Robyn Alders: saving chooks, empowering women

By Stephen Howes

When we think of vaccinations, we normally think of humans. But domesticated animals also require vaccines, and village poultry tend to be owned by poor, female villagers. Protect village chooks, and you are empowering African women. This is the insight that ignited and has sustained **Robyn Alders**' career-long drive to see village poultry in Africa immunised against their main enemy, Newcastle disease.

Robyn Alders has been working in Africa on Newcastle disease – measles for chooks – for most of the last two decades. She grew up in rural Australia. The first of her family to finish school, and attend university, her upbringing is evident not only through her professional specialization, but also by her ethic. She was brought up, she says, to believe that you should "get involved to support causes."

She traces her interest in international development back to her University of Sydney college days, her interaction with international students there, the focus of her college chapel on social justice, and her involvement with the Student Christian Movement. But it wasn't just activism. Robyn was also an outstanding student, and she studied for a decade, finishing in 1989 with a PhD in veterinary immunology from The Australian National University.

By then, Robyn had realised she wanted to do "something useful in an international setting", but she wasn't sure what.

Gamely, she wrote to various English-speaking universities in developing countries offering her services. The University of Zambia responded positively, and off she went to Lusaka, a university lecturer, the only female expat in her department, with a small supplement to top up her salary, and no aid agency to

look after her. It was, as she says, “a very unusual start to what has turned out to be an unusual career.” But it was also a “fantastic experience”.

> *It was a great opportunity for me to understand what it’s like to work in a situation where you’re not always getting enough money to meet all of your needs, and yet you have to get by and get on with your work and find other ways to supplement your income if you’ve got multiple people who depend on you.*

Three years at the University of Zambia were followed by another three working with what is now Oxfam Australia (then Community Aid Abroad) as a program officer, mainly working out of Maputo, in a Mozambique where civil war had just ended, and which was then the poorest country in the world. There Robyn learnt Portuguese, how to run emergency and development programs, and what can go wrong. It was, she says, more good training for what became her career.

> *I learnt about administrative skills, about working in some very tricky locations and about the more participatory methodologies, which was very good for me.*

Finally, by 1996, what in hindsight seems to be an extended period of preparation for her life’s work – a decade of study, and six years of practical immersion – was over. It was time to tackle Newcastle disease. Robyn decided to leave Oxfam, but stay on in Maputo.

‘Petty cash with legs’

Robyn is eloquent on chickens, and their importance, especially to poor women. She speaks from her lived experience as well as her research. She saw first in Zambia and then in Mozambique that “village chickens really were the most commonly owned livestock.” They were also the livestock of the poor, those who can’t afford cows or goats. Chooks, to use the colloquial Australian term, were used for consumption, for eggs, and for sale. As Robyn says, they’re petty cash with legs.

But Robyn also saw that Newcastle disease was endemic. She had started research into the disease while at the University of Zambia, and had seen it wipe out entire flocks, once or even twice a year. Commercial birds are regularly vaccinated, but not their village cousins. Australian scientists at the University of Queensland, funded by one of our government aid agencies, the Australian Centre for International Agricultural Research (ACIAR), came up with a solution: a thermo-tolerant vaccine, one that could survive for a few days without refrigeration.

ACIAR wanted to find out the best way to distribute this new vaccine. They turned to Robyn: not surprisingly, given not only her veterinary expertise but also her time in Africa and her experience with community development. Working with colleagues in Maputo, in particular Mozambique’s National Veterinary Research

Institute, she set up trials. Putting the vaccine into chook feed hadn't worked well, so Robyn tried other methods. Using an eye dropper proved to be the most effective method (better, say, than drenching the chook in a vaccine-water mix), with very low risk and almost complete protection.

Robyn discusses the transformational nature of vaccines against Newcastle disease.

