Section 5: Could Increasing Access to Health Care be an Effective Incentive for Sustainable Management of Working Lands?

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“Distribution of medical services to rural people is more expensive, and their means of payment are less, than in urban areas. Rural people thus have an interest in the solution of the national problem of the distribution of medical care; few groups have more to gain.”

– Calvin W. Stillman, Journal of Farm Economics, 1949

The rising cost of health care in the U.S. and dwindling access to health services in rural communities are creating new challenges and opportunities for landowners and the conservation community. This chapter explores demographic trends and financial concerns among owners of working lands, the risks these trends and concerns pose to achieving sustainable land management and conservation goals, and recent efforts to create financial incentives linking these goals with rural health care access and coverage.

5.1 Health Care Challenges In Rural America

Achieving access to high-quality healthcare in rural areas is becoming increasingly difficult (Seshamani, 2009). Health care services are more expensive in rural areas and, not surprisingly, so are insurance rates. Rural patients will pay more for equal or, often, lesser coverage than their urban counterparts (RUPRI, 2009). And, increasingly, mergers and closures of health care institutions in rural areas are leading to reduced numbers of clinics (McNamara, 2009).

These trends of low healthcare access and affordability may soon become critical issues for the land conservation community. Nearly half the private forestland in the U.S. is owned by people aged 65 years or older, a population prone to health issues requiring long-term care (Butler, 2008). Many of these families are “land rich and cash poor,” with forest hold-
ings representing their largest and most valuable assets upon which to draw in times of need. As a result, when faced with medical costs in emergency situations or unplanned long-term health care needs, rural landowners may be forced to harvest timber unsustainably or sell significant tracts of their forest for development. There is also a greater likelihood that landowners would need to move to an urban area for specialized long-term care, which risks further severing family ties to land and increasing parcel sales or development (Mater, 2012). Similar concerns face private family owners of farms, ranches, and other lands with significant conservation values.

Research conducted by the Pinchot Institute for Conservation suggests that healthcare-related risks to working forests and sustainable land management may be growing. A multi-year survey of landowners, including a series of interviews with over 1,000 families across five states, indicated that unaffordable medical expenses and the desire to insulate children from the financial burden of long-term care are emerging as important financial factors in landowner decision-making about their forests (Pinchot, 2012). In the context of generational shifts in land ownership, these concerns often ranked equal to or higher than “taxes” or “job loss” among families that would prefer to keep their land working and owned within the family.

In many rural communities, small medical service providers are not only the engines of health care delivery but they are also important employers and drivers of economic activity. This is especially true in aging and shrinking communities that have been historically dependent on extractive resources (Brown, 2011).

On the other side of the coin, health care providers in rural areas face their own challenges. They are generally small, with modest assets or financial resources, and often must provide care without the benefit of the larger health networks available to institutions in urban
centers. Rural health facilities also serve a higher portion of low-reimbursement patients, those without insurance or with low-paying Medicare and Medicaid coverage. Rural facilities also struggle to recruit and maintain a highly technical workforce, pay for increasingly expensive liability insurance premiums, replace and upgrade aging facilities, and procure and adopt new technologies and information systems. When a rural health care facility succumbs to these or other pressures and closes, it is unlikely that it will ever reopen (McNamara, 2009).

Recognizing the importance of maintaining cost-effective rural health care delivery systems, there is significant interest among states and medical industry associations in researching and piloting policy interventions that lower costs, improve health and preserve community healthcare services. In light of the multitude of challenges facing rural landowners in accessing care, and to rural healthcare systems in providing it, now is a particularly good time to ask whether and how land conservation organizations might assist in this effort.

### 5.2 How Might Conservation Organizations Help Rural Landowners and Healthcare Providers Address These Issues?

The economic conditions of landowners and communities facing the health care challenges described above are intertwined with the fate of many working forests, farms, ranches, and other privately owned lands that hold important environmental and cultural values for a variety of conservation interests.

While these connections between land conservation and human health are indirect, the confluence of such interests—combined with new conservation and health care financing mechanisms—has nonetheless presented new opportunities for innovative interventions to link and address them together.

Several domestic organizations are currently exploring and developing initiatives to create incentives for conservation and sustainable land management that specifically address the healthcare-related financial liabilities faced by landowners and the threats posed to rural livelihoods generally. Meanwhile, other programs in the U.S. and abroad may offer valuable lessons to inform the further development of such efforts.

