A Public Testimonial submitted to CT Health Information Technology Advisory Council

By Supriyo B. Chatterjee MSc MBA MA (Econ)¹ March 18, 2021

I am in the healthcare policy and information technology (HIT) sectors for economic development in Connecticut. I work with small startup businesses, major corporations, hospitals, non-profits, and academic institutions (UConn & Yale Universities). I was in the Practice Transformation Task Force (PTTF) group of the State Innovation Model (SIM) program and currently serve in the Consumer Advisory Council of the Office of Health Strategy. Since 2015, I am a Connecticut Health Foundation Healthcare Leadership Fellow. The views expressed in this testimonial are my own.

The COVID-19 pandemic has taken an unequal toll on Connecticut's residents and has unearthed serious issues of health equity² and disparities³, and a call to action⁴ to address the anomalies. It has also unearthed the weaknesses in the state's health information infrastructure and the health information exchange (HIE)⁵.

What I would like to proffer here are a few points from the prior testimonials submitted to OHS and HITAC. While these are not meant to be prescient, they are worthy of reconsideration.

Preliminary Recommendations of the Healthcare Cost Growth Benchmark Technical Team Report⁶ - 'Data Use Strategy'. Submitted to Office of Health Strategy on Oct 21,2020⁷ (copy attached).

The matter of data completeness (including Race, Ethnicity, and Language - REL data codification) and data quality are critical. However, the data management and procedural use of

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² Towards Health Equity in Connecticut - The Role of Social Inequality and the Impact of COVID-19 | CT Data Haven June 2020 <u>https://ctdatahaven.org/reports/towards-health-equity-connecticut</u>

³ Health Equity in COVID-19 Response | UConn Health Disparities Institute April 2020 <u>https://health.uconn.edu/health-disparities/health-equity-covid19/</u>

⁴ The COVID-19 Pandemic: a Call to Action to Identify and Address Racial and Ethnic Disparities - J Racial Ethnic Health Disparities, April 2020 <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7166096/</u>

⁵ As pandemic wears on, Connecticut prepares to launch its long-awaited health information exchange | CT Mirror Oct 15, 2020 <u>https://ctmirror.org/2020/10/15/as-coronavirus-lingers-ct-prepares-to-launch-its-long-awaited-health-information-exchange/</u>

⁶ CT OHS Healthcare Benchmark Initiative November 2020 Final Report

https://portal.ct.gov/OHS/Pages/Cost-Growth-Benchmark-Technical-Team/Request-for-Comment

 ⁷ Public comment on the 'Data Use Strategy – Preliminary Recommendations' for the Cost Growth Benchmark Technical Team
– OHS Supriyo Chatterjee_CGBTT REPORT COMMENT - SBC [PDF] – also attached.

https://portal.ct.gov/OHS/Pages/Cost-Growth-Benchmark-Technical-Team/Request-for-Comment

REL data are equally important. The new 'State Health Information Exchange (Connie)' plans to orchestrate disparate sources of data from numerous organizations⁸. This orchestration is no easy task as it calls for exceptional 'data sharing' and the eradication of 'data silos'⁹. This data needs to be complete¹⁰ – **complete with complete REL data elements** - as it is needed to study health disparities in clinical outcomes¹¹ and are used in stratification analysis. This is shown under the 'Analyzing Primary Care Spending Data' section of the OHS Healthcare Cost Growth Benchmark Report¹² – *"The future analyses included stratifying by provider/ACO,* **race/ethnicity**, gender, multiple comorbidities, modality..."

The process of such algorithmic stratification is not clear as the impact of missing data elements can introduce 'biases' and this could include the 'All-Payer Claims Database' (APCD)¹³ which currently reflects only ~3% of the said REL population¹⁴. The recent discovery of bias in a decision-making algorithm¹⁵ has garnered interest in the medical press¹⁶, including the State of New York regulatory body¹⁷. Another study found the need for corrections of algorithmic bias across clinical fields – from cardiology to urology¹⁸. Stratification algorithms need complete data elements with transparency, accountability, and 'explainability' to mitigate clinical, ethical, and legal issues.

New Rulings from US Dept of Health & Human Services (HHS). Submitted to Health Information Technology Advisory Council on March 19, 2020¹⁹.

⁸ As pandemic wears on, Connecticut prepares to launch its long-awaited health information exchange - CT Mirror 10/15/2020 <u>https://ctmirror.org/2020/10/15/as-coronavirus-lingers-ct-prepares-to-launch-its-long-awaited-health-informationexchange</u>

⁹ What Managers Need to Know About Data Exchanges - MIT SMR 6/9/2020

https://sloanreview.mit.edu/article/what-managers-need-to-know-about-data-exchanges/

¹⁰ Assessing race and ethnicity data quality across cancer registries and EMRs in two hospitals - J Am Med Inform Assoc, May 2016 <u>https://pubmed.ncbi.nlm.nih.gov/26661718/</u>

¹¹ Ethnicity and clinical outcomes in COVID-19: A systematic review and meta-analysis | The Lancet 11/12/2020 https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(20)30374-6/fulltext

¹² CT OHS Healthcare Benchmark Initiative November 2020 Final Report

https://portal.ct.gov/OHS/Pages/Cost-Growth-Benchmark-Technical-Team/Request-for-Comment

