

to the problems which confront many mental institutions in this country today.

Mr. CALLAHAN. Thank you, Dr. Wittson.

Mr. Chairman, do you care to ask any questions of Dr. Wittson?

Senator NELSON. I thank Dr. Wittson very much for taking the time to make this valuable presentation to the committee. I do not have any questions.

Mr. CALLAHAN. Thank you very much, Dr. Wittson. Your participation is very much appreciated.

Dr. WITTON. Thank you.

Mr. CALLAHAN. Goodby.

Dr. WITTON. Goodby.

Mr. CALLAHAN. Mr. Chairman, this is an appropriate time, I believe, to demonstrate two new communication services which we believe promise to open up new opportunities for the medical profession.

One is Touch-Tone service and the other is Picture-Phone service.

I will discuss Touch-Tone telephone service because really in the traditional use, for people to talk to people, Touch-Tone service is different only in that it employs electronically generated tones instead of electrical pulses in the dialing function.

I will demonstrate.

(Whereupon Mr. Callahan demonstrated the Touch-Tone feature described.)

Mr. CALLAHAN. This feature becomes very important, however, after the call is dialed, and the called station answers. Whereas, the electrical pulses of the dial phone do not pass through the telephone network after the call is connected, the Touch-Tone signals do. Therefore, Touch-Tone makes it possible to communicate not only verbally but with anything which can interpret the Touch-Tone signals—a business machine or computer, for instance.

I will demonstrate how this capability makes it possible to retrieve information from a tape library with no attendant assistance.

It will be apparent how this capability will serve medical tape libraries such as the University of Wisconsin's as the number of tapes in the library and the volume of calls becomes sizable.

Touch-Tone phones can also carry on a dialog with computers equipped with voice answer back capability. I will demonstrate this by calling a computer at the Bell System Data Training Center in Cooperstown, N.Y., and performing some mathematical problems.

The added capability of man-to-machine communication provided by the Touch-Tone phone, coupled with its very low cost, and the nearly universal nature of telephone service, I believe, offers exciting new opportunities to the medical profession.

(Whereupon, Mr. Callahan demonstrated as described.)

Senator NELSON. How does this system differ from what Dr. Meyer presented?

Mr. CALLAHAN. Only that it makes it possible for a physician or anyone who has Touch-Tone telephone service to dial into a tape facility any time of the day or night and select programs at random from the storage location. There is no need to have an attendant.

Senator NELSON. All it eliminates is the conversation with the librarian; is that correct?