A theoretical model for understanding the impact of social change on human health begins with examining societies, families, social support, and health. In 1982, the Institute of Medicine, after a series of conferences, proposed a framework linking the health of individuals to larger social systems (Hamburg, Elliott, & Parron, 1982). We will first outline the specifics of this framework and discuss the significance of considering Alaska as a case in point, that both corroborates and expands this purview. Secondly, our chapter will outline a theoretical model to supplement the framework. Finally, we will discuss directions for future research which provide a way to differentiate more clearly the variables at work in the cycle that incorporates the person, societal-environmental change, and health.

Social Change and Human Health

The Institute’s model is based on the assumption that the health of human beings is inextricably bound with their embeddedness in social groups. A number of critical issues originate in that assumption. First, society and cultures link an individual’s needs to social values, provide a continuity and transmission across generations, and provide ordered and organized ways to adapt to change. Families are a primary social unit in which these processes occur, but are themselves subject to change given the nature of the larger society in which they are incorporated. The authors focus on family change since the emergence of cities, industrialization, large anonymous groupings that are not kin-based, and the technological revolution, proposing that while the shift to an industrial-based society allows for material affluence, it is associated with the dissolution or alteration of "usual" social constraints and relations.

Hamburg and colleagues (1982) specify three critical areas of family change with potential or actual impact on health: attachment, roles and the family, and social support. They are included in the argument that geographic mobility and ambiguity fostered by rapid change have altered and attenuated family relations, which may have affected the security of early attachment in infancy. Institutions have assumed aspects of the parental role, thereby displacing the critical irrational relationship between the child and one or more adults in which the
adults are "crazy" about the child (Bronfenbrenner, 1984). The authors believe all these changes, including high divorce rates and changing parental roles, affect attachment and alter the family's ability to provide social support.

Social support is identified as a key factor influencing an individual's health. In an impressive summary of research, the authors show the impact of social support on health indices ranging from emotional problems to complications in pregnancy. In one study (Martinez, 1977), informal helping systems were shown to provide twice as much help as formal systems. This raises the issue of how to intervene, and by what means, in a community. A shift seems to be taking place from intervening by developing formal helping institutions (e.g., crisis centers, shelters, daycares) to utilizing and revitalizing natural helping networks. Hamburg, Elliott, and Parron (1982) view this movement as a significant method to increase social support. We will see that such an approach is especially important in Alaska, where Native people live in small, remote villages.

Implied in their model is the Social Darwinistic canon that societies, like organisms, evolve from simple to complex. Within this process the complexity that evolves may develop gradually or suddenly. The type of onset is considered a major variable in understanding whether change disrupts, or is predictable and intelligible for, the person or society. Hamburg and colleagues argue that rapidity of change leads to reduction or destruction of community, which in turn generates unpredictability, thereby increasing health risk.

Finally, the authors delineate a number of research priorities: (a) to develop appropriate methodological tools; (b) to understand the mediating (physiological) mechanisms for social support/health; (c) to study social support systems and their effects to better differentiate the ways that different types of social support affect stress; and (d) to study intervention strategies that use social support and include ways to foster attachment, and mobilize or strengthen networks and both naturally occurring and purposefully created social supports. This provides a clear set of assumptions which focus our attention primarily on social change as it affects social support, which when disrupted creates a wide variety of health-related problems. The question for us is how this relates to Alaska Natives.

Social Change in Alaska and Its Impact on Families

A multiplicity of tribal and linguistic differences exist among Alaska Natives, and, as in any research involving American Indians, intertribal diversity is a major research variable and question to consider. We will use the term "Alaska Native" to refer to the resident indigenous people of Alaska who may belong to one of the five major ethnic groups: Aleut, Inupiat, Yupik, Athabascan, and Tlingit-Haida.
Few other Native groups in North America have experienced such an abrupt introduction to the wealth and technology of the Western world as have Alaska Natives in the past 25 years: (a) the discovery of oil; (b) the passage of the Alaska Native Claims Settlement Act (ANCSA) which created Alaska Native corporations; (c) the modernization of villages with water and sewer; (d) locally controlled schools; (e) publicly subsidized housing; (f) the cash economy; (g) the introduction of commercial and educational television; and (h) the development and implementation of the most sophisticated methods of communication through teleconferencing, slow-scan television, electronic bulletin board, and micro-computers. While Alaska Natives experienced forced acculturation and political, cultural, and religious oppression prior to this recent period, the pace and intensity of change have dramatically accelerated.

Historic, Geographic, and Demographic Perspectives

Alaska Native groups have undergone several distinct phases of interaction with outsiders. An early phase involved contact with Russia, when in 1741, Vitus Bering acting on behalf of the Russian government made the first European landing in Alaska. The discovery of millions of sea otters led to the subsequent Russian colonization among the Aleuts (1750-1780). The Southern Eskimo experienced Russian contact in the 1780s and contact with American whalers in the 1850s. However, those living on the mainland were not heavily influenced until the 20th century. The Northern Eskimo experienced contact in the 1850s when American whalers began traveling through the Bering Straits. Interior Indians experienced contact through Russian trade from 1840-1860. The Coastal Indians experienced Russian contact from 1775-1800.

In the second phase, the United States purchased the Russian rights to Alaska in 1867 for $7.2 million dollars. Oleska (Amarok & Oleska, 1984) has contrasted the American and Russian styles of interaction with Native people in Alaska and the impact of different language policy and other policies on the cultural integrity of Alaska Natives. Sheldon Jackson’s intense opposition to the Russian policy of bilingualism at the end of the 19th century dramatizes the American policy that stressed deculturation of Native people (Amarok & Oleska, 1984).

In the third phase of contact, Alaska Natives went to war for the U.S., especially during the Second World War. During this period, Native people were not only exposed to the "wider world" but also to greater use of alcohol as an aspect of socialization into military culture. Subsequent to World War II, there was a major increase in non-Native immigration to Alaska. This, coupled with economic decline, led to a push for statehood by non-Natives allowing for greater control of natural resources. Ten years after Alaska became a state, oil
was discovered on the North Slope. These latter incidents brought to a head land claim issues, as well as bringing enormous wealth to the state. Our discussion of change will emphasize the years since oil was discovered.

Alaska is one third the size of the continental U.S. and Native people are scattered from Point Barrow to Petersburg in the Southeast, a distance of 1,220 miles. The majority of the state's Native population live in villages. Sixty percent live in villages with populations under 1,000 (Kruse, 1984). Yet, those living in isolated villages are highly mobile, with villages being served by regularly scheduled flights. Rural residents travel frequently between villages and regional centers such as Barrow and Kotzebue, and often between the villages, regional centers, Anchorage and Fairbanks.

Figures 1 and 2, taken from Kruse's (1984) report, illustrate the youthfulness of the population, the minority status of Alaska Natives in the state, and the gradual increase in population. Fully 67% of the Native population is below the age of 30—a phenomenon of critical importance because of high-risk age groups. The development of oil production has led to the increasing minority status of Alaska Natives in the state due to the substantial growth of the non-Native population over the past 25 years. Currently, the Alaska Native population is growing at a rate of 2.4% while the non-Native population is growing at a rate of 3%. Natives constitute a smaller minority of the population than in 1970, and this pattern is likely to continue.

We are witnessing in rural Alaska several related trends in terms of family structure: (a) toward single parent families headed by Native mothers, (b) toward married families which are interracial, and (c) toward unmarried Native males. Rural Alaska Natives tend to have the largest households, with 27% living in households of six or more people (U.S. Bureau of the Census, 1983). Also, according to the 1983 U.S. Census, rural Alaska Natives have the lowest incidence of divorce (18%), while urban Alaska Natives have the highest (36%), followed by urban Whites (30%) and rural Whites (28%). Finally, in 1980 there were 3,757 urban Native families, 34% of which were headed by a single female householder. This dropped to 17% for rural Native families, 9.3% for urban White families and 5.9% for rural White families. This is especially important considering that only 52.1% of all urban single women who maintained their families were employed or were in the armed forces, while the remainder were unemployed or were not in the labor force.
Figure 1. Age profiles of the Alaska Native and non-Native populations.


Figure 2. Alaska Native and non-Native population growth: 1910 to 1980.

Marital patterns (Table 1) reveal that, increasingly, Native women are marrying non-Native men. In 1983, more Native women married non-Natives than married Natives. Given the fact that more Native women marry than do men and the relatively equal population distribution of the sexes by age, we see that a large group of unmarried males exist in the Native community. Logically, the age group with the largest percentage of unmarried males is the 20- to 30-year-old cohort.

Table 1

<table>
<thead>
<tr>
<th>Race of Groom</th>
<th>White</th>
<th>Native</th>
<th>Black</th>
<th>Other</th>
<th>Unknown</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>5,025</td>
<td>368</td>
<td>25</td>
<td>87</td>
<td>64</td>
<td>5,569</td>
</tr>
<tr>
<td>Native</td>
<td>147</td>
<td>342</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>500</td>
</tr>
<tr>
<td>Black</td>
<td>54</td>
<td>12</td>
<td>151</td>
<td>11</td>
<td>4</td>
<td>232</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>4</td>
<td>1</td>
<td>63</td>
<td>--</td>
<td>103</td>
</tr>
<tr>
<td>Unknown</td>
<td>76</td>
<td>8</td>
<td>--</td>
<td>3</td>
<td>86</td>
<td>173</td>
</tr>
<tr>
<td>All</td>
<td>5,337</td>
<td>734</td>
<td>178</td>
<td>168</td>
<td>160</td>
<td>6,577</td>
</tr>
</tbody>
</table>


Socioeconomic Change

It is important to visualize Alaskan villages before discussing them. The first village I visited in Alaska was Shishmaref. Shishmaref sits isolated on a sandbar on the Northern Chukchi Sea. To the west, 140 miles, is Russia. To the east stretches the great northern tundra. There are about 150 people in Shishmaref. The only way to get into the village is to fly from Nome, the largest nearby town, about an hour away. In the village, people live a primarily subsistence life—hunting, fishing, and gathering—as the seasons dictate. They hunt polar bear, waterfowl, seal, and moose. In the summer, they fish. Two elderly gentlemen at the house in which I stayed were just leaving in their skiff as I arrived. They were going across the bay to hunt for ducks which they were storing for the winter. They hoped to see a moose as well. When I asked them where they were going to stay, they told me they had a little hut on the tundra equipped with survival gear. I asked about the hut. They told me they had ordered it from a Sears catalog: It was a prefab tin shed like those that suburbanites erect in their backyards for lawn and garden equipment.

