

## Case Study Profile Series: Massachusetts July 2016

Report authors: Florence Becot<sup>1</sup>, Shoshanah Inwood<sup>1</sup>, Katlyn Morris<sup>1</sup>, and Lucy McDermott<sup>1</sup>

Project team: Shoshanah Inwood<sup>1</sup>, Alana Knudson<sup>2</sup>, Don Albrecht<sup>3</sup>, Bonnie Braun<sup>5</sup>, Stephan Goetz<sup>6</sup>, Jane Kolodinsky<sup>1</sup>, Scott Loveridge<sup>7</sup>, Katlyn Morris<sup>1</sup>, Jason Parker<sup>1</sup>, Bob Parsons<sup>1</sup>, Rachel Welborn<sup>8</sup>

Graphics and Layout: Katherine Spiering<sup>8</sup>

<sup>1</sup>University of Vermont, <sup>2</sup>University of Chicago, <sup>3</sup>Western Rural Development Center, <sup>4</sup>Center for Rural Affairs, <sup>5</sup>University of Maryland, <sup>6</sup>Northeast Regional Center for Rural Development, <sup>7</sup>North Central Regional Center for Rural Development, <sup>8</sup>Southern Rural Development Center

## Study Background and Purpose

Health insurance and health care affect farm economic development, including risk management, productivity, health, retirement, off-farm income, and land access. Researchers at the University of Vermont and NORC at the University of Chicago have partnered with Regional Rural Development Centers on the “Health Insurance, Rural Economic Development and Agriculture” (HIREDnAg) project. The goal of this national study is to understand how health insurance influences farm family decision making, quality of life, and economic development.

Farming ranks among the most dangerous occupations in the U.S. (CDC 2013; BLS 2011). Health and safety risks inherent in agricultural work include sun and heat exposure, heavy lifting and bending that lead to chronic back and joint pain, operating farm machinery, exhaustion, exposure to disease from farm animals, and handling chemicals and dangerous materials. Mental health issues can be exacerbated by economic hardships, chronic pain, stress, long hours, and solitude.

Health insurance is one way to access and pay for needed health care. Having health insurance increases the likelihood of accessing preventive care and treatment in a timely manner, resulting in improved health outcomes, and reduced medical debt (Dorn, 2008). Farming families who are uninsured or underinsured can accrue crushing medical debt which can

increase financial risk, lead to farm foreclosure, and reduce overall quality of life. A previous study showed that while most farmers had health insurance from off-farm jobs, 20% had outstanding debt from medical bills with 25% reporting health care expenses contributed to their financial problems (Lottero, Pryor, Rukavina, Prottas, & Knudson, 2009). In addition to the occupational farmer health and safety concerns, studies have consistently found that longtime farmers, beginning farmers, and hired workers identify the high cost of health insurance as a major barrier to job creation and the ability to farm full-time (Inwood, 2015; Mishra, El-Osta, & Ahearn, 2012; Vermont Sustainable Jobs Fund, 2011, ORDP 2006; Young Farmers Coalition 2011).

Farmers and ranchers make health insurance decisions from two perspectives: 1) “Farmer and family” health insurance decisions are made for themselves and their families, and; 2) “Farmers as employers” decide if and how to offer health insurance to employees. As a result, past and future health insurance policy may affect farmers through both individual and employer requirements. Federal and state health insurance policies require individuals, families, and employers to make decisions within a complex and continually evolving policy environment.

## Core Objectives:

- Understand how health insurance influences:
  - Operator and farm worker health, vitality, and quality of life
  - Farm labor supply
  - The way farm operators structure their enterprise
  - The way farm operators manage family and business resources
- Conduct a needs assessment of farm and ranch technical assistance providers (farm viability and business planning professionals and tax accountants). Develop outreach and educational tools to assist farmers and ranchers in understanding health insurance options.
- Communicate the results of the study to national and state policy makers to inform them about how health insurance impacts the vitality of the farm sector and the overall rural American economy.

