



	Level of Difficulty				
	1	2	3	4	5
Enrollment and engagement of patients/subjects			X		
Engagement of clinicians and Health Systems		X			
Data collection and merging datasets	х				
Regulatory issues (IRBs and consent)			X		
Stability of control intervention		Х			
Implementing/Delivering Intervention Across Healthcare Organizations			X		





Challenges – Damage Done

- IRB review caused significant delay and waste (but less so with each iteration)
- DSMB review caused significant delay and still causes significant waste





Challenges - Ongoing

- Adapting to variability in EHRs
 - Between sites
 - Within sites over time
- Improving follow-up care in supplyconstrained systems
- "Slippage" in systematic use of outcome measures





Challenges – Upcoming

- Re-validating outcome specifications after switch to ICD-10
- Re-evaluating sample size in light of:
 - Switch to ICD-10 diagnoses
 - Differing event rates across sites





Lessons

- Need clearer charter and tools for safety monitoring of pragmatic trials
- Need more engagement with EHR vendor(s) at the beginning
- Need guidance for restimating (and reestimating) sample size in PCTs