



PCCCI

Pioneering New Ways to Health

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Pioneering New Ways to Health

Harnessing Healthcare Data : A Practitioner's View

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For IQSC Data & Analytics Summit on Nov 15, 2019



SPECIAL THANKS

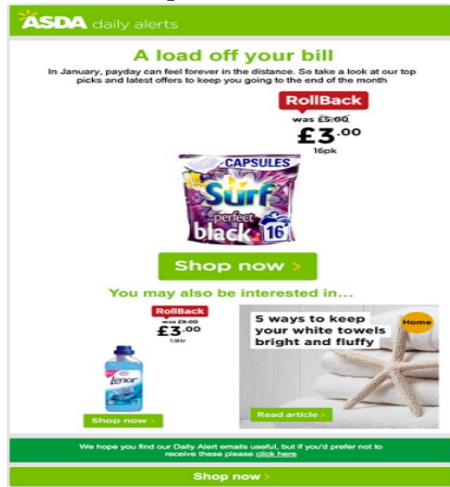


Lyda Hill Foundation

Art and Science of Harnessing Healthcare Data



- Healthcare problems are multi-faceted in nature



VS



- Healthcare datasets are complex and confidential

Collection/medical coding error handling

Systemically biased, Missing and Outlier value handling

Harmonization, Normalization and Standardization

Encryption, Privacy Security and Auditing

SOFHISTICATED DATA ENGINEERING PIPELINE



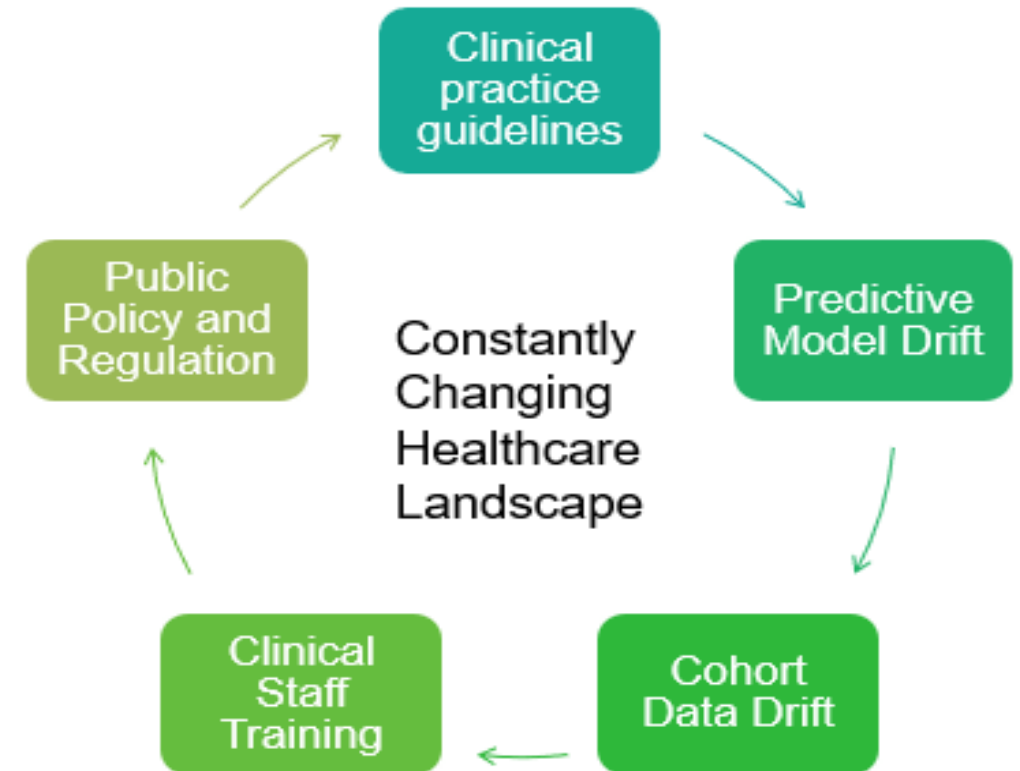
Art and Science of Harnessing Healthcare Data



