



My name is Joshua Rubin and for the past decade, I have advocated for and worked to realize patient-centered and person-centered Learning Health Systems (LHSs). I am not a Maine resident, but am a member of the Advisory Board of Seed2Health, LLC, which is located in Brunswick, Maine and a volunteer member of Seed2Health Learning Health Alliance.

My testimony is written as neither for nor against L.D. 1242. This said, I am very much in support of the Bill's intent to engage with market stakeholders prior to rule-making.

I am writing as well to inform VLA, OMP and any other Maine agencies and authorities associated with Maine's MMP of my interest in helping to advance understanding of the development of LHSs in the United States and globally. I believe that Medical Cannabis is an imperative for LHSs. In short, by recognizing this, Maine has the opportunity to be the standards-setter for our nation in LHSs utilizing medicinal cannabis and by extension all other plant-based medicines that are anecdotally considered to be efficacious, but not adequately studied in more rigorous ways.

Once successfully implemented, participants in Maine's MMP, especially its patients, and those working on LHSs as a component in state and federal healthcare reform can expect the following benefits, among others:

- Continuous learning and improvements at the levels of the individual, community and society at large.
- Up-to-date, actionable and trustworthy knowledge informing decisions based on understandings of both what works and what doesn't among patients, clinicians and health professionals - as well as policy makers.

To over-simplify, LHSs work to continuously learn and improve from the experiences of patients, clinicians, and other key healthcare and health stakeholders. LHSs empower these people with actionable knowledge of "what works best," and generate this knowledge in ways that respect privacy, promote inclusion, embody scientific integrity, improve individual and public health, and advance other key Core Values of LHSs.

Although I am delivering this testimony in a personal capacity, I wish to briefly share how I have been working to advance LHSs for over a decade. I serve as Executive Director of the Joseph H. Kanter Family Foundation, a philanthropic foundation whose founder is in many ways the godfather of the LHS movement; as Program Officer for Learning Health System Initiatives of the University of Michigan Medical School Department of Learning Health Sciences, a first-of-its-kind academic department dedicated to advancing the transdisciplinary science underpinning LHSs; and as Founding President and CEO (pro bono) of the Learning Health Community, a nonprofit organization mobilizing, inspiring, and empowering multiple and diverse people and organizations to work together to realize the LHS vision anchored in shared multi-stakeholder

consensus Core Values of LHSs. In addition, I volunteer my time for collaborative efforts to realize LHSs, as well as to help bring LHS principles to endeavors aspiring to improve the health of individuals, families, communities, populations, and the general public. I previously worked at eHealth Initiative and at IBM; my health information technology experience informs my LHS evangelism and research. I am trained as an attorney (JD), and also hold master degrees in business administration (MBA), public health (MPH), and public policy (MPP).

I believe medical cannabis engenders an imperative for LHSs. I hope you will solicit testimony from multiple experts (including those with lived experience) on the potential benefits and risks associated with medical cannabis.

As I understand it, there is at least some evidence that medical cannabis can bring about health benefits for some people in some circumstances. There is also at least some evidence that medical cannabis can engender some risks or harms to some people. On the flip side, there are some who assert that there is evidence of incredible efficacy and effectiveness, while others assert there is no evidence of efficacy or effectiveness. LHSs supported by sociotechnical infrastructures and underpinned by cultures committed to collaboratively learning and improving as a byproduct of every interaction, will be invaluable in rapidly identifying potential safety concerns as well as in working to deliver personalized, precision, and continuously-improving approaches to optimally utilizing medical cannabis to improve people's physical and mental health and wellbeing.

This approach will put us on a path to try to learn "what works best" for every patient for every disease. It will also be about learning what does not work and what may cause harm; for instance, if concerns regarding addictiveness are merited, this approach has the potential to raise red flags well before we are facing something tantamount to the opioid epidemic. With such a breadth of sentiments vis-a-vis medical cannabis, embracing a person-centered, rapid, open, transparent, and continuous approach to learning will create a foundation for data-driven, evidence-based debate on issues such as efficacy and risk. Instead of a one-size-fits-all approach, it will open the door to a much more personalized and nuanced understanding.

It is worth emphasizing that approaches to learning need to be anchored in the [Core Values of LHSs](#) and the vision they embody. These LHSs must be driven by the highest moral principles and be grounded in research regarding ethical, legal, and social implications (ELSI) of LHSs.

Thank you for considering this testimony regarding the paramount importance of LHSs for the important matter of medical cannabis. Medical cannabis can be and must be a catalyst for LHSs. We are working at Seed2Health to make it so!