



# Perceptions of raw milk's risks and benefits

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Raw milk for human consumption that has not been pasteurized<sup>1</sup> is a controversial product. Wisconsin laws prohibit non-incident sales of raw milk to consumers<sup>2</sup>, although the law allows farmers, employees and their guests to consume raw milk. Unpasteurized milk may contain pathogens such as *Salmonella*, *Listeria monocytogenes*, *Campylobacter* and disease-causing strains of *Escherichia coli*, which can lead to serious illness. Nonetheless, a study led by researchers Özlem Altıok and Michael Bell of the UW-Madison Department of Community and Environmental Sociology found that customers cite improving their health among the top reasons for drinking raw milk. A growing number of consumers feel that pasteurization robs milk of some of its nutritional and health benefits.

From September 2005 through June 2007, the researchers used participant observation and in-depth interviews to investigate why people drink raw milk despite health warnings. The study was conducted primarily in Wisconsin; as individual states have unique laws governing in-state sales of raw milk, some fieldwork and interviews took place in other states. This work was supported by HATCH and a Community and Environmental Sociology departmental grant.

Altıok and Bell surveyed 12 consumers who had purchased raw milk and 13 farmers who had sold raw milk. They interviewed male and female consumers with diverse economic and social status, group affiliations and levels of involvement with raw milk advocacy networks. They also interviewed six representatives of nonprofit organizations (such as the Weston A. Price Foundation and the Family Farm Defenders) that promote sustainable eating and farming practices. These representatives could speak to their personal beliefs about raw milk and also the organizations' positions, if they had any, on raw milk consumption or sales. The researchers hoped this diversity would shed light on the question of why people drink raw milk and how they perceive its risks.

These consumers sourced raw milk directly from farms in a variety of ways. Some belonged to milk sourcing groups while others purchased their milk individually. One consumer had milk shipped from a farm on the East Coast while another lived near the source farm.

These are typical raw milk purchasing arrangements in states where retail sale to the public is illegal.

## Consumer attitudes

Eleven of the surveyed consumers started drinking raw milk within the last five years. Their reasons for buying raw milk included improving their health, cultivating relationships with family farmers, good flavor and supporting local, sustainable farms. Consumers' comments quoted in this Brief are their own opinions, and are not necessarily backed up by current U.S. research.

**Health:** Ten of the 12 consumer respondents were health-conscious, urban professionals with college degrees. For nine of these respondents, their rationale for drinking raw milk was associated with personal or family health issues including psoriasis, allergies, intestinal diseases, digestive problems and nervous system diseases. In some cases, the sufferers had been unable to identify the root causes of, or conventional treatments for, their health problems and had turned to alternative treatments, including those that emphasize diet as integral to overall health.

One woman reported that her osteopathic physician recommended raw milk for her husband's psoriasis. She saw raw milk as a part of holistic medicine: "... 'holistic' meaning that there are so many variables involved in health. You know, it's emotional, it's physical, it's mental, it's what you put in your body, it's your environment." Holistic health was a recurring theme in all of the interviews.

When asked what they considered healthy in raw milk, the consumers listed a variety of nutrients and other compounds. Some reported that raw milk has good fats. Nine of the consumer respondents called raw milk a "living food," saying it contains beneficial probiotics and enzymes that are especially helpful for digestion.

Nine of the consumers felt that raw milk prevents diseases related to the immune system. Many raw milk advocates apply the hygiene hypothesis to raw milk. This hypothesis states that a lack of early childhood exposure to several infectious agents increases susceptibility to allergic diseases. This lack of exposure alters the development of the immune system. Raw milk from healthy cows grazing pasture on good soil

<sup>1</sup>When pasteurized, milk is heat treated to a specific temperature for a defined period of time and quickly cooled to kill pathogenic microorganisms.

<sup>2</sup>At the time of this writing, a bill allowing the sale of raw milk under certain circumstances passed both houses of the Wisconsin legislature but was vetoed by the Governor. A working group is meeting to direct future efforts.

contains a variety of organisms, these consumers say, which can provide protective effects against asthma and allergies by helping the immune system develop as it should.