**Forest Carbon & Healthcare**

Building on the results of its study on the demographics and healthcare concerns of aging forest landowners and their children, the Pinchot Institute recently partnered with PacificSource Health Plans to launch a project to provide healthcare payments to landowners derived specifically from the sale of carbon credits from their forests.
The Forest Health-Human Health Initiative

The Pinchot Institute’s “Forest Health-Human Health Initiative” (FHHHI) is a national program introduced in 2010 that aims to help private owners of woodlands meet rising healthcare costs and resist development pressures by allowing them to pay for health-related expenses using the value of the environmental public benefits provided by their sustainably managed lands. Through a novel chain of value-adding linkages, FHHHI aims to connect the carbon in sustainably managed private forests, the health care industry’s imperative to offset its carbon footprint and increase rural access to health care, and rural landowners’ need to access affordable health care.

FHHHI is engaging with rural forest owners to develop carbon credits through the American Carbon Registry (ACR), which recently established new protocols specifically for family forest landowners. Under the twenty-year ACR contract, these carbon credits are generated from certified sustainable forest management practices, such as longer harvest rotations, rather than from longer-term preservation protocols with restrictions that have prevented many forest owners from entering existing carbon markets, according to the Pinchot Institute.

Proceeds from the sale of these credits are provided to landowners in the form of regular cash deposits to an ATreeM™ card, a flexible new debit card from Pacific-Source Administrators that can be used anywhere for healthcare expenses such as prescription purchases, wellness care, dental care, co-pays, and insurance deductibles. Unlike other health savings accounts, flexible savings accounts, and health reimbursement arrangements, the ATreeM™ card does not require participation in any personal or employer-provided health insurance plan and is, therefore, expected to be particularly useful for the rural landowners that FHHHI is targeting. A portion of the proceeds will also be allocated to support rural healthcare clinics and networks.

FHHHI is also engaging with companies throughout the health care industry to purchase the carbon credits generated from sustainably managed private forests. They are especially targeting health care companies that not only have an interest in maintaining rural access to health care, but are also participating in the Carbon Disclosure Project\textsuperscript{1}, a voluntary initiative that commits companies to disclose their carbon emissions. It is estimated that the health care sector produces eight percent of the U.S.’s annual greenhouse gas emissions, providing significant incentive for these companies to offset that impact through sustainable forestry projects that benefit their patients and customers (Chung, 2009).

\textsuperscript{1} Carbon disclosure Project Global 500 Climate Change Report 2012 (https://www.cdproject.net/enUS/Pages/global500.aspx)
FHHHI is currently being piloted in and around the rural northwest Oregon town of Vernonia (population 2,380), a once-bustling timber community in the Oregon Coast Range with large amounts of privately owned and very productive forest-land, an economy transitioning away from timber production, few high-wage jobs, an aging population, and low rates of healthcare coverage (City of Vernonia, 2012). Efforts are underway to secure Oregon tax-exempt status for the ATreeM™ card, which would further increase its value for participants. Based on the outcome of this FHHHI pilot project in Vernonia, the Pinchot Institute hopes to expand the program to other communities and regions across the nation.

For more information see: http://www.pinchot.org/gp/FHHHI

Aligning Policies and Incentives Around Conservation and Healthcare

Building further on the research on the demographics and healthcare concerns of aging forest landowners and their children, the Pinchot Institute has joined forced with the Willamette Partnership to explore other opportunities to use payments for ecosystem services to connect the conservation of non-forest working lands in Oregon—such as farms and ranches that provide critical habitat for endangered species—with funding for landowners’ healthcare and financing to address the healthcare access and delivery challenges faced by rural communities.

Though the federal government spends large sums of public money to incentivize conservation practices through programs such as the USDA’s Conservation Stewardship Program, the results of these expenditures are rarely accounted for in such a way that their actual ecological benefits may be quantified. Recent advances in the development and application of sophisticated systems for measuring ecosystem services and tracking their credits’ transactions1, however, have enabled new levels of rigorous accounting for ecosystem services markets and incentive programs for conservation and biodiversity.

At the same time, in an effort to reduce the cost of health care—particularly Medicare and Medicaid, which represent a growing proportion of rural health funding—the federal government has granted healthcare waivers for states to experiment with new cost-saving healthcare delivery approaches (e.g., Coordinated Care Organizations to move portions of the health delivery system away from the fee-for-service model).

