

# A Study on the Distribution of Pharmacies in Turkey for the 1990-1996 Period

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## *A Study on the Distribution of Pharmacies in Turkey for the 1990-1996 Period*

**Summary :** There are eight Faculties of Pharmacy in Turkey. Some of the graduates from these faculties work in state institutions and hospitals, some of them work in the pharmaceutical industry and universities but most of them establish a community pharmacy or work in a pharmacy.

In this study, the distribution of the pharmacies, and ratio of population/pharmacy have been investigated for the 1990-1996 period.

Data for this study were collected by reviewing of the records of the pharmacies in the Pharmacy Licence Branch of the records of the General Directorate of Drug and Pharmacy of the Ministry of Health. These data have been evaluated together with the information obtained from the State Institute of Statistics of Republic of the Turkey.

The study showed that, the estimated population of Turkey is 62.697.000 and there are 16.716 pharmacies in 80 cities at the end of 1996. According to these data, there is one pharmacy for 3.750 persons in Turkey.

The data of this study have been compared with data of previous studies and some evaluations have been carried out.

**Key words:** Pharmacies, Population, Distribution of pharmacies

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## *Türkiye'de 1990-1996 Yılları Arasında Eczanelerin Dağılımı Üzerinde Bir Çalışma*

**Özet :** Türkiye'de 8 eczacılık fakültesi bulunmaktadır. Bu fakültelerden mezun olan eczacıların bir kısmı kamu sektöründe, bir kısmı ilaç sanayiinde, bir kısmı üniversitelerde çalışmakta, büyük bir kısmı ise Türkiye'nin çeşitli yerlerinde eczane açmaktadır.

Bu araştırmada 1990'dan 1996 sonuna kadar Türkiye'deki eczane başına düşen nüfus ve eczane dağılımı incelenmiştir.

Bu araştırmanın verileri Sağlık Bakanlığı İlaç ve Eczacılık Genel Müdürlüğü Eczane Ruhsatları Dairesi kayıtlarının incelenmesiyle toplanmıştır. Bu veriler Türkiye Cumhuriyeti Devlet İstatistik Enstitüsünden alınan bilgiler doğrultusunda değerlendirilmiştir.

Ülkemizdeki 1996 yıl sonu itibariyle 80 ildeki toplam eczane sayısı 16.716'dır. Türkiye'nin tahmini toplam nüfusu 62.697.000'dir. Buna göre Türkiye'de eczane başına düşen nüfus 3.750'dir.

**Anahtar kelimeler:** Eczane, Nüfus, Eczane dağılımı

## INTRODUCTION

There are eight Faculties of Pharmacy in Turkey. Some of the graduates from these faculties work in state institutions and hospitals, some of them work in pharmaceutical industry and universities but most of them establish a community pharmacy or work in a pharmacy.

In this study, the distribution of pharmacies and the relations between pharmacy numbers and population have been investigated for the 1990-1996 period.

Data for this study were collected by reviewing of the records of the pharmacies in the Pharmacy Licence Branch of the General Directorate of Drug and Pharmacy of the Ministry of Health. These data

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were evaluated together with the information obtained from the State Institute of Statistics of the Republic of Turkey.

## MATERIAL and METHOD

The material for the study was collected by scanning the records of the General Directorate of Pharmaceuticals of the Ministry of Health and through interviews with the authorities<sup>1</sup>.

The documents related to the census have been provided by the State Institute of Statistics. In Turkey the last general population census was carried out in 1990. For this reason the estimated population data related to 1991-1996 period have been provided by the authorities of the State Institute of Statistics<sup>2,3</sup>.

There were 67 provinces in 1989, 13 new provinces have since been established in making a total of 80 in 1996.

Population/Pharmacy ratios have been determined by dividing the population of provinces by the number of pharmacies in the same province for each year of the study period.

## RESULTS AND DISCUSSION

The total number of pharmacies in 80 provinces, the estimated populations and the population per pharmacy is shown in Table 1 for the study period<sup>1,2,3</sup>.

The estimated population of Turkey is 62.697.000, the total number of pharmacies is 16.716 and the population per pharmacy is 3.750 at the end of 1996.

In a previous study, the number of the pharmacies was given as 12.292, the population of Turkey 55.775.275 and the population per pharmacy 4.538 for 1989<sup>5</sup>.

