April 9, 1996

Office of the Secretary
Federal Communications Commission
Washington, DC 20554

RE: CC Docket No. 96-45

Enclosed are the comments as respectfully submitted by the American College of Nurse Practitioners (ACNP) in response to the Federal Communication Commission’s, “Notice of Proposed Rulemaking and Order Establishing Joint Board,” as set forth by the Telecommunications Act of 1996, Section 254 (a) (1).

If there are any questions, please do not hesitate to contact either of the persons listed below:

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Sincerely yours,

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Comments for the Record on the Federal Communication Commission's "Notice of Proposed Rulemaking and Order Establishing Joint Board" Telecommunications Act of 1996, Section 254 (a) (1)

Introduction

Founded in 1993, the American College of Nurse Practitioners (ACNP) is a national nonprofit membership organization. ACNP is focused exclusively on advocacy and keeping Nurse Practitioners (NPs) current on the legislative, regulatory and practice issues that affect NPs in this era of health care reform. These efforts are to ensure an appropriate, prevention-based health care system with nurse practitioners as essential health care providers. It is the only national NP organization that offers the opportunity to join as individuals and as state and national NP associations.

A nurse practitioner (NP) is a registered nurse with advanced academic and clinical experience licensed to diagnose and manage most common and many chronic illnesses. Working independently, in collaboration with a physician or as part of a health care team, NPs have been effectively providing primary care to rural special populations for more than 30 years (OTA, 1986; Safriet, 1992; Brown & Grimes, 1993; ANA, 1993, Aiken, 1993). Since the early 1970's, nurses in advanced practice have developed a significant body of knowledge in medical informatics and telehealth technologies and have played a pivotal role in telemedicine initiatives.

Providing increased responsibilities for NPs and other health care professionals [such as certified registered nurse anesthetists (CRNAs), certified nurse midwives (CNMs), clinical nurse specialists (CNSs), physicians' assistants (PAs) and others] has always been an important element in telemedicine (Parsons, 1995). The First Lady, Hillary Rodham Clinton, acknowledged the important role of nurse practitioners during an appearance in Austin, Texas, when she said, "We need to be asking what physicians are doing, and we need to be asking why nurses are not doing more." (Clinton, 1993).

One of the objectives of the ACNP is to assist the advanced practice nurse in using computer telecommunication technologies to access primary care resources. Since 1960, the total accumulated information in the world has been doubling every five to seven years. To the extent that this is true, a paradigm shift is clearly imperative in the methods primary care providers use to access information. Dr. Larry Weed, Professor of Medicine Emeritus, at the University of Vermont College of Medicine -- considered by many to the "Father" of medical informatics -- argues convincingly that knowing how to locate information is more critical than trying to memorize it. This imperative is illustrated by the dramatic increase in the last decade of the
number of clinicians with direct access to MEDLINE (a database of the National Library of Medicine). The extent to which this impacts quality was reported by Lindberg, et al. (1993) who found that rapid access to the biomedical literature via MEDLINE favorably influences clinical outcomes.

**Vision of Rural TeleHealth**

The ACNP's vision of rural telehealth, is a rural telemedicine practice where the NP will use a laptop computer, hand held input device and/or digital camera, with a combination of wide bandwidth hard-wired or wireless connections to other computer servers both within Local Area Networks (LAN) and through the Internet. Using instrumentation that recognizes handwriting, voice, sound and graphical images, the clinician will be able to:

- Enter atomic level data in the computerized patient record;
- Access consultative services using “Store and Forward” techniques to acquire medical images and medical history data before linking with major health care centers for remote analyses and diagnostic assistance;
- Access diagnostic aids, consult treatment guidelines/protocols/algorithms, send and retrieve text and multimedia images using the World Wide Web servers; both within the public domain and on proprietary “Intranets;”
- Record outcome data and participate in research studies;
- Attend virtual conferences for continuing education and communicate with experts worldwide; and
- Expand information services into the home to improve opportunities for emergency communications, remote monitoring of vital signs, as well as public education in health and self-care matters.

**ISDN – Universal Support Service Standard**

Reference: Section III (B) (1), subparagraphs 16, 17, 18 & 19; Section IV (A) subparagraph 73; and Section IV © (1) subparagraphs 90, 92, 93, & 94.

