the epidemics.

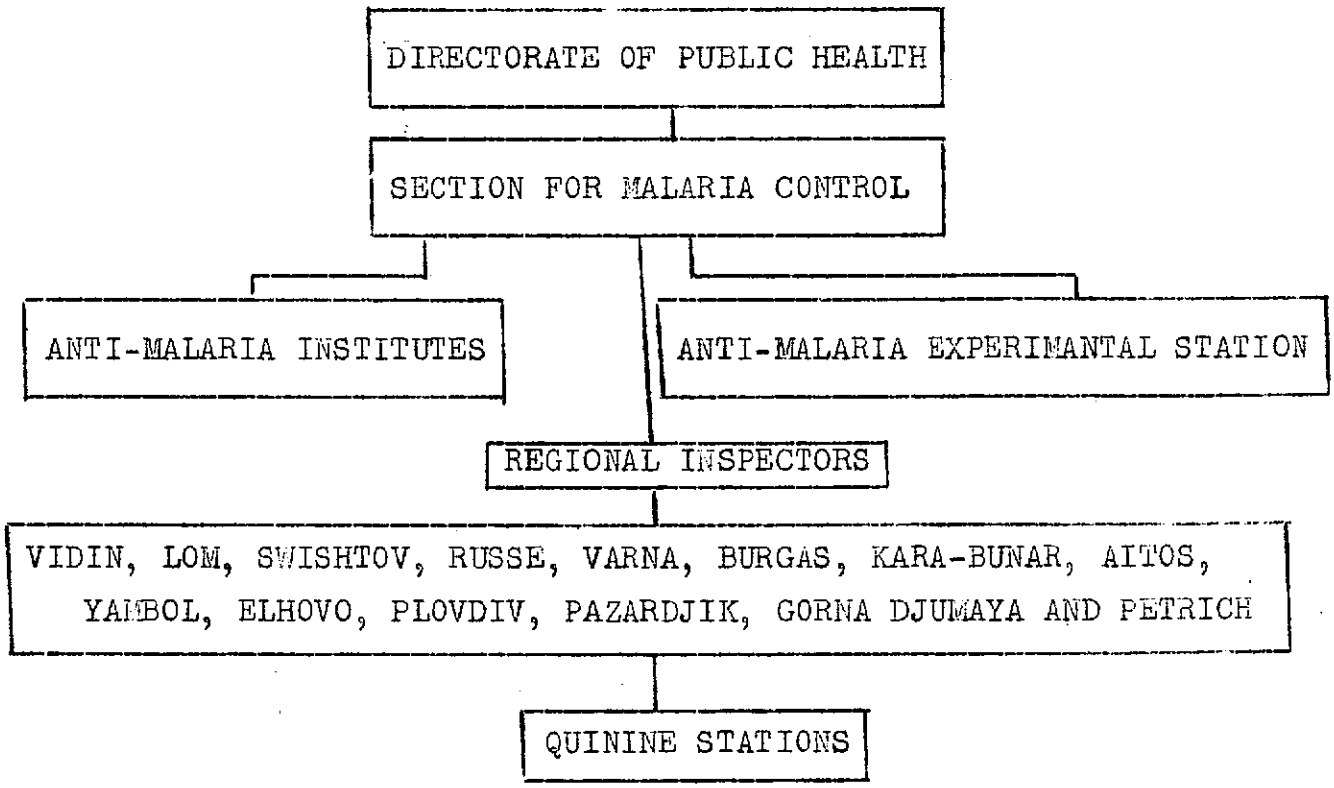
Common diarrhea spreads widely every summer - mostly due to the children's habit of eating very green fruit as well as drinking water from uncontrolled sources.

No case of cholera occured in Bulgaria between 1921 and 1939.

c. Insect-borne diseases -

Yellow fever does not occur in Bulgaria.

Malaria, however, presents a very serious problem and is endemic in the regions around Petrich, Pazardjik and Burgas. A special law was passed as early as 1919 for combatting malaria. The anti - malarial work was the first program in the fight against community diseases.