The provinces that have the highest number of pharmacies in 1996 are İstanbul (3.700), Ankara (1.410), İzmir (1.376), Bursa (576), Adana (504), Konya (482), Antalya (467) and Aydın (412) and the provinces that have the lowest number of pharmacies are Bayburt (4), Ardahan (7), Iğdır (8), Şır-

nak (10), Tunceli (10), Hakkari (11), Gümüşhane (19) and Batman (21) (Table 1).

**Table 1.** Distribution of Pharmacies for 1990-1996 Period

Province	1990		
	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,934,907	427	4531
Adıyaman	513,131	40	12828
Afyon	739,223	114	6484
Ağrı	437,093	28	15610
Amasya	357,191	49	7290
Ankara	3,236,626	1009	3208
Antalya	1,132,211	317	3572
Artvin	212,833	31	6866
Aydın	824,816	255	3235
Balıkesir	973,314	259	3758
Bilecik	175,526	39	4501
Bingöl	250,966	19	13209
Bitlis	330,115	22	15005
Bolu	536,869	104	5162
Burdur	254,899	54	4720
Bursa	1,603,137	417	3844
Çanakkale	432,263	96	4503
Çankırı	279,129	35	7975
Çorum	609,863	92	6629
Denizli	750,882	204	3681
Diyarbakır	1,094,996	187	5856
Edirne	404,599	83	4875
Elazığ	498,225	71	7017
Erzincan	299,251	33	9068
Erzurum	848,201	72	11781
Eskişehir	641,057	202	3174
Gaziantep	1,140,594	274	4163
Giresun	499,087	79	6318
Gümüşhane	169,375	17	9963
Hakkari	172,479	7	24640
Hatay	1,109,754	217	5114
Isparta	434,771	85	5115
İçel	1,266,995	281	4509
İstanbul	7,309,190	2837	2576
İzmir	2,694,770	1106	2437
Kars	662,155	55	12039
Kastamonu	423,611	57	7432
Kayseri	943,484	182	5184
Kırklareli	309,512	78	3968
Kırşehir	256,862	42	6116
Kocaeli	936,163	214	4375

Konya	1,750,303	356	4917	Artvin	210,364	32	6574
Kütahya	578,020	95	6084	Aydın	836,387	262	3192
Malatya	702,055	82	8562	Balıkesir	982,735	271	3626
Manisa	1,154,418	306	3773	Bilecik	177,568	37	4799
K.Maraş	892,952	109	8192	Bingöl	249,983	21	11904
Mardin	557,727	46	12125	Bitlis	334,081	23	14525
Muğla	562,809	165	3411	Bolu	541,116	109	4964
Muş	376,543	21	17931	Burdur	255,595	54	4733
Nevşehir	289,509	54	5361	Bursa	1,637,638	457	3583
Niğde	305,861	55	5561	Çanakkale	433,989	98	4428
Ordu	830,105	119	6976	Çankırı	251,552	39	6450
Rize	348,776	63	5536	Çorum	609,514	96	6349
Sakarya	683,061	130	5254	Denizli	762,921	222	3437
Samsun	1,158,400	212	5464	Diyarbakır	1,120,168	200	5601
Siirt	243,435	30	8115	Edirne	406,339	86	4725
Sinop	265,153	39	6799	Elazığ	499,748	73	6846
Sivas	767,481	79	9715	Erzincan	298,656	33	9050
Tekirdağ	468,842	119	3940	Erzurum	845,619	80	10570
Tokat	719,251	79	9104	Eskişehir	647,253	206	3142
Trabzon	795,849	164	4853	Gaziantep	1,033,141	283	3651
Tunceli	133,143	13	10242	Giresun	498,715	79	6313
Urfa	1,001,455	116	8633	Gümüşhane	167,412	16	10463
Uşak	290,283	65	4466	Hakkari	177,559	9	19729
Van	637,433	41	15547	Hatay	1,125,051	233	4829
Yozgat	579,150	65	8910	Isparta	442,318	89	4970
Zonguldak	1,073,560	174	6170	İçel	1,302,153	292	4459
Aksaray	326,399	46	7096	İstanbul	7,413,084	2958	2506
Bayburt	107,330	6	17888	İzmir	2,750,268	1137	2419
Karaman	217,536	41	5306	Kars	345,358	61	5662
Kırıkkale	349,396	42	8319	Kastamonu	418,326	58	7213
Batman	344,669	24	14361	Kayseri	954,891	193	4948
Şırnak	262,006	12	21834	Kırklareli	310,996	81	3839
Bartın	-	-	-	Kırşehir	255,707	43	5947
Ardahan	-	-	-	Kocaeli	949,786	213	4459
Iğdır	-	-	-	Konya	1,779,970	374	4759
Yalova	-	-	-	Kütahya	582,206	101	5764
Karabük	-	-	-	Malatya	706,703	83	8514
Kilis	-	-	-	Manisa	1,169,427	317	3689
Osmaniye	-	-	-	K.Maraş	901,243	116	7769
				Mardin	568,119	57	9967
				Muğla	574,086	175	3280
				Muş	381,824	25	15273
				Nevşehir	290,930	58	5016
				Niğde	304,038	57	5334
				Ordu	835,809	121	6908
				Rize	344,207	64	5378
				Sakarya	693,743	133	5216
				Samsun	1,167,486	216	5405
				Siirt	245,393	36	6816
				Sinop	262,367	40	6559

