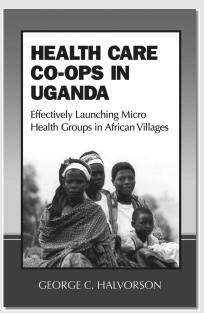
Medicine Around the World

The Hospital on Bushenyi Hill

By George C Halvorson



Editor's Note: The following is the last chapter from the new book published by The Permanente Press: *Health Care Co-Ops in Uganda: Effectively Launching Micro Health Groups in African Villages*, by George C Halvorson, CEO and Chairman of the Board of Kaiser Foundation Health Plan, Inc, and Kaiser Foundation Hospitals. This chapter includes clinically interesting descriptions of locally enacted prevention measures for reducing malaria, diarrhea, and contaminated water. Drawing on his experiences from around the world, Mr Halvorson iterates the universality of the desire for health and health care.

While with HealthPartners—a large Minnesota-based health care cooperative associated with Land O'Lakes, a Minnesota dairy cooperative—Mr Halvorson led the development and implementation of health care co-ops in rural Uganda. Land O'Lakes, as part of its mission, had worked in Uganda to develop dairy co-ops in the past and approached HealthPartners with the idea of working within the dairy co-ops to bring health care to central Africa.

Working with the United States Agency for International Development (USAID) and the government of Uganda, Mr Halvorson, together with American and Ugandan physicians and health care professionals, set out to help Ugandan farmers help themselves. Drawing on their vast understanding of health insurance and care delivery organizations, they went from village to village helping local tea and dairy co-ops set up a sustainable health care system.

Using a clear, highly readable, down-to-earth style with colorful anecdotes, Mr Halvorson has written a compelling primer on developing a cooperative health care system, while telling a story at a most basic human level—people helping people in need to help themselves.

On the top of a Buhweju District mountain, 35 kilometers from the nearest electricity, 45 kilometers from what used to be the nearest care, and several thousand feet over the moist and fertile local flat land, members of a two-year-old tea-leaf-based health care cooperative have actually built a tiny hospital and clinic. I visited the site just before I left HealthPartners. The local tea farmers had hand-carried both sand and water up the mountainside to build the hospital. They baked thousands of red bricks and then used those bricks to assemble a five-room building with a tin roof. That building now contains two maternity beds, five acute care beds, a tiny delivery room, one wire bassinet, and a table and chair in an exam room that also serves as a laboratory for doing malaria tests. The new care site has no electricity and no running water. The only lighting comes in through open windows. Flashlights are used after dark. The beds have clean, flat surfaces, but no mattresses or blankets.

But, the site does have a physician and a nurse. And clean water. It takes care of people who really need care. It exists only because of the tea growers' co-op.

The Bushenyi Medical Center (BMC)—a private hospital and clinic 45 kilometers away—has contracted with the tea co-op to provide a doctor and nurse every day for that clinic. They agreed to provide that care on top of Bushenyi Hill because the co-op members who live on the steep hillsides surrounding the clinic have each agreed to set aside a portion of their tea harvest each month to pre-pay BMC for that care. Care arrived on that remote mountaintop only because the new co-op gave people a way to pay for that care.

A hospital with bare bunks for beds, no electricity, and hand-carried water may not seem like much to Americans. But, before that Bushenyi Hill Clinic existed, every person in the area who needed significant levels of care had to be carried down the mountain on wicker stretchers. Those stretchers doubled as local hearses—sometimes on the same trip. The road is steep, rock strewn and very slippery in the rain. Uganda has two rainy seasons each year. Carrying a stretcher down that steep mountain on a wet day is not a journey for the faint of heart, or for people who need care quickly.

Now babies are delivered, minor surgery is performed, malaria is treated, and broken limbs are repaired on the mountaintop.

Also, now that the Bushenyi Hill Co-Op Hospital and Clinic is in place, the people who are in the most dire straits have a new and more convenient access to the Bushenyi Hospital 45 kilometers away. The co-op has also created the area's first real "ambulance" service. Taxicabs do the work. The health plan members who built the clinic building have collectively pooled part

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of the money they earn from selling their tea leaves to purchase a small solar-powered two-way radio. That radio lets the doctor on the hill call down to the main clinic to have a local taxicab come up the narrow, deeply rutted and sharply winding road to pick up the most severely ill patients. The co-op now pays for that otherwise totally unaffordable taxi ride for seriously ill co-op members. It's part of the co-op benefit package.

Women having difficult labor were the first patients to use that service. The local taxis are small, dirty, and definitely not new, but they are a massive improvement over an open wicker stretcher and a 12-hour carry. Particularly, as I noted, in the rainy season.


