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Exposure Systems and Dynamic Populations are the Realities of Health Risks and Benefits

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SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

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All decisions made are a tradeoff of some sort, an exchange of risks for benefits from making those decisions. Consider water intoxication, we need water to survive, there is no question of that. However, you can drink enough to cause an imbalance in the water level in your cells, place pressure on your central nervous system, and cause neurological problems, even to the point of death. Thus, the classic refrain in toxicology – “the dose makes the poison.” In general, when considering exposure-to-risk modeling we have concerned ourselves with specific exposures to a set hazard with an array or single health outcome resulting. Problematically, this is not reality, in the real world we are exposed to sets of hazards that impact our bodies in a multitude of ways and provide a range of effects that deteriorate health. Importantly, how we make decisions, our economic, social and demographic condition and setting also change our exposures and underlying risk of health effects. In this presentation I will outline the specific settings, populations and sets of hazards that we are investigating with our team science approach to address how risk tradeoffs drive both health benefits and risks. I will then outline future methods that need to be developed and expanded upon to integrate these discoveries into intervention planning on the health effects, ranging from setting more realistic MCLs to incorporating climate change effects in the health-based decision making.

THURSDAY, OCTOBER 28, 2021

Time: 4:10 - 5:30 p.m.

Location: Kottman Hall 103

Join via Zoom: <https://osu.zoom.us/j/94157723447?pwd=OUxZdTh2QU1nTnIGMIUvRC9XUnFxdz09>

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