**Supporting small family farms:** All but one of the consumers had visited the farms that provided their raw milk and met the farmers, and most were knowledgeable about what the cows had been fed. All of the nonprofit representatives in the sample, and three of the consumers, emphasized supporting small, local, sustainable farmers among their top reasons for drinking raw milk. They cited this support as a way to encourage environmentally friendly farming practices.

The Wisconsin farmers interviewed for this study had smaller-than-average dairy herds of 30 to 80 cows. In 2008, the Wisconsin Agricultural Statistics Service reported an average herd size of 91 cows in the state. All of the farmers interviewed used managed grazing and emphasized their role as family farms working with nature.

**Cultivating relationships:** Six of the consumer respondents cited “knowing the source of their food,” “knowing their farmer” and “building personal relationships” among their reasons for preferring raw milk. Illustrating how consumer-farmer relationships develop, one consumer described a worthwhile visit to a farm to pick up milk: “... the first time we went up there [the farmers’ kids and ours] just hit it off ... [our kids] kept talking about the farm, the cows, the horses when we got back ... it was just a very pleasant day for all of us.” This consumer was well aware of the potential risks of drinking raw milk, but these risks were mediated through a personal, trusting relationship with the farmer.

**Taste:** One consumer started drinking raw milk because she heard it was healthier, and found she liked the flavor better than pasteurized milk. While eight of the 12 consumer respondents made direct reference to the superior flavor of raw milk, a few reported having spouses or children who did not care for it.

### **Why farmers sell raw milk**

One clear reason why farmers sell raw milk is higher profits. Based on interviews with one farm, sales of 15 to 20 gallons a day at \$4 per gallon earned the farmer \$10,000 to \$15,000 per year more than selling it to an organic milk processor. Wisconsin producers in this study charged as much as \$7 per gallon. This contrasts with the roughly \$2 per gallon that farmers received

at the time of this study if shipping to an organic milk buyer, and approximately \$1.40 per gallon for non-organic milk. While most of the interviewed farmers held Grade A milk producer licenses and sold milk to a processor, raw milk sales were an important source of income.

Some of the farmers reported that they sell raw milk for quality of life reasons. They want to provide consumers with the healthy, natural foods they enjoy. One farmer said, “We wish that we could do this for free, to help people eat good, wholesome, healthy food, because we don’t think of it as a job.”

The farmers in the sample were aware of the potential health risks of raw milk and felt that everyone who sells raw milk must take these seriously. Nine of the farmers thought the government should regulate the sale of raw milk to ensure quality. Some acknowledged that raw milk could pose a health risk depending on the health of the cows and how the milk is handled, but argued that disease outbreaks from raw milk would be on a much smaller scale than outbreaks associated with many commodity-scale foods. Two of the farmers advise first-time raw milk drinkers to consume it in small quantities at first to accustom their bodies to new enzymes and other microorganisms.

### **Continuing debate**

Milk has a special place in American history, culture and diet, and the raw milk debate illustrates the strong feelings on both sides of the controversy surrounding it. For farmers, selling raw milk comes with significant liability risks and substantial financial benefits. For the consumers in this study, the risks of consuming raw milk were mediated by trust and personal relationships with farmers. While these consumers held a broad spectrum of political beliefs, all displayed a general distrust in government agencies charged with ensuring public health and land grant institutions, perceiving that the agendas of these institutions are shaped by commercial interests. While raw milk opponents in Wisconsin say that legalizing its sale poses health and safety risks, these consumers strongly believe they should have the right to assume these risks and choose raw milk. Altiok and Bell hope that this study will further discussion and mutual understanding between raw milk advocates and opponents.

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*The Center for Integrated Agricultural Systems (CIAS) brings together university faculty, farmers, policy makers, and others to study relationships between farming practices, farm profitability, the environment, and rural vitality. Located in the College of Agricultural and Life Sciences at the UW-Madison, it fosters multidisciplinary inquiry and supports a range of research, curriculum development, and program development projects. For more information on the Center or on the research in this Brief, contact: CIAS, 1535 Observatory Drive, UW-Madison, Madison, WI 53706 Phone: (608) 262-5200 Fax: (608) 265-3020 E-mail: ramcnair@wisc.edu, www.cias.wisc.edu*

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