

The difference in the type of prescriptions called for in different localities is well illustrated by the following.

"I might state we have two stores and the nature of our prescription work is entirely different in the two, depending upon the doctor supporting them. One store fills many eye and ointment prescriptions, while the other fills many stomach prescriptions."

Another interesting comment is as follows:

"We fill a great many glandular prescriptions and these, to be effective, must be enteric-coated. We have proved that without enteric coatings glandular prescriptions are inert."

In conclusion I sincerely hope that the data presented here may be of some value to those who are interested in opening professional drug stores, to those who already operate such stores, and to the colleges of pharmacy.

I wish to take this opportunity to sincerely thank all of the pharamicsts who so kindly submitted data on which this paper is based.

REPORT ON MARYLAND PRESCRIPTION COUNT.*

BY ROBERT L. SWAIN.

The Maryland prescription survey was undertaken after Dr. E. N. Gathercoal, chairman of the National Formulary Revision Committee, had carried out some interesting investigations to determine the number of prescriptions filled per capita in the drug stores of the country. Dr. Gathercoal confined his work to cities adjacent to Chicago, and thus the data which he compiled applied only to urban population in a much restricted area.

Maryland was selected, primarily, because Pharmacy has in that state an organization peculiarly fitted to carry out any investigation of a pharmaceutical nature. Pharmacy is represented in the membership of the State Department of Health, and the enforcement of the pharmacy laws is carried on by the Department of Health as a part of the public health program of the state. The pharmacy law, pure food and drug law, poison law and other laws of specific interest to pharmacists are published jointly by the Board of Pharmacy and the Department of Health. The director of the Bureau of Chemistry of the Department of Health is also a pharmacist. The director of pharmacy law enforcement and the inspectors actually engaged in field duty are registered pharmacists. The Maryland prescription survey was undertaken simply to measure the public health value of pharmacy, in so far as this was possible from a close study of one phase of pharmaceutical practice. As pharmacy has a firm place in the public health program of the state, the state is interested in ascertaining the extent and scope of all forms of pharmaceutical service.

In connection with this survey, it is well to point out that in some important respects Maryland is accepted as the typical American state. Maryland is especially important in statistical studies because it represents an average cross section of the country as a whole. According to data compiled by the Bureau of the Census, it is ascertained that fifty-six per cent of the people of the United States are classified as urban. In Maryland this figure is a bit higher, and in this state fifty-nine per cent

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of the people are classified as urban. The figure for the United States as a whole is fifty-six, while for Maryland it is fifty-nine. Maryland, when regarded from this point of view, is peculiarly the typical state. The survey in Maryland was thus regarded with favor because of the organization by which it could be promptly carried out, and also because of the relationship of the population of the state to the population of the country as a whole.

The Maryland prescription survey was carried out by officials of the Maryland State Department of Health, and resulted in a complete compilation of all physicians' prescriptions compounded and dispensed by the pharmacists of the state in 1930. Each drug store was personally visited. The purpose of the survey was explained, and every care was taken to have the work as accurate as possible. In many instances the prescription files were examined and checked by the pharmacist and the representative of the Department of Health so that errors might be avoided. Prior to undertaking the survey the whole project was discussed with officials of the Bureau of the Census for the purpose of having the work conform to approved statistical practice. My office directed the work and kept in closest touch with it as the work developed. I believe it can be accepted as accurate to a very high degree.

Reports were received from 618 of the drug stores of the state, representing 61/67 of the total. From the number of prescriptions actually accounted for by these stores, both new and refilled, factors were obtained by which the total number of prescriptions compounded by all of the drug stores of the state was established. The whole effort received the cooperation of the pharmacists, and full and complete assistance was rendered wherever possible.

I have selected a few salient points in the survey for presentation, which, I believe, will be sufficient to show the extent and importance of prescription practice.

NUMBER OF DRUG STORES.		PERCENTAGE OF PRESCRIPTIONS REFILLED.	
Baltimore	452	Baltimore	31.5
Counties	215	Counties	41.0
	—		—
Total	667	State Average	34.2
POPULATION OF STATE.		PERCENTAGE OF NARCOTIC PRESCRIPTIONS.	
Baltimore	804,874	Baltimore	18.4
Counties	826,652	Counties	14.7
	—		—
Total	1,631,526	State Average	17.4
TOTAL NUMBER OF PRESCRIPTIONS FILLED IN 1930.		PRESCRIPTION PER PERSON PER YEAR.	
New	2,344,058	Baltimore	3.00
Refilled	1,003,168	Counties	1.10
	—	State	2.00
Total	3,347,226	POPULATION—STORE—RATIO.	
AVERAGE NUMBER OF PRESCRIPTIONS PER STORE.		Baltimore	1781
Baltimore	5373	Counties	3845
Counties	4189	State	2446
State Average	5018	PERCENTAGE OF PRESCRIPTIONS FILLED.	
		Baltimore	74
		Counties	26

The following classification will serve to present the data somewhat differently:

In the state there were:	Total.
9 stores filling more than 20,000 prescriptions	253,991
45 stores filling from 10,000 to 20,000 prescriptions	559,832
138 stores filling from 5000 to 10,000 prescriptions	928,998
255 stores filling from 2000 to 5000 prescriptions	810,479
77 stores filling from 1000 to 2000 prescriptions	114,105
94 stores filling less than 1000 prescriptions	50,310

