**UNIT 12: Course Wrap-Up**

Overview: This last video was a quick course wrap-up!

Like many meaningful health interventions, value-based care interventions are best approached by understanding the overall system within which care is delivered and hence value is generated. Across this course, we’ve considered three general, intertwined methods for increasing the value of care. Each method involves some form of interaction with providers:

* The first method for increasing the value of care is setting incentives for providers, usually financial incentives set by payers.
* The second method for increasing the value of care involves generating valid information. Effective incentives for value-based care require both an evidence base to set standards and a set of methods for evaluating provider performance compared to those standards. A wide variety of differing organizations might undertake a policy function by generating information.
* The third method for increasing the value of care involves understanding the patient’s role in the co-production of health, and influencing the patient as appropriate.

A good deal of what I have covered in this class addresses challenges and issues with the above methods for creating value. Every single challenge I pointed towards, as well as every advance developed to date, provides an opportunity for you to add value through health analytics.

Our main conclusions, by section and unit, follow:

*The first two course videos included very general background:*

* Unit 1 was a general introduction to the course.
* Unit 2 focused on difficulties with explicit tradeoffs regarding protected values such as health, leading for instance to increases in omission and status quo biases. More analytical approaches can push the conversation forward by illustrating the tradeoffs that exist across allocation of resources to health, even if these tradeoffs were made implicitly. And, an understanding of likely biases can better equip you to interpret the findings you see (e.g., it’s often useful to understand individual treatment decisions in the context of prior decisions that represent the relevant decision maker’s status quo).

*Section 1 of the course was designed to help you determine and evaluate incentives. This understanding is useful in supporting providers and in finding new business and policy opportunities:*

* Unit 3 set the stage for further discussion by reviewing issues that follow from: incentive misalignment created by conflicts of interest, the often implicit or under-the-radar mechanisms by which conflicts of interest can operate, and the difficulties presented with remedying conflicts. If you are aware of the often-insidious problems of conflicts of interest, you are going to be better equipped to create and interpret measures of behavior under different incentives.
* Unit 4 focused on several, major building blocks for value-based incentive systems. If we want to optimize and measure these systems, we need to be sophisticated about places to look for the impact of incentive systems on behavior, e.g., including managing tradeoffs between incentives towards under versus over treating, implementation issues such as problems of treating to the test, and issues associated with variability in the size of the gap between current performance and target performance levels. The unit should help you appreciate the need for nuanced measurement and continual testing as part of any efforts to encourage value-based care.
* Unit 5 focused on potential unintended consequences for value-based care systems, i.e., disparities as a concern to mitigate (and measure as possible) and evaluation of screening tests (noting their special status as subject to potential neglect due to longer-term outcomes).

*Second 2 was designed to help you develop your analytical frameworks for thinking about measurement of patient risk factors, provider behaviors, and how they relate to outcomes and value. It was also designed for you to recognize opportunities to add value by giving both providers and patients information related to value in healthcare. Obviously, generating and interpreting information is a central concern for health analytics.*

* Unit 6 reviewed with the idea of looking for waste in terms of provider-driven over-treatment. One goal of this discussion of waste was to foster a realistic understanding of the difficulties with actually isolating wasted spending. There are many, many points within care delivery where variability in treatment can arise. Breaking down sources of variation in spending is important because some sources are much more clearly tied to waste than others. This process must generally be both precise and analytical.
* Unit 7 looked at evaluating options for treatment or prevention with ICER calculations and QALY inputs to those calculations. It is important to take a broad view of costs and benefits of care, as well as to have a realistic assessment of the precision with which QALY measures reflect actual experience.
* Unit 8 focused on risk adjustment, reviewing some of the broad pros, cons, and tradeoffs associated with various risk adjustment methods. The unit also specifically noted the problem of data that originate with self-report. A key way to increase value in care generally is to bring analytical tools to bear to create and validate risk adjustment models.

*Section 3 focuses on the patient’s role in co-production of health value with providers. This perspective often required us to think about the psychological processes that generate patient behavior, and how to influence and measure these psychological processes.*

* Unit 9 set the stage for all of section three by reviewing evidence of patient influence on physicians and of patient bias in decision making. Questions such as “how do we estimate the impact of bias in patient decision making?” and “how do we calibrate decision aids to minimize that bias?” involve patient psychology but are also deeply analytical questions.
* Unit 10 focuses on the patient as a target of potential influence, reviewing findings regarding how to present decision information and support patient psychological processes to encourage adherence. Understanding adherence often requires measurement of patient attitudes and behaviors, informed by an understanding of patient psychological processes. These measures often suggest specific interventions that themselves can be tested for effectiveness.
* Unit 11 considers patients as consumers, evaluating individual patient reactions to greater financial responsibility and also evaluating patient market segments as potential sources of impetus for disruptive innovation.

I hope that our course has encouraged you to internalize important questions to ask yourself when considering value-based care initiatives.

* First, it’s useful to consider incentives, often starting with the question of: What are the provider’s incentives? It’s usually important to go beyond this first question, though, and also ask what are everyone else’s incentives and where the various incentives conflict? These considerations can include patients, payers, for-profits such as pharma or device companies, and others.
* Second, it’s useful to consider Information, asking: What do we know? And What should we know? It’s important to pose these questions about both assessments of providers and assessments of different care interventions.
* Third, it’s useful to consider influence on the patient, asking: What is the likely or typical patient role in the relevant decisions? And how is the patient likely to act? We must be mindful of the patient’s influence on health through co-production. Part of the provider role, supported by others, is often influencing the patient to encourage better decisions and greater adherence. And finally, when patients are incentivized to act as more traditional consumers, then can exert market power encouraging and rewarding value in care delivery.

I don’t think we’ll ever see a day when these questions are completely closed. Healthcare will never be perfect, so value-based care will never be perfect. Because the problems of value based care are both multifaceted and incredibly important, I think they are truly worth bringing our most comprehensive analysis to bear. And this means leveraging an incredible amount of social science knowledge.

Throughout this course, I interrogated our questions of interest from at least three perspectives. First, we leveraged economics with its focus on fundamental questions of design of and response to incentives. Second, we kept a policy focus at the forefront, recognizing the need for evidence-based, rigorously-assessed measures of benefits and costs in healthcare. And finally, we continually leveraged psychology because health-related measures and outcomes are often influenced by relatively complicated and nuanced psychological processes.

I hope you share some of my excitement about the interesting questions in this domain and the huge potential for each of you to leverage your own skills and interests to help advance the general goal of continually improving value in healthcare. Thank you!