1991			
Province	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,575,910	442	3565
Adıyaman	525,382	51	10302
Afyon	749,280	125	5994
Ağrı	438,941	27	16257
Amasya	358,490	57	6289
Ankara	3,282,987	1038	3163
Antalya	1,168,622	329	3552

Sivas	764,957	86	8895	Erzurum	839,841	84	9998
Tekirdağ	478,583	123	3891	Eskişehir	654,543	203	3224
Tokat	724,009	82	8829	Gaziantep	1,064,344	291	3658
Trabzon	796,140	163	4884	Giresun	496,224	80	6203
Tunceli	130,587	12	10882	Gümüşhane	164,906	17	9700
Urfa	1,032,584	122	8464	Hakkari	184,650	10	18465
Uşak	292,953	64	4577	Hatay	114,507	240	477
Van	650,728	46	14146	Isparta	452,439	94	4813
Yozgat	583,609	65	8979	İçel	1,350,688	317	4261
Zonguldak	655,502	145	4521	İstanbul	7,716,909	3091	2497
Aksaray	333,750	45	7417	İzmir	2,825,869	1177	2401
Bayburt	106,857	5	21371	Kars	337,942	44	7681
Karaman	216,242	41	5274	Kastamonu	410,144	56	7324
Kırıkkale	347,243	42	8268	Kayseri	969,096	205	4727
Batman	352,973	23	15347	Kırklareli	312,467	83	3765
Şırnak	268,945	12	22412	Kırşehir	253,670	45	5637
Bartın	205,762	28	7349	Kocaeli	990,300	223	4441
Ardahan	-	-	-	Konya	1,816,184	385	4717
Iğdır	-	-	-	Kütahya	587,208	98	5992
Yalova	-	-	-	Malatya	711,928	95	7494
Karabük	-	-	-	Manisa	1,188,884	333	3570
Kilis	-	-	-	K.Maraş	909,461	123	7394
				Mardin	585,343	65	9005
				Muğla	589,413	177	3330
				Muş	388,740	24	16198
				Nevşehir	292,353	60	4873
				Niğde	306,799	59	5200
				Ordu	847,049	132	6417
				Rize	336,657	64	5260
				Sakarya	707,588	134	5281
				Samsun	1,174,051	222	5289
				Siirt	247,715	36	6881
				Sinop	257,643	41	6284
				Sivas	760,426	88	8641
				Tekirdağ	491,863	129	3813
				Tokat	730,011	87	8391
				Trabzon	794,721	159	4998
				Tunceli	125,857	14	8990
				Urfa	1,076,175	133	8092
				Uşak	296,048	64	4626
				Van	668,857	44	15201
				Yozgat	588,842	66	8922
				Zonguldak	656,584	142	4624
				Aksaray	337,674	43	7853
				Bayburt	105,911	5	21182
				Karaman	217,308	41	5300
				Kırıkkale	342,000	38	9000
				Batman	365,229	22	16601
				Şırnak	278,571	10	27857
				Bartın	205,178	28	7328