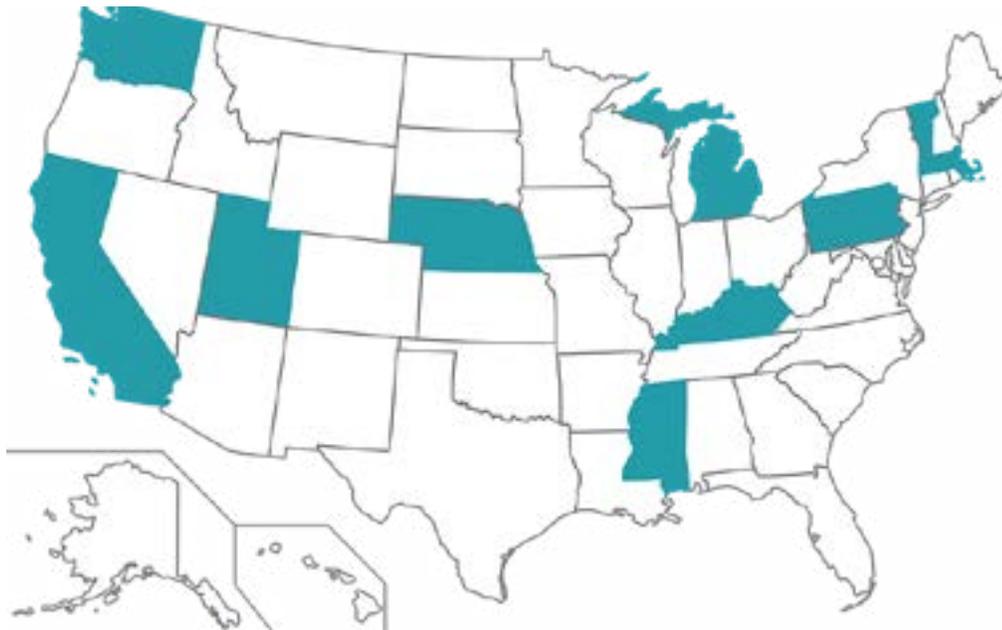
## Selection Criteria:

- Active agricultural base, regional, and production variation;
- Medicaid expansion policy;
- State receptivity to participating in the study.

In this HIREDnAg case study profile series, we examine the health insurance and agriculture sector in each of the ten case study states. The health insurance policy landscape shifts rapidly; these reports are based on data accurate as of July 2016. Additionally, all agricultural data reported in this series are from the 2012 Census of Agriculture unless otherwise noted (United States Department of Agriculture, 2012).

The selected sites are shown on the map in Figure 1 and selected information related to the agricultural sector and health care policy landscape of these states is available in Table 1.

Figure 1: Map of Case Study States



**Table 1. Selected information related to the study states' agricultural sector and health care policy landscape**

Study States	Number of Farms <sup>a</sup>	Farmland (in acres) <sup>a</sup>	Number of Principal Operators <sup>a</sup>	Medicaid Expansion <sup>b</sup>	Marketplace <sup>b</sup>	Percent Uninsured population <sup>c</sup>
California	77,857	25,569,001	122,387	Yes	SBM	12.4
Kentucky	77,064	13,049,347	113,037	Yes	SBM	8.5
Massachusetts	7,755	523,517	12,275	Yes	SBM	3.3
Michigan	52,194	9,948,564	78,948	Yes*	SBM	8.5
Mississippi	38,076	10,931,080	54,778	No	FFM	15.0
Nebraska	49,969	45,331,783	74,786	No	FFM	9.7
Pennsylvania	59,309	7,704,444	90,595	Yes*	FFM	8.5
Utah	18,027	10,974,396	28,130	No	FFM	12.5
Vermont	7,338	1,251,713	12,012	Yes	SBM	5.0
Washington	37,249	14,748,107	59,784	Yes	SBM	9.2

\*Michigan has an approved section 1115 ACA expansion waiver; Pennsylvania's section 1115 ACA expansion waiver was denied

<sup>a</sup>2012 Census of Agriculture, <sup>b</sup>Marketplace abbreviations: State-Based Marketplace (SBM), State-Partnership Marketplace (SPM) Federally-Facilitated Marketplace (FFM) Source: Henry J. Kaiser Family Foundation, <sup>c</sup>American Community Survey, 2014 estimate

