## **Attachment BB: Historical Evolution of Consumer Response Services Centers**

CDC's recognition of the increased importance of information dissemination as a key strategy for reaching the agency's goals in improving the nation's health through prevention, early detection and intervention has strengthened ongoing treatment of chronic health care situations. Prior to the mid 1980's, mail was by far the dominant method for soliciting health information from the Federal Government or from private sector organizations. These interactions were slow, and clearly prone to inaccuracy in understanding the writer's precise need, or in the completeness of the information provided to meet that need. The technology of information interactions between potential consumers and providers of health information placed restrictive parameters around the efficiency and utility of information dissemination as a public health strategy.

Dropping communications costs and the advent of toll-free (800) lines made call centers feasible as sources of health information during the 1980's. Telephone communication brought many advantages. Response times were reduced. More importantly, the Consumer Service Representative (CSR) could engage the consumer in a dialogue to clarify information needs, and to identify relevant information that the consumer may not have recognized as relevant and needed. Completeness and accuracy were improved.

However, early telephone call centers also experienced important constraints, typically related to the inherently limited knowledge bases that could be easily accessed by CSR's. Typically, call centers were relatively narrow in scope - centers might address particular diseases, such as a cancer, hypertension, or myasthenia gravis information lines, substance use hotlines, or information lines for pain centers, weight loss or other health-related conditions. To effectively access information, consumers had to understand the appropriate area of inquiry and identify the appropriate call center. Specific needs going beyond the general knowledge of the CSR and the knowledge base available to her/him may require multiple referrals for further information, or a search process that delayed information access. Still, a whole generation of consumers grew to expect the advantages of telephone call centers as information sources.

The continued evolution of communications and call center technologies and support systems has ushered in a whole new class of call centers. The evolution is multi-faceted, but three areas of improved technology are central. These areas are: a) the development of multiple-channels of communication capability; b) vastly improved capability in storing, updating and quickly retrieving a store of information for dissemination; and c) the development of automated systems of monitoring call traffic and interaction content.

Technological development in each of these areas provides the foundation for CDC's broad scope; one face to the public contact and fulfillment centers. Their application and implications for understanding the work of the PEC are briefly addressed below.

• First, call centers have evolved into multi-channel contact centers using various combinations of telephone, computer assisted telephone, fax, e-mail and web-based interaction. While

- web-page hosting and interaction are not part of the contact and fulfillment center contracts, the full range of points of contact will be possible.
- Second, improved storage and search technology has allowed the development of large knowledge bases of wide scope that can be quickly searched by CSR's according to key words identified in their call interaction with consumers. For e-mail, fax or web-based communications these searches can be stacked with a first line response provided through artificial intelligence search systems, with call back or back up responses through CSR generated searches.

CDC-INFO has an exceptionally wide scope compared with traditional consumer response services centers because content that was previously divided between over 40 call centers handling nearly 2 million telephone inquiries annually have been consolidated into one center.