1992			
Province	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,611,661	457	3527
Adıyaman	542,259	55	9859
Afyon	762,758	131	5823
Ağrı	440,651	31	14215
Amasya	356,616	62	5752
Ankara	3,344,219	1085	3082
Antalya	1,219,700	356	3426
Artvin	206,227	31	6652
Aydın	851,539	371	2295
Balıkesir	992,953	278	3572
Bilecik	180,171	37	4869
Bingöl	250,746	22	11398
Bitlis	339,163	25	13567
Bolu	546,133	112	4876
Burdur	256,029	53	4831
Bursa	1,695,110	471	3599
Çanakkale	435,530	105	4148
Çankırı	254,230	39	6519
Çorum	609,360	96	6348
Denizli	778,935	231	3372
Diyarbakır	1,152,611	209	5515
Edirne	407,966	88	4636
Elazığ	500,837	76	6590
Erzincan	297,082	29	10244

Ardahan	154,354	9	17150
Iğdır	142,149	10	14215
Yalova	-	-	-
Karabük	-	-	-
Kilis	-	-	-
Osmaniye	-	-	-

1993			
Province	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,647,456	489	3369
Adıyaman	559,337	61	9169
Afyon	776,126	139	5584
Ağrı	442,066	34	13002
Amasya	354,380	62	5716
Ankara	3,405,049	1142	2982
Antalya	1,271,728	389	3269
Artvin	201,763	32	6305
Aydın	866,572	386	2245
Balıkesir	1,002,747	290	3458
Bilecik	182,727	37	4939
Bingöl	251,332	22	11424
Bitlis	344,163	26	13237
Bolu	550,894	115	4790
Burdur	256,270	55	4659
Bursa	1,753,386	510	3438
Çanakkale	436,773	115	3798
Çankırı	256,802	37	6941
Çorum	608,702	100	6087
Denizli	794,923	242	3285
Diyarbakır	1,185,348	227	5222
Edirne	409,320	92	4449
Elazığ	501,558	80	6269
Erzincan	295,206	30	9840
Erzurum	833,155	85	9802
Eskişehir	661,576	204	3243
Gaziantep	1,095,866	299	3665
Giresun	493,232	82	6015
Gümüşhane	162,169	17	9539
Hakkari	191,862	10	19186
Hatay	1,164,848	258	4515
Isparta	462,576	99	4672
İçel	1,399,968	340	4118
İstanbul	8,026,007	3243	2475
İzmir	2,902,041	1226	2367
Kars	329,968	44	7499
Kastamonu	401,315	60	6689
Kayseri	983,049	211	4659
Kırklareli	313,738	86	3648
Kırşehir	251,348	47	5348

Kocaeli	1,031,549	230	4485
Konya	1,852,294	410	4518
Kütahya	591,920	107	5532
Malatya	716,769	100	7168
Manisa	1,208,111	345	3502
K.Maraş	917,247	126	7280
Mardin	594,596	72	8258
Muğla	604,841	186	3252
Muş	395,601	24	16483
Nevşehir	293,592	63	4660
Niğde	309,414	57	5428
Ordu	858,026	139	6173
Rize	328,544	65	5055
Sakarya	721,382	137	5266
Samsun	1,179,905	232	5086
Siirt	249,923	37	6755
Sinop	252,527	44	5739
Sivas	755,100	90	8390
Tekirdağ	505,246	134	3770
Tokat	735,643	92	7996
Trabzon	792,598	162	4893
Tunceli	120,843	14	8632
Urfa	1,120,547	140	8004
Uşak	299,018	66	4531
Van	687,130	48	14315
Yozgat	593,792	70	8483
Zonguldak	657,169	142	4628
Aksaray	341,474	43	7941
Bayburt	104,842	5	20968
Karaman	218,236	40	5456
Kırıkkale	336,278	38	8849
Batman	377,655	22	17166
Şırnak	288,336	10	28834
Bartın	204,403	28	7300
Ardahan	144,556	9	16062
Iğdır	141,613	10	14161
Yalova	-	-	-
Karabük	-	-	-
Kilis	-	-	-
Osmaniye	-	-	-

1994			
Province	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,683,321	514	3275
Adıyaman	576,623	63	9153
Afyon	789,397	143	5520
Ağrı	443,195	34	13035
Amasya	351,788	65	5412
Ankara	3,465,536	1187	2920