Putting the first piece of roofing on for the new hospital.

"Rain Harvest" Water Tank

That particular tea-funded health care co-op has also installed a "rain harvest" water tank and gutter system to take advantage of the rainy seasons and collect clean water off the tin roof of the clinic. Until that tank was built, any water brought to the clinic—or to the tea growers' small homes on the mountainside—had to be hand-carried, usually in bright yellow 20-gallon plastic jugs. The new, co-op-funded "rain harvest" process saves a lot of carrying. Fresh water is also an obvious asset for patient care. Uganda is blessed with ample rain. The new rainwater-harvesting system uses metal gutters placed at the edge of the all-metal clinic roof to divert rainwater into a large storage tank. That relatively clean source of water helps treat patients in the clinic.

Similar rain harvest tanks will soon be built in several local co-op members' homes, with the goal of reducing the parasite infections and dysentery that come all too often from the nearby highly polluted small river that is otherwise the primary source of water for the tea growers and their families.

The co-op is encouraging the development of those water harvest tanks as part of the disease prevention agenda for the health plan and is helping to fund the construction.

Before the tea co-op existed, there was absolutely no disease prevention agenda on Bushenyi Hill. Now there is a carefully thought-out plan that is already making real improvements in local health.

Preventing Disease Is a Top Priority

The number one health care problem in Uganda is malaria. It kills far more Ugandans than HIV/AIDS. Over 90% of Ugandans have had malaria at least once.

Malaria in Uganda is spread almost exclusively by a night-flying mosquito. These mosquitoes are particularly plentiful in the rainy season. In the two rainy seasons each year, mosquitoes thrive in the puddles that form. Malaria epidemics often follow. The disease weakens most Ugandans and kills many thousands—with children most vulnerable to dying. Children who are already anemic from other common, local parasites are at the very highest risk.

Now, because the health care co-op is in place, if you look into the houses of many co-op members on top of that mountain, you will also see large, rectangular fine-meshed mosquito nets suspended over many of the beds. The nets are permanently impregnated with a chemical that kills mosquitoes. (The chemical used on the nets is a natural extract from the chrysanthemum flower.) Because homes in rural Uganda have no screens or glass in the windows, these nets create the only place that the community members can go to avoid the mosquitoes.

Initial data indicates that the new nets have cut the incidence of malaria in that co-op by more than half.

So, at the top of the Bushenyi Mountain, because a small health care co-op was formed, there is now a tiny hospital, a miniscule clinic, a medical transportation service, a malaria prevention program, and better access to safe water. It's totally self-governed and totally self-financed. There is no charity care on the top of that hill.

The local tea farmers own the care site as a co-op. Those same farmers "own" and lead the local mini health plan. Those farmers, as a group, make the key decisions about their benefits, their care sites, their premium levels, and their care.

Life is better for entire families because the co-op exists on the top of that hill.

No portion of that care system—except for the warmth, caring, and personal skills of the wonderful medical and nursing staff—would meet minimum standards of care anywhere in the United States. But those standards are not relevant on the top of that mountain.

Life is better for entire families because the co-op exists on the top of that hill.

The whole effort has to be seen in the perspective of local reality. In Bushenyi, that care site is a blessing and a miracle. More than 100 people walked up to 15 kilometers one way—mostly uphill—for the grand opening. Singers, dancers, drummers, and local politicians made the opening day a memorable and festive occasion.

A key part of the celebration was the sense by the community that they were helping themselves because the co-op that was the foundation for the new and improved care was not a charity, but a local organization that the co-op members governed and owned.

A Guide Book, Not a Rule Book

This book was written to help people think about setting up similar cooperatives and micro health plans in places other than Uganda. It was intended to be both a story about an idea and a guidebook—a partial implementation manual of sorts. My goal was to describe some of the underlying principals used to run the plans, along with some of the specific tools needed to get similar health plans started.

Starting a co-op health plan—or micro health "scheme" as our Ugandan friends sometimes term it—offers some obvious immediate challenges. Issues need to be addressed and resolved. There are actuarial issues, administrative issues, training and marketing issues, cash flow challenges, care delivery challenges, and major communications and continuity problems. Current funding for health care in the areas served by the co-ops is almost always overwhelmingly inadequate. The local care system is slender, fragile, heroic, and overworked.

Total health care spending in Uganda averages about $12 per person per year. There is one doctor for every 18,450 patients. There is no government health plan—although the government does try very hard to set up its own hospitals and medical groups in various areas of the country. Technically, the government is responsible for everyone's health care. Budget constraints make that obligation pretty much impossible to achieve.

