Building Capacity in Rural Communities through Universities and E-Communication

Fifty-two percent of the world's population, or 3.2 billion people, are rural. Historically, people in rural communities have been underserved socially, educationally, medically, and economically. This inequity is steadily changing through e-communication. People who previously could not pursue educational advancement can do so via distance education. Patients who were isolated from standard medical care can receive state-of-the-art treatment through telemedicine. Rural communities previously overlooked by funding sources for program development and enhancement opportunities can now partner with others worldwide for solutions.

This paper discusses and provides examples of how improved electronic infrastructure through universities can build capacity for rural communities worldwide to meet the needs of their citizens.

Introduction

The State of the Rural World

According to United Nations data (1999), in 1950 seven of every ten persons on earth lived in rural areas. That was 1.8 billion people. Over the next 50 years rural population growth averaged 1.19 percent per year, with the total rural population almost doubling. Since the 1950's the growth of the world's rural population is now increasing at a slower pace than urban populations. Still, fifty-two percent of the world's population, or 3.2 billion people, are rural. In contrast to growing urbanization of more developed nations, most of the populations of less developed regions live in rural areas where they face higher risks of illiteracy, poor health, and poverty. Thus, they are in greater danger of exploitation, social and economic injustice, and oppression. Poverty is not just about the

absence of income; it is about disempowerment, social exclusion, and the loss of status.
As Serageldin, Vice President of Environmentally Sustainable Development for the World
Bank (1996) points out,

> We live in a world of plenty, of dazzling scientific advances and technological
> breakthroughs [and] adventures in cyberspace…The Cold War is over, and with
> that we were offered the hope of global stability. Yet, our times are marred by
> conflict, violence, debilitating economic uncertainties and tragic poverty (p. 3).

With urban migration comes the dangerous chance that people in rural areas will
fall further behind, affecting us all because the rural world is central to our collective
existence. Rural problems also bring urban dilemmas regarding the environment, food
supplies, equity, and social cohesion. "Cities depend on the rural world, not the other way
around, and the bulk of the developing world is still rural" (Serageldin, 1996, p. 5). In
some nations policy-making discriminates against agriculture and the rural world. In
others, problems of inequality and land reform impede rural well being.

The Challenges of Rural Living

The breadth and depth of the problems of rural populations worldwide is
staggering. While many think of rural as romantic, there are harsh realities in rural
environments.   Poverty is higher (22% in the US) in rural communities than in urban
communities (19.2% in the US). Persistent poverty has a strong impact on cognitive and
behavioral development of children. In comparison to urban areas, children in rural
families are more likely to stay poor than urban children. Compared to urban poor, rural
poor families are more likely employed and still embedded in poverty. Too often,
however, the challenges of rural people are highlighted, while their strengths and assets are

overlooked or ignored. Rural people are viewed as resistant to accepting outside resources.

Greater underemployment; lower education levels; lower wages; longer distances between

home, childcare, and work sites; and less access to healthcare are met with condemnation

of the individuals facing these challenges. In reality they should be linked to factors such

as isolation and lower population density, which lead to fewer specialized services, lack of

a full range of services, and increased costs for consumers (Rural Policy Research Institute,

1999).

It is in the best interest of all people, urban and rural, and all regions, whether more

or less developed, that the strengths of rural communities be recognized and that rural

people succeed. A significant factor in their success can be found in the application of an

asset-building approach as opposed to the traditional deficit focus. Kretzmann and

McKnight (1993) and others (Benson, Scales, & Blyth, 1998; Mourad & Ways, 1998;

White & Marks, 1999) argue convincingly that the traditional deficit or needs model of

social intervention may prove more harmful than helpful to rural people. Referring to the

needs driven model as a dead end, Kretzmann et al., (1993), warn that a deficiency

orientation overlooks strengths, results in people accepting themselves as fundamentally

deficient victims who are incapable of taking charge of their future, and leads to

fragmented efforts to provide solutions. Further, the authors argue that when funded efforts

are targeted toward deficits, more of the funding goes to service providers than to

residents. This reinforces the perception that only outside experts, who do not understand

the community or region from the inside, can provide solutions. In rural communities,

needs-based interventions are especially futile. Where tradition, independence, and strong

relationships hold special value, solutions to problems often are based on urban models.

Such models stress numbers of people affected, translate programs into local activities that teach people the nature and extent of their problems, and develop new services as the answer to the problem (Kretzmann et al., 1993; Templeman, McCall, Mitchell, & Nerren, 1999).