- Healthcare experts need to use data in right context



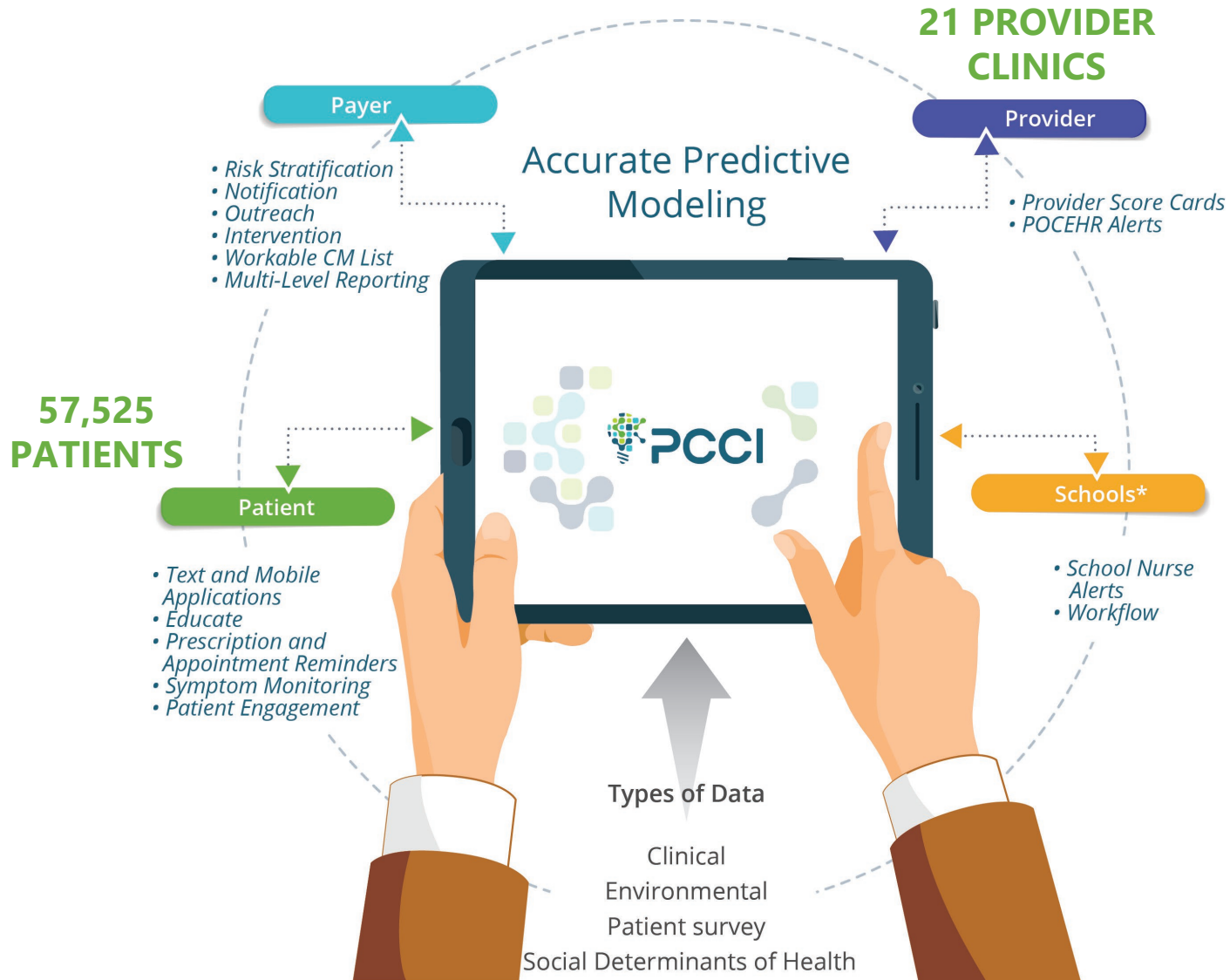
- Healthcare workflows need to be monitored for efficacy & performance over time



People and Processes



PCHP-PCCI Asthma Quality Improvement Program Impact



- **Three** Years of program implementation
- **21** provider groups actively engaged
- **57,525** unique PCHP children with asthma risk-stratified
- **\$6 million/year** direct savings (**\$18 million** direct savings in **3 years**)
- **50%** drop in asthma-related costs
- **40%** drop in asthma-related hospitalizations
- **30%** drop in asthma-related ED visits

Building Sustainable Healthcare Workflows: Key Takeaways



North Star : Make healthcare accessible and affordable to all!

Two complementary circles of virtuosity:

- Practitioners of Data Workflow (people)
- Data Analytics and AI/ML Workflow (processes)

Eternal Goals :

- Ensure security, integrity, confidentiality, traceability of data systems
- Consider ethical, moral and legal implications of insights offered

Thank You - Come Join Us!



<https://pccinnovation.org/careers/>

APPENDIX



Reimagining CARE in Healthcare - Platform



AI DRIVEN WORKFLOW INTEGRATIONS FOR ACTIONABILITY



Mobile App & Texting Platform for Patient Engagement



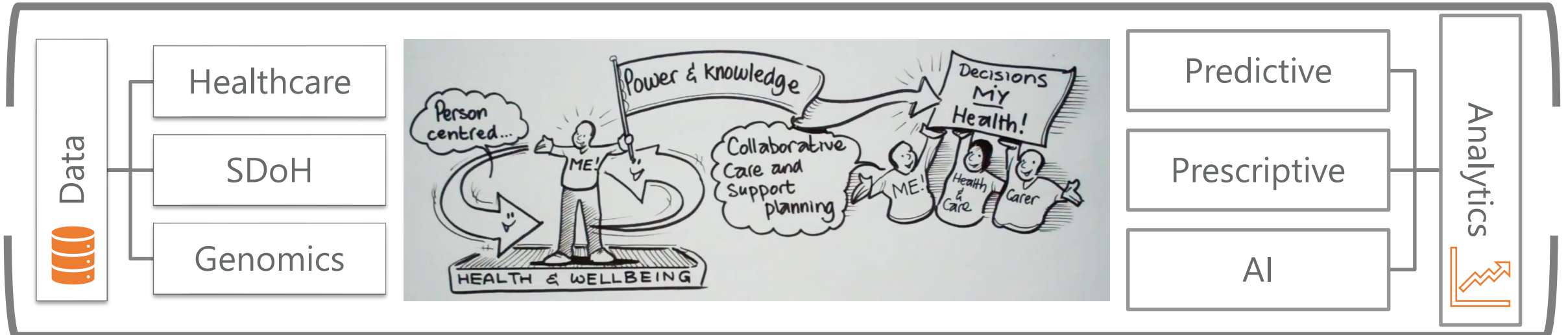
Integration with CBO Workflows



Integration with IoTs (Alexa, Wearables)



Integration with EHRs



PCCI PORTAL – HIPAA COMPLIANT AZURE CLOUD BASED ANALYTICS PLATFORM

Data usage agreements and consensus

Data Encryption at rest and in flight

State-of-the-art Machine Learning Techniques

Interoperable, reliable and secure compute

Batch or Streaming Service Level Agreements (SLAs)

Role based Access ,Accountability and Auditing

Reimagining CARE in Healthcare - Workflow



Pushing boundaries of Ethical and Explainable Artificial Intelligence in Healthcare