Antalya	1,324,719	417	3177	Sinop	247,027	43	5745
Artvin	196,979	34	5794	Sivas	748,997	95	7884
Aydın	881,500	391	2254	Tekirdağ	518,740	139	3732
Balıkesir	1,012,138	297	3408	Tokat	740,922	93	7967
Bilecik	185,238	38	4875	Trabzon	789,788	164	4816
Bingöl	251,748	22	11443	Tunceli	115,549	13	8888
Bitlis	349,084	27	12929	Urfa	1,165,713	158	7378
Bolu	555,411	116	4788	Uşak	301,869	68	4439
Burdur	256,324	55	4660	Van	705,557	49	14399
Bursa	1,812,489	526	3446	Yozgat	598,471	68	8801
Çanakkale	437,728	116	3774	Zonguldak	657,273	115	5715
Çankırı	259,273	39	6648	Aksaray	345,149	43	8027
Çorum	607,552	100	6076	Bayburt	103,653	4	25913
Denizli	810,897	254	3193	Karaman	219,032	40	5476
Diyarbakır	1,218,395	253	4816	Kırıkkale	330,084	38	8686
Edirne	410,412	98	4188	Batman	390,254	21	18584
Elazığ	501,921	76	6604	Şırnak	298,244	10	29824
Erzincan	293,033	30	9768	Bartın	203,443	28	7266
Erzurum	825,581	75	9713	Ardahan	134,282	8	16785
Eskişehir	668,363	215	3109	Iğdır	140,950	8	17619
Gaziantep	1,127,722	282	3999	Yalova	155,728	51	3053
Giresun	489,750	83	5901	Karabük	246,158	32	7692
Gümüşhane	159,207	17	9365	Kilis	145,605	27	5393
Hakkari	199,194	10	19919	Osmaniye	-	-	-
Hatay	1,184,504	273	4339				
Isparta	472,736	99	4775				
İçel	1,450,011	350	4143				
İstanbul	8,340,465	3314	2517				
İzmir	2,978,826	1271	2344				
Kars	321,443	47	6839				
Kastamonu	391,849	56	6997				
Kayseri	996,769	212	4702				
Kırklareli	314,816	91	3460				
Kırşehir	248,746	50	4975				
Kocaeli	1,073,543	235	4568				
Konya	1,888,328	447	4224				
Kütahya	596,354	107	5573				
Malatya	721,242	108	6678				
Manisa	1,227,127	347	3536				
K.Maraş	924,621	134	6900				
Mardin	607,886	73	8327				
Muğla	620,381	204	3041				
Muş	402,415	28	14372				
Nevşehir	294,651	70	4209				
Niğde	311,890	59	5286				
Ordu	868,753	143	6075				
Rize	319,876	67	4774				
Sakarya	735,137	146	5035				
Samsun	1,185,073	244	4857				
Siirt	252,022	44	5728				

1995			
Province	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,718,922	560	3070
Adıyaman	593,998	70	8486
Afyon	802,415	151	5314
Ağrı	443,953	36	12332
Amasya	348,776	72	4844
Ankara	3,524,992	1274	2767
Antalya	1,378,397	439	3140
Artvin	191,838	34	5642
Aydın	896,150	397	2257
Balıkesir	1,020,959	309	3304
Bilecik	187,667	38	4939
Bingöl	251,945	24	10498
Bitlis	353,859	29	12202
Bolu	559,575	118	4742
Burdur	256,141	57	4494
Bursa	1,872,048	545	3435
Çanakkale	438,311	129	3398
Çankırı	261,592	40	6540
Çorum	605,796	100	6058
Denizli	826,695	272	3039
Diyarbakır	1,251,507	276	4534
Edirne	411,161	100	4112

