Testimony Prepared for Legislative Hearings on Establishing a Pharmacogenomics Experts Task Force

Prepared by
Jeffrey R. Bishop, Pharm.D., M.S., BCPP, FCCP
Associate Professor of Experimental and Clinical Pharmacology
University of Minnesota College of Pharmacy
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Good afternoon Madam Chair and distinguished committee members. Thank you for your time today. My name is Jeff Bishop and I'd like to highlight the importance of Bill HF81 to mental health. I am on faculty at the University of Minnesota although I speak to you today as a private citizen and board certified in psychiatric pharmacist with pharmacogenomics expertise. I have spent the past 16 years conducting research, teaching, and clinical consultations related to mental health pharmacogenomics. I am leading a national consortium effort to update clinical guidelines to consider known pharmacogenomic test information relevant to medications in mental health.

Approximately 1 in 5 individuals suffers from a mental illness. Most of us here know of a close friend or family member experiencing these challenges. The isolation, hardships, and illness experienced by many over the past year due to the Covid-19 pandemic certainly hasn't helped this, and we may be only just starting to see some of the mental health impacts.

Only a third of patients achieve remission from initial treatments for many mental illnesses. Many persons require trials of multiple different medications over the course of many months or years. Twenty-five to 50 percent of us have a genetic variation in at least one of the two genes that metabolize many of the drugs utilized to treat common mental illnesses. There are many tests available to determine these factors, but at this time they are not part of standard care practices in mental health. Unfortunately, they are only occasionally considered after patients have already failed many medications.

An example of this is a gentleman in his late 20s who was six years into a debilitating struggle with depression and OCD. Before being referred to us, he was tried on three to four different drug combinations per year with efforts to maximize doses in attempts to get him better. He came to us confused, irritable, anxious and with an array of side effects. Pharmacogenomic testing identified deficiencies in two enzyme pathways relevant to his current and past treatments. His antidepressant levels were three times higher than the upper end of the safe and therapeutic range. He had been unknowingly and unintentionally prescribed way too much medication, and many of his symptoms (irritability, memory impairment, anxiousness) were in fact due to too much drug in his system. A low dose treatment plan was then initiated which helped this patient respond and tolerate his medications. This is an example of six years of medication and illness struggles that could have been avoided if the patient's doctor had access to pharmacogenomic information sooner. Our bill establishes a foundational step to make pharmacogenomic information more accessible in our state. Thank you Madam Chair and distinguished committee members for your time today.