It is clear that over the past decades, subsistence activities have been changed by modern technology and Western bureaucracies. Most Natives obtained their fishing permits for commercial fishing merely by applying, with most permits being sold to non-Natives. Natives use high-powered rifles, shotguns, outboard motors, aluminum boats, snow machines, three-wheelers, and other modern
conveniences to subsist. Some Native technology, such as walrus skin boats, mukluks, parkas, and so on have been retained because of superior effectiveness. Villagers have, however, been quick to change their subsistence methods to incorporate modern tools for greater efficiency. This has been done by choice. Although I have heard people talk nostalgically of the old ways, I do not know of anyone who has given up their snowmobiles and guns to hunt in a way probably only the oldest can remember. The villagers have also "turned on" to television with a passion. Most villages now have telephone service, although a few still have only one or two telephones to serve the entire village. Some larger villages have water and sewer, but in most locations, residents still use honeybuckets and rely on a commercial well for potable water.

Changes in technology have also expanded the ways in which Alaska Natives may earn a living, as evidenced by labor statistics. Native males have not changed their employment pattern over the past 10 years. However, Native women have entered the labor force in such numbers that they now account for a proportion of the work force equal to that of Native men.

These changes in production technology and subsequent work patterns, as Etienne and Leacock (1980) argue, affect personal relationships because they lead to destruction or alteration of the delicate balance of economic rights and obligations resulting in a growing antagonism between sexes. Contrary to what is commonly thought, in many precontact societies a high degree of egalitarianism between the sexes existed: It is with Euro-American contact that this has changed (Etienne & Leacock, 1980). Because of colonization and the development of capitalism as a world system, indigenous people are drawn into a cash economy. At the same time this was occurring in Alaska, there were other processes occurring which favored women's access to cash (Klein, 1980). For example, among the Tlingit:

Exploitation of seasonal maritime fishing, a male activity vital to the colonial economy, made women more available and more desirable as wage laborers and salaried employees, first in the canning industry and later in white-collar sectors. This favored their economic autonomy, as well as their education and their access to political office. (Etienne & Leacock, 1980, p. 20)

These same processes may be occurring in other cultural groups in the state, as seen in Table 2. The female: male employment ratio is greater for Natives than for Whites in all categories, except for farming, forestry, and fishing occupations. Furthermore, the 1980 U.S. Census shows that Native men are more often involved in seasonal labor. These relationships should be explored as they may be related to other trends occurring in families.
### Table 2

**Alaskan Female:Male Employment Ratios by Occupation, Race, and Region, 1980**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Urban White Males</th>
<th>Rural White Males</th>
<th>Urban American Indian, Eskimo, and Aleut</th>
<th>Rural American Indian, Eskimo, and Aleut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed Males 16 years</td>
<td>55,522</td>
<td>25,586</td>
<td>2,962</td>
<td>5,348</td>
</tr>
<tr>
<td>Employed Females 16 years</td>
<td>43,808</td>
<td>14,982</td>
<td>3,105</td>
<td>4,347</td>
</tr>
<tr>
<td>Managerial and Professional Specialty Occupations</td>
<td>13,009/18,249 (41.6%)</td>
<td>4,868/6,983 (41.1%)</td>
<td>611/511 (52.6%)</td>
<td>956/847 (53.0%)</td>
</tr>
<tr>
<td>Technical, Sales, &amp; Administrative Support Occupations</td>
<td>22,114/11,795 (65.2%)</td>
<td>6,267/3,476 (64.3%)</td>
<td>1,535/546 (73.8%)</td>
<td>1,659/772 (68.2%)</td>
</tr>
<tr>
<td>Service Occupations</td>
<td>6,373/5,126 (55.4%)</td>
<td>2,650/2,337 (53.1%)</td>
<td>640/446 (58.9%)</td>
<td>1,404/1,009 (58.2%)</td>
</tr>
<tr>
<td>Farming, Forestry, and Fishing Occupations</td>
<td>181/1,256 (12.6%)</td>
<td>244/1,704 (12.5%)</td>
<td>10/136 (6.9%)</td>
<td>40/463 (8.0%)</td>
</tr>
<tr>
<td>Precision Production, Craft, &amp; Repair Occupations</td>
<td>601/10,932 (5.2%)</td>
<td>262/6,592 (3.8%)</td>
<td>106/587 (15.3%)</td>
<td>48/1,050 (4.4%)</td>
</tr>
<tr>
<td>Operators, Fabricators, &amp; Laborers</td>
<td>1,530/8,164 (15.8%)</td>
<td>691/4,494 (13.3%)</td>
<td>203/696 (22.6%)</td>
<td>240/1,207 (16.6%)</td>
</tr>
</tbody>
</table>


*Of all managerial and professional speciality positions held by urban Whites, 41.6% are held by White women.*

More Natives than non-Natives live below the poverty level, as measured in cash income. The poverty level of Native people has, however, actually decreased significantly over the last 10 years. Also, we must take into account that over 35% of Alaska Natives report that half or more of their food comes from subsistence activities. The 1980 Census also indicates income differences (Table 3) leading to the development of a stratification system based on class or material well-being for some. A class system also encourages the development of new attitudes within the family including changes in socialization patterns seen in the "invention of childhood" and new attitudes regarding the necessity of receiving a formal education (Berger & Berger, 1983). Furthermore, the vesting of earning power in individuals as detached from families encourages economic independence, mobility, and individualism (Berger & Berger, 1983).
Table 3

Percentage of Alaskan Families by Income, Race, and Region for 1979

<table>
<thead>
<tr>
<th></th>
<th>White Urban</th>
<th>White Rural</th>
<th>American Indian, Eskimo, and Aleut Urban</th>
<th>American Indian, Eskimo, and Aleut Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families</td>
<td>55,038</td>
<td>24,262</td>
<td>3,757</td>
<td>8,279</td>
</tr>
<tr>
<td>Less than $5,000</td>
<td>3.7%</td>
<td>6.6%</td>
<td>15.0%</td>
<td>17.4%</td>
</tr>
<tr>
<td>$5,000 to $7,499</td>
<td>2.7%</td>
<td>3.9%</td>
<td>6.7%</td>
<td>9.1%</td>
</tr>
<tr>
<td>$7,500 to $9,999</td>
<td>3.8%</td>
<td>3.8%</td>
<td>6.7%</td>
<td>9.6%</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>8.9%</td>
<td>9.2%</td>
<td>13.0%</td>
<td>14.5%</td>
</tr>
<tr>
<td>$15,000 to $19,999</td>
<td>9.5%</td>
<td>8.4%</td>
<td>10.1%</td>
<td>11.6%</td>
</tr>
<tr>
<td>$20,000 to $24,999</td>
<td>9.6%</td>
<td>9.3%</td>
<td>10.1%</td>
<td>9.3%</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>18.8%</td>
<td>19.4%</td>
<td>15.0%</td>
<td>12.6%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>22.7%</td>
<td>21.5%</td>
<td>13.0%</td>
<td>7.3%</td>
</tr>
<tr>
<td>$50,000 or more</td>
<td>21.0%</td>
<td>17.9%</td>
<td>10.5%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Median</td>
<td>$31,487</td>
<td>$29,501</td>
<td>$19,217</td>
<td>$14,722</td>
</tr>
<tr>
<td>Mean</td>
<td>$35,201</td>
<td>$32,221</td>
<td>$23,567</td>
<td>$21,088</td>
</tr>
</tbody>
</table>


Finally, many rural Natives have gradually come to value and encourage Western education. I was at graduation in the southwestern Yupik village of Manokotak last May. Of the 13 graduating seniors, all but 3 were going to leave the village to attend college or technical school either in Anchorage, Fairbanks, or outside the state. The education level of Alaska Natives continues to rise as seen by Table 4 (Kruse, 1984). Figure 3, adapted from Kruse's (1984) report, indicates the speed and extent of this change. Although, as Kruse reports, one out of four Native students drop out of school, the actual dropout rate in rural schools is half that, and continues to decline (Kleinfeld, McDiarmid, & Hagstrom, 1985).

Table 4

Educational Attainment of Population 25 Years or More

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>79%</td>
<td>54%</td>
<td>25%</td>
<td>12%</td>
</tr>
<tr>
<td>High school</td>
<td>13</td>
<td>32</td>
<td>42</td>
<td>40</td>
</tr>
<tr>
<td>More than high school</td>
<td>8</td>
<td>14</td>
<td>33</td>
<td>48</td>
</tr>
</tbody>
</table>

Nevertheless, such changes may create a status hierarchy based on education and may contribute to intergenerational conflict as younger generations are accorded greater levels of power and prestige upon receiving higher levels of education by the larger society. In earlier times, and still at a community level, higher status and prestige are accorded to those with experience or demonstrated ability; for example, elders who act as storehouses for knowledge. Finally, along with formal education comes the acquisition of a new language and world view. Many young people no longer speak or clearly understand their native language. Because of this they are unable to freely converse with elders in their own villages. Many Native groups recognize the importance of speaking one’s native language since many concepts are not easily translated into English or vice versa. As a result there are numerous efforts to ensure that young people learn their native language.

![Graph](image)

**Figure 3.** Educational status of 18- to 24-year-olds in Alaska.


In sum, income, education, and occupation are all variables linked to dimensions of stratification systems. Income distributions indicate a growing class differentiation among Alaska Native families. Education and age distributions indicate a growing status differentiation across generations. Finally, a survey of employment patterns by sex indicates a need to examine
changing sex roles in families. The question is to what extent this new differentiation hinders communication and introduces conflict through the introduction of alternate world views.