From innovation to scale-up

Coming up with the technical solution to Newcastle disease took the best part of five years, from 1996 to 2001. The focus of work then turned to the commercial aspects, and the thorny issue of sustainability. To the credit of the Australian aid program, AusAID, ACIAR's much bigger sibling, saw the potential of the research work ACIAR had pioneered, and set up a bigger project to roll out the vaccine and scale up its use: the Southern Africa Newcastle Disease Control Project, which began in 2002. This project actually has the distinction of being the aid program's last project in sub-Saharan Africa implemented by a contracting company, a mode of operation that subsequently became unfashionable. It is also one of the most successful.

document
CIE impact assessment of Newcastle disease control in Africa (2014)

We know of this project's success because of a recent independent evaluation that was done of both the ACIAR and AusAID projects just two years ago. That report, commissioned by ACIAR and produced by the highly-respected Centre for International Economics (CIE), estimates that for expenditure of $8 million, the ACIAR and AusAID projects delivered net benefits to African households of $105 million. If adoption rates continue to increase, those benefits will rise to $480 million. That's a remarkable benefit-to-cost ratio: ten to one already, and potentially rising to 50 to one. Those enormous benefits are due to widespread adoption.

Vaccinating chickens is not on its own going to transform Africa. As the CIE evaluation says, “the overall impact on most households is likely to be modest.” But for poor people, modest benefits are hugely important, and for poor women, empowerment is transformational. We are talking about millions of poor people, mainly women, receiving benefits far in excess of the costs of providing them. The number of vaccine doses across the three African countries that were included in the AusAID project — Mozambique, Tanzania and Malawi — increased from about 1 million in 1999 to almost 20 million in 2012.

Rather than the economic benefits highlighted by the ACIAR evaluation, Robyn prefers to emphasise the indirect benefits.

She talks about the benefits to women, both as chook owners, and as vaccinators. She notes that over time women tend to dominate the ranks of community vaccinators because of their greater reliability and because they value the modest income they can earn.

Robyn also talks of the spread of a scientific attitude, and the benefits of challenging belief systems that held that your animals were getting sick because “your neighbour sent something evil to happen in your house.”

Finally, she talks of the benefits of making a system work, so that extension workers are valued, and national vaccine registration procedures activated.

http://devpolicy.org/aidprofiles/wp-content/uploads/2016/02/Robyn_Clip1_Newcastlevaccine.mp3

Audio: Robyn and Stephen talk the importance of chickens, the heat-tolerant Newcastle disease vaccine, and cost-recovery.

Success factors

There is no single model that guarantees widespread adoption of the Newcastle disease vaccine. Robyn says she has worked with both government extension workers and community vaccinators, and with countries where the vaccine is produced and where it is imported.

But there are two critical factors for success. Robyn is a long way from being an advocate of the market, but she does believe in cost recovery.

> *Local governments are cash-strapped and donors come and go. The vaccinations could not be free. And farmers will pay, they can do the math. Farmers are smart enough that they see that making it an investment of a tiny sum, 2 to cents per bird, for a return, these days, can be up to $10-12 a bird.*

Robyn and her colleagues have tried to promote cost-recovery at all steps in the vaccination cycle. They've had mixed success, but the CIE evaluation notes that vaccine adoption has been most widespread when cost-recovery has been most extensively embraced.

The other essential is building technical knowledge. A thermo-tolerant vaccine is not one that lasts forever. Distributors have to know the limits of unrefrigerated storage. And national institutes need to know how to certify vaccine quality.

Not everything has been smooth sailing. Many of the agencies involved are government ones, with all the problems that implies. Vaccine production surged and then fell in Mozambique, which decided to make the vaccine itself. In some countries, the price of the vaccine is regulated by government, and is too low to allow for full cost recovery.

But there is no doubting the large benefits that have been realised.

I noticed when watching a YouTube video of a speech Robyn gave about her work the stress she gave to the importance of coordination. It was the first in a bullet-point list of critical success factors for her work. This surprised me, as it seemed to me that her vaccination work was in the nature of a vertical program, and quite stand-alone. Robyn explained the evolution in her thinking

When we were first putting that list together, coordination was on the bottom. But now, it's on the top. It really is the most important thing.

