Mama goat, papa goat.

Mathura Mahendren Op-Ed

Sitting in a primary school classroom in Kanifing, The Gambia, I watched as my colleague and community trainer Yankuba engaged a group of 30 peer health educators in a training on HIV/AIDS and Life Skills. We were nearing lunch time, the sun was at its peak, and the students appeared to be getting restless.

Sensing this drop in energy, Yankuba clapped his hands abruptly, "We are going to play a game. It's called *Mama Goat, Papa Goat.*" Little did I know that I was in for a health education lesson of a lifetime.

Without providing any more information, he went about assigning roles to each student. The two shortest students were named the Baby Goats, another two students were named Hyenas, the majority of the students were named Mama and Papa Goats, and he declared himself the Butcher.

He then explained the plot that connected all of their characters. At any given time, the Hyenas would be preying on the Baby Goats. To protect their babies, the Mama and Papa Goats would form a linked arms circle around them, preventing the Hyenas from getting to them. Even so, the Hyenas would continue trying to reach past the barricade to get to the Baby Goats. He added that from time to time the Butcher would come around to slaughter a goat, or several, for a customer.

"And when butchers have to kill a goat to eat, which ones do they pick? The Mama and Papa Goats or the Baby Goats?" he asked.

"The Mama and Papa Goats," the students replied in unison. They had seen it happen enough times to know.

And with that the game began. With the Baby Goats encircled by their Mama and Papa Goats, the Hyenas' efforts to get to them were futile.

"Ahh, my friend just wants a goat for his daughter's ceremony," declared the Butcher. He proceeded to 'kill' one of the parent goats, removing that student from the circle barricade, and leaving a slighter smaller circle around the Baby Goats. Even so, the Hyenas couldn't get to them. A few more requests for goats came in, with the circle getting smaller every time, yet another parent goat was killed. As the circle became smaller, it became easier for the Hyenas to reach in, and they got closer to the Baby Goats with each sacrifice. At one point, the Butcher declared, "It's Tabaski (local name for Eid al-Adha, the feast that marks the end of the Islamic month of Ramadan) and everyone in the village wants a goat today." He killed a handful of Mama and Papa Goats and within seconds the circle broke down and the Hyenas touched and 'ate' the Baby Goats.

Okay, cool game, but what was the point?

He went on to explain the metaphor. The Baby Goats represent humans, and the Mama and Papa Goats represent their white blood cells (WBCs). The Hyenas represent opportunistic infections like malaria and pneumonia. Under normal conditions, our WBCs are able to fight off and protect humans from disease and infection. The Butcher represents the HIV virus. When the virus killed its first WBC. that marked the onset of AIDS. As the virus killed off more and more WBCs, the immune system (i.e. circular barricade) collapsed and it became easier for the opportunistic infections to harm the humans. At the end, as more and more WBCs were killed off, it wasn't the HIV virus (i.e. the Butcher) itself that killed the humans, but rather the opportunistic infections (i.e. the Hyenas) that now had access to humans with no internal defenses.

The number of parallels Yankuba drew between this locally applicable metaphor and the science of HIV/AIDS left me speechless. What a seamless and perfect comparison. Yet it was a comparison that I could not have constructed on my own, one

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I had never heard before, and a simple Google Search reveals this analogy nowhere on the Internet. From a development perspective, it was an example of unharnessed local innovation. It had come from a local community trainer who not only understood his audience, but could relate to them as he too had grown up in the same community, among the same goats, and with similar misconceptions about HIV/AIDS. The success of this activity highlights the value of local knowledge and expertise, and more specifically, the importance of having community trainers that hail from the communities in which they work. Simply put, form must follow function.

From an education perspective, the effectiveness of this metaphor and its delivery reinforces two foundational learning principles.

- 1. Learning is the discovery of personal meaning and relevance of ideas; and
- 2. Teaching is seen as a facilitating process that assists people to explore and discover the personal meaning of events for them.

While a didactic immunology lecture might have checked the same box on the trainer's checklist as playing Mama Goat, Papa Goat, they both foster a different level of understanding. The latter describes a familiar narrative and encourages students to draw on their experiences to form connections between two seemingly distinct phenomena, while the former relies solely on memory and ability to absorb and regurgitate information. For peer health educators who will eventually have to engage their fellow students and communities, activities like Mama Goat, Papa Goat equip them with the content, cultural context, and delivery they need to be successful in their roles.

Finally, from a health perspective, this is an example of making health information truly accessible to all. It is not enough to reach out to remote schools and communities, and check off the "reach the most vulnerable populations" box. True accessibility means meeting people where they are at, in a language they can understand, in a format that is conducive to their learning, and using examples that hold personal meaning for them.

Ultimately, in a field where what we teach can save lives, how we teach it cannot afford to be an afterthought.