Building Solutions to Address Rural Problems

The following program descriptions are provided to demonstrate possibilities for improved well being in rural areas. No attempt is made here to suggest that what works for one community in one part of the world is appropriate or will work for others. One cannot ignore the environmental fallacy (Csikai & Templeman, 2002) that what works in one environment may not work in another. Examples of distance education, telemedicine, and resource development partnerships from around the world are noted, but these are not the only global solutions for rural well being. Each rural population has unique needs and assets on which to build. However, the infrastructure within rural communities, paired with existing assets such as university resources illustrate what can happen

E-communication: One Rural University's Response

Some solutions to the perils of rural life have been addressed in East Texas through the fertile marriage of university infrastructure with e-communication. The following are examples of this union of education and technology in a rural region of East Texas in the United States where agribusiness is the primary industry and where poverty, illiteracy, and school dropout rates are higher than the state and national rates. Other factors of well being such as infant mortality, births to teens, and disease are just as tenuous. Stephen F. Austin State University (SFA) is at the hub of this region and is a leader in technological advances for the area. Three examples of asset-building and capacity development through

e-communication are presented: distance education, medical treatment, and international

resource development.

Distance education. The terms distance education and distance learning are applied

to a variety of programs, providers, audiences, and media. Typically distance education

refers to educational programs where teacher and learner are separated in space and/or

time, the choice is made by the learner, and communication between teacher and learner is

mediated by print or some form of technology (Perraton, as cited in Sherry, 1996).

Distance education technologies are expanding at an extremely rapid rate, especially in

areas where the student population is widely distributed. In rural areas, where students

must travel extraordinary distances to attend classes in order to pursue higher or continuing

education courses or degrees, distance education offers a viable alternative to the demands

and stresses of long-distance and time consuming commutes. Distance education through

SFA takes one of several forms. Some classes are offered through Interactive Video

Teleconferencing (IVT) whereby courses that are offered in face-to-face format at the

university are also made available at a distant site via IVT. Faculty may or may not meet

face to face with students at the distant site in the delivery of the curriculum. Through the

use of technology, students at the distant site receive information and data exclusively

through electronic means such as IVT, e-mail, fax, Internet, and telephone.

Other distance education courses are offered globally to students through the

Internet. Students from all areas of the world can register for a WebCT (web-based)

course that is offered partially or completely online where virtual learning communities are

formed. In this format, however remote, students throughout the world who are part of the

class can contact one another at any time to share ideas and information. While SFA does

not offer complete degree programs online or at distance sites, such programs are offered at many larger universities. For degree programs such as social work, which require face-to-face supervision and field instruction, students can complete degree programs through a combination of methods.

Telemedicine: healthcare through e-communication. Rural communities are less likely to have state of the art medical facilities, treatment, and expertise than urban communities and are not as likely to attract or maintain medical specialists. This limits access to many specialists and urgent services such as trauma care. Isolation is a problem for medical providers who practice in rural areas, creating barriers to optimal care. Rural health delivery systems are also often under stress, and lacking supportive programs. Rural health populations are complex and medical consumers must travel great distances to obtain treatment. Through partnerships between universities, local clinics, and providers of social services, consumers can access treatments through telecommunication networks or telemedicine that are not otherwise available. In the US, the Distance Learning and Telemedicine Grant and Loan Program provides much of the funding for telemedicine programs.

According to Kienzle (1998), in the broadest sense telemedicine refers to the electronic transmission of medical information and services from one site to another using telecommunication technologies such as voice, data, and video. While Kienzle acknowledges that telemedicine is not a panacea for all of the challenges facing rural patients, it improves access to and delivery of care, enhances efficiency of care provision and professional communication, shortens time to treatment, and is economical.

One example of a telemedicine program established in East Texas by SFA is the

delivery of psychiatry for women who are victims of domestic violence. Funded through a grant aimed specifically at establishing technology infrastructure in rural areas, the SFA Division of Nursing partners with a local mental health clinic, the Women's Shelter of East Texas, and a large urban university to provide health care services to rural residents while providing educational opportunities to students through service learning. Outreach psychiatric care for this typically underserved population is provided via interactive video conferencing. As one telemedicine physician reports:

> I wasn't attracted to this project by the technology. I'm only marginally computer literate. I'm more interested in the applications of the technology to community psychiatry. Many rural parts of the state have very limited access to psychiatric care and telemedicine offers the potential to reach people who could benefit from these services (Rohland, 1998).

Some of the recipients of psychiatry through telemedicine state that they prefer electronic office visits, stating that they feel more comfortable and less intimidated by the doctor in this setting (Virginia Lewis, personal communication, September 19, 2002).

Another example of technological medical care in rural East Texas is the development of the East Texas Center for Pulmonary Health. In this program students provide pulmonary health services such as health education; flu vaccines, with special emphasis on senior citizens; health screenings; and referrals to other medical providers. A significant part of this program is also a telemedicine program that facilitates telehealth for physician consultation at the University of Texas Medical Branch.