Uganda is not a place where either standard European health financing models or typical American health financing approaches have much chance of success at this point in Ugandan history. The co-op approach is designed to fit into that harsh, but clear, economic reality—to create what leverage can be built around local people who want better health care. Local heroes have made local co-ops possible.

Offsetting the immense problems involved in setting up these little health care co-ops is an immense, compelling, and totally understandable desire by many Ugandans to provide affordable health care to their children, families, and community.

Also offsetting these problems is an obvious desire by the heroic and overworked Ugandan caregivers—hospitals and physicians—to make care accessible and affordable for their patients.

Into that setting, the HealthPartners staff brought many decades of experience with just about every variation of American insurance and prepaid systems. That experience was coupled with a strong commitment to the concept and practice of cooperative health care organizations, buying groups, and risk-sharing plans. Some parts of these several decades of United States-based comparative health experience have, we believe, proved to be both relevant and useful to local communities in the "Pearl of Africa."

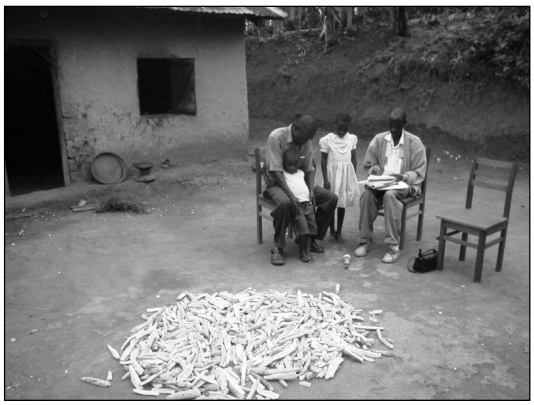
Premium For Pennies

If you measure by American dollars, the insurance coverage that has been created in Uganda by the new health care cooperatives is a miraculous value. Premiums run 12,000-20,000 shillings for a family of four for three months. Each additional family member usually costs about 2500 shillings. The exchange rate at the time we started the plan was roughly 1700 shillings for one United States dollar. So our initial health care coverage cost less than 50 cents a month for each person. By contrast, coverage in the United States often now runs more than $200 a month per person.

That's an amazing cost difference. It's interesting to break it down into comparable terms. American health plan premiums are now roughly 27 cents per person per hour. Uganda health plan premiums, when I last personally worked with the plans, were only 49 cents per person per month. The contrasts are stunning. And, a bit humbling.

In the United States, of course, health plans have to buy care at American prices. A routine day in a United States hospital can easily cost $4000. Many United States hospitals now charge $5000 to $10,000 for a day of care. A few charge $20,000 a day—and more. By comparison, a private room at Ishaka Hospital in southern Uganda costs 5000 shillings a day, or about $3. The care delivered in the United States for $4000 a day is, of course, very different from the hospital care in Uganda that costs $3 a day. But the $3 a day hospital care has saved a lot of lives. It's a pretty good deal when the alternative is a dirty mat on the muddy ground and no caregivers in sight.

Medical care cost differences are almost equally extreme, and also amazing. A Ugandan doctor working in a government hospital will be paid roughly $500 a



Asaph Tumwesigye and his children with Charles Tumwine of the Uganda Health Cooperatives.

month. A United States doctor—right out of medical school and residency program—will be paid $120,000–$360,000 per year, depending on specialty. So, it's possible to buy medical care in Uganda for a lot less money. Premium—in both the United States and Uganda—is simply based on the cost of care. In the United States or Uganda, plans compute premium by adding up the costs of care and dividing by the total number of members. In Uganda, the care costs a lot less. So, a health plan in Uganda can charge a lot less for coverage.

What HealthPartners has done in a few rural areas of one African country may or may not have wider application in some other part of the world. Each local setting has its own unique characteristics that may or may not lend itself to approaches similar to the ones described in this book. This book does not offer this model of co-op-based micro health units as a cookie cutter for international care. I only offer the story as an example of what seems to work in this particular place at this point in time.

It is my hope, however, that some of what we've learned in Uganda might prove to be useful to you as a reader in some other comparable setting.

What Have We Learned?

So what have we learned in setting up tiny health care co-ops in the heart of equatorial Africa?

We learned that people everywhere want health care for their kids and are willing to work both hard and cooperatively to make that happen.

We learned that caregivers in those kinds of impoverished areas can be really good partners in creating community-based health care programs.

We learned that prevention really does work, and that caregivers who are prepaid can do very creative, patient-focused things to help patients avoid malaria, avoid dysentery, and avoid the complications of problem pregnancies.