Meanwhile, many private owners of ranches and farms, including those in ecologically sensitive areas of states with healthcare waivers, have demonstrated that their choice of livelihoods and land management practices are often aligned with family, tradition, and lifestyle concerns, rather than being motivated by profit alone.

1 The Willamette Partnership’s Ecosystem Credit Accounting System (a package of protocols, tools, and resources that allow buyers and sellers to trade in multiple types of ecosystem credits) is a notable example. For more information see: http://willamettepartnership.org/ecosystem-credit-accounting.
These three factors—new ecosystem services accounting systems that allow for standardized and rigorous measurement of federally-funded conservation project benefits, federal waivers for states to experiment with new health care delivery systems, and the non-monetary motivations of many private landowners in ecologically sensitive rural areas that also face healthcare funding challenges—present opportunities for conservation organizations to play a role in helping to develop integrated solutions that bridge healthcare and conservation programs while saving taxpayers money.

Additional interdisciplinary research is needed on the relevant demographic, socio-economic and ecological factors at play in resolving these issues or developing new response tools, as well as on the funding flexibility and leverage points within different federal agencies to develop effective synergies between applicable healthcare and conservation programs. The Pinchot Institute and the Willamette Partnership are together developing a feasibility study, in collaboration with state healthcare policy specialists, to engage with government agencies and assess the options, pathways and implementation possibilities to expand healthcare coverage to priority conservation landowners in Oregon. This study will focus on opportunities afforded by the Oregon Health Plan and Oregon’s unique federal healthcare waiver, such as the possibility of offering Medicare Advantage (a PPO/HMO type plan) for landowners producing measurable ecosystem services and of adjusting reimbursement rates for hospitals treating conservation landowners. It will also analyze the feasibility of establishing a new venture to deliver healthcare to rural landowners that protect and restore ecosystem services on their land.

**Related Domestic and International Initiatives**

A timber industry trade organization in Maine has developed a professional training and certification program that includes sustainable forestry practices in addition to its primary focus on improving worker safety. Certain types of loggers certified under this program are eligible for significantly reduced worker’s compensation rates.

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**The Certified Logging Professional Program**

The Maine Tree Foundation’s Certified Logging Professional (CLP) program was founded in 1991 to establish a standard for safety and professionalism in the Maine timber industry, which was at the time experiencing a high rate of logging-related Worker’s Compensation costs. A programmatic four-day training workshop covers first-aid and CPR, forest management and silviculture, safe and efficient timber harvesting, and related business skills.

Three of the 32 hours of training required for certification are devoted to “Conserving Fish and Wildlife” and “Water Quality and Logging,” with a focus on compliance with applicable laws and regulations. The CLP’s seven-part Code of Ethics includes “the professional logger protects our natural environment and enhances our natural resources.”
Of the five certification categories offered by CLP, “Mechanical loggers” (i.e., harvesting equipment operators) currently enjoy state Worker’s Compensation rates that are 69% lower than their non-certified counterparts. Loggers certified under other categories (including skidder/chainsaw operators, employers, supervisors, foresters, truckers and apprentices) do not receive reduced Worker’s Compensation rates.

For more information see: http://www.clploggers.com/

An NGO in Indonesia is using access to health care as an incentive for villagers living around an ecologically significant national park to stop illegal logging, plant trees, and protect and restore watersheds.

**Alam Sehat Lestari / Health in Harmony in Indonesia**

Alam Sehat Lestari (ASRI) is an Indonesian NGO that works with local communities to integrate high-quality, affordable health care with strategies to protect the threatened rain forests of Gunung Palung National Park and improve the health and livelihoods of about 60,000 people living along its border. In partnership with the US-based organization Health In Harmony, ASRI combines health care, conservation, environmental education, and training in alternative livelihoods and medicine in Sukadana, West Kalimantan, Indonesia.

Communities in this impoverished region have long suffered from poverty and poor health, which has resulted in illegal logging of the area’s tropical rainforests to pay for basic needs, including health care. As a result, habitat for rare and endangered species has been destroyed, fields have flooded and destroyed crops, and standing water has increased the incidence of diseases like malaria and dengue fever.