## Massachusetts

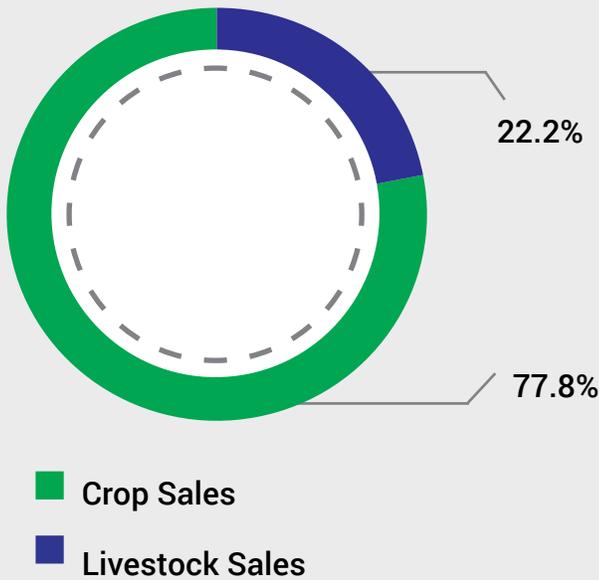
Massachusetts had a population of 6,668,348 residents in 2014 (United States Census Bureau, 2014). Massachusetts enacted health insurance reform in 2006 and has expanded Medicaid and a well-established State-Based Marketplace with ten participating insurers. (Centers for Medicare and Medicaid Services, 2016; The Henry J. Kaiser Family Foundation, 2016). Between 2009 and 2014 the rate of uninsured residents dropped by 19.3% from 271,090 to 218,722. In 2014, Massachusetts had the lowest rate of uninsured residents, with just 3.3% of the population uninsured. Overall, 54.0% of the population has health insurance through employment alone, while 16.4% reported health insurance coverage through Medicaid or other means-tested programs alone (United States Census Bureau, 2009, 2014).

## Farm Size and Type

The majority of agricultural sales in Massachusetts are from labor intensive crop. Out of \$492 million in sales, over \$382 million (or 77.8%) were related to crops, while livestock sales account for 22.2% of all sales (Figure 2). Nurseries, greenhouses and floriculture accounted for 29% of the sales and berries accounted for 21% of the sales.

Between 2007 and 2012, the number of farms increased by 0.8% (from 7,691 farms to 7,755 farms) while farm sales increased by 0.5% (from \$489 million to \$492 million). Of the 7,755 farms, the majority (90.2%) are considered hobby or small farms with sales under \$1,000 and \$100,000 respectively, 4.6% are considered medium with sales between \$100,000 and \$250,000, and 5.2% are considered large with sales over \$250,000. Large farms account for 60.6% of the total sales (Table 2).

**Figure 2: Breakdown of Agricultural Sales in Massachusetts**



**Table 3: Percentage of Massachusetts Farms Engaged in Alternative and Direct Marketing Channels**

Alternative Marketing Channel	Percentage of Massachusetts' Farms
Direct Sales	28.4%
Value-Added	9.5%
CSA	5.6%
Tourism	3.7%
Certified Organic	2.6%

**Table 2: Total Farms and Sales by Farm Size**

Farm Size	Percentage of Farms	Percentage of Sales
Large	5.2%	60.6%
Medium	4.6%	25.2%
Small	54.7%	14.2%
Hobby	35.5%	0.1%

In Massachusetts, 2.6% of farms are certified organic. Twenty eight percent of the Massachusetts farms reported direct sales to consumers, 9.5% engaged in value-added activities while 5.6% of farms reported selling through a CSA (Table 3). 3.7% of farms reported tourism activity.

## Farmer Population

There are 12,595 farm operators in Massachusetts, including 7,755 principal operators. The average age of the principal operator in Massachusetts is 57.8 years old, 30.1% of the principal operators were 65 years and older, and 5.4% of the principal operators were under the age of 35. Farming was the primary occupation for 50.0% of the principal operators while 73.8% of households reported that farming accounts for less than 25% of their total household income. Women farm operators (including first, second, and third) account for 40.3% of operators compared to the national average of 30.5%. Minorities account for 23.5% of the general population in Massachusetts, but only 3.7% of farm operators (Table 4) (United States Census Bureau, 2014). Minorities counted in this figure include Hispanic, Black, Native American, and Asian farmers. Beginning farmers in this area represent 21.3% of the principal operators compared to 18.1% at the national level.

**Table 4: Beginning, Women, and Minority Farmers in Massachusetts**

Category	Percentage of Farmers
Beginning Farmers	21.3%
Women-Principle Operator	32.3%
Women	40.3%
Minority	3.7%

## About the Authors

Florence Becot is a research specialist at the University of Vermont Center for Rural Studies and a PhD student in the University of Vermont Food Systems Program.

Shoshanah Inwood is an assistant professor in the Department of Community Development and Applied Economics at the University of Vermont.

