

# Reflections on Public Health: Captain Hart and Malaria

*[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.*

[Captain Kathleen Y. McDuffie] This is part of a series of interviews highlighting the public health career of Captain Russell Hart, a retired sanitary engineer in the U.S. Public Health Service Commission Corps. In this segment, Captain Hart reflects on his career in the 1930s and '40s while serving in Albany, Georgia, where he worked to prevent the spread of malaria.

[Captain Russell Hart (retired)] Well, I was born in 1906, which makes me a little over, now, 100 years old. So that I have a long history of life. The Lord has been very good to me and I appreciate His interest in keeping me on this planet Earth for such a period of time. But the way, the way, really, I got interested in this malaria program -- I'd go out and visit these various units that were working and every now and then I'd see a man leave the job and disappear. And I thought, well, what's going on here? And he said, he's having a chill, a malaria chill, and he's going over in the woods and sit there 'til the chill is over. He was going like that, see. And he said, when he gets over that, he'd be back here. So I thought, good gracious. And this was a very debilitating problem with them, see, because they lost a lot of time. Some of them would get very sick with it.

[Narrator] During the 1930s, malaria was prevalent in the United States, mostly in Southern states. In 1946, the CDC, known then as the Communicable Disease Center, was founded in Atlanta. The CDC was originally launched as part of the Malaria Control in War Areas program.

[Captain Russell Hart (retired)] Her hometown was Albany, Georgia, so we went down there and the family took us in for a while and so it was there that I developed an interest in public health. They had a malaria control problem and they had a unit in their health department. They were one of the few counties, incidentally, that had a full-time health department. And this engineer was in charge of the malaria control and the environmental problems associated with health. And he and I became very close friends and we worked together, and so when the government came along, because of the Depression -- this was the year of the Depression. When the Depression came along and the government had millions and millions of dollars to allocate to states and local areas for working in the field, putting people to work, that was their main problem at that time. We had so many unemployed that they just had to put them to work. I became very close to this fellow and he was in charge of malaria control. And what we were doing -- what he was doing at the time was draining these ponds that were producing malaria mosquitoes. There was one mosquito that carried malaria, the *Anopheles quadrimaculatus* mosquito, and it was a -- it was a night biter -- it only bit at night.

[Narrator] Rainfall can create collections of water, or breeding sites, where mosquito eggs are deposited and larvae and pupae develop into adulthood, a process that takes approximately 9 to 12 days in tropical areas. To transmit malaria successfully, female *Anopheles* mosquitoes must survive long enough after they become infected to allow the parasites they harbor to complete their growth cycle. Warmer ambient temperatures, such as those found in the Southeastern United States, shorten that cycle, thus increasing the chances of transmission.

[Captain Russell Hart (retired)] One of the things we began doing was talking about screening of houses to keep mosquitoes out. Stay in after dark, don't go out. They really had no need to go out, but they just wanted to wander around. And stay in the house and stay under cover so that the mosquitoes didn't have access to you. And so we developed this program, then, of draining these ponds that produced the mosquitoes. That was the first thing. And while doing that, we had a very interesting experience with a fellow from the Hercules Powder Company, he came out. I had about 2,000 men to employ. This was with the FWA and, you know, and PWA --Public Works Administration. And I put most of them to work on digging ditches to drain these ponds. They could take a shovel and a pick and dig the ditch. He came along and he said, I got a better way of doing it. I said, what's that? He said, we'll dynamite that ditch. So he gave us an experimental unit. He placed sticks of dynamite all along from the pond where we're going to drain it back to the creek where we were going to deposit it. And then he set that thing off and boom, boom, boom, boom, boom -- the dirt flew everywhere. The head of water, then, in the pond was sufficiently heavy to flush out the remaining dirt that was in there -- it made a nice little area for them to go through to get to the creek where they went. So that relieved it. Then the men would go in be sure it kept open all the way. So it wasn't much of a job. But that was one of the things we learned there about that. That got me interested in public health, really. I saw those two examples of what the environment can do to people and they're not in control of it. So it worked out very well. That was the beginning of my public health experience, and from there, I went on to other things that followed.

[Captain Kathleen Y. McDuffie] Captain Hart is a wonderful example of the many dedicated Commission Corps officers and other public health professionals who, through their efforts, have improved the health and well-being of our communities. We're indeed grateful for his service and his willingness to share his experience with us. Thank you for watching.

*[Announcer] For the most accurate health information, visit [www.cdc.gov](http://www.cdc.gov) or call 1-800-CDC-INFO, 24/7.*