As telecommunications evolve, digital technologies will predominate. Therefore, universal support services should take advantage of emerging technologies to enhance the pre-existing infrastructure. In so doing, rapid deployment of universal services will be possible sooner and available to a larger segment of the population.
* Universal Service for all US Citizens

The ACNP believes that the following three services should be among the universal services receiving universal service support:

* Touch tone service -- to ensure basic level of access to the Internet for all US citizens;
* Single party service to protect individual privacy; and
* Enhanced 911 services to protect public health and mitigate mortality and morbidity among victims of accidents or crime.

*Universal Service for Rural Health Providers

The ACNP believes that ISDN should be available to, and supported by the universal service fund for rural health providers practicing in:

* Non-profit hospitals;
* Rural Health Clinics;
* Federally Qualified Health Centers;
* Non-profit long-term care facilities; and
* Non-profit community home health agencies.

*Rationale

The ACNP recognizes that two of the rural health provider categories above are not mentioned in the legislation as eligible service providers:

* Non-profit long-term care facilities, and
* Non-profit community home health agencies.

The ACNP believes that non-profit long-term care facilities should have access to ISDN as part of any universal support service plan. Given the “aging of America” the demographics suggest increasing needs for quality elder care. Furthermore, with increasing trends to transition hospitalized patients to less acute levels of care -- coupled with efforts to keep the elderly independent in the community -- the information needs for elder care providers are no less important than those in more traditional settings.

The issue of ISDN as a universal service to homes and community home health care agencies is admittedly more problematic given the cost implications. Therefore, ACNP suggests that the FCC work with nursing organizations (i.e., American Nurses Association, National League for Nursing, American College of Nurse Practitioners, etc.) and the long-term care and home health
Upgrading of the public switched network is essential to provide necessary health care services. Ideally, a public network will provide a core of universal support services where data or video calls are as easy to make as voice calls. Although it is possible to improve voice grade transmission, it may be more technically and economically feasible to establish a digital network, using pre-existing infrastructure. The advantage of a basic form of integrated services digital network (ISDN) service is that it does not require replacing all the existing telephone lines; it simply increases the amount of information they can carry (Williams & Moore, 1994).

ISDN allows simultaneous voice and data transmission, automatic caller identification, still color-image and video transmission, and electronic data interchange (EDI). No modem is required. For medical networks, the Health Level-7 (HL-7) data communications protocol ensures transparent ISDN communication between a variety of types of host computers and terminals on the network (Parsons, 1994).

Creating a new digital network, will help overcome traditional telemedicine barriers, such as:

* Provider resistance;
* Inequitable access to on-line ramps; and
* High cost of inter-LATA connections.

If the available technology is not easy to access, providers will not use it (Reid, 1996). Universal support services must be established to provide a basic level of service that will allow users to access information easily and reliably at the point of care, whether in a rural clinic, emergency department or nursing home.

The growing deployment of ISDN provides a less expensive, wide-bandwidth connection medium for the large number of places where fiber-optics cannot be justified or is not available (Parsons, 1994). Comparable advantages of ISDN include:

* Already in use for several video-consulting projects around the country;
* Less expensive to deploy than fiber-optics; and
* Offered by all long distance companies and presently available in all states except Oklahoma, Arkansas and Alaska.

**Health Information Kiosks for Self-Care**

Dr. Tom Ferguson, Senior Associate, Center for Clinical Computing at Harvard Medical School, asserts that traditional health care providers have always underestimated the ability for individuals to know more and do more when it comes to their health. As the
Telecommunications Act of 1996 is fully implemented, the ACNP envisions “Health Information Kiosks.” These public access workstations will be located in public libraries, town halls, workplaces, schools, and other public buildings. Kiosks will facilitate interaction between patient and providers. NPs will encourage their use to assist their patients in taking greater individual responsibility for their health.

* Health Information Kiosks Infrastructure

Health Information Kiosks will rapidly create better informed health care consumers. Similar systems are already in place in California, Minnesota, Hawaii and Washington State as part of a project between East Carolina University and Syracuse University (Dakins, 1996). Initially, ISDN service as university support services to rural health clinics, schools and libraries will make it possible to establish Health Information Kiosks as public computer terminals at each of these sites. These terminals, connected to the Internet, will enable individuals and families to gather information and post e-mail queries to the numerous self-help news groups and media databases presently available.

Closing Remarks

The Nurse Practitioner’s role in the development of the NII is vital to improving access of all US citizens to health care -- especially in rural, underserved areas. The preceding comments reflect insights and recommendations from the NP’s unique perspective of telehealth within the context of the individual, the family and the community.

Respectfully submitted by:

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