The results of blood examinations in 1929 and 1930 give an ide of the type of malaria prevalent in Bulgaria -

Results of Blood Examinations in 1929-1930	1929	1930
Total number of examinations	321.404	264.289
Cases of malaria	85.162	73.366
Or per cent	26.1	23.8
Of the positive cases -		
M. tertiana	73.7%	75.0%
M. tropica	24.8%	22.0%
M. quartana	0.9%	0.9%
Mixed forms	0.4%	0.6%

M. tertiana is predominant. A decrease in M. tropica was noticeable in 1930.

The region around Petrich is one where malaria is most prevalent. It is especially hard to combat the disease here because the population is scattered in the mountainous region where there is hardly any agriculture or cattle raising and very few gainful occupations of any kind. This means that food and clothes are insufficient. The hygienic conditions are deplorable and malaria therefore is especially exhausting.

The Rockefeller Foundation established an experimental station in cooperation with the Public Health Dirdctorate. The results obtained in the first year of their work were already significant -

Educational measures in Petrich resulting in -

Year	No. of students examined	Found with parasites	Index	Enlarged Spleens	Index
1929 (29 villages)	2047	595	29.2%	1467	71.6%
1930 (62 villages)	3375	332	9.8%	1774	52.6%

The month of April is the most important time for Paris greening. In the Petrich region alone -

	1935	1938
No. of m2 dusted	2,741,702 m2.	3,692,000 m2.
No. kgm. dust used	56,426 kgm.	43,511 kgm.
No. workdays required		
for dusting -	1,204	1,237
preparing the dust -	85	81
inspection -	366	160

The general plan of organization was developed at Petrich, but projects were under way in other parts of the country in a maximum of three areas for only two years, so the total area studied is still very limited.

Special studies were undertaken in the rice fields in central Bulgaria (around Pazardjik), but the idea of intermittent irrigation was abandoned as it did not prove very successful.

Competent, trained personnel was withdrawn from Petrich in 1938. The disease is endemic in the region and the let down in the intensity of the antilarval campaign may result in a serious flare up of malaria.

Typhus fever (louse borne) occurs more frequently in the peasant population. The Public Health authorities are especially careful about delousing groups of Turkish and gypsy population in areas where the disease is prevalent, because they have been found to be the most frequent carriers.

Typhus fever is considered endemic in some of the following villages - Vidbol (near Vidin), Cherveni Breg, Topolnitsa, Separeva-Bania (Kustendil region), Dolni Orman, Mosomishte, Petralik (near Petrich), Kopriven (near Russe) and Bulgarsko Slivovo (near Turnovo).

Respiratory group of diseases -

Influenza often comes in the form of epidemics in Bulgaria, although there is no detailed information available on their frequency.

Pneumonia often results as a complication from common colds or due to decreased resistance after some contagious disease. The serums for its treatment are imported from abroad (see information under Laboratories in section on Med. Facilities).

Diphtheria is very common and due to the especially high mortality of the disease constitutes a serious public health problem. It usually appears in the form of seasonal epidemics in the towns, but also flares up in the villages, where, due to inadequate care, the mortality rate is especially high.

Immunization is not compulsory, but is usually made available to the school children in the sections where diphtheria is prevalent.

Measles usually leads the list of contagious diseases in the number of cases. There is evidence that the mortality rate is steadily decreasing.

Mumps are very common among children, but almost never fatal.

Epidemic meningitis - occasional cases are reported.

Poliomyelitis often is not diagnosed or treated correctly, but occurs both in towns and villages. In the summer of 1941 there was quite a widespread epidemic in Sofia apparently, as all the schools remained closed until November when the epidemic was brought under control.

Tuberculosis - This is the most serious health problem in the country. There is an estimated 120 - 150,000 cases in the country with as many as 10 - 18,000 deaths occuring every year. The mortality of the rural population from tuberculosis is always lower

.n that in the larger cities and towns.

Many sanatoria have been developed in the country. A detailed .isting of all the anti-tuberculosis institutions follows:

Number of beds for Tuberculosis patients under state hospital service, period 1904 - 1931

