Purpose: Objective 1 of Goal 4 of the Swinomish Action Agenda is to determine key human health indicators representative of Coast Salish tribes from the Puget Sound region of the Salish Sea. The findings for Objective 1 are described here.

Background: A tribal health group comprised of Washington State’s Salish Sea area representatives was convened. Tribal representatives are from the Lower Elwha Klallam, Suquamish, Swinomish and Port Gamble S’Klallam tribes. Work began with a review of a health indicator set created at Swinomish. The Swinomish indicator set was revised and tailored to reflect dimensions of health as prioritized by multiple Coast Salish tribes. The current iteration of the tribal health indicator set presented here (Table 1).

Findings: All five of the health indicators emphasize community health and well-being. The five indicators are: community cohesion, food security, ceremonial use, knowledge transmission, and self determination. There are several health components nested within each indicator that further describe the indicator. The components (and their respective indicators) are: participation and cooperation, roles, familiarity (community cohesion); availability, access, and sharing (food security); ceremonies and gatherings, giving thanks, and feeding the spirit (ceremonial use); the teachings, elders, and youth (knowledge transmission); and, healing, restoration, and development (self determination). The health indicators and their respective components are detailed below. These indicators were devised based on information gathered from ethnographic records (e.g., Gunther and Haeberlin 1930, Roberts 1975, Suttles and Lane 1990, Miller 2007), current tribal documents (e.g., Suquamish 2000, Swinomish 2002), and interviews of tribal experts and elders. The indicators were also cross referenced with published literature on key aspects of Native American health (e.g., Wolfley 1998, Harris and Harper 2000, Petruzzelli 2004, Indian Health Service 2005).

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2 This paper does not infer that all tribes in the Salish Sea region of Washington State have reviewed and approved these health indicators. The work presented here is the initial step in suggesting a health indicator set that more accurately reflects tribal health. Before any indicator set may be put to use for planning and policy purposes, it must be officially reviewed and approved by the governing bodies of tribes in the Salish Sea region.
Arquette et al. 2002) and work by public health researchers to develop and implement health indicators for indigenous peoples (Anderson et al. 2006a, 2006b, USEPA 2006).

Community cohesion is considered to be active participation and cooperation in one or more roles within your community network. Two of the main duties in regards to natural resources are the processes of harvesting and preparing them, and these are imbued with thoughtful significance and intention. Family members work together along beaches to gather oysters, cockles and mussels from the surface. Particular methods have been honed over countless generations that are specific to the natural resources available, landscape, and climate, but also to the community. Community members each have a role in the process and each role carries with it an identity and the pride of being a needed part of the entire process. For example, the cooks’ role is looked upon with reverence equal to that of the harvesters’ role. These roles are often learned and passed down through the generations such that some may be known as the best salmon cooks while others may be known as expert clam diggers. Community members know each other’s roles, and who taught them the roles. That familiarity instills trust that the food handlers have performed their jobs accordingly and the food is “healthy” and “safe” to consume. As one tribal community member explained, “…there is an importance that you know where it [a natural resource] is caught and you know that it is part of our community and it’s been part of our history for that long period of time if it’s caught by local community members.”

Food security depends on three primary health components: availability of natural resources (i.e., that there are sufficient stocks to be harvested), access (i.e., that harvesters are allowed access to those stocks) and sharing (i.e., that the food sharing network provides part of the harvest to those that are not themselves harvesters or preparers). Because there are specific worker roles that are established and known throughout the community, knowing those roles and who holds them helps ensure that each family will have adequate amounts of healthy food. Particularly for elders, who have passed on their food harvest and preparation knowledge but can no longer harvest or cook for themselves, they rely heavily on the food sharing networks. Food security is defined by the United States Department of Agriculture (2007) as “…access by all members at all times to enough food for an active, healthy life. Food security includes at a minimum (1) the ready availability of nutritionally adequate and safe foods, and (2) assured ability to acquire acceptable foods in socially acceptable ways.” Coast Salish tribes reply on salmon as a primary source of protein. Shellfish are a second source of high protein, low fat, nutrient rich foods (Dong 2001) that comprise a large portion of the traditional diet. Since clams are sedentary, they provide a stable food source, more reliable than hunting or fishing. A saying shared by many Coast Salish tribes is that, “when the tide is out, the table is set.”