Political Change

Isolated from the lower 48, Alaska Natives have forged a set of unique institutional configurations that stand in contrast to most of the tribal groups in other states. Rural Alaska has been transformed politically by the Alaska Native Claims Settlement Act. In return for relinquishing claim to some 200 million acres of land, Alaska Natives received a cash settlement of almost 1 billion dollars and clear title to 40 million acres of land. Twelve regional and 200 village corporations were created to manage these resources. Each Native received 100 shares in his or her regional corporation. These shares could not be bought or sold for 25 years. Individuals born after the Settlement Act are not, however, shareholders in their village corporations, which are profit-making organizations.

The corporations have invested in business enterprises ranging from hotels to drilling rigs to canneries. Some corporations have been able to pay their shareholders a modest dividend, while others have lost large sums. In 1991, these regional and village corporations will be on their own. Native people will then be permitted to sell their shares or buy other shares. Shares can be sold to anyone, whether Native or non-Native. Rural Natives are worried that, when 1991 arrives, the corporations will be sold to non-Native interests and Native people will lose their land. Many fear this will destroy the very fabric of Native society. The greatest impact of ANCSA appears to lie in the future.

Another major concern is the concentration of population in cities, especially Anchorage and its surrounding areas. The 1990 Census will force another reapportionment of the legislature and will make the political power of the Anchorage legislative group dominant. This urbanization of political power has dramatic implications for Alaska Native villages. The pressure on Native subsistence by sport hunters and fishermen is substantial in some areas and will continue to grow. As Delbert Rexford, a rural resident of Barrow, reported during the Berger (1985) hearings, "The great law of culture is to let one become what they were created to be. Let me be an Inupiat with the freedom to hunt, to fish, to trap, and to whale as my forefathers did in past centuries." Obviously, to reduce subsistence opportunities is to threaten the heart of Native identity and lifestyle and, of course, Native well-being.

What has probably had the greatest impact has been the huge and rapid growth of the state government. As mentioned earlier, oil was discovered 10 years after Alaska became a state. Not only did this lead to the drafting of ANCSA, but it
brought tremendous wealth to the state. One result of this wealth is the development of a large state bureaucracy with a plethora of public programs. Their mere existence and vast resources, coupled with state moves to accept greater responsibility for services provided to Natives (e.g., the state assuming primary responsibility for education), has led to an ever-increasing involvement in the private lives of Alaska Natives.

Growth in the welfare state challenges a family's right to exist intact as a single unit.

We are living in a reality which includes proposals for mandatory daycare for children of welfare recipients, the licensing of all new parents, the diagnosis of behavioral disorders in preschool populations, required parental education in public high schools and the enrollment of infants in school-affiliated programs. (Berger & Berger, 1983, p. 117)

One urban Native advocacy program encourages all families it has contact with to document in a legalistic fashion the temporary placement of children with relatives. This is in contrast to earlier times in which children were left in the care of relatives in times of crisis or transition, using informal agreements based on the prerogatives of blood ties. Nevertheless, in using legal contracts, Native families are in a better position to prevent the state from later removing their children for neglect. As the state has expanded its scope of authority, parents are having to deal with a greater impingement on their roles and the undermining of their authority. This is occurring throughout society, with those in lower status social groups being less able to resist such efforts. Therefore, through the introduction of a corporate model of governance, the urbanization of political power, and the growth of the state government, Alaska Natives are having to adjust to issues related to boundary definition and maintenance.

Changing Ideologies

Traditionally, religious or spiritual beliefs suffused all social life, including everyday activities such as eating, hunting, or caring for the sick (Langdon, 1987). Although this continues to a large extent (Nelson, 1983), it has been somewhat altered. This is evidenced by the presence of separate and distinct religious institutions with specialized rituals, and with distinct and separate times and places for religious observance. Historically, Native tribal groups were divided between different Judeo-Christian churches on tribal and geographic boundaries. While different sects addressed aspects of Native culture differently, all discouraged traditional rituals, language, social dances, and healing ceremonies. This history of contact and deculturation has been described in detail by many authors (Amarok & Oleska, 1984; Cornwall & McBeath, 1982; Dubbs, 1984; Jenness, 1962; Kotani & Workman, 1980; Rogers & Cooley, 1962; Senungetuk, 1979). Deculturation was accomplished largely through schooling,
but this was only one of the interventions sponsored by churches and the
government that separated parents from child and child from Native tongue and
subsequently from direct access to traditional belief systems. These institutions
exerted significant control over Native development.

Yet, as in the rest of society, even religious institutions have increasingly lost
much of their social influence to other institutions such as government, science,
and education. Furthermore, beliefs and behaviors that have the greatest
currency, center around the notions of rationality, science and technology, and
individualism. These themes often are in contrast to, and in fact may undermine,
many of the values and frameworks of meaning in Native communities. For
example, in a recent study on suicide prevention by Cannelos (1986), Yupik
elders indicated that what all adults should be teaching young people is "to be
human".

When spoken in the soft guttural Yup'ik, the word has the overtones of reverence and
responsibility. The ultimate status one can achieve. It has an aura of spirituality—the
inescapable bond that glues the rainbow of humanity. This teaching should direct a child
to the desired way to behave in all interpersonal interactions. The child is taught play and
work that prepares him for adulthood. He must be taught patience, delayed gratification,
endurance, deference, discipline and to seek knowledge. (p. 32)

What Yupik elders consider ideal is different from the Western ideal. Cannelos
also discusses lines of responsibility for counseling; if a person is troubled they
are to seek advice from parents, aunts and uncles, then grandparents and finally
other concerned adults trusted by the individual. Elders also continue to urge
community ownership of problems and problem solving. All of these factors
serve to illustrate the importance of family and community ties through rights
and obligations.

Clearly, previously mentioned changes have let loose a variety of processes
that weaken or undermine traditional frameworks of meaning. Berger and
Berger (1983) point out that in Western society, earlier generations of the family
provided the following:

...a balance between individualism and social responsibility, between "liberation" and
strong communal ties, between acquisitiveness and altruism... Each element in the
balance could potentially escalate or be radicalized in such a way as to make the balance
impossible....This, we would contend, is precisely what happened....What previously was
held in balance now appears as sets of irreconcilable alternatives: rigid stability against
mindless innovation, crass egotism against self-abandonment to a community,
adventurism without moral restraints (taking all risks) against fearful passivity legitimated
by an absolutist morality (willing to take no risks at all), and so on. (p. 117)

These same processes affecting families in the larger society are also at work
on families in Alaska. Native families and communities are constantly told that
they must leave behind what they had and change with the times—that what they
have is inadequate. Such messages imply that Native cultures have stagnated,
and that somehow, one reality is superior to another. Alaska Natives have
challenged these assumptions and will no doubt continue to do so. Researchers and policymakers have hypothesized that the changes delineated in the previous summary have impacted the health of Native families, individuals, and communities. It is therefore important to turn our attention briefly to certain of these issues and how Native communities cope.

Individual, Family, and Community Health

At the 1987 Second Annual Rural Alaska Native Family Conference, held in the village of Huslia, the main topics discussed were suicide, alcohol and drug abuse, sexual abuse of women and children, effective parenting, Native education, traditional learning, and community involvement. The conference was unique in that it was organized by village residents and attended mainly by Native leaders from across the state. The purpose of the conference was for Native people to self-identify the issues that are most important for Native families and to begin to pinpoint resources and strategies to deal with these issues. They not only listed their concerns which are substantiated by state vital statistics, but also delineated a concept of health that is multidimensional. They see health as a state of complete physical, mental, and social well-being. It is viewed as the maximization of personal and social growth and manifests itself in several levels of a community. Our discussion occurs within this framework and deals specifically with trends or changes in the health status of Alaska Natives.

The most significant trend is that the major determinants of death are now behaviorally based. For both Native and non-Native Alaskans, accidents, homicides, and suicides are the leading causes of death (Table 5). Kruse (1984) reports that "over the last ten years the overall death rate among Alaska Natives has remained virtually constant at a level below that of the national population; however, the causes of death have changed significantly." (p. 4)

Table 5
A Comparison of the Leading Causes of Death in Alaska for Two Time Periods—1950 and 1980

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>1950a</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB</td>
<td>673.3</td>
<td>No longer reported as separate category</td>
<td></td>
</tr>
<tr>
<td>Accidents</td>
<td>200.7</td>
<td>207.3</td>
<td>82.0</td>
</tr>
<tr>
<td>Pneumonia &amp; Influenza</td>
<td>192.0</td>
<td>24.5</td>
<td>19.8</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>82.7</td>
<td>111.8</td>
<td>73.5</td>
</tr>
<tr>
<td>Cancer</td>
<td>41.3</td>
<td>103.6</td>
<td>118.7</td>
</tr>
<tr>
<td>Suicide</td>
<td>20.7</td>
<td>70.9</td>
<td>5.7</td>
</tr>
<tr>
<td>Homicide</td>
<td>6.2</td>
<td>32.7</td>
<td>17.0</td>
</tr>
<tr>
<td>Other</td>
<td>153.0</td>
<td>139.0</td>
<td>118.0</td>
</tr>
</tbody>
</table>

Of importance is both the dramatic decrease in deaths from TB, pneumonia, and influenza and the escalation in deaths from heart disease, cancer, accidents, suicide, and homicide. Over the last decade the accidental death rate alone has increased by 17% for Alaska Natives. In 1984, the standardized mortality ratio for death due to accident was 191.6 for White Alaskans, almost twice the level experienced nationally and 507.4, or more than 5 times the national level for Alaska Natives (McWhorter, 1987a).

As Kruse indicates, many of these deaths have been associated with alcohol abuse (Figure 4).