A. Sanatoria	Opened in	No. of beds
Troyan	1904	90
Iskrets	1919	200
Peshtera - for children	1931	25
Varna - for children with surgical Tuberculosis	1905	200
B. Sections for chest diseases in Government hospitals:		
Sofia	1919	90
Plovdiv	1925	130
Lovetch	1925	45
Turnovo	1925	30
Russe	1925	30
Switchtov	1925	20
Pazardjik	1925	25
Shumen	1930	36
Stara-Zagora	1931	80
Haskovo	1931	80
Burgas	1931	20
C. "Climatic Cure" Stations		
Trn	1925	30
Lejene	1925	15
Peshtera	1925	-
Stanimaka	1925	15
Chepelare	1925	20
Drenovo	1925	25
Chirpan	1926	30
Pirdop	1928	20
Berkovitsa	1918	15
Osman-Pazar	1929	20
Vetren	1930	15
D. Division for Surgical Tuberculosis, connected with government hospital		
Stara-Zagora	1931	80
		1446 beds

Total: In 1924 - 4 institutions, 420 beds
In 1931 - 26 institutions with 1446 beds

NB - In 1931 - new pavilions were under construction which were to bring up the total number of beds to 1671.

The Hygienic Survey published by the University of Sofia reported in 1941 a study on Tuberculosis in school children. A positive reaction was reported for 29% of the examinations. The average for primary schools was 26.6% and 35.3% for secondary schools.

For the suburbs of Sofia -

Koniovitsa	-	primary schools	- 17.1%
		secondary schools	- 21.5%
Other suburbs	-	primary schools	- 49.2%
		secondary schools	- 35.0%

The health program of the Near East Foundation in the Koniovitsa section of Sofia was considered as the cause for the marked difference in the occurence of Tuberculosis among school children, since the Foundation for a number of years has put special emphasis on combatting the disease.

Bovine Tuberculosis is probably quite widespread and the boiling of milk is considered a necessary precaution.

e. Other diseases -

There was a case of bubonic plague brought in by a ship in 1924.

The last case of smallpox was reported in 1927 (in the period between 1921 and 1924 there were 64 cases.)

Leprosy is only brought into the country in isolated single cases. Figures for trachoma, tetanus and chicken pox are included in the statistics for "notifiable diseases".

CORRECTED STATISTICS OF N IFIABLE DISEASES

Annual Epidemiological Report for 1936, published by the Health Section of the League of Nations; Geveva 1941

		1936	1937	1938
Intestinal Diseases				
Typhoid Fever	C -	7128	4509	2911
	D -	566	359	252
Dysentery	C -	285	1955	1466
	D -	50	228	168
Insect-borne Diseases				
Typhus fever	C -	207	160	91
	D -	25	17	12
Respiratory diseases				
Influenza	D -	25	158	85
Diphtheria	C -	10025	9208	5728
	D -	818	733	488
Measles	C -	9073	11340	5838
	D -	52	46	41
Mumps	C -	11072	3427	2329
	D -	5	1	1
Cerebro-spinal Meningitis	C -	33	53	204
	D -	15	27	88
Acute Poliomyelitis	C -	43	39	67
	D -	11	8	5
Other Communicable Diseases				
Small Pox - last case reported in 1927				
Chicken pox	C -	2154	2486	2165
	D -	4	2	4
Leprosy	C -	0	1	0
Trachoma	C -	338	74	70
Tetanus	C -	368	359	315
	D -	196	176	174
Scarlet fever	C -	2956	3831	4056
	D -	280	472	514
Whooping cough	C -	4537	4618	5908
	D -	223	166	283
Puerperal fever	C -	394	289	283
	D -	162	116	99
Encephalitis lethargica	C -	8	4	4
	D -	6	1	1
Rabies	D -	8	15	19

C = Cases

D = Deaths

Leospirosis (infectious jauntice) may occur and s... ...s be improperly diagnosed or confused with "black water fever".

ala-azar may also occur occasionally.

Puerperal fever usually has a very high mortality rate especially among the rural population where adequate care is not available and old superstitions and customs are practiced.

Rabies among animals was rather frequent in the period between 1928 and 1930, for example, out of a 1000 patients treated -

855	were	bitten	by	dogs
60	"	"	"	cattle
58	"	"	"	cats
2	"	"	"	wolves
2	"	"	"	other animals
977				
23	were	bitten	by	men.

Due to the development of anti rabies stations in Sofia, Plovdiv and one or two other centers - very few cases of rabies occured - out of the 4,210 people bitten in 1930 only five cases of rabies developed.

Rheumatic fever probably occurs quite frequently, but until the disease is really understood no adequate statistical information can be available.

Articular rheumatism causes endless suffering and pain, especially to older people who do not have adequate living accomodations and sufficient food.