The natural resources of the Salish Sea are also a significant part of the subsistence economy—part of a long history of Native peoples supplementing economic income with subsistence foods to ensure food security. Subsistence is unique in that unlike all other economic systems, subsistence alone relies on functioning kinship or community relationships. In subsistence-based economies, the food security health indicator is sustained through internal support networks that are honored and reinforced through ceremonies and gatherings (Usher et al. 2003). Often repeated in Coast Salish communities,
one young fisher stated, “Yes, I always believe in sharing my catch because it’s always been taught to me to do this and I always try and give mostly to elders, the ones that can’t get out on the water and get their own.”

**Ceremonial use** is comprised of three fundamental health components: the ceremonies and gatherings themselves, the importance of giving thanks to the spirits of the natural resources when harvesting and preparing them, and the necessity to feed the spirit of oneself by consuming natural resource foods or feeding the spirit of a relative who has passed away by offering natural resources. Ceremonies, also referred to as gatherings, involve natural resources such as salmon, duck and clams and are viewed as an important part of the food-sharing network. Ceremonies provide the environment in which healing can take place (as health is both a physical and spiritual state (Garrett 1999)). Community members look forward to ceremonies for the natural resources and the company as well as the spiritual significance. Ceremonies are the best way to maintain and reinforce ties with other community members and members of other tribal communities, and have access to natural resources. Ceremonies are especially important to elders, many of whom only have access to natural resources at these events throughout the year.

When asked about the importance of having natural resources at gatherings and ceremonies, the majority of interviewees said that the events would be changed or impossible without natural resources such as seafood. For example, the First Salmon ceremony occurs at the beginning of the fishing season. The ceremony thanks the marine natural resources for returning and allowing the people to harvest them, and also asks for protection and guidance for the fishers to safely obtain plentiful catches.

Giving thanks to the natural resources while harvesting and preparing them is another health component of ceremonial use. The proper way to harvest and prepare a natural resource is to pray and give thanks to the Spirit for offering itself to the community. In this way, the natural resource is empowered with the prayers, which in turn nourishes the people who consume it. Ceremonies provide a venue where people have the opportunity to feed the spirit—to eat natural resources that nourish both the body and the soul.

The **Knowledge transmission** health indicator encompasses the teachings, elders and youth. The teachings embody the knowledge of how to gather, prepare, preserve, distribute, and employ natural resources. This knowledge is passed down through generations within the community, from the elders to the youth. It is through the teachings, transferred from those that hold the knowledge (elders) to those that learn and carry on the knowledge (youth), that the health and well-being of the community are preserved and upheld. The components of knowledge transmission are of the utmost value to sustaining the community, the culture. One example of knowledge transmission that also ties in all of the aforementioned key health indicators of community cohesion, ceremonies, and food security is the role of food preparation as recounted by a Coast Salish community member:

I fostered two teenagers... They were getting into a little bit of trouble. They wore the backwards baseball hats that read “Native Pride,” you know, “I’m Indian, I’m Indian.” I said, “Well, you really want to show your people how to be Indian, here I’ll show you.” I just happened to be filleting fish, I had a lot of fish. And we filleted them and I made them help me...I said, “...this is
how you want to be Indian is you provide food for your people. It’s not standing on the corner with a Native pride hat acting tough. That’s not Indian.” The effect on them was just passing that on…the importance, and emphasizes that we have to gather these foods, we have to provide these foods in the wintertime when we’re putting food on the table for the smokehouse.

**Self determination** is a key health indicator that incorporates healing, restoration, and development, all enacted by and at a community/local level. All of the components of the self determination health indicator emphasize the freedom for communities to make their own choices when deciding what they can do to create and sustain “good health.” This final health indicator is unique in that, unlike the four previous indicators, asserting self-determination was not necessary until externally imposed trauma occurred. “Externally imposed trauma is defined as ‘events that overwhelm a community’s capacities to function in stable and generative ways’ (Korn 2002). Community trauma results from externally imposed habitat destruction, economic dislocation, food security interruption, social order disruption, and physical relocation. Educational colonization, religious conversion, natural resource piracy, distortion of decision-making, and externally imposed priority-making are all together and individually factors that can give rise to community trauma” (Korn and Dyser 2008). Forced assimilation through boarding schools and government laws outlawing Native people from practicing their traditional ways are examples of trauma that negatively impact self-determination (c.f., Adams 1995, Collins 1997, Hoxie 1984).