![Figure 4](image)

**Figure 4.** Average annual alcohol death rate of Alaska Natives and non-Natives in 5-year intervals from 1950 to 1974.

**Note.** From "Intercultural Variation in Mortality Due to Violence" by R. Kraus and P. Buffler. Paper presented to the American Psychiatric Association at the May, 1976, annual meeting in Miami, Florida.

Alcohol-related deaths constitute a significant problem for Alaska Natives. In 1984, the Alaska Native rate of death attributable to alcohol abuse was about 8 times the rate for non-Natives (Alaska State Office of Alcoholism and Drug Abuse, 1984). Anecdotal accounts from clinicians in rural areas suggest that violent behavior is almost universally alcohol related (Bloom, 1985). The pervasiveness of alcohol as a contributing factor becomes clear once one considers that in 1985, Alaskans ranked third nationwide in consumption of alcohol. The average Alaskan age 14 or older, consumes 3.78 gallons of ethanol per year, compared to 2.62 gallons for the U.S. as a whole.
Recently the Alaska Governor’s Interim Commission on Children and Youth (1988) reported that alcohol is involved in at least 70% of Native suicides. This is important considering the high rate of suicide among Alaska Natives. For all age groups the national suicide rate in 1984 was 12.1 per 100,000. This rate increased to 25.2 for White Alaskan males and 73.5 for Native Alaskan males. Age-specific rates indicate that those most at risk are Native males aged 20-24 with a rate of 257 per 100,000 population. Nationwide, the rate for all males in the same age range is 256.6 per 100,000 and 44 per 100,000 for White Alaskan males ("A People in Peril," 1988).

Anecdotal accounts from rural Alaska raise further concerns with the problem of contagion after a suicide. In one village of 550 residents, the suicide of one young man started a 16-month suicide epidemic that claimed the lives of eight other young people ("A People in Peril," 1988). Such incidents also touch other villages because although Native communities in rural Alaska are scattered over 584,000 square miles, villages are closely tied by formal, kin-based systems, and sophisticated modern communications. This is reflected in the geographic distribution of suicides within the state which reveals that two regions accounted for nearly half the suicides.

High alcohol consumption also plays a role in the life of the unborn. According to the Alaska Native Health Board, Alaska Natives have the highest known rate of fetal alcohol syndrome in the country. "Alcohol stunts one in every 25 Native babies, and the full-blown syndrome—arrested growth, organ defects, facial deformities, and mental retardation—mars at least four of every 1,000 infants born to Native women" ("A People in Peril," 1988). This trend has profound implications for the future of Alaska Natives as a group.

A second set of changes concerns the family as a unit. Rates for teenage pregnancy have increased substantially in recent years (Kruse, 1984). "The Native teen pregnancy rate is estimated at 70% higher than the national average" (Governor’s Interim Commission on Children and Youth, 1988, p. 83). Additionally, the proportion of single parent families maintained by Native women has increased from 8% in 1970 to 22% in 1980. Most of these women will be unemployed and will rely on public assistance. While it is important to point out that there is ample evidence supporting both the presence and success of many kinds of family structures, both in historic and contemporary times (Gittens, 1985), we need to recognize these trends have a direct bearing on the extent to which family members will be at risk because parents lack a framework in which they can provide for their children’s basic economic, educational, social, and emotional needs.

One example of the importance of these family trends on health is the research on abuse and neglect. There is evidence that stress appears to be an underlying factor in most abuse and neglect cases.
When families experience increased stress and find themselves without resources to ameliorate the stress, domestic violence and child maltreatment may result. While abuse and neglect occur in families of various compositions and income levels, higher incidences seem to be associated with single parent families, families with mothers who gave birth as teenagers, and low-income families. (McWhortor, 1987b, p. 110)

Unfortunately, information is not readily available comparing the incidence of child abuse or neglect in Alaska with its incidence in other states. Another example tying these family changes to health is the evidence on adolescent suicide. In one study of American Indian adolescent suicides it was found that 70% of these suicides had more than one significant caretaker or parental figure before age 15, as compared to 15% of the adolescents in the comparison group, and that 50% of the suicide group had experienced two or more parental losses by divorce or desertion, compared to 10% of the comparison group (Dizmang, 1974).

To better understand these trends in Alaska Native health or well-being, we need to examine the relationship between health and the social support offered by families, communities and cultures. As mentioned earlier, social support may buffer or mediate an individual’s response to stress. Support is provided in a number of ways, including: (a) providing values and rules of behavior that determine a person’s understanding of the universe, (b) the path he or she should travel in life, and (c) ways to deal with barriers along the way. Families and communities share problems, offer advice and resources, and help locate alternate resources. They contribute to emotional stability by providing love, comfort, and humor, often counteracting feelings of despair, helplessness, and failure during times of crisis (Caplan, 1982). However, the changes that have occurred in rural Alaska have challenged the ability of Native families and communities to offer this support.

Researchers are now looking at how support as a resource may be re-established. A shift seems to be taking place from addressing health issues by developing formal helping institutions (e.g., crisis centers, shelters, daycare centers, etc.) to dealing with these problems by increasing social support through revitalizing and strengthening natural helping networks in communities. There is evidence supporting the importance of this underlying principle. For example, there is some evidence that American Indian adolescent suicide is lower when (a) tradition is strong and adolescents feel security and a sense of belonging, (b) there are effective adult role models who carry out their responsibilities to family and community, (c) parents are sober, (d) families are intact, (e) adolescents are able to find work, and (f) parents express interest in a child’s education (National American Indian Court Judges Association, 1984). McDiarmid (1983) discusses another example in which the Chevak Village Youth Association (CVYA) was able to meet the educational, social, recreational, community service, and economic needs of the community. A whole community became the
locus in what was and continues to be an indigenous, village-controlled primary prevention project. In sum, whole families and communities must be incorporated into any prevention or intervention efforts.

There are also a number of other indigenous prevention efforts throughout the state which incorporate natural networks and which capitalize on the affirmation of Native culture and community ownership of problems and problem solving. The Inupiat Ilitquiat Program or Inupiat Spirit Movement in the NANA region is one example. For many, the impetus for this movement began with the first elders’ conference held in 1976 from which a list of Inupiat values was developed including: (a) knowledge of language, (b) sharing, (c) respect for others, (d) cooperation, (e) respect for elders, (f) love for children, (g) hard work, (h) knowledge of family tree, (i) avoidance of conflict, (j) respect for nature, (k) spirituality, (l) humor, (m) family roles, (n) hunter success, (o) domestic skills, (p) humility, and (q) responsibility to tribe. This list of values was presented to each village whereupon a council of elders was established. Eventually a regional elders’ council was formed with a representative from each village council. The spirit movement grew even further when a coalition consisting of Maniilaq Association (a nonprofit social services agency), the Northwest Arctic School District and the NANA Regional Corporation (a regional for profit corporation started under ANCSA) adopted this list of Inupiat values. With the direction of the council, they not only contributed financial support for conferences but eventually built a museum, developed media programs, started the Inupiat Materials Development Center, started a bilingual teacher’s aide training program, a youth summer camp at Sivunniigvik, and a new correctional rehabilitative program employing Inupiat values and alcoholism counseling. Also, new employment policies for the region require that new employees be familiar with and willing to practice Inupiat values (Craig, 1986).

There have also been survival camps for urban Native youth. These summer camps are run by Native elders and facilitated by staff in a Fairbanks Native education program. They are designed to get young people to recognize their interdependence with elders and other participants as well as allowing them to exercise leadership abilities. This is accomplished by teaching young people how to survive in their natural environment. For example, they learn to trap, build fires, and cook in the open. They must learn these skills from the elders in a competent way or suffer the discomforts. They are also responsible for bringing everything they need, maintaining their own gear, and contributing to the camp. In the future it is hoped that families as a whole will participate, allowing for a redevelopment or redefinition of family and allowing for further development of a sense of community (Juneby, 1988).
The Family Services Division of Tanana Chiefs Conference (a nonprofit social services agency) has also developed a system of village response teams for interior villages. The program was started in 1985 as a consequence of a child welfare needs assessment survey which indicated that village residents wanted more information allowing them to deal with their own local issues. As a result, natural helpers were selected, with input from village councils, in most of the 43 villages. These teams aid individuals, families, and communities during times of crisis such as when there is a boating accident or a suicide. It is expected that these teams may eventually become involved in teaching parenting skills, suicide prevention, etc. This list of examples is by no means exhaustive but serves to illustrate the importance of Native culture as the basis for building culturally based social support for Native families and communities.

**Theoretical Implications**

The above discussion raises a number of questions. One involves making sense out of the seemingly inevitable sequence of events that seems to exacerbate rather than alleviate behavioral illnesses among Native groups. Another bears on the obvious link between societal and cultural change, behavior, and health outcomes. The most important question has been succinctly stated by Ullman (1969) in his advocacy for:

> ...effective conceptual tools with which to bridge our involvement in clinical phenomena to our grasp of process and change in the extended social frame of reference....What I am suggesting is the need for concepts that are rich enough in meaning and application that they might well serve as the final common pathway linking clinical events to sociological data. (p. 254)

The Institute of Medicine’s initial framework begins to address these questions by sensitizing us towards the importance of examining human health within the context of larger systems undergoing rapid change from a historical perspective. However, there is also a wave of new research on stress and coping which indicates a multitude of other factors which should be included. Both of these perspectives are needed to explain what is occurring in rural Alaska today.

Recent theoretical and empirical studies concerning change and the experience of individuals and families center around the notion of transition and adaptation. Schlossberg (1981) provides a model for analyzing both individual transition and adaptation. She defines *transition* as an event or nonevent that causes a person or group to change their assumptions about themselves or their world and, ultimately, causes some change in behavior or relationships. For example, if laws governing subsistence are changed dramatically, then where and when one hunts and what one hunts is changed. Such a change affects seasonal and ritual
cycles for hunting and, consequently, the role of subsistence hunters as providers. Change from a barter to a cash economy also illustrates how events or nonevents can change the environment, roles, and perceptions of one’s purpose.