To address these social and environmental problems, ASRI implements several programs including a health clinic that provides free birth control for village women, free childhood immunizations, general medical care, a pharmacy and dental care, as well as a mobile clinic offering similar services in small villages around the national park. For the paid services, villagers can barter items used in conservation projects (e.g., seedlings for reforestation, manure for organic farming) and provide labor for reforestation projects. Communities that cease illegal logging within the park also receive extra discounts for ASRI’s health care services.
ASRI also operates a reforestation program that engages local villages in restoration of the tropical rainforest, trains farmers in organic gardening to reduce slash-and-burn agriculture, and conducts conservation outreach and education to villagers with a focus on children.

All of ASRI’s activities reinforce the connection between human and environmental health. Health In Harmony plans to replicate this model of “attaching care of the person to care of the earth” in other communities elsewhere around the world.

For more information, see:
http://alamsehatlestari.org/
http://www.healthinharmony.org/

In Tanzania, The Nature Conservancy and its partners have launched a project integrating family planning, primary healthcare and conservation in an area where extreme poverty and a growing population threaten a critical ecosystem and habitat for endangered species.

**The Nature Conservancy’s “Tuungane” Project in Tanzania**

Tanganyika, the world’s longest lake, holds 17 percent of the world’s fresh water and is home to over 300 species of fish. Directly to its east, the Greater Mahale Ecosystem is nearly five million acres of mostly forested landscape home to about 93 percent of Tanzania’s 2,800 endangered chimpanzees, many of which live outside the boundaries of Mahale Mountains National Park.

Sharing this landscape are indigenous communities of small-scale farmers and fishers that rely on the area’s natural resources, their lives and livelihoods inextricably tied to the landscape. Lacking access to health services, education and modern contraception, the population of the remote villages in the area is growing rapidly along with settlements and farms. As a result, forests are being cleared for agriculture and sediment is damaging coastal zones and fisheries.

In partnership with several other international organizations and Tanzanian government agencies, The Nature Conservancy’s Tuungane (Kiswahli for “Let’s Unite”) project is a community-focused effort to address these threats and improve the area’s resilience by integrating support for women’s reproductive health with conservation goals. The project’s goals also include strengthening forest management, enhancing co-operative local management of fisheries, improving access to health care information and services, and diversifying and improving livelihoods through improved food security and access to markets.
By unifying these efforts around the theme of women’s empowerment, The Nature Conservancy is leveraging women’s connection to the growth, health and prosperity of families and communities while promoting a balance between the needs of people and nature’s provision of fresh water, clean air, and fertile soil. “Day after day, we see that meeting women’s needs for reproductive health services is not only a basic right, it is also a powerful development strategy with a host of environmental benefits,” The Nature Conservancy says.

For more information, see:
http://www.nature.org/ourinitiatives/regions/africa/wherewework/tuungane-project.xml

5.3 Some Possible Questions for Discussion

- Can program models such as the Forest Health-Human Health Initiative be applied to other ecosystem service benefits, such as protecting/improving water quality, habitats and biodiversity? Can existing markets or incentives for these services be used to expand health care access?

- Might healthcare funding represent a potential non-cash government incentive for landowners implementing quantifiable conservation benefits? Could states with federal health care waivers offer such landowners Medicare Advantage (a PPO/HMO type plan) or subsidize their long-term care? Would this require large policy or mission changes on the part of the government agencies or their partners? If so, what coalitions or associations could be brought together to advocate for such changes?

- Related to this question, can we envision a route for rural hospitals, in exchange for providing health care to conservation landowners, to gain increased access to grants, low-cost loans, new-market tax credits, etc. to finance medical facility upgrades? Could such hospitals receive increased Medicaid and Medicare reimbursement rates?

- Can ecosystem services accounting provide sufficient quantitative rigor for the measured benefits of conservation outputs and funding to be equated on a dollar-for-dollar basis with those of the healthcare system? Can standards be developed and accepted to allow such fungible exchanges across federal agencies subject to strict financial audits and oversight regimes?

Some of the Organizations Doing Interesting Work on this Topic

- Pinchot Institute for Conservation’s Forest Health-Human Health Initiative has conducted valuable research on the demographics and healthcare funding concerns of families that own private forests. (http://www.pinchot.org/gp/FHHHI)
• Willamette Partnership’s Counting on the Environment program is advancing the development of functioning ecosystem services markets through powerful innovations such as their Ecosystem Credit Accounting System in order to accelerate the pace, scope and effectiveness of conservation. (http://willamettepartnership.org/)

Works Cited / Useful Readings