Self-determination is, fundamentally, the ability to exercise sovereign rights. The first component, healing, can be defined as the availability of and access to healing opportunities such as traditional medicines, language programs and other culturally integral community health. Development, the second component of the health indicator self-determination, is the ability for a community to determine and enact their own, chosen community and economic enrichment activities in their homelands (this includes both reservation areas and usual and accustomed areas). The third component of self-determination is restoration—the ability for a community to determine and enact their own, chosen environmental or habitat restoration programs. Germane examples of this third component are the current dam removal and river restoration projects occurring on the Elwha River, the restoration of the Pisht river and Ennis Creek, the Rayonier cleanup and habitat restoration projects, the Nisqually Tribe’s estuary restoration project, and the Jamestown S’Klallam’s Jimmy Come Lately creek restoration.

**Next Steps:** Goal 4 of the Swinomish Action Plan has a total of three objectives. The execution of Objective 1 is detailed in this paper. Objectives 2 and 3 are to: summarize the tribal knowledge base of threats to and status of the Salish Sea (Objective 2); and, develop criteria and priorities for actions that address the threats and tradeoffs to tribal human health (Objective 3). The two remaining objectives will be undertaken with an estimated completion by the end of 2010.
References:


Hoxie, F.E., 1984. A *Final Promise: The Campaign to Assimilate the Indians*. University of Nebraska Press, Omaha, NE.


Suquamish Tribe, 2000. Fish Consumption Survey of the Suquamish Indian Tribe of the Port Madison Indian Reservation, Puget Sound Region. Suquamish, WA: Suquamish Fisheries Department.


<table>
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<tr>
<th>Fours Health Factors</th>
<th>Twelve Health Indicators with Definitions for each</th>
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<tbody>
<tr>
<td>Community Cohesion</td>
<td><em>Participation &amp; cooperation</em> – the community depends on each other; strong support network (e.g., everyone supports the maintenance, harvest and distribution of natural resources)</td>
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<td><em>Roles</em> (e.g., harvest, prepare, preserve natural resources) – each member of the community has a role that is respected</td>
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<td><em>Familiarity</em> – food roles are known and trusted; therefore, it is assumed that the food is “safe”</td>
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<td>Food Security</td>
<td><em>Availability</em> – natural resources are abundant and healthy</td>
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<td><em>Access</em> – all resource use areas (i.e., Usual and Accustomed areas) are allowed to be harvested with an emphasis on local resources for subsistence consumers.</td>
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<td><em>Sharing</em> – ensuring that everyone in the community receives natural resources from the Salish Sea, esp. Elders</td>
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<td>Ceremonial Use</td>
<td><em>Gatherings &amp; ceremonies</em> – particular community assemblies that require natural resources from the Salish Sea</td>
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<td><em>Giving thanks</em> – thanking Nature/ the Spirit for providing the natural resources when harvesting and preparing them; done with prayers and thoughtful intentions</td>
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<td><em>Feeding the Spirit</em> – using natural resources from the Salish Sea to satisfy a spiritual “hunger” (e.g., consuming traditional foods)</td>
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<td>Knowledge Transmission</td>
<td><em>The Teachings</em> – knowledge, values and beliefs about tribal health in connection with the Salish Sea</td>
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<td><em>Elders</em> – the knowledge keepers; they have and are able to pass on the knowledge</td>
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<td><em>Youth</em> – the future; they receive and respect the knowledge</td>
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<td>Self Determination</td>
<td><em>Healing</em> – ability to choose life-style desired for what is considered “good health” (e.g., traditional medicines, language programs)</td>
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<td><em>Development</em> – community enrichment opportunities directed by and for the community</td>
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<td></td>
<td><em>Restoration</em> – environmental or habitat restoration projects that are community driven</td>
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*i.e, this encompasses the Salish Sea’s natural resources, including seafood, seaweeds, shells, etc.*