What happens during such change may lead to adaptation. This process is governed by factors identified as how the individual and the group perceive the transition. Is the transition seen as positive or negative? Is it seen as imposed or under one’s control, or can one or one’s group achieve control over the event? Another critical issue is timing. Is this event or transition at a point in social and individual history that provides an integrative framework? Does it advance the society’s work as, for instance, the introduction of guns and snowmobiles did for Eskimo society? Finally, is the timing sudden or gradual?

All of the above factors contribute to whether one adapts or is overwhelmed. To understand how these factors affect the balance between resources and deficits, we need to explore their interrelationship. For Schlossberg, a gestalt is the interaction of perceptions, characteristics of the environment, and individual characteristics which become resources for adaptation. Differences in pre- and post-transition environments, pervasiveness of the change, previous experience with the type of change—all are factors in this process.

A similar model has been proposed to explain family transition and adaptation. Researchers have long asked how families react to and are influenced by stress. Much of this work has resulted in a "family crisis framework" (Burr, 1982). This model was altered when the focus shifted to adaptation rather than family crisis, thus allowing for the fact that some families are better able to achieve satisfactory adaptations to crisis. McCubbin and Patterson (1982), in looking at adaptation, look at both precrisis and postcrisis factors (p. 47).

<table>
<thead>
<tr>
<th>Family Precrisis Factors</th>
<th>Family Postcrisis Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressor event and related hardships</td>
<td>Family &quot;pile-up&quot;:</td>
</tr>
<tr>
<td></td>
<td>* Unresolved aspects of stressor event</td>
</tr>
<tr>
<td></td>
<td>* Unmanaged hardships associated with the stressor event</td>
</tr>
<tr>
<td></td>
<td>* Intrafamily role changes precipitated by stressor</td>
</tr>
<tr>
<td></td>
<td>* Changes in the family and its members over time</td>
</tr>
<tr>
<td></td>
<td>* Residual hardships and demands precipitated by family efforts at coping</td>
</tr>
<tr>
<td></td>
<td>* Social ambiguity</td>
</tr>
<tr>
<td>Family resources available</td>
<td>Family resources—modified, strengthened, or developed as part of family adaptation:</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• Coping by managing resources within the family to facilitate adaptation</td>
</tr>
<tr>
<td></td>
<td>• Coping by developing, stimulating, and controlling resources outside of the family</td>
</tr>
<tr>
<td></td>
<td>• Social support</td>
</tr>
<tr>
<td>Family perception of the</td>
<td>Family perception of the crisis situation and resources:</td>
</tr>
<tr>
<td>stressor and available</td>
<td>• Redefining the situation</td>
</tr>
<tr>
<td>resources</td>
<td>• Endowing the situation with meaning</td>
</tr>
<tr>
<td>Family crisis</td>
<td>Family adaptation—system—environment fit through process of:</td>
</tr>
<tr>
<td></td>
<td>• Stimulus regulation</td>
</tr>
<tr>
<td></td>
<td>• Environmental control</td>
</tr>
<tr>
<td></td>
<td>• Balancing: assimilation, accommodation, compromise</td>
</tr>
</tbody>
</table>

Both the Schlossberg and McCubbin-Patterson models provide input-output frameworks. They imply that one could sort out the variance, determine the interactions, and put all the results together in a coherent manner. The power of these models derives from their comprehensive and expansive nature. In the context of Alaska, variables such as village size, quality and intactness of traditionality, level of subsistence activity, and bicultural psychosocial competence should be added to environmental and individual characteristics. These models call for the collection of data on individual perceptions of the transition and should be expanded to include community perceptions as well. The models frame adaptation as an interaction of three phenomena: perception of the transition, characteristics of the environment, and individual characteristics. It provides a conceptually sound way to think about sources of variance as multidimensional and complex.

However, what is lacking in these models is the dynamic historical perspective available through the Institute’s model discussed at the beginning of this article. In the previous stress-coping models summarized, the emphasis was on the outcome, not on the process (i.e., to what extent individuals and families able to adapt successfully). Change and adaptation are not viewed as a continuous process but as a consequence. This is in contrast to focusing on to what extent
individuals, families, and communities are adaptive. That is, to what extent do humans instigate and control, as well as innovate and learn from or through, change? This has an effect on the intervention strategies derived.

Secondly, there is little recognition that intelligence is social rather than narrowly individual. Humans are guided by socially funded and communicated meanings, norms, and institutions—in brief, by a normative culture. The existence of normative culture must be taken into account, allowing cultural change to be viewed not only as a potential stressor but as an altered resource. Also, if intelligence is social, then how is learned or new knowledge passed on within families and other institutions (i.e., feedback).

Finally, these models do not directly deal with the role of power in the change process. As with any minority group, it is important to address what it means to be from a culture that is not mainstream. People from these groups are often viewed as being a problem rather than as having or experiencing problems. What role do these societal expectations play in how adaptive these populations are encouraged to be, or in what coping strategies are open to them?

In order to address these issues, it is important to develop a dynamic model that allows for a stronger link between individuals and their communities and the factors that establish, nurture, or rupture this link. Antonovsky, in *Health, Stress and Coping* (1980), proposes the concept of "a sense of coherence." This concept becomes the most central or critical characteristic of individuals, families, or communities that is effective in avoiding or combating a wide variety of stressors. In contrast to the concept of ego-identity, a sense of coherence deals with one's picture of one's world rather than oneself. This takes us beyond the individualistic trap that separates individual and society. Making sense becomes, for the individual or community, an integrating function. Antonovsky (1980) defines a sense of coherence as:

>a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one’s internal environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected. (p. 123)

As he says, this sense is perceptual, cognitive, and affective, and is not limited to a particular problem, situation, or stressor. It is part and parcel of one's personality structure as well as part of a culture and its current history. The sense of coherence is communal and interactional (community-person) and integrates perceptions of transition, environmental characteristics, and individual characteristics. Bridging the gap between the individual and the society, this sense of coherence becomes the locus of the social within the individual.

A careful analysis of what creates and controls this sense of coherence is needed. Antonovsky offers the perception of lawfulness as one source: "When fate is capricious, when events are arbitrary, when there is not lawfulness—and
not at all when there is no omnipotence—the sense of coherence is shattered” (p. 123). Lawlessness implies power or control, yet lawlessness moves beyond the concepts of locus of control and power (Ullman, 1969). These concepts define the problem as one of political control. Much research has looked at powerlessness of poor and victimized groups (Mindell, 1968; Ryan, 1971). This powerlessness is considered problematic. As a result, many groups develop intervention strategies that lead to both political and personal interventions to increase personal and community power. Yet, these strategies often impose power frameworks that are alien and often, in fact, detrimental to communities (Memmi, 1965; Wertheim, 1975). This would indicate that a sense of coherence also implies congruity and consistency.

One’s culture contributes to this sense of coherence. When social and economic institutions and behaviors from the outside fragment a culture, one’s sense of coherence is shattered (Durkheim, 1951). The link between the individual and the community is created through the development of a shared sense of coherence among the members of the community. Tribal groups foster this bond between person and community through which they develop rules of appropriateness that govern behavior.

The question for us, then, is how to examine more closely those factors that establish, nurture, or rupture this link. Ruptures occur in the communal or individual tissue. We can examine the model using Figure 5. The person is lodged within the social situation. In this model one perceives oneself always in context. This context is social, cognitive, and affective. It is the “within” that is shared. The shared sense of coherence of community members holds together the individuals as the cell wall holds together the nucleus. When the social membrane through massive social and historical (the big history) disruption is torn, difficulties occur because either that which keeps the nucleus intact is damaged or the individuals split apart from one another and lose their embeddedness. The social fabric can endure much damage and the individuals and society survive as long as the damage does not reach the membrane of shared coherence. Social structure (part of the big history) can change and values and language can be replaced, and still a sense of coherence can survive. Additionally, individuals at risk can suffer stress from their own idiosyncratic histories (the little history) and not disturb the sense of shared coherence.

We need, therefore, to examine the conditions under which either big or little history may damage the membrane. The previous models discussed allow analysis of factors which could, in interaction, lead to such damage. Our hypothesis is that when catastrophe develops within big history, it can coincide with the little histories of individuals suffering personal trauma and increase the likelihood of major pathologies (see B and C, Figure 5). Additionally, these catastrophes can constitute a collective trauma that produces its own pathology.
**Figure 5.** Madness and the social link.
Erickson (1985) has eloquently described collective trauma occurring within the big history:

By "collective trauma," on the other hand, I mean to include those kinds of injury that are inflicted not on individuals directly but on the tissues of community life themselves—injuries that act to damage the bonds attaching people to one another, to impair the prevailing sense of group cohesion. Collective trauma works its way slowly into the awareness of those who come to suffer from it, so it may not be visible in the days or even months following discrete moments of disaster. But it is a form of shock all the same, a gradual realization on the part of an already numbed people, that their community no longer exists as an effective source of support and that an important part of their world has disappeared without so much as a sound. As people begin to emerge hesitantly from the protective shells into which they had reflexively shrunk at the time of the assault, they learn that they are isolated and alone, living in a kind of social wasteland with no one to turn to. They have lost the solace that comes from being in fellowship with one’s kind. They have lost both the physical and the spiritual health that comes from being in communion with kinsmen and neighbors who can be counted on to care. (p. xvii)

He has amplified this description to explicate the figure we have developed:

Human relations in a true community take their shape, at least in part, from expectations pressing in on them from all sides like a firm but invisible mold. They are governed by the ways of the tribe, the habits of the neighborhood, the customs of the community. When the mold is stripped away, so to speak, something happens to those relationships. It is as if they existed in a kind of gravitational field. The human particles that make up the field are held in place by interpersonal charges passing between them, but they are also held in place by all the other magnetic forces-cultural, societal, communal—that constitute the larger field. And when those outer currents lose their force, as can happen when the assault is serious enough, the particles begin to separate because the interpersonal change, by itself, turns out to be less than sufficient. So marriages break up, friendships dissolve, the bonds of kinship weaken, and, at the outer edges of human despair, parents lose the ability to care for their own children. Whole networks of ties begin to snap noiselessly as the particles, drifting now in a dead gravitational field, move farther and farther apart. And the pity of it is that people do not know why this is happening. They never realized the extent to which the old community validated those bonds and gave them strength, and partly for that reason, they do not know how to breathe new life and meaning into them by deliberate expressions of affection or by deliberate offers of support. The battery on which they depended for emotional recharging, the community, is just no longer there. (xvii)

Summarizing our major points, we have noted that Schlossberg, and McCubbin and Patterson provide analytical models to sort out the roots of individual and group functioning by examining factors affecting perceptual differences, individual and group characteristics, and environmental changes. Yet, in order to examine the link between individuals and communities we must incorporate Antonovsky’s notion of a sense of coherence as an alternative outcome variable, rather than adaptation. Finally, we hypothesized that collective and individual trauma must intersect at a point in history to create major pathology. Research must examine not only the trauma and severity, but the confluence in time and space.

