Mr. Chairman and members of the Committee:

The new drugs, chlorpromazine and reserpine, first were generally available for clinical use in this country in the spring of 1954. Since then they have become the most extensively applied form of medical treatment for mental disorder in the New York State hospitals, have reduced the need for restraint and seclusion of disturbed patients by more than half and have created a general clinical opinion that they help patients return to the community as the shock therapies do.

Studies now in progress will soon provide some department-wide statistics on the immediate results of drug therapy as to release and relapse but much work remains to be done in this direction and it will of course take several years before we can be sure of the long-term figures.

These medications have found their place as an addition to other forms of treatment and not as a replacement, and since their advent the number of patients reached has been very largely increased. On March 31, 1954, just before the drugs
began to be tried, we had 4,530 patients under all forms of physical therapy for mental illness and cases were completing treatment at the rate of some 15,000 per year. By December 31, 1955 this rate had risen to over 40,000 per year and there were 18,543 patients currently under treatment, of which 16,243 were receiving chlorpromazine or reserpine.

No previous method of psychiatric therapy has ever had such rapid and general acceptance in our hospitals. The nearest approach was by electric shock therapy now in use since 1940 but the largest monthly number of patients to complete a course of electric shock was 1,182 in June 1954, as compared with 2,670 for the new drugs in December 1955.

The large-scale application of the drugs was preceded by a long series of pilot studies which by December 1954 had been extended to include over 1,800 patients treated by several dozen experienced psychiatrists scattered among the state's 20 mental hospitals and some of the state schools. At a joint meeting where these physicians pooled their information, there was substantial agreement that chlorpromazine and reserpine represented a significant addition to the psychiatric therapies and should be made available for routine use in the state hospitals and schools. This recommendation was made with the full realization that it had been far easier to recognize that these medications were active and useful than it would be to measure the degree of this activity accurately and to compare it with other methods. Much basic information on the natural history of mental disorders was and still is lacking and many of the established methods have not themselves been completely evaluated but there was enough information available to justify proceeding promptly. The new drugs were found in our experience to be quite safe,
although in a certain percentage of cases complications developed. This form of therapy was accepted easily by patients and was capable of reaching a much larger number of patients than had ever been possible before.

A special allocation of funds was secured and with the full cooperation of the state's legislative, budgetary and purchasing authorities, general use of chlorpromazine and reserpine was begun throughout the institutions of the Department of Mental Hygiene in January 1955. The first year of the program has been marked by rapid growth, the field of application has widened, and the drugs are being used in all of the department's hospitals and schools.

The trend has been consistent in a wide variety of locations with the exception that some groups show a preference for one and some for the other of the two drugs. Recently there has been an increasing tendency to use them together for certain purposes. During the fiscal year ending March 31, 1956 the cost of drugs will be $750,000 and there is every indication that it will be higher next year.

Because of the large number of patients which it has been able to reach, the drug program may well be able to show a measurable impact on the over-all operations of the department and a broad statistical study is now under way to investigate the question. This involves the machine processing of many thousands of reports and analysis of data on cases treated, returns to the community, relapses, permanent discharges and the role played by a number of important modifying factors, such as age, sex, type of illness, duration of illness and others. *

* Acknowledgment is made to the Albert and Mary Lasker Foundation for assistance in this research.
Information is being accumulated rapidly and within a few months we should have some preliminary data on the immediate results of drug therapy in terms of department-wide figures. At present, the most that can be done is to search for statistical clues and straws in the wind; so far these appear to be favorable. Over-all figures for returns to the community have risen by 19 per cent since April 1, 1955 and in November 1955, 1,425 patients were able to leave the hospital, as compared with 1,177 in November 1954. There has also been a distinct but limited decrease in the total number of patients re-entering hospitals, but the task still remains to find out whether this recent improvement is coincidental or if it was brought about by drug therapy. On the negative side, it must not be forgotten that the hospitals have also continued to advance other programs which may very well influence these figures. Preliminary indications are that at least a part of the over-all improvement is concentrated among some of the kinds of patients who have been receiving drug therapy intensively as, for example, the disturbed long-term cases, while rates have changed little thus far in categories of patients who are not normally treated with these drugs.

