



## The Forest Health-Human Health (FHHH) Initiative

Recent studies by Catherine Mater, a senior fellow at the Pinchot Institute, show a surprising connection between the rising cost of family health care and the loss of forest in the US. Interviews with family woodland owners across the US indicate that the financial challenges of meeting medical expenses are fast becoming a leading factor in decisions by family woodland owners to sell their forests for development. In cooperation with the USDA Forest Service and companies in the health care industry, the Pinchot Institute's Forest Health-Human Health (FH-HH) initiative is aimed at helping family woodland owners meet their health care expenses not by selling or converting their forests, but rather through generating new income by enhancing the public benefits their intact forests provide, such as water, wildlife—and absorbing greenhouse gases like carbon dioxide.

Over the past couple of decades, America has been losing its forests and open space at an estimated average of 6,000 acres a day—4 acres a minute.<sup>1</sup> It comes as a surprise to many that nearly two-thirds of the forest land in the US is in private ownership and, of this, more than 80 percent is owned by individuals and families. Even more surprising is that landowners who are 75 years of age or older own over 46 million acres of this forest land, an area more than 13 times the size of Connecticut. For many family woodland owners, their forests are their largest and most valuable asset. These private forests also provide essential public values such as water resource protection, fish and wildlife habitat, and the long-term storage of carbon that would otherwise be in the atmosphere and contributing to climate change. The conversion of just half of the forest currently held by landowners 75 or older would release stored CO<sub>2</sub> equivalent to 45 percent of the annual CO<sub>2</sub> emissions of all passenger vehicles on the roads today.<sup>2</sup>

### What does the Forest Health-Human Health Initiative (FHHH) do?

The Forest Health-Human Health Initiative (FHHH) is aimed at keeping family woodlands intact by helping families afford annual health care expenses, such as high insurance deductible payments. By turning the value of the public benefits these lands provide—such as carbon storage—into credits, the woodland owners can use this additional income to pay for health care products and services.

Purchasers of these credits, such as companies within the health care industry contribute an important public service, not only by measurably reducing their net carbon emissions, but by taking meaningful action to reduce the loss of forests, all while providing additional health coverage in rural communities.

Companies throughout the health care industry—hospital groups, health insurers, pharmaceutical manufacturers—are proactively working with the Pinchot Institute and its partners to turn the connection between health care and forestland into a positive one. It is estimated that the health care sector produces eight percent of the annual greenhouse gas emissions of the US.<sup>3</sup> A number of health care sector

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<sup>1</sup> USDA Forest Service. 2007. Four Threats to the Health of the Nation's Forests and Grasslands. <http://www.fs.fed.us/projects/four-threats>

<sup>2</sup> USDA Forest Service Carbon On-Line Estimator (COLE) state-by-state data, assumes 40 year old stands and 25% recapture through product development; Bureau of Transportation; US EPA.

<sup>3</sup> Chung, J.W. and Meltzer, D.O. (2009) Estimate of the Carbon Footprint of the US Health Care Sector. *The Journal of the American Medical Association*, 2009; 302 (18): 1970 DOI: [10.1001/jama.2009.1610](https://doi.org/10.1001/jama.2009.1610)

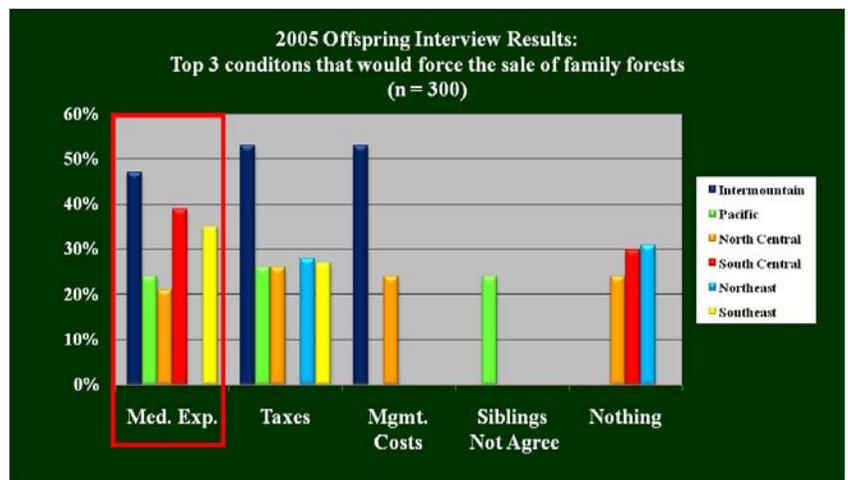
companies participating in the Carbon Disclosure Project<sup>4</sup> are looking for ways to reduce their “carbon footprint.”

In the FHHH test landscape of western Oregon, the Pinchot Institute is piloting an approach where health care companies invest in “carbon-friendly” sustainable forest management actions on family forestlands, and reduce their carbon footprint. Through a partnership with the American Carbon Registry, the value of the carbon credits earned through responsible forest management is placed on a new kind of debit card—the ATreeM<sup>®</sup> card—which can be used by participating landowners to pay for a wide range of health care services and products, including doctor visits, prescriptions, dental visits, insurance co-pays and deductibles, hospitalizations, etc.

### Connecting payment for health care and conservation of private forests

The connection between health care costs and the loss of forests was first described in a 2005 nationwide study of family woodland owners, conducted by Pinchot Institute senior fellow Catherine Mater in cooperation with the USDA Forest Service.<sup>5</sup> The study was the first to identify medical expenses as a potential key factor in forcing the sale of family woodlands.