Below, we present the implications and questions our arguments raise for future research:
1. Any research program that tries to explain escalating behavioral health problems in Alaska must take a multidimensional and interactional approach. Isolating any single causal variable is inadequate. Rather, research must develop ways to study behavior within context and in relationship to all of the dimensions delineated in the Schlossberg, and McCubbin and Patterson models.

2. Our theoretical model requires us to determine what constitutes a collective trauma. Which intersections of collective and individual trauma are likely to develop pathologies? Why do some individual or collective traumas rupture the sense of coherence that serves as the membrane holding individuals in place and provides personal and group stability while others do not?

3. How is the tribal-community and individual sense of coherence developed? Is there a critical number and/or critical set of individuals holding a shared set of beliefs, values, and world view necessary to forestall rupture of the sense of coherence?

4. We need to gather information about how Alaska Natives view phenomena, their definition and attributed source. What do families say they need or want? What do they receive, and what do they use? What, if anything, is known about the consequences of using these kinds of aid or services on their sense of coherence?

5. How do we study the community context as a unique social phenomenon and avoid romanticizing it? Again, Erickson (1975) provides us with an analysis of why this occurs in North America, where we find ourselves having difficulty with the concept of community:

We in the United States and in Canada are a good deal more aware of individual trauma than we are of collective trauma, and we are better equipped to repair the kinds of damage inflicted on communities. We know how to shelter people and feed them; we know how to tend physical wounds, and we are learning how to tend mental ones. But we do not know very much about how to restore a sense of community to people who have lost it, and this is true, at least in part, because we do not generally think of that loss as an injury requiring treatment. (p. xvii)

Summary

In this chapter we provided a brief description of the Alaska Native population, focusing on history of contact, location, size, and age. Second, we looked at (a) socioeconomic change as indicated by occupation, income, and education, (b) political change introduced specifically by ANSCA and the continued growth of the welfare state, and (c) changes in belief systems and/or the increasing secularization occurring not only in Alaska but in the larger society as well. Third, we addressed the possible impact of these major trends in Alaska Native health and family/community resources. Finally, we discussed in what ways our case study supports the theoretical models presented earlier or points toward new directions, and we presented questions for future research.
Alaska has seen massive changes. The responses of Alaska's indigenous people have been different in the face of seemingly equivalent stresses. We need, therefore, to become much more sophisticated about examining "all sides of the matter." Cultural change must be seen as conditioning a new sense of coherence. It is the sense of coherence—its development in individuals, its establishment as the norm for the community, and its capacity to allow human needs to be met and to enable families to become confident and trusting in their personal and community future—that should be at the center of our research.

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Discussion

Dr. Bloom: It's really a pleasure for me to discuss Gerry's paper. In a sense, it's a return to material that I haven't looked at in a long time. I want to start with a couple of brief comments about Chapter 18 in *Health and Behavior*, dispense with that as quickly as I can, and then talk about Alaska.

The chapter, as we have been saying about most of the book, is limited. It only focuses on human attachment, family roles, and social support, and in a very limited way. The research opportunities highlighted at the end of the chapter focus mainly on the implications of social support for health, asking: What mechanisms do social supports use to provide buffers or mediators for health behaviors? Do certain types of support networks have advantages over other types of networks? How can social support systems be strengthened? Can we compare experimentally devised networks with naturally occurring networks?

The chapter stresses the interrelationship between stress, illness, social support, and the utilization of medical services without explicating a theoretical model. Although human societies form the basis for the title of the chapter, no explanation of culture is forthcoming, and no explanation of family social support within a cultural context is undertaken. The references, I think, would be useful to people beginning in the area, especially the social support and bereavement references. As the only major chapter in this book that deals with culture, at least in its title, the absence of such material is particularly glaring.

Let's talk now about Alaska. As many of you know, I spent 10 years of my career living and working in Alaska. I have now been in Oregon for the past 8 years, but reading Gerry's paper has brought back many of the experiences and feelings that I had during that 10-year period. I can understand how Gerry decided to approach the problem. Alaska is a very interesting place. It's huge; its problems are gigantic. We used to call that picture, "The Big Picture." I remember presenting a talk to the Surgeon General, when we used to have a Surgeon General who talked to us, in 1966. The typical thing we would do was to take that picture and superimpose it upon the map of the United States and, of course, it would stretch from Miami to Seattle, and we'd say, "There, there is a real place."

The years that I spent in Alaska, from 1966 to 1977, were years of very dramatic change. The first contact I ever had with village life there, or town life, was a trip to Kotzebue in August of 1966 with a group of people from the NIMH Prevention Center who wanted to build a gymnasium in the Kotzebue Hospital to deal with problems of juvenile delinquency. At that time, there were about 2,000 people and about 3,000 sled dogs, and when you came back a year or two later, there were 3,000 people and probably 50 sled dogs and lots of snow machines. Change was very dramatic during that period of time.
It was interesting for me living those years in Alaska because we escaped most of the Vietnam controversy that was so prevalent in the States, but the state was heavily imbued with the spirit of the Kennedy and Johnson Administrations, with the programs and philosophies of the OEC. There were large numbers of young, very bright Native people being trained in the political process through the OEC system.

The Alaska Native Land Claims Settlement Act is an enigma to me. I lived through the period of time before it was passed, and the great, great optimism and hope that this was a truly creative settlement that would have long-ranging, positive effects on the Native population. I know in the last few years that this perception has changed dramatically. The Native people, the regional and local corporations, and the Alaska Federation of Natives, in the beginning were solidly behind the concept, it seemed to me, and it seemed like it was viewed as a great victory. It's very sad to read in Gerry's paper, and from what I have heard from friends who live in Alaska, how the situation is viewed now, and how the integrity of the Native peoples is severely threatened by the way these corporations were set up. Hindsight is always wonderful, and you tend to wonder why it was set up this way. I don't know if you know this, but at the time of the Settlement Act, the Alaska Federation of Natives had all of the oil companies tied up in court, and there wouldn't have been a drop of Alaska oil without their agreement. Why it was actually set up the way it was is really quite puzzling to me, but the problems that may develop around 1991, I think, are real and are substantial.

Health issues have also been a dramatic phenomenon in Alaska. I viewed the period of major change in Alaska as coming from World War II to the present time. If you study the history of contact in Alaska, you generally tend to see periods of intense activity, the Nome gold rush, the whaling period, and then periods of not much activity with the outside world. From the beginning of World War II on, things changed dramatically in Alaska. I think the first major problem in the post-war period, lasting into the mid-1950s, maybe a little bit later than that, was the tuberculosis epidemic. There have been no higher recorded death rates in the world ever from tuberculosis than those related to Alaska Native peoples during that time. There were tuberculosis hospitals filled with hundreds of people in Anchorage, Sitka, Seward, and Seattle.

As you know, the Indian Health Service came into being in 1955, and the initial work of the Indian Health Service in reducing tuberculosis death rates and in infant mortality reduction was extraordinary. Those incidence reductions probably form the basis of one of the Indian Health Service’s great success stories.
When I arrived in Alaska in 1966, the TB epidemic was on the down slide. The problems of large numbers of children and youth, problems of alcohol, accidents, suicide, and homicide were just beginning to accelerate. I wrote a paper in the late 1960s which looked at population characteristics of Alaska Natives, and some of the implications that the changes might have for mental health planning. In the time that I reviewed the data, in some villages, 65% of the population was under age 14. This was brought about by several factors, including the reduction in infant mortality and tuberculosis death rates. In addition, there was a single health care system in which the federal government did all the health care but didn’t do any birth control information until the Johnson Administration. A tremendous population explosion was produced during that period of time.

I first figured out what was going on in relation to this when I held a mental health clinic in Tanana, and saw a 29-year-old Athabascan woman with 10 children, who at that time was very desirous of getting some birth control information, which she couldn’t get through the Indian Health Service. We had to make some outside arrangements for that. I remember thinking then, and Gerry presented it today, that the strain of these large numbers of children on the adult resources in the villages and the communities would be extreme, especially in a period of rapid social change; it sounds like that continues to the present time.

Aside from being a personal tragedy for many, many people, the tuberculosis epidemic was a research opportunity that was missed by most people. The only person who did any kind of systematic work was Margaret Landis, who did some studies of TB in the Seattle hospitals and follow-up in the villages. I don’t know any other example where there was a whole population racked with very severe illness, long-term chronic illness, resulting in separation for long periods of time and a lot of death.

The way the TB cases were handled was oftentimes very crude. I saw one woman when I got to Anchorage with a brief psychotic episode who was 2 weeks post-partum in a very small Alaskan village. Her TB test came up positive. They sent an airplane out to pick her up. The pilot circled the village, and dropped a note, "I’m landing, I’m taking this woman." The plane landed, and she got on the plane, 2 weeks post-partum. The baby stayed in the village. The people in the village took care of the baby, but nobody made any provisions for how she felt about this type of abrupt separation from her family. And that is not an unusual story. The way it was handled, and the way people were helped through this chronic illness and separation were often very poor.