We learned that local people, given the right tools, can set up self-perpetuating prepayment programs with local providers of care in ways that work for both the provider and the patient.

We learned that care providers everywhere share an inconsistency of practice patterns that aren't always optimal for patient care.[a]

We learned that many parts of the American insurance underwriting and benefit design tools and concepts can be transformed in useful ways for decision making by small health care co-ops whose leaders are sometimes illiterate and whose members are almost all breathtakingly poor.

What are we still debating about this approach?

We're not entirely sure about the "no charity" rule. It's hard to hold ourselves to that standard. We very much wanted the local health plans to be self-sustaining—not subsidized in any way by charity money. It seems to work. But, it's a very painful rule to maintain. It probably does have a real impact on how well providers deal with prepayment—but it's a really hard rule to follow, when we have resources and those resources are so badly needed in Uganda.

We're also not sure about the role of reinsurance to help with the occasional epidemic, and its cost impact on prepaid caregivers. Some form of reinsurance probably makes sense—but having the reinsurance kick-in at 120 percent of total cost obviously creates a major physician incentive to spend more than 20 percent beyond capitation—adding costs as quickly as possible to get to the richer pot of money. A disease-specific reinsurance approach probably makes the most sense—with malaria as the key disease to be reinsured.

We're not sure about the best way to continuously support the continuing formation of the micro health co-ops. They can be self-sustaining, once started, but they do take expertise and skill to be initially organized and set up properly. They don't just happen.

Brazil and Chile

I spent some time in both Brazil and Chile looking at the variations of local health plans in those countries. Both were fascinating. The Chilean model didn't seem as directly applicable, but some portions of the Brazilian model looked a lot like the provider-instigated and owned health plans we helped start in Uganda. More than 1000 small, prepaid health plans have sprung up in various Brazilian towns, villages, and communities—

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all built by local care providers on the basis of locally available care. As near as I could tell from talking to local caregivers and government officials, none of the Brazilian mini plans had a consumer co-op base. The government of Brazil was wrestling with the issue of how to regulate those plans. It seemed to me that excessive regulation by the Brazilian government could potentially drive more than a few of those small but thriving local plans into extinction.

It wasn't at all clear whether various local populations in Brazil would be better off without their small local plan. Some policy leaders argued that the gap that was left would be filled nicely by much larger and better capitalized national and multinational insurers. That may be true. I doubt it, however, because the local mini plans were set up to be very much local niche products—and the large national plans didn't seem to have the potential to reach out to each and every niche.

I could be wrong. It was a fascinating learning experience to spend time looking at these plans.

I've also talked to people from India about some micro plans that have been forming there. Again, not co-op plans as such. The micro credit groups of Bangladesh, however, seem to come from that particular market context, and the health plans they are trying to create might be fairly similar to the Ugandan micro credit centralized health plans.

So, I can't speak with any comfort about the existence of the pure consumer co-op model in any setting other than Uganda. But, there do seem to be some similar local prepaid approaches evolving from various micro credit groups in a number of settings.

If that's true, that may well be enough to create a workable co-op model that could have some relevance in other developing country settings.

Urban United States

Interestingly, it's not impossible to imagine some relevancy for that cooperation model in some of the inner cities of the United States. Building very local, consumer-run health care co-ops might well turn out to be a viable program for certain United States urban settings. If those very local plans were supported with some workable external infrastructure, they could well serve as a mechanism for very local health care reform. The idea is worth exploring. It would require some very progressive legislation to permit local models to form. It could be very interesting to have some of the same underwriting and coverage discussions in urban America that we had in rural Uganda.

In The End

Overall, the Uganda effort has been a success. People are receiving care. The model works.

It's not entirely clear whether or not that co-op model would work anywhere else—but it's worth thinking about. The little hospital on the top of the mountain is an amazing testament to what local people can do given the right opportunities.

I hope this book was useful. Be well. ❖

a For more information on an American perspective, see: Halvorson GC, Isham GJ. Epidemic of Care: A Call for Safer, Better, and More Accountable Health Care. San Francisco: 2003; and Halvorson GC. Strong Medicine: What's Wrong With America's Health Care System and How Can We Fix it. New York: 1993.

Medical Care For Our Children

We now have good veterinary care for our cattle.
Is there any way we can also get medical care for our children?

— *Question posed by Ugandan dairy co-op farmers that led to the development of the Ugandan health care co-ops in* Health Care Co-Ops in Uganda: Effectively Launching Micro Health Groups in African Villages *by George C Halvorson*