It would be possible to present other interesting facts resulting from the survey. For instance, in two cities about the same size and having the same number of drug stores, the number of prescriptions compounded in the one was five times that in the other. It was shown also that the number of prescriptions filled in stores in the same section of Baltimore differed within wide limits. In two stores located in the same block, the prescriptions practice in one was twelve times that in the other. In one city of several thousand people, one drug store compounded one-fourth of the total number of prescriptions, and in this city there are seventeen other drug stores. It is apparent, I believe, that the public is as discriminating in the selection of pharmacists for professional work as it is in the selection of any other professional service. It is also apparent that a substantial professional pharmaceutical practice is possible to all who really deserve and seek to acquire it. In virtually every instance where a small prescription practice was met with, the energies of the store were directed toward developing its mercantile and commercial aspects. This, of course, did not always hold true of rural stores, as dispensing by physicians would reduce the prescription average, but even here a substantial prescription practice is met with in those cases where such a practice has been one of the store's objectives. My own conclusion, based upon the facts of this survey, is that the status of each pharmacy results from the policy of the store. The store is predominantly professional or predominantly commercial as the pharmacist himself determines.

In order to ascertain whether the prescription figures for Maryland are correct for the country as a whole, the survey will be extended. Under the suggestion of the Bureau of the Census, similar surveys will be undertaken in certain designated counties in Florida, Indiana and the State of Washington. It is thought that if these counties uphold the facts established here, then the Maryland figures may be applied to the country as a whole. In the event the Maryland figure is not borne out, the survey will be extended to other sections of the country, until a sufficiently large amount of data is established to afford constant factors.

However, assuming for the purpose that the Maryland figure is correct, let us estimate the extent of prescription practice in the United States. Accepting the figure for Baltimore as correct for the 68,320,000 people of the United States, living under urban conditions, and the figure for the counties of Maryland as correct for the 53,680,000 people living under rural conditions, then we reach the impressive total of 263,008,000 as the number of prescriptions compounded and dispensed by the pharmacists of America during a single year.

This figure is especially significant as it is strong contrast with a statement made by Mr. Wroe Alderson, chief-business specialist in the Department of Commerce of the United States. Mr. Alderson estimates the total number of prescriptions filled annually in the United States at from 120,000,000 to 180,000,000. These figures are wide apart and certainly cannot have been obtained from any

representative studies. I mention them to show how completely we are lacking in dependable statistics of professional practice. My own prediction is that Mr. Alderson's figures are far below the total.

One certain result of this survey has been to definitely place pharmacy as a major factor in public health. In Maryland alone, pharmacists are called on three and a half million times a year to compound and dispense medicines for the treatment of the sick. This is a contribution to public health possibly unsurpassed by any other professional group.

PHARMACY AS AN AID TO PUBLIC HEALTH.

Surgeon William H. Slaughter of the U. S. Public Health Service recently said, "Although the primary function of the pharmacist is to supply drugs for the cure of disease, yet there is a vital secondary duty for him to perform—to impart information regarding public health. The pharmacist occupies a strategic position and of all others is the best single individual to give such information."

MAJOR WALTER REED ANNIVERSARY.

Herbert S. Hollander contributed a most interesting article on Major Walter Reed to the Magazine Section of the *Washington Post* of September 13th. The author depicts the great care Dr. Reed exercised in making his investigations. He was born in rural Virginia, September 13, 1851, and died in Washington, November 23, 1902. His memory is perpetuated by the Walter Reed Hospital.

FOUNDING OF THE FIRST RED CROSS CHAPTER IN 1881.

Dansville, N. Y., celebrated the founding of the first Red Cross Chapter on September 9th. In paying tribute (over the radio) to Miss Barton, Miss Boardman, Judge Payne and all who have given service, President Hoover said in part:

"In its lifetime the Red Cross has raised and expended nearly a billion of money in the relief of human distress. The national organization has become our nation's assurance of adequate prompt and efficient handling of any catastrophe within our borders. It is the flowering of the spiritual impulse to serve the common need. It represents both the common impulse of sympathetic help and the mechanism for its practical expression. It stands as a monument to individual and local initiative. It proves the ability of a democracy to create from the people themselves the agencies for their service."

Pharmacists, as citizens and as men engaged in professional service have always contributed their part and will do so again when the calls on the Red Cross are greater than ever.

ALKALOIDS IN CRUDE KEROSENE.

Alkaloids newly discovered at the University of Texas in crude kerosene are being tested at the University of Pennsylvania for possibilities of new medical properties.

These products, different from anything hitherto obtained from a natural source, are classified as hydroaromatic bases; the report states that these alkaloids contain no oxygen.

The coöperative research was announced by Dr. J. R. Bailey, professor of organic chemistry at the University of Texas. The petroleum alkaloids will be tried out in the cancer research institute of the University of Pennsylvania. The head of this institute, Dr. Ellice McDonald, issued a statement that "these new substances are a great and promising field in medicine and biological research."

CLINICAL TRIALS OF NEW REMEDIES IN GREAT BRITAIN.

The British Medical Research Council has appointed a Therapeutic Trials Committee to assist the Council in arranging for properly controlled clinical tests of new medicinal products. The Therapeutic Trials Committee will consider applications by commercial firms for the examination of new products, submitted with the available experimental evidence of their value, and will arrange appropriate clinical trials in suitable cases. The Committee will work in close touch also with the existing Chemotherapy Committee, who are engaged for the Medical Research Council in promoting researches to discover and produce new remedies. The Therapeutic Trials Committee will invite suitable experts in particular branches of medicine or surgery to undertake the clinical tests of preparations accepted for trial.