The research that we had talked about a number of times but didn’t pursue was the effect of this very large epidemic on the people who experienced it and on the next generation in terms of bereavement impacts. I look at the ’40s to the
present time in terms of three major phases: (a) the infectious disease epidemic phase, (b) the large bereavement phase, and (c) what we’re living through now and what we were living through at the time I left—a post-bereavement effect phase on younger children. I think there is a tremendous amount of alcohol-related behavior that might be looked at with that type of framework.

In the '60s and '70s, there were rapid changes in many areas. We have talked about the Alaska Native Claims Settlement Act. The education system, as Gerry indicated, went through dramatic changes, ending finally with the settlement of the Molly Hooch case and the establishment of village high schools. When I first came to Alaska, there were hundreds of Alaska Native adolescents in high school in Oregon, Oklahoma, and all over the place. Hundreds of kids and no resources to deal with these large numbers of children in the state.

The state went through several interesting phases: (a) what I’ve termed the federal phase, which was this large boarding home program, followed by (b) a state phase, a modified boarding home program, which also was a disaster, and (c) what we have now, which is the return of secondary education to the village level. As I understand it, the latter has been, for the most part, a very positive change.

If we look at the greater transcultural literature—and there are always issues of differential acculturation—women, to my way of thinking, had different opportunity structures, different migration patterns, different educational attainment levels, and different marital opportunities than men. If you looked at some of the population mechanics in these small villages, you found an extremely small number of marriage-age women in the villages and a very large number of men. Again you could postulate many difficulties coming from the different ways the sexes were affected by the rapid change there. In this regard, Dr. Mohatt identifies a need for ethnopsychological studies that are current to the cultural situation as it exists today. That’s extremely important. There are many excellent classical ethnographies written by persons who are probably now professors of anthropology around the country. But what would a current ethnography of these various groups look like, and how have things changed from the traditional to the current situation?

One area that I don’t believe was sufficiently mentioned in Gerry’s review is that suicide, homicide, accident, and alcohol are all related. I have done a lot of court-related work in Alaska, and have never seen an incident of antisocial behavior without alcohol present. Studies focusing on alcohol, its use, and abuse, would seem to me to be very high on the scale of priorities.

One of the reasons why he might not have dealt with it is that studies of alcohol and group alcohol behavior are subject to the political process. I think probably everyone in this room knows something about the reaction to the Foulks urban
study in which they found a very high prevalence of alcohol abuse in the Barrow community. I'm not commenting on the soundness of the study, or exactly how they went about keeping people informed, but the findings were dynamite.

Now, from a clinical point of view, I have been in places where I have seen hundreds of drunk people staggering through the streets, ranging in age from 8 years old to the older age group. Whether that is a problem or not for some people, it certainly seemed to be a problem to me. I have seen towns in Alaska when they have been wet and dry. The times when they have been dry, the accident, suicide, and homicide rates decreased. The times when they have been wet, they increase. The political issues in relation to studying alcohol and trying to define it and say what you see and how you see it, and to whom you say it, would be very high on my research agenda, or at least on some agenda towards intervention.

I hadn't looked at this material in a long time mainly because I found it too painful. I came to the personal conclusion that nothing from the outside was going to change this. It had to come from inside the communities with hard hitting looks by people themselves at what was going on there. It wasn't going to come from people like me flying around the Arctic.

Cultural patterns have positive and negative effects on people, especially in a changing world. Some cultural patterns deter individuals, hold them back, keep them from developing. Whether positive or negative, it seems to me that our theoretical models must have an internal cultural dimension. External events play into this internal cultural model, produce change in the individual, either positive or negative, resulting in enhanced or decreased ability to cope. My experience in Alaska tells me that thinking about people's internal defenses and reactions is not popular, and may be as unpopular as talking about politics and alcohol. However, both need to be approached.

I want to illustrate this with a case. I have turned to the field of transcultural forensic psychiatry in the last 8 years; that's my way of staying involved in transcultural work. Last year I saw a 20-year-old Eskimo woman from a very tiny new village recreated after the Settlement Act. She killed her newborn baby. Three years before she killed this baby, she had another baby which was given up for adoption. Two years before the homicide, her father died. She was still mourning, her house looked across the tundra to the cemetery, every time she looked that way she cried, and sometimes she saw her father. Aside from that, the important thing to me for this case was that the father had made all the arrangements for the adoption of the baby. The current pregnancy was identified by a traveling public health nurse early in the pregnancy. For the next 6 months of her pregnancy, she had no prenatal care, and no one in that village, in her
family, or her, discussed the fact that she was pregnant. Nobody talked about it once—no plans, discussion, nothing. She assumed no one wanted the baby. She didn’t want the baby; she wanted to go to school and she wanted to go to college. When she was ready to deliver, she went out by herself in the tundra, delivered the baby on the tundra, and stabbed the baby to death, left it on a blanket, went home, and told no one. Some people who were on an outing found the dead baby. She was arrested, unfortunately convicted of first degree murder, and I was asked to see her for a "guilty but mentally ill" verdict.

The significant finding to me in the evaluation is that she was borderline to significantly mentally retarded, and the interpretation that no one said a word to her was pretty clear to her that no one wanted the baby. Her father, who communicated for her in the past, was dead.

I’d like to hear what you think of that case. Aside from the fact that she was poorly worked up, poorly diagnosed by both the school system and the psychiatrist who saw her before I saw her, I have the feeling that the weaknesses in the culture, which traditionally might have been strengths, seek out the most vulnerable members of that culture, and that’s what that case means to me. Let’s see what it means to you.

Dr. Mohatt: I didn’t mention alcohol because it’s so dominant I was concerned in the discussion that the entire focus would be on alcohol abuse, and that the primary problem is one of alcoholism. At the same time, what you said is true. It’s an area of research that no one has looked at and probably it’s such a hot political thing, nobody would really want to look at it.

You can have a local option in Alaska, and you can make local options as strict as you want—so it’s against the law to import it, and anybody caught is prosecuted. The first time I went to Alaska, they had VPSOs (Village Public Safety Officers) who inspected every single plane that came and prevented any alcohol from coming into the town. Nobody has looked at what has been changed. Are there lower rates of child abuse? Are there lower rates of violence? It would seem that there are. There are certainly a lot of cases where you see a village that the year before was absolutely the pits, and they went to a local option law, and in a matter of a year, it’s totally different.

Certainly that’s an important issue, but I would think it’s related to both your case, and to the point that you and I both made, which has to do with the community deciding what their community is going to be like. Then they start regulating themselves again, and they start regulating themselves with words. I don’t think I have ever read anything except some of the antiseptic community education stuff. I say antiseptic because it doesn’t have verve to it, and it doesn’t talk about prevention in terms of language. The kinds of language I refer to
include that which needs to be interjected into a community in terms of people speaking to each other about their secrets and about their desires, and how that can affect community well-being.

**Mr. Whited:** I have a question about this young lady who went 6 months without prenatal care. If that was a village the Indian Health Service had some responsibility for, I suppose the public health nurse must have been an Indian Health Service employee. How often does that situation multiply itself and not result in murder?

**Dr. Bloom:** The jury was trying to illustrate that this is the tiniest of villages, hundreds of miles from the big city, which is Barrow. This is a new village, it's a village that was resettled predominantly from the Claims Act, and the issue of service and routineness of service has always been a problem there.

I once went to a village with another psychiatrist. Within a day, I found out that everyone in the village was angry at me because we weren't having a health clinic and no one had been there to have a health clinic for the last 9 months. So we ended up having a health clinic. The enormous nature of the distances and service patterns would not be atypical. I don't know the answer, but the nurse probably left some stuff for her and she probably took it. I don't know that, but the fact that the services aren't routine wasn't unusual in my day.

**Dr. Kunitz:** We talked explicitly about the notion of social support and what all these data mean in terms of social support or its absence. The inference I draw from what you say is that somehow there was a destruction of traditional bonds. Or perhaps, if I understood what Dr. Bloom was saying, in the traditional society there was no adequate support to begin with that was an intrinsic part of the social organization itself. Can you both elaborate on that?

**Dr. Mohatt:** I don't have a good historical sense of it, but my perception is that there was not an absence of social support, that this is not a problem that occurred because it is indigenous to those communities or indigenous to a variety of these groups. But in regard to the second part of your question, I don't think it comes from a lack or a flaw that was there before.

I think that the statistics do show a breakdown in some of the natural social support systems, vis-a-vis what Joe was talking about in terms of alcohol, and in other social changes. A statistic I didn't give you is that 80% of all the homes in Alaska have TV, so people don't talk to each other anymore. It's as simple as that. I was at Shishmaref, which is 150 people up in the Chukchi Sea, north of Nome about an hour and a half. I was staying with an elderly Eskimo couple, and the kids and family watched TV until 1:00 in the morning. It wasn't "Learn Alaska," which is supposed to be the ETV station, because everybody is clever enough to rotate their satellites so they can get 34 stations. Certainly those kinds of things are happening, and I think they are affecting the things that parents do with each other, or with children.
An example that I described was of an Inupiat woman, who gave a talk about what it was like to be raised by her father. She decided that she was going to air out for high school; she was going to leave a small village north of Bethel. She knew that her parents did not want her to go, but she could not get anybody to say anything to her. The day that she was to leave, she decided she was going to try to get her father to say something to her. So she went out and she said to her father, "I'm leaving for Bethel for school." He said, "No, you are not," and that's all he said. She went back in the house, she unpacked her bags, and that was it.

She talked about what she considers to be an intense kind of confusion on the part of her parents about what is good for their children. They see the TV, they travel. So what really is good? Is it good to leave the close kind of family support system that keeps you in the village? Or is there something else? I think we probably all certainly can relate to their confusion, given the modern world.

Dr. Bloom: I mainly worked in Eskimo villages. They never had towns; they had families. People got together, a little conflict developed, families left. So villages are new, the towns are new. Most of what we have been trying to say is that the supports within family and in the villages, which are now 80, 90, 100 years old, were overwhelmed by these problems: the infectious disease problem, the huge number of people to take care of, and the relative decrease in fish and game. You have 1,000 people hunting in a bay as opposed to 100 or 200 people, so the adult resources have been, in a lot of ways, overwhelmed.

