

## The Consumption of Raw Milk

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Despite the well-established threat of milkborne disease, the consumption of unpasteurized milk and dairy products persists due to the perceived health benefits of raw milk compared to pasteurized products<sup>1-3</sup>. However, recent outbreaks of illness derived from the consumption of raw milk combined with proposed legislative changes to broaden the availability of raw milk products has increased interest in this important issue among Dane County residents. Therefore, in order to provide the public with accurate information, Public Health Madison and Dane County (PHMDC) evaluated the relevant scientific literature to assess the potential impact to individual and community health derived from the consumption and expanded availability of raw milk products. Based on this review, PHMDC does not support the sale and consumption of raw milk products; this conclusion was derived from the following information:

- Diarrheal enteropathogens including *Campylobacter* spp, *Escherichia coli*, and/or *Salmonella* spp (including multi-drug resistant strains) are commonly identified in contaminated raw milk products<sup>4-7</sup>. Additional diseases that have been acquired by the consumption of raw milk include tuberculosis (*Mycobacterium* spp.), diphtheria (*Corynebacterium diphtheriae*), listeriosis (*Listeria monocytogenes*) and brucellosis (*Brucella* spp.)<sup>4,7,8</sup>.
  - Although these pathogens can impact anyone that consumes raw milk, they are especially dangerous to pregnant women, children, the elderly, and individuals with weakened immune systems<sup>8</sup>.
- Pasteurization is the process of heating milk to a specified temperature and time period combination to kill potentially harmful microorganisms.
  - Prior to the inception of routine pasteurization, milkborne illnesses accounted for approximately 25% of all reported foodborne illnesses; in 2009 milkborne diseases accounted for approximately 1% of foodborne illnesses<sup>8</sup>.
- Perceived increased health benefits of raw milk compared to pasteurized products have not been substantiated scientifically<sup>2,3,9</sup>.
  - Changes in milk attributed to pasteurization are negligible and do not impact the bioavailability of nutrients; therefore, pasteurization does not reduce nutritional benefits. Pasteurized milk is also fortified with additional nutrients including vitamins A and D, increasing the health benefits of the product<sup>10,11</sup>.
- The process of pasteurization is recommended by the US FDA, USDA, CDC, the American Academy of Pediatrics, the American Veterinary Medical Association, and several other medical and scientific organizations due to the significant reduction of milkborne disease risk<sup>11</sup>.

In summary, research has clearly demonstrated the historical and continuing risk of milkborne disease from raw milk consumption, as well as, the reduction of this risk derived from pasteurization. In addition, research has also demonstrated that the perceived health benefit of the consumption of raw milk products in comparison to pasteurized products is unsubstantiated. Therefore, based upon this and other information presented above, PHMDC does not support the sale and consumption of raw milk.

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