

Year of International Dietetics: The Republic of Iceland

BY CLARE CURLEY



To call the Republic of Iceland a land of extremes is an understatement.

Located on a simmering fault line in the North Atlantic Ocean, much of this European island country is marked by deserts, ice caps, volcanoes and lava fields. And while Icelanders enjoy 22 hours of daylight in the summer, winters are cloaked in nearly total darkness.

For hundreds of years, the residents of Iceland have made up for this deficit of light and energy by consuming fish high in vitamin D and omega-3 fatty acid (preschoolers and kindergartners are fed a teaspoon of cod liver oil daily). Many credit this age-old custom with a number of health benefits and, with average lifespans into the 80s, Icelanders are one of the world's longest-living populations.

Iceland's identity has long been linked to fish, first as a means of survival—Iceland was once the poorest country in Europe with a diet

limited by its geography—and then as an industry. Fish exports largely account for the island's recent wealth and, ironically, a significant increase in the price of fish in Iceland.

"The tradition is so infiltrated [in older generations]. Ask any grandmother or grandfather. The roots are really deep," says Inga Thorsdottir, the only professor of nutrition at the University of Iceland in the capital city of Reykjavik.

Yet the consumption of fish and fish oil is a dietary habit that has been abandoned by many young people in recent years. In fact, the World Health Organization reports fish consumption in Iceland plunged more than 40 percent from 1990 to 2002.

As a result, one of the biggest challenges for the country's budding dietetics profession is to reinforce a traditional diet and lifestyle that is suddenly slipping away.

Thorsdottir coordinates a European research project called SeafoodPlus Young, created in response to the decline in seafood consumption. The project studies the nutritional benefits of seafood in young families, focusing on Iceland but including other fish-dependent countries. Two main areas of study are diet intervention in overweight young adults and the effects in pregnant women of a diet high in fish.

Icelanders typically dine on a wide array of seafood, including cod, haddock, Arctic char and monkfish. What would be an enviable amount of fish consumption in many countries—currently twice a week for the average Icelander—is troublingly low by local standards. Until the 1990s, Icelanders ate fish almost daily.

Still, the staples of the Icelandic diet haven't changed much, relying on fish, sheep, seabirds, potatoes and other simple vegetables. And despite Iceland's size (roughly that of Kentucky) and relative isolation, the quality of life is among the highest in the world. Iceland enjoys near total employment, and its public health-care system is rated highly by its citizens.

But Iceland struggles with typical problems associated with sudden modernization and wealth. While coronary heart disease has declined, cardiovascular diseases are the most frequent causes of death. A 1994 study found over 60 percent of people ages 45 to 60 were either overweight or obese. And type 2 diabetes, though lower than in other northern European countries, is growing due to this increase in obesity.

Thorsdottir hopes the dietetics profession sees a growth spurt to combat new health problems as they arise.

"We have too few dietitians, especially as overweight and obesity are growing," she says.

"We are trying to improve this at the University of Iceland by educating more public health nutritionists and dietitians." The university is planning to launch a new dietetics program in the next couple of years.

While nutritionist registration requires a master's degree, dietitian registration does not, so many dietitians study nutrition locally and obtain graduate degrees abroad. They register through Iceland's health ministry, a process that requires a year of practical work in a hospital setting. While nutritionists often teach and conduct research, most dietitians perform clinical work at the country's largest hospital—University Hospital in Reykjavik—and smaller local hospitals.

Increased cost isn't the only reason fish consumption has gone down; another factor is the perception that preparing fish is time consuming. Sigridur Eysteinsdottir is a dietitian in two hospitals, where she addresses this by promoting fish as a fast food.

"People aren't spending as much time in the kitchen as before," says Eysteinsdottir. She explains that in addition to the misperception that cooking fish takes too long, young people also admit they simply don't know how to prepare it. Part of Eysteinsdottir's job is showing them cooking fish isn't as hard as it seems.

People used to buy whole fresh fish, which they boiled and served with sheep lard and potatoes. Eysteinsdottir shows patients how to divide their meals between potatoes, vegetables and fish or meat, while stressing simpler methods of fish preparation, such as buying frozen fish filets from the supermarket and cooking them in the microwave with curry sauces or low-fat gravy.

The promotion of a more fish-based diet is also evident in the University Hospital kitchen, which produces 6,000 meals a day, the majority of which are sent to other hospitals. Some form of seafood is served almost every day, far more often than most patients eat at home. The fish may be poached, oven-fried or baked, and lightly fried fish balls are also common.

Frida Thordardottir, a nutritionist in the foodservice department, oversees a five-week rotating menu. In addition to updating food recommendations and writing guidelines for computer records, Thordardottir creates menus for patients with a range of health problems, which becomes more challenging as the population evolves. Health trends that didn't previously exist, such as vegetarianism or gluten and dairy intolerances, can make the task of forming menus that much trickier.

Additionally, the hospital is treating a broader spectrum of patients, including immigrant groups and both younger and older patients.

"We try to listen to patients and of course use our own taste buds," explains Thordardottir, who works with other dietitians, cooks and food preparers.

Shifts in demographics are also evident in the kitchen staff itself. Iceland's historically homogeneous population of Norse and Celtic descent has seen a sudden influx of immigrants and temporary workers from Asia and Eastern Europe.

Lately, patients have been receiving some tasty and unusual additions, like curry fish and shrimp with spicy sauce.

"Food habits are changing," explains Thordardottir. "We're getting more creative with fish recipes so people are more open to eating it."

Changing the direction of unhealthy habits has proven possible among the small, well-educated population. Anti-tobacco legislation, for example, is old news in Iceland, and the decline of smoking began decades ago. And despite the decline in fish consumption, the nutritional value of food in Iceland has improved significantly during the last century.

Overall, fat consumption and calories from fat have decreased, mainly due to less consumption of margarine and non-skimmed milk. In addition, fruit and vegetable consumption, formerly limited by geography, has increased. And a popular Icelandic export is a children's television show called *Lazy Town*, which promotes nutrition and exercise.

The government of Iceland plans to launch a campaign in 2008 to promote the consumption of more seafood, fruits and vegetables, along with other healthy habits.

If the past is any indication, they just might succeed.

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