The way the churches interacted with the communities is another story that allowed a lot of traditional support systems, I think, to be severely weakened. From my perception, they have only started to come back in the last 10 years. The situation is that the adult support resources were tenuous within the Eskimo communities to begin with because of the nature of the society and then were subjected to more difficulties. A lot of people have lots of hopes around the Land Claims Act as means to cultural re-emergence, or trying to bring back some of those systems that were either in hiding or disappeared. I don't know how successful that has been.

Mr. Whited: The corporation is a tribal, or perhaps smaller than tribal, village-based system. It's tightly knit, kind of familial, everybody knows everybody, and knows the history for three generations back. To create a corporation to allow the freedom to reinforce the culture is a very strange way to recover or preserve it.

Dr. Bloom: That's correct, but it wasn't the corporation itself, but the buying power.

Mr. Whited: The medium that was chosen to get to that end was strange.
Dr. Walker: I’d like a reaction to the case of the Eskimo girl because you gave several things that struck me. One was the fact that the community was a new community, formed after the corporation. One would wonder, was that community just put together by a group of people that didn’t know each other as families beforehand? I also wonder about the adoption of the first child, was that done within the family and in that community? These questions make your story very important when we talk about the macrosocial changes that have occurred.

Dr. Bloom: A lot of people in Barrow were people who used to live in this area and moved. So the people who moved back there would be people who ostensibly had ties there, and they knew each other from there. This child was adopted within the village, was well taken care of, and related to this young girl as if she were the mother, but she was living with other people. So that’s not unusual at all.

I think the major difference was that the father may have perceived her limitations which other people didn’t and said, "Do this, do this, do this, do this," and he was gone. That was the major thing.

Dr. Schulz: Getting back to the social support issue that you had talked about to some extent, there seems to be an underlying assumption here that modernization is associated with the erosion or deterioration of informal support systems among individuals. That reminds me a lot of the 60s and early 70s literature in aging when people talked about the erosion of the intergenerational of the family. When you had grandma and grandpa living with the family, there was a lot of contact, and presumably this was good for everybody. When they started collecting data, they found that, in fact, this wasn’t true at all. The intergenerational contact, if anything, is higher today than it was 50 or 60 years ago. In fact, the erosion of informal support systems was a myth, born out of the assumptions about modernization, television, and transportation. I’m wondering if this kind of romanticizing, if you want to call it that, is a parallel between these two situations, the situations you described in Alaska and the way we thought about intergenerational contact and support among Anglos in the 60s and 70s.

Dr. Manson: I think that people made a number of inferential leaps from frequency of contact to assumptions of the support it provided. That’s why, Gerry, I was pleased to hear somebody else talk about the extended family. It’s been a rallying point in many Indian communities to try to engender focus on strengths, hopefully, with a variety of different competencies. I have attempted to measure social networks and how that relates to extended families. I’m struck by the extent to which extended families have been essentially equated with the quantitative aspects of that, with the number of people, the frequency of contact, etc. In fact, there has been very little attention to the quality and type of supportive functions that those individuals performed. The general social
support literature moved fairly rapidly away in the last 3 to 5 years from a simple quantitative social network approach to a variety of different analyses of the support functions provided. That strikes me as a very important research area.

**Dr. Schulz:** Sounds to me like you do have a laboratory for looking at that question that’s quite ideal.

**Dr. Mohatt:** There is a program in Nome called the villager-to-villager program; it’s basically about alcohol. It involves a group process of local Inupiat young men and women who will work with some of the leaders in the community and will get a commitment from them to lay off the booze. They’ll have a commitment then not to go into AA and things like that, but to start building networks within these small villages. After these kinds of local interventions, not just the type, but the quality of interaction that people have with each other is quite different. They will spend more time with each other talking. There will be more recreational activities in the community. They’ll become more involved with the decision making in the community rather than leaving the decision making to one or two individuals. In quite a short time, these communities can turn themselves around, which would make one think that certainly the types of support systems that are either existent or latent have quite a bit of potency. It’s not like you’re trying to revive something that is decimated.

**Dr. Kunitz:** The ease with which you described this happening suggests the abuse of alcohol is an entirely different phenomenon than what we are used to thinking of in, say, Anglo society. That is, if a young person can go to another village and get another person to help them by talking, and get baseball teams started, or whatever, then one wonders about the significance of alcohol abuse as a deep-seated problem reflecting psychopathology, social disorganization, and so on.

**Dr. Mohatt:** That’s why I brought up the research question about what is actually happening over and above the kinds of things I just described, because I think that that’s one of the things that the Alaska experience does. It at least made me think about it when I saw villages, just having a local option law, change themselves so rapidly.

**Dr. Levy:** The traditional, old ways of communication within a family just aren’t done the way we do it. It’s not verbal and it’s not based on explanation; you don’t talk about internal states. I’m not clear, when you’re talking about what support systems there were for an individual within an extended family, as to what you think these support systems used to be, because one must have some kind of image if one wants to reconstitute or strengthen it.

**Dr. Mohatt:** I used the previous example to indicate that there was law in family, and there was a way within the family that the children were socialized. You probably would not call that a support system, because we’re mixing apples and oranges, but there was a way that the law of the family was transmitted to
the child, and she persisted until she got an answer. He was able to say something, and in that, he established boundaries, limits. There was a method of socializing which she now says is no longer there. What I had in mind was a support system, regardless of where you’re living, when an individual thinks it’s a difficult time, that other individuals have ways of supporting you to get you through the crisis. That would be quite different from the clarity of goals and means to the goals in socializing children. Childrearing has changed, but have support techniques changed?

You also see it on an everyday basis. The idea of primary prevention is that communities are organized in such a way that they meet the basic human needs of individuals, given their cultural framework and how they patterned these basic human needs, and that there are extended families, elders, and key people within communities.

Dr. Levy: To meet basic human needs, the social group gets food, gets clothing, and persists. It’s meeting the basic human needs. Now, that doesn’t imply, I hope, that Eskimos never committed suicide or murder.

Dr. Mohatt: No, but that’s what I was curious about, and that’s why I asked that question.

Dr. Guilmet: I have been troubled, not because I don’t think it’s an interesting and worthwhile discussion, but because it reminds me of economics and microeconomics, where you get involved in discussion about what is going wrong with the firm that you’re shutting down. I think that you have to see that these are small-scale things that are happening here. These communities have been split in half by forces outside of the community, and they’re internally split in terms of the old kinds of coping patterns in ways that probably don’t have knowledge of the new coping patterns. It’s fine to pull in these microissues, but if you must, link it to the larger social context. The same thing happened in terms of the transition out of slavery, when Blacks moved out of the rural south, and industrialization took over. I remember reading in one place how Blacks had linked going to work for wage labor with, "Goodby, Jesus, I’m going to get a job," which symbolizes the same kind of change in value systems from the traditional family to that which was required for survival in the larger society. In this section of Health and Behavior, we should react to it as a way of linking it to larger macroscopic changes.

Dr. Mohatt: I agree.

Dr. Levy: Right, you’ve got that, but what we’re trying to aim at is the consequences of these macrolevel changes, which are alcoholism, suicide, the unmarried mothers, and so forth—seeing these as symptoms of a social disintegration.
I don’t think that the issue is micro, because we see it, and we talk about it all over the world. We talk about it in the urban areas, we talk about it all across Indian country, we talk about it in Egypt. When they constructed the Aswan Dam, the first question that was asked was how fast would the suicide rate go up. That, to me, is not a microissue. It may be a misinformed issue, and it may be erroneous; the links may not be there except in our own heads, but then you have to ask whether those links are really there, and we can’t do that if it’s said that social pathology is a microissue.

Dr. Kunitz: What you have has to be proven, it seems to me.

Dr. Guilmet: If you read history, it’s proven that if you go around studying small-scale things without looking at the larger institutional context, you’re wasting your money. One way to spend that money is to try to figure out how not to do what we’ve done in the past in terms of creating these small-scale issues, but that kind of historical research seems not to be of interest because it’s too political.

Dr. Kunitz: What if the historical research showed that suicide rates in the Alaska Native population were as high in the 1920s as they are now? Would you then make the same causal inferences that you are presently making? It seems to me historical research has to look at those data as well.

Dr. Guilmet: I’m not against data, I’m just saying we need data that comes from the larger institutional focus.

Dr. Kunitz: Yes, but when you were first saying that, it sounded like you were asserting that we know all these pathologies have increased, and we know what the connection is with macrolevel changes.

Dr. Guilmet: What I mean to say is that if we are going to do that sort of microresearch, we have to link it into the larger institutional structure in which that situation was created.

Dr. Mohatt: And we still have to talk about trying to anticipate the effects of the public policies that people are constructing.

Mr. Whited: Indeed, you can do that by looking backwards and measuring the effect of changes in public policy over recent years, measuring effects of patterns of marriage, etiology, income patterns, settlement patterns, family structure, and probably link those to some things that we weren’t defining as stress.

Dr. Dinges: Does that suggest future decision making with regard to policies would be any more wise?

Mr. Whited: No, but they might be more informed.

Dr. Dinges: Would these policies necessarily have any less traumatic health consequences?

Mr. Whited: Well, I believe that if you know a little bit about what might happen when you do something, you can be prepared for the reaction.
Dr. Dinges: We ought to challenge that we’re that good at predicting these outcomes, especially when we add cultural variables to the predictor category.

Dr. Guilmet: But if we go around searching for the latest outbreak of emotional difficulty, we’re going to be studying the cause after the effect. We’re going to be running around changing the nature of our health research every time a new symptomatology breaks out. We need symptomatology predictions based on larger changes.

Dr. Dinges: I don’t think the state-of-the-art in social epidemiology would suggest you could predict the effects of macrolevel changes with discrete units of precision in terms of health consequences.