Elazığ	501,831	79	6352
Erzincan	290,510	31	9371
Erzurum	816,967	86	9500
Eskişehir	674,775	222	3040
Gaziantep	1,159,683	288	4027
Giresun	485,688	88	5519
Gümüşhane	155,989	18	8666
Hakkari	206,607	9	22956
Hatay	1,203,772	290	4151
Isparta	482,825	107	4512
İçel	1,500,518	369	4066
İstanbul	8,658,558	3538	2447
İzmir	3,055,623	1310	2333
Kars	312,311	47	6645
Kastamonu	381,676	58	6581
Kayseri	1,010,060	220	4591
Kırklareli	315,640	92	3431
Kırşehir	245,820	52	4727
Kocaeli	1,116,060	256	4360
Konya	1,923,913	466	4129
Kütahya	600,394	111	5409
Malatya	725,206	114	6361
Manisa	1,245,692	367	3394
K.Maraş	931,402	135	6899
Mardin	621,093	74	8393
Muğla	635,907	217	2930
Muş	409,101	30	13637
Nevşehir	295,475	70	4221
Niğde	314,165	67	4689
Ordu	879,061	144	6105
Rize	310,598	71	4375
Sakarya	784,707	156	5030
Samsun	1,189,327	261	4557
Siirt	253,962	45	5644
Sinop	241,099	45	5358
Sivas	241,977	94	2574
Tekirdağ	532,242	144	3696
Tokat	745,703	96	7768
Trabzon	786,142	170	4624
Tunceli	109,957	12	9163
Urfa	1,211,431	179	6768
Uşak	304,544	71	4289
Van	723,996	52	13923
Yozgat	602,764	70	8611
Zonguldak	656,770	116	5662
Aksaray	348,639	41	8503
Bayburt	102,324	4	25581
Karaman	219,653	40	5491
Kırıkkale	323,360	38	8509
Batman	402,946	21	19188

Şırnak	308,234	10	30823
Bartın	202,260	28	7224
Ardahan	123,511	81	5439
Iğdır	140,131	8	17516
Yalova	161,623	51	3169
Karabük	346,163	32	10818
Kilis	149,808	26	5762
Osmaniye	-	-	-

1996			
Province	Population	Number of Pharmacies	Population/Pharmacy
Adana	1,754,307	504	3481
Adıyaman	611,476	75	8153
Afyon	815,207	152	5363
Ağrı	444,360	38	11694
Amasya	345,362	74	4667
Ankara	3,583,534	1410	2542
Antalya	1,432,783	467	3068
Artvin	186,355	35	5324
Aydın	910,551	412	2210
Balıkesir	1,029,159	319	3226
Bilecik	190,022	38	5001
Bingöl	251,935	23	10954
Bitlis	358,501	29	12362
Bolu	563,409	124	4544
Burdur	255,735	58	4409
Bursa	1,932,100	576	3354
Çanakkale	438,542	136	3225
Çankırı	263,770	44	5995
Çorum	603,464	107	5640
Denizli	842,344	286	2945
Diyarbakır	1,284,714	288	4461
Edirne	411,588	108	3811
Elazığ	501,311	78	6427
Erzincan	287,651	31	9279
Erzurum	807,356	93	8681
Eskişehir	680,838	22	23067
Gaziantep	1,191,778	309	3857
Giresun	481,070	88	5467
Gümüşhane	152,525	19	8028
Hakkari	214,105	11	19464
Hatay	1,222,690	313	3906
Isparta	492,857	113	4362
İçel	1,551,518	382	4062
İstanbul	8,980,425	3700	2427
İzmir	3,132,512	1376	2277
Kars	302,595	50	6052
Kastamonu	370,823	62	5981
Kayseri	1,022,957	232	4409

Kırklareli	316,226	97	3260
Kırşehir	242,581	54	4492
Kocaeli	1,159,117	275	4215
Konya	1,959,109	482	4065
Kütahya	604,065	118	5119
Malatya	728,693	116	6282
Manisa	1,263,848	373	3388
K.Maraş	937,629	137	6844
Mardin	634,234	76	8345
Muğla	651,436	233	2796
Muş	415,674	30	13856
Nevşehir	296,077	74	4001
Niğde	316,253	69	4583
Ordu	888,984	151	5887
Rize	300,731	75	4010
Sakarya	762,115	172	4431
Samsun	1,192,719	273	4369
Siirt	255,755	45	5683
Sinop	234,758	47	4995
Sivas	734,081	100	7341
Tekirdağ	545,763	149	3663
Tokat	750,019	102	7353
Trabzon	781,701	175	4467
Tunceli	104,076	10	10408
Urfa	1,257,720	188	6690
Uşak	307,053	74	4149
Van	742,465	55	13499
Yozgat	606,695	77	7879
Zonguldak	655,692	118	5557
Aksaray	351,955	40	8799
Bayburt	100,862	4	25216
Karaman	220,109	39	5644
Kırıkkale	316,125	34	9298
Batman	415,740	21	19797
Şırnak	318,311	10	31831
Bartın	200,863	26	7726
Ardahan	112,258	7	16037
Iğdır	139,165	8	17396
Yalova	167,586	51	3286
Karabük	245,960	31	7934
Kilis	154,031	26	5924
Osmaniye	406,538	92	4419