Mild cases of pellagra found in areas of northern Bulgaria where the diet is often mostly cornmeal.

Citrus fruits are all imported (mostly from Palestine) and are not at all known to the peasant population.

Vitamin C is probably mainly received from cabbage which is grown in large quantities.

iseases of the skin -

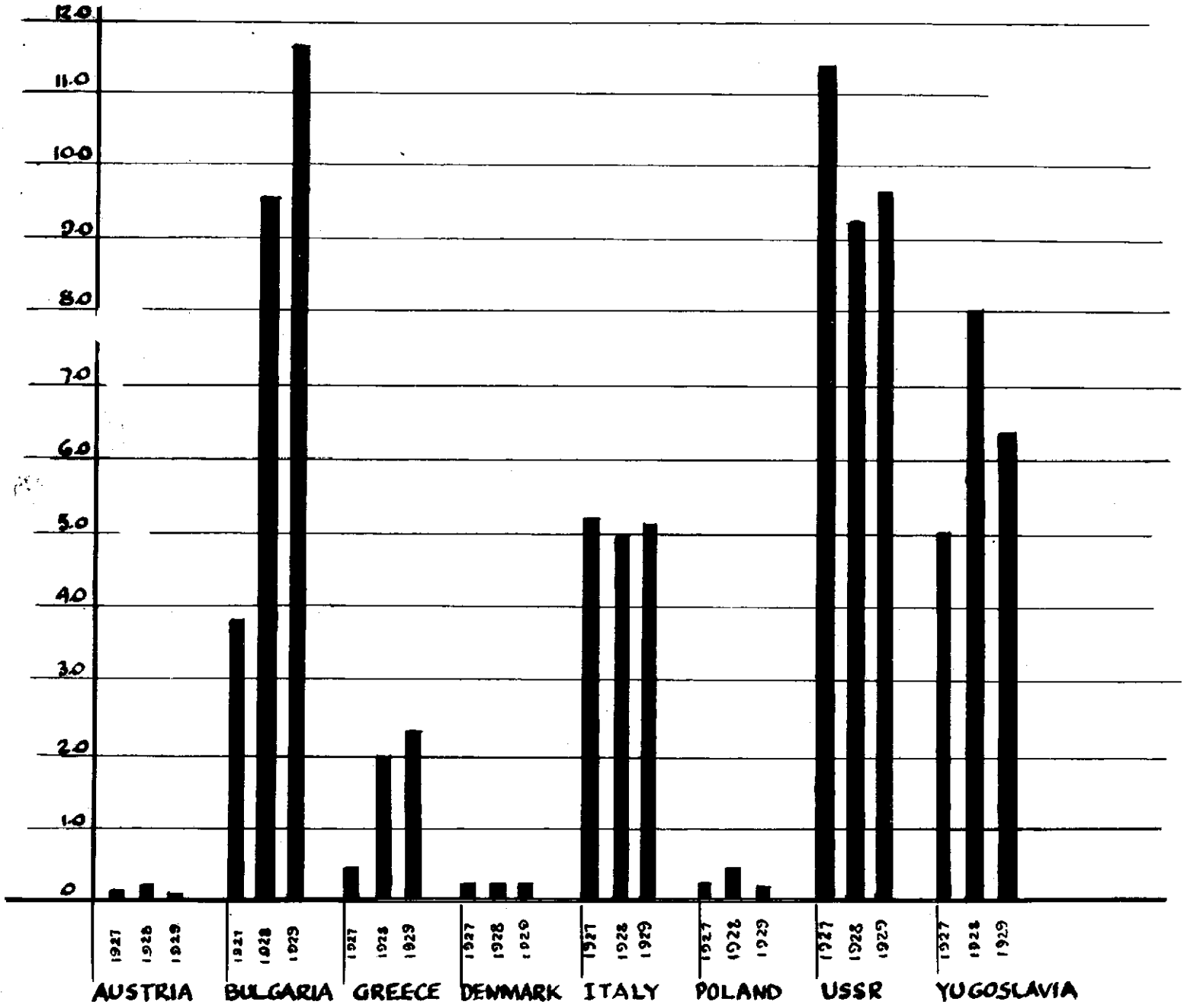
Scabies and Impetigo are most common among children especially, o are not well acquainted with the use of soap and do not get their clothes changed very often. Some other skin diseases are very likely to occur as cleanliness is often not a practised virtue.

g. Intestinal parasites -

Hookworm is not found in Bulgaria. Roundworm, tapeworm, pinworm, thread worm all occur more or less frequently.

