Vaginome: What's hiding in the private's microbial garden?

Microbes reside in virtually every human bodily system, a mix of about 10,000 different species of bacteria, fungi, and archaea depending on the conditions of the specific body part. This may sound gross and intrusive, but most of the microbes are just hanging out, doing their thing discretely so we don't even notice they're there. While some can wreak havoc, a lot of these tiny organisms actually help us, performing important tasks for their human hosts like defending against infection and helping to digest food. In fact, microbes are so important to human health that we're seeing great results from transplanting healthy poop into the colons of people who suffer from serious gastrointestinal problems.

Now, scientists are exploring the health effects of engineering a different human ecosystem: the vagina. Anyone who has ever referred to the vagina as a garden can pat themselves on the back for their visionary insight.

"It's not a tomato garden," says Jonathan Eisen, who researches microbes at the University of California Davis. "There are things you can do, but it's not like a planter in your backyard with one organism growing in it." Rather, Eisen says a more apt comparison is the Alaskan tundra, which harbors a seasonal battle between icy mosses and lichen and summer marsh vegetation that draws large land mammals. "What we're trying to figure out is: what are the regular patterns?"

The creatures in our "vaginome"—that is, the collection of microbes that live and die in our vaginas—fluctuate too, and have been implicated in a whole host of health outcomes, good and bad, from bacterial vaginosis and chronic urinary tract infections to bolstering women's immune response and reducing the likelihood of transmission of HIV.

By and large, the ecosystem is complex and its residents are turning out to be more difficult to categorize than researchers initially imagined.

Read full, original article: Enter the Vaginome: Meet the Microbes that Live in Our Vaginas