Katlyn Morris is project coordinator of the HIREDnAg project and a research specialist at the University of Vermont Center for Rural Studies.

Lucy McDermott is a community manager at the Collaborative Health Network in Maine.

## Additional Information

For more information about this study and findings, contact Shoshanah Inwood at 802-656-0257 or email: [Shoshanah.Inwood@uvm.edu](mailto:Shoshanah.Inwood@uvm.edu)  
Project website: [www.hirednag.net](http://www.hirednag.net)

## Health Insurance Information and Programs for the Agricultural Sector

Nationally, USDA refers farmers and ranchers to the national website [healthcare.gov](http://healthcare.gov). States vary in whether they offer health insurance services to farmers. Given state health insurance policy variations we examined if states have specific health insurance programs or outreach efforts directed towards farmers by consulting the websites of the state agencies of agriculture, state extension services, and state exchanges (when applicable). To identify the most up-to-date options for Massachusetts, resources include the Massachusetts Department of Agricultural Resources and University of Massachusetts Extension which provides information and guidance on choosing an insurance plan. MassHealth, the state exchange, provides resources for small business owners through the SHOP Employer Guide.

## Acknowledgments

Project support from the Agriculture and Food Research Initiative of the National Institute of Food and Agriculture, USDA, grant # 2014-05623

## References

- Ahearn, M., Williamson, J., & Black, N. (2014). Implications of health care reform for farm businesses and families. *Applied Economic Perspectives and Policy*, ppu030.
- Bureau of Labor Statistics, United States Department of Labor (BLS). 2011. Number and rate of fatal occupational injuries, by industry section, 2011. <http://www.bls.gov/iif/oshwc/cfoi/cfch0010.pdf>.
- Centers for Disease Control and Prevention (CDC). 2013. "Agricultural Safety." *Workplace Safety & Health Topics*. <http://www.cdc.gov/niosh/topics/aginjury/>.
- Centers for Medicare and Medicaid Services. (2016). State Medicaid and CHIP profiles. Retrieved 16 May, 2016, from <https://www.medicare.gov/medicaid-chip-program-information/by-state/by-state.html>
- Dorn S. (2008). *Uninsured and Dying Because of It: Updating the Institute of Medicine Analysis on the Impact of Uninsurance on Mortality*. Washington, DC: Urban Institute

Inwood, S. (2015). Opportunities for extension: Linking health insurance and farm viability. *Journal of Extension*, 53(3), #3FEA1.

Lottero, B., Pryor, C., Rukavina, M., Prottas, J., & Knudson, A. (2009). 2007 health insurance survey of farm and ranch operators. Issue brief 5. Retrieved 12 July, 2016, from <http://www.cfra.org/sites/www.cfra.org/files/AccessProject-2007-Health-Insurance-FarmRanchSurvey.pdf>

Mishra, A., El-Osta, H., & Ahearn, M. (2012). Health care expenditures of self-employed farm households in the united states. *Agricultural Economics*, 43(1), 75-88.

Ohio Rural Development Partnership. 2006. Ohio Rural Development Partnership - Strategic Work Plan. Reynoldsburg, OH, Ohio Department of Agriculture.

The Henry J. Kaiser Family Foundation. (2016). Number of issuers participating in the individual health insurance marketplaces. Retrieved 16 May, 2016, from <http://kff.org/other/state-indicator/number-of-issuers-participating-in-the-individual-health-insurance-marketplace/>

United States Census Bureau. (2009, 2014). American community survey 1 year estimate. Health insurance coverage status American Community Survey. from [http://factfinder.census.gov/bkmk/table/1.0/en/ACS/14\\_1YR/S2701/0400000US50](http://factfinder.census.gov/bkmk/table/1.0/en/ACS/14_1YR/S2701/0400000US50)

United States Census Bureau. (2014). American community survey 1-year estimate. Total population. Washington, DC.

United States Department of Agriculture. (2012). Census of agriculture. Washington, DC: National Agricultural Statistics Services.

Vermont Sustainable Jobs Fund. (2011). Farm to plate initiative strategic plan (pp. 1-50). Montpelier, VT: Vermont Sustainable Jobs Fund.

Young Farmers Coalition. (2011). Report: Building A Future With Farmers. Retrieved April 2014 from <http://www.youngfarmers.org/newsroom/building-a-future-with-farmers-october-2011/>.

---

## Sponsors