ANTHRAX

MORTALITY RATE PER 100,000 POPULATION FOR THE YEARS 1927, 1928 AND 1929 IN BULGARIA AND OTHER COUNTRIES



VIII. CONTROL MEASURES

Every ship, especially if it comes by sea, is carefully examined and if any contagious disease is discovered - it is quarantined. There are quarantine stations in Varna and Burgas, as well as in Russe and probably Lom (on the Danube). There are also small quarantine stations on the frontiers at points where people and goods enter the country.

Quarantine in cases of all contagious diseases is strictly observed. Most of the cases are taken to the hospitals and the home and classrooms thoroughly disinfected by the Public Health author-

but when a patient remains at home - a sign is put on the door of the house and a guard posted in from of the house to prevent any contact with people from the outside.

Vaccination against smallpox is compulsory for all newborn babies and the population cooperates fully with this measure. Children are revaccinated at the age of seven, when they enter the first grade of school. The vaccine is prepared by the Institute of Public Health.

Draining of swamps and the use of Paris Green as well as the introduction of gambusia, have been the main measures against mosquitoes.

No systematic poisoning and trapping of rats is usually undertaken.

IX. DISEASES OF ANIMALS

There is a school for veterinarians in Sofia and its graduates, spread around the whole country, are rendering extremely valuable service.

Bovine Tuberculosis occurs rathe requently, + e milk s usually boiled as a precaution as there is no pasteurization.

The occurence of rabies is discussed under the paragraph for nis disease in man.

Anthrax is especially deadly in Bulga..a (See Append'x for comparative mortality rates). People working with leather and wool are exposed to contagion.

Hoof and mouth disease does not occur in Bulgaria.

X. RECREATION

The average peasant child finishes four grades of school after feels "grown up" and it is hard to convince him that he is ot too old to join some game. The life of any boy or girl in the llage is one of hard work in the field or around the house which vides plenty of exercise. Every Sunday afternoon, though, the le village turns out to the square where folk dances, beautiful their rhythm and quickness, go on until dark.

The Near East Foundation has been the leading force in the organization of playgrounds both in the cities and in the rural communities. Based on the pattern of the large Koniovitsa playground, directed by leaders trained in recreation, there are about 450-500 playgrounds for children around the country.

Summer camps, or "colonies" as they are called in Bulgaria, are steadily growing in number. The YMCA used to have two excellent camps for boys - one in Varna on the Black sea and one in the Rila mountains (these camps have been taken over by the newly organized Youth Movement in the country.) Most of the summer colonies achieve one thing - add kilogrammes to the weight of the children, even if they leave a lot to be desired along the lines of organized sports, varied activities, etc.

Mountain climbing is very popular in Bulgaria, Vitosha, for instance, is literally covered by thousands of enthusiatic hikers who need only a full knapsack and a bright day to make their Sundays perfect. Somebody once said that touring is taking the place of religion - the symptoms in Bulgaria are rather strong! Skiing is almost as popular in the winter.

Although no school requires the passing of a swimming test for the obtaining of a diploma (famous tradition in New England colleges) - the summer places on the sea shore are very popular. Varna is especially well developed as a resort and used to attract visitors other countries as well as all the parts of Bulgaria.

Bulgaria has fine possibilities for developing as a great country for tourists, because of the great beauty of its mountains and sea shore as well as the very low price of living. Lack of capital makes the development of resorts and improvement of roads difficult.

Of organized sports - soccer is most popular. There are several clubs in Sofia. Several of them own stadiums which are always packed full by enthusiastic and shouting fans. Athletics - races, throwing of javeline and discus, etc. are also quite popular.

The gymnastic society - Younak (similar to the Sokols) has a large membership among all ages, and participates in international gatherings between similar organizations in Czechoslovakia, Yugoslavia, Poland.

There are large and beautiful parks in the municipality of Sofia and the other large towns.

Tennis, horseback riding are the sports of the more rich.

A NEAR EAST FOUNDATION HEALTH AND TRAINING PROJECT

(KONIAVITSA, SOFIA—PRINCIPAL ACTIVITIES, 1938-39)