International Resource development. As a result of a research study (Templeman, 2000) on the status of social work education in Russia after the fall of communism, a

university exchange was established between the Stephen F. Austin State University School of Social Work and Novgorod State University in Russia. This collaboration led to a faculty exchange in which, following the researcher's return to SFA, faculty from NSU visited the SFA School of Social Work to investigate and observe a social work program that is accredited by the Council on Social Work Education. Arrangements for the exchange were made exclusively through e-communications. Through the exchange, American social work faculty and students were exposed to social work in the international arena, a primary focus of current social work practice and education. The Russian educator was introduced to a successful professional social work education program and to social service delivery systems, such as faith-based organizations, that had not yet been established in the Novgorod Region.

Meanwhile, in the course of this collaboration and research (Templeman, 2002), it became evident that in the current period of democratization, the social status and well-being of families in the Russian Federation are normally described in the media and professional literature according to deficits and needs. Poverty, a population declining in numbers and health, decreasing life expectancy, growing numbers of orphans and homeless children, and other indicators of social decline are well documented and often used to depict Russia as a nation. While these statistics and demographic characteristics should not be denied, they provide only one part of the picture…a picture of the glass as half-empty. This picture is of a bleak and hopeless future for Russian families, a discouraging forecast for Russian social workers, and a gloomy, one-sided portrayal of Russia to the international community. The resilience, determination, creativity, resourcefulness, and optimism of Russians are hidden beneath the dreary statistics

(Templeman, 2002). In fact, it is a strength of the Russian people that they have embraced social work as a critical profession for addressing the challenges brought on by democratization and are mov8ing toward the professionalization of social work through the retraining of military and other public servants.

Social work is currently the fastest growing profession in Russia, so Russia is looking to other nations for technology and training. Social workers and other helping professionals in the US and other countries are tempted to respond to Russia's requests for help from the international social work community with a paternalistic, if not professionally imperialistic, attitude (Midgley, 1981 cited in Rady, Haydak & McaKenzie, 2000). This approach to the internationalization of social work is not helpful. Rather, and empowering perspective, which necessarily requires that helpers see the strengths and assets of those seeking help, is more appropriate.

While heeding Midgley's warning (1981. cited in Rady et al., 2000), from the collaboration that transpired in this international exchange the following research question sprang forth. What are the strengths and assets of Russian social workers and families that are being utilized to meet their social needs during this era of social change as Russia moves toward democratization? Social work faculty from both institutions jointly developed a collaborative US-Russia proposal to address this question (Templeman, Belanger, & Osipov, 2001). Having completed a similar study for the East Texas Region to identify rural assets and services gaps, the methodology was adapted to the needs and context of the Novgorod region. The mechanics of developing the proposal were carried out through e-communication.

The next challenge in this international resource development process was the

search for funding to carry out the study. A plethora of funding opportunities exists for

international research, resource development, and exchanges such as this. The

International Research and Exchanges Board ([IREX], 2002), for example, administers

programs for governmental and non-governmental entities in 34 countries of Europe,

Eurasia, the Near East, and Asia, as well as in the United States. A request for funding for

this study was submitted to the John J. and Nancy Lee Roberts Fellowship Program (2002)

which is one of the private foundations managed by IREX. While funding was not

received from the Roberts Fellowship Program, numerous other appropriate options exist.

<p style="text-align:center">Summary and Conclusions</p>

The examples of linkages between universities and e-communication presented

here are very basic in comparison to the complex and elaborate methods that exist. For the

rural area receiving the services however, the impact is enormous.

As a result of the expansion of technology and e-communications such as those

described in this paper, services and opportunities that were once unavailable to people in

rural communities are now accessible. Distance education allows people in remote areas to

improve functioning and future possibilities through higher educational attainment.

Telemedicine is the new lifeline for many rural communities, not as a 'kind' of medicine,

but as a means of delivering access to high-quality medical care regardless of location (US

Department of Agriculture Rural Utilities Service, 1998). Telemedicine bridges the

distance for rural people so that they have access to the same quality education and health

care services as the rest of the world bringing improved healthcare services to isolated

areas and continuing education opportunities for rural providers. International resource

development brings rural communities worldwide together to advance programs, services, and technology to improve community well being.

More importantly, through e-communication the human capacity to obtain information and the skills to improve the well being of people in rural communities has been expanded exponentially. When the lives of the world's 3.2 billion rural people are improved, so are the lives of our non-rural brethren are enhanced. Whether from rural or urban communities, we are in this world together. To reiterate the words of Serageldin, (1996) "Cities depend on the rural world, not the other way around, and the bulk of the developing world is still rural" (p. 5).

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