In 2007, in cooperation with the Wisconsin Department of Natural Resources and the Pennsylvania Bureau of Forestry, a second study was conducted with family woodland owners in both states. These study results further reinforced the possible connection between health care expenses and the loss of private forests. In Wisconsin, concern over medical costs exceeded all other concerns, while in Pennsylvania, only taxes ranked higher. Fifty percent of offspring in both states identified payment for ecosystem services as an important or very important finance tool to help them maintain family forests.



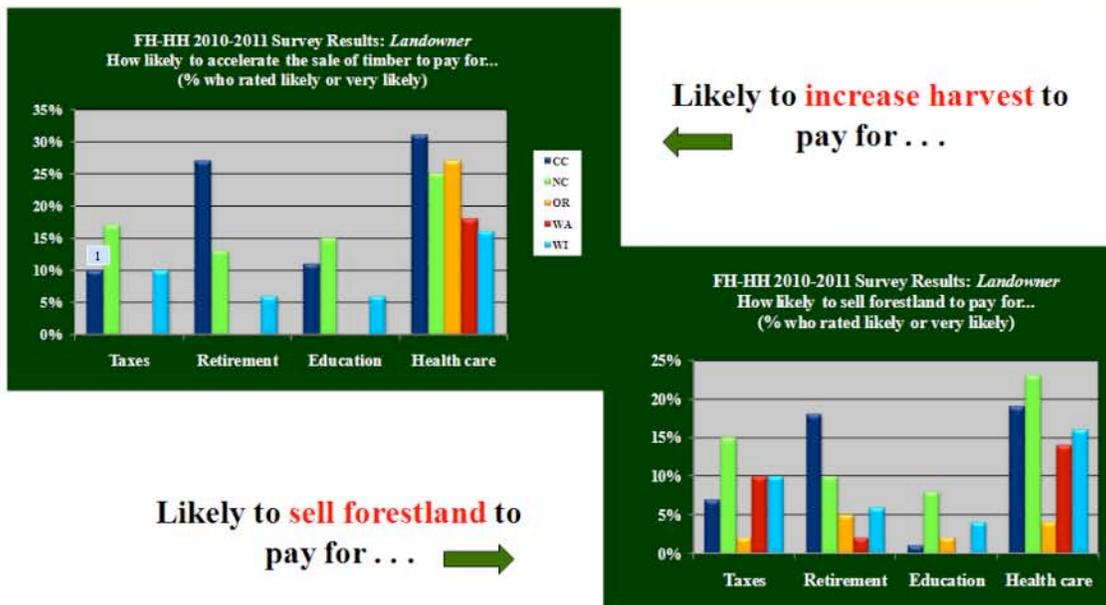
In 2009, the Pinchot Institute cooperated with the USDA Forest Service, Regence Blue Cross-Blue Shield, and the Kelley Family Foundation, to identify the health care needs of 450 forest families in western Oregon (OR), western Washington (WA), North Carolina (NC), Wisconsin (WI), and Columbia County (CC) Oregon, and to determine their level of interest in engaging in a FHHH carbon payment to health care program. Among the key conclusions:

- 50% of landowners and offspring indicated they have high-deductible insurance coverage requiring high out-of-pocket payments;
- Almost 30% of landowners and more than 35% of all offspring interviewed are likely underinsured (5% of more of annual income is spent on insurance deductible payments.)

<sup>4</sup> Carbon Disclosure Project Global 500 Report 2011. Access at: <https://www.cdproject.net/en-US/Pages/global500.aspx>

<sup>5</sup> [http://www.pinchot.org/gp/Next\\_Generation](http://www.pinchot.org/gp/Next_Generation)

- At least 70% of landowners and offspring believed they had coverage for catastrophic medical events, but 65 - 85% of landowners lack long-term care coverage, while 70 - 90% of offspring lack long-term care coverage.
- Up to 30% of landowners and 45% of offspring stated it was likely or very likely they will have to accelerate the sale of timber off the family forests to pay for health.
- Landowners in all but one interview region ranked health care costs as the most likely event that would cause the sale of family forestlands.
- At least 40% of both landowners and offspring in all regions were interested or very interested in engaging in the FHHH carbon payment to health care program.



### Details of survey results available

For a more detailed description of the Forest Health-Human Health Initiative, click [here](#). For detailed landowner and offspring survey results in western Oregon (OR), western Washington (WA), North Carolina (NC), Wisconsin (WI), and Columbia County (CC) Oregon, click [here](#).

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Under the **Forest Health Human Health** carbon contract:

1. After developer transaction costs, remainder payments go directly to health care accounts for the individual landowners and the community where the family forests are located
2. Individual ATreeM™ cards – essentially debit cards – are coded for health care services and products use only. The ATreeM™ cards require no insurance policy connection (like Health Savings Accounts do), and are not restricted for use by landowners who are on Medicare. 90% of after-transaction payments go to ATreeM™ cards. Payments made to the ATreeM™ card will be tax deductible to the landowners at the state level. No dollar restrictions apply for annual contributions to the ATreeM™ card (as with Health Savings Accounts were strict caps are in place)
3. 10% of payments go to a pre-defined community health care account (ie a medical school scholarship fund to be specifically used for students from the community wishing to become primary care physicians to service the rural community upon graduation).
4. Each year, the carbon buyers receive a payment disbursement report identifying where their carbon payments went and the added value achieved as a result of the directed payments. Carbon buyers will be able to utilize this value-added protocol in their own documentation of carbon offset and added value to their investors.
5. The value-add under the FHHH model is seen at the carbon buyer level through quantification of added value each year; it is seen at the landowner level where a long-term stream of non-taxable income is generated for health care costs; and it is seen at the community level where a steady stream of income is generated for increasing health care access for the rural community where the family forests are located.

