Invited review: The role of contagious disease in udder health. By Barkema et al., page 4717. Contagious diseases are a threat to animal health and productivity. The 40-year-old mastitis control plan remains the foundation for control of contagious mastitis. Other contagious diseases (e.g., foot and mouth disease, bovine viral diarrhea, and Johne’s disease) may have an indirect effect on mastitis and milk quality. Contagious diseases with direct or indirect effects on mastitis and biosecurity measures to prevent their spread are reviewed. Because of globalization and heightened consumer awareness, the importance of mastitis control and biosecurity are more critical than in the past. Increased pressure to control transmission of contagious diseases can be expected at industry or government levels.