The ultimate beneficiaries might be the village women, but you need to coordinate with government for sustainability.

Nothing will happen in the long term unless you've got those coordinating mechanisms in place. You need to have a facilitating policy environment. If you don't have it, which is what veterinary services and the Ministry of Agriculture create for you, it's very hard to make any progress sustainable.

If co-ordination is so important, how can outsiders help?

I think sometimes there's an advantage in being an outsider, because it's safer to ask stupid questions. We have no face to lose basically. So you can go in and create that environment where you're learning by doing. You make mistakes and you can own them, and sharing that is helpful.

The countries Robyn works in are pretty weak, what we call fragile states, though I'm not sure Robyn would accept that label. How can you deliver effective aid in such an environment?

It's true that there are governments that are not as strong or quite as democratic as we might like, but within every system you're going to find people who are there for the right reason. You have to invest in these individuals who are strategically placed within their own institutions, and you have to have the evidence to support what it is you're asking for. That can take years to get it and to understand how to present it in a way that it's going to be well received.

Robyn recalls the skepticism she first encountered when she stressed the vaccination of chooks. If children weren't being vaccinated, why should the chickens be? She contrasts that to the current situation:

We've gone from those days of complete disbelief through to the point where in Mozambique the ruling party now has Newcastle disease as part of their political platform. It's the same anywhere. Politicians know if they're going to

> *look good then they'll support something. But you've got to do the research and you've got to have that evidence to help them put the policy in place to take it further.*

Leaving Mozambique

Robyn finally left Mozambique in 2006.

> *I decided to go to see whether in fact the work would continue without me. I'm pleased to say that when I go back there, they're happy to welcome me back, and they're happy to listen. They don't always do what I suggest, but it's their program now.*

This was not the end of her involvement, however. While Robyn has since moved back and forth between Asia and Africa, and is currently based at The University of Sydney, she remains actively engaged on Newcastle disease. In 2003, she and her collaborators established an Australian NGO, the Kyeema Foundation, to continue the work in Africa, with funding from the Australian public and government aid. Most recently, Kyeema – which has its offices in Brisbane and Maputo – has been working with the African Union to assist *all* African countries to design and implement Newcastle disease vaccination programs.

Robyn herself is quick to share the credit. She emphasises the important roles played by her colleagues and especially her two mentors, University of Queensland Emeritus Professor Peter Spradbrow, who developed the thermo-tolerant vaccine, and ACIAR research project manager, Dr John Copeland. But Robyn herself clearly had a critical role. She has been the glue holding this multi-decade intervention together.

Time to own your mistakes

There are many ways to frame Robyn's story. You can talk about it as an example of innovation, of the value of research, or of demonstrating the value of taking risks with aid.

But perhaps the most striking aspect of Robyn's work is her own dedication, and

the time dimension of her work: the years she spent in preparation for her work on Newcastle disease, and then the decades tackling the problem itself. As she says: “You have to have a long-term plan”. Robyn bemoans how hard it is to implement such a plan today.

> *When I started out it wasn’t unusual to have 10-year projects or to have a project that ran for 20 years. That gives you a chance to work with a community, to learn from your mistakes, own your mistakes and try to get better.*
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> *Now, with not having long-term commitments, you’re always starting. You’re never consolidating. So you’ll start something, funding is either for a limited time or funding gets cut, and that’s the end of it. Then money comes back so you restart. But that ability to learn and to own your mistakes is lost.*

Looking back at Robyn’s own journey, there was in fact never a master-plan, nor even a ten-year project. But she took a long-term view, and the Australian aid program was well-enough managed to support her over that long period. And, in the end, it worked.

It’s not a new lesson, but it is one that we need to learn afresh. The sustained and dedicated pursuit of specific goals is critical for development success.

Dr Robyn Alders AO is currently Associate Professor at the University of Sydney. Stephen Howes is Director of the Development Policy Centre. Stephen has known Robyn since they were students together at The Australian National University. To support Robyn’s work visit the Kyeema Foundation website.