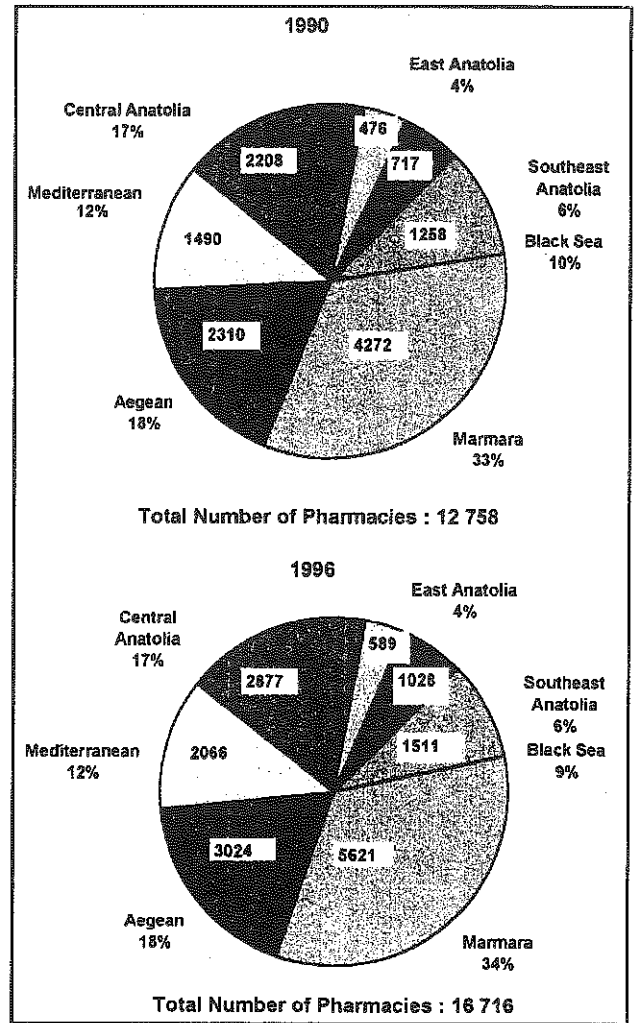


Figure 1. Distribution of Pharmacies With Respect to Regions

in 1996 are İstanbul (8.980.425), Ankara (3.583.534), İzmir (3.132.512), Konya (1.959.109), Bursa (1.932.100), Adana (1.754.307), İçel (1.551.518) and Antalya (1.432.783) and the provinces that have the lowest populations are Bayburt (100.862), Tunceli (104.076), Ardahan (112.258), Iğdır (139.165), Gümüşhane (152.525), Kilis (154.031), Yalova (167.586) and Artvin (186.355).

The population per pharmacy ratios with respect to the provinces in 1996 are shown in Table<sup>1,2,3</sup>. The provinces with have the highest rate are Şırnak (31.831), Bayburt (25.216), Batman (19.797), Hakkari (19.464), Iğdır (17.396), Ardahan (16.037), Muş (13.856) and Van (13.499) and the provinces that have the lowest rate are Aydın (2.210), İzmir (2.277), İstanbul (2.427), Ankara (2.542), Muğla (2.796), Denizli (2.945), Eskişehir (3.067) and Antalya (3.068).

The number of pharmacies are higher in the provinces of western regions (Figure 1). Most of the provinces that have a lower number of pharmacies are in the east and southeast regions due to the geographical, political and economic reasons.

The provinces which have the highest populations



The number of pharmacies are lower in new established provinces and the provinces under difficult climatic and natural conditions.