It still remains to be determined how permanent the results of treatment will be and how many patients will relapse after they have left the hospital. In this field, drugs have an advantage over all the other physical methods of therapy since it is relatively easy to continue the medication after patients return home or to resume it should there be a relapse.

In most areas our over-all statistical studies are still quite incomplete but our data on the effect of drug therapy in the care of disturbed patients is quite convincing and has been consistent. As the use of chlorpromazine and reserpine
has increased, the need for restraint and seclusion has fallen during the entire year until it now stands at less than half the lowest figure ever reached before the use of this type of treatment, although previous efforts in this direction had been sustained and vigorous.

The full meaning of this fact can be appreciated only after a visit to one of the hospitals where the effects on the disturbed wards can actually be seen. The marked diminution of hostile, noisy and destructive behavior has produced a striking change in the atmosphere and the physical appearance of these wards which now for the first time have been able to keep such items as bedspreads, tablecloths and ward decorations in use where they never were tolerated before. Other methods have of course achieved similar results in the past for periods of time and with limited groups of patients but the drug therapy effect has been reproduced rapidly on a broad scale with the facilities already available and has been relatively easy to maintain.

The personal service previously absorbed in security activities can now be diverted to constructive therapeutic purposes for the patients and most important is the fact that an increased number are able to return to their homes even among long-standing cases, indicating that these drugs are not merely a superior form of sedative but actually have a direct therapeutic effect.

In speaking of these successes it is difficult not to forget the limitations of the drugs and even more the limits of our present knowledge. One can easily build up hopes, some of which are beyond reason and must be disappointed and others for which no solid basis exists. This would be unfair to everyone and could only tend to bring discredit or severe criticism against a very valuable type of treatment.
Most of all it should be stressed that the drugs are only an addition to the previous methods of treatment and not a replacement. Experience shows that they operate best as a part of an organized therapeutic regimen and the details of their integration into such a pattern are still being developed. They have accomplished a great deal with disturbed patients but have brought about only reduction of restraint and seclusion, not its abolition. Many of these cases still require other treatments, including shock therapy or psycho-surgery, as do patients of other categories when they respond partially or not at all to the drugs.

There should be no misunderstanding about the number of good remissions in chronic patients who are disturbed. Most of these are at least somewhat more calm and cooperative but only a relatively small number improve sufficiently to return to the community and the figure is outstanding only in comparison with what could be accomplished previously.

The favorable reaction of disturbed mentally defective patients has given some parents the false hope that these drugs may influence the retardation itself, and drug success in the control of mental agitation and excitement among senile and arteriosclerotic patients has led relatives to ask whether the effects of brain damage and deterioration may not also respond. Unfortunately, both are outside the province of these drugs.

Some of the questions about the drug treatments can have no answer for some time, one of first importance being "Will this form of therapy produce a stable response or will results tend to disappear within a few years or less?"; on the other hand, will this method added to what we already have slow down the relentless growth which has marked the history of state hospitals since the days of Dorothea Linde Dix?
Such a change could result from a reduction of admissions due to treatment of patients at home or from an increase in hospital releases or from a combination of both. Up to the present there has been no decrease in admissions to the New York State hospitals, although this may develop later. The outlook with regard to hospital releases has been presented as far as it has been clarified. These questions and many others must be answered by careful investigations over a sufficient period of time.

For the present, the use of chlorpromazine and reserpine is well justified by the results which they have already been shown to produce. This is the judgment of a very large number of competent observers who have had the opportunity to work with the medications. The full assessment of the value of these drugs, their place in the psychiatric armamentarium and their influence on future psychiatric theory and practice can be determined only in the future when many more investigations than we have today will be available.