The number of pharmacies, the estimated populations, population/number of pharmacy rates, yearly changes in these values and rates are shown in Table 2 and Figure 2. While the total number of pharmacies was 12.758 in 1990 this number reached 16.716 at the end of 1996. The increase in number of pharmacies is 31.02%. While the population was 56.475.035 in 1990,

are shown in Table 3. The data are related to 1995<sup>6</sup>. The ratio is higher in Denmark, Norway, Austria, Luxembourg, England and Switzerland.

In Turkey, the pharmacies are concentrated in three large provinces. The number of pharmacies in İstanbul, Ankara and İzmir have been shown with respect to the general distribution of pharmacies in Turkey for 1990 and 1996 in (Table 3).

As a result of the study, it is found that the phar-

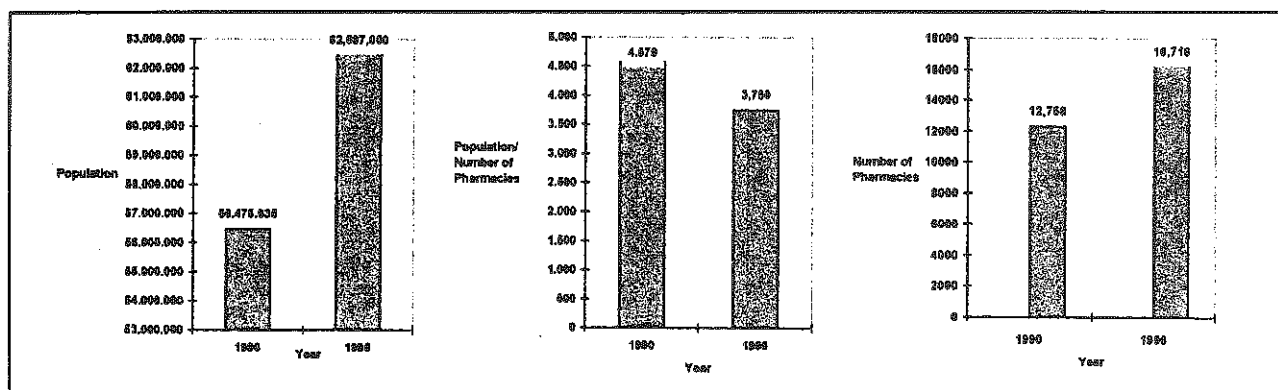


Figure 2. The Variation of Number of Pharmacies Throughout Turkey in 1990 and 1996

it has been estimated as 62.697.000 at the end of 1996 and the increase in population is 11.02%. The population/pharmacy rate was 4.579 in 1990 and 3.750 in 1996. The decrease in this value has been calculated as 18.10%. In a ten year projection, by assuming that the yearly increasing rates of pharmacies and population are constant, the population of Turkey in 2006 can be estimated to be 73.732.000, the number of pharmacies will reach 24.422 and the population per pharmacy will be 3.019.

macies are concentrated in the three large provinces, of İstanbul, Ankara and İzmir. It can be concluded that the number of pharmacies is not high and the distribution of the pharmacies is unbalanced in Turkey.

Table 2. Number of Pharmacies, Estimated Population and Population per Pharmacy for the 1990-1996 Period.

Table 3. Number of Pharmacies and Population/Pharmacy Ratios for Some of the European Countries and Turkey (1995)

Years	Number of Pharmacies	%	Population	%	Population/ Pharmacy	%
1990	12.758	-	56.475.035	-	4.579	-
1991	13.290	4.17	57.305.000	1.47	4.311	5.85
1992	13.890	4.51	58.401.000	1.91	4.204	2.48
1993	14.556	4.80	59.491.000	1.87	4.088	2.76
1994	15.121	3.88	60.576.000	1.83	4.006	2.01
1995	15.914	5.24	61.644.000	1.76	3.873	3.32
1996	16.716	5.04	62.697.000	1.71	3.750	3.18

Countries	Number of Pharmacies	Ratios
Germany	20.800	3.908
Austria	990	8.081
Belgium	5.250	1.924
Denmark	340	15.294
France	23.000	2.513
Ireland	1.140	3.070
U.K.	12.090	4.822
Spain	18.430	2.121
Switzerland	1.630	4.233
Italy	15.700	3.637
Luxembourg	80	5.000
Portugal	2.430	4.074
Norway	320	13.437
Greece	7.700	1.351
TURKEY	15.806	4.121

The number of pharmacies and the population per pharmacy in some European countries and Turkey

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