¹³ Page 24 in #12 above

¹⁴ Connecticut APCD Advisory Group Meeting, February 11, 2016

http://www.ct.gov/hix/lib/hix/Presentation 02112016.pdf

¹⁵ Dissecting racial bias in an algorithm used to manage the health of populations – SCIENCE - Oct 25, 2019 https://science.sciencemag.org/content/366/6464/447

¹⁶ Discovery of racial bias in health care AI wins STAT Madness 'Editors' Pick' - STAT News 4/6/2020

https://www.statnews.com/2020/04/06/stat-madness-editors-pick-racial-bias-in-health-care-ai/

 $^{^{\}rm 17}$ Algorithmic Bias In Health Care: A Path Forward - Health Affairs 11/1/2019

https://www.healthaffairs.org/do/10.1377/hblog20191031.373615/full/

¹⁸ Hidden in Plain Sight — Reconsidering the Use of Race Correction in Clinical Algorithms - NEJM 8/27/2020 <u>https://www.nejm.org/doi/full/10.1056/NEJMms2004740</u>

¹⁹ A Public Comment submitted to CT Health Information Technology Advisory Council - March 19, 2020

On March 9, 2020 HHS released transformative rulings that further empowers the patient consumer over their healthcare records²⁰. The new HHS Interoperability and Patient Access final rule (CMS-9115-F)²¹ has several technical development items that will need to be addressed. Due to the COVID-19 pandemic, HHS CMS has announced a few additional months for compliance and "*will not enforce these new requirements until July 1, 2021.*"²² It is not known what the progress is towards this final rule (CMS-9115-F) and whether the July 1, 2021 deadline will be achieved and before the CMS funding for the HIE development ends in Sept 2021.

Impact on the healthcare providers and availability of systems documentation

With the introduction of technical items of telehealth platforms and APIs –there is an unmet need to have a deep understanding of the state HIT infrastructure and applications²³. *As such, availability of technical documentation of the state HIT Infrastructure, e.g., HIE, APCD, and CDAS systems is important*. Periodically updated document repositories with version control and secured authenticated access is far more convenient than the repeated filing of FOIA requests for documentation. Documents showing architectures, schemas, systems requirements, and technical diagrams can provide a better understanding of the state's HIT systems. It is important to reemphasize that such documents need not contain security-related information.

Thank you, Supriyo B. Chatterjee MSc MBA MA (Econ) E: <u>sb.chatterjee@gmail.com</u> March 18, 2021

https://portal.ct.gov/OHS/HIT-Work-Groups/Health-IT-Advisory-Council/Meeting-Materials/March-19-2020

²⁰ HHS Finalizes Historic Rules to Provide Patients More Control of Their Health Data - CMS March 9, 2020

https://www.hhs.gov/about/news/2020/03/09/hhs-finalizes-historic-rules-to-provide-patients-more-control-of-their-healthdata.html

²² CMS Interoperability and Patient Access Final Rule | HHS CMS 2/26/2021

SIM HITO March 19 2020 - Public Comment V2 [PDF file]

²¹ Interoperability and Patient Access Fact Sheet - CMS March 9, 2020

https://www.cms.gov/newsroom/fact-sheets/interoperability-and-patient-access-fact-sheet

https://www.cms.gov/Regulations-and-Guidance/Guidance/Interoperability/index

 ²³ Public Comment submitted to CT Health Information Technology Advisory Council - Sept 19, 2019
OHS_HIT_Advisory_Council_Public_Comment_20190919 [PDF file]

https://portal.ct.gov/OHS/HIT-Work-Groups/Health-IT-Advisory-Council/Meeting-Materials/September-19-2019

A Public Comment on the Preliminary Recommendations of the Healthcare Cost Growth Benchmark Technical Team.

Submitted to the Connecticut State Office of Health Strategy on Oct 21st, 2020 By Supriyo B. Chatterjee MSc MBA MA (Econ)¹

I am in the healthcare policy and information technology (HIT) sector in Connecticut. I work with small startups and major corporations, hospitals, non-profits, and academic institutions (Yale & UConn Universities). I was part of the State Innovation Model (SIM) program in the Practice Transformation Task Force (PTTF) group and currently serve in the Consumer Advisory Council of the Connecticut State Office of Health Strategy. Please consider the following comments in the further development of the 'Healthcare Cost Growth Benchmark'.

Data Use Strategy

I will confine my comments in the Preliminary Recommendations of the Healthcare Cost Growth Benchmark Technical Team Report² to the 'Data Use Strategy – Preliminary Recommendations' section. The 'Data Use Strategy' is pivotal in managing the 'Healthcare Cost Growth' – from setting annual targets to analyzing Primary Care spending data. Its usage is also critical in addressing 'Health Equity' aspects in the healthcare system. The matter of data completeness (including REL data codification) and data quality are described in the HEDA Team report³. The new 'State Health Information Exchange (Connie)'⁴ plans to bring disparate sources of data together⁵. This is known to be a difficult endeavor – given prior attempts and also the fact that data success is also a matter of organizational culture⁶. There are numerous organizations that are the data sources and need to be orchestrated by 'Connie'. This

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² Preliminary Recommendations of the Healthcare Cost Growth Benchmark Technical Team Report - CT OHS Sept 2020 <u>https://portal.ct.gov/OHS/Pages/Cost-Growth-Benchmark-Technical-Team/Request-for-Comment</u>

³ Health Equity Data Analytics - Policy Recommendations Report: September 2020 https://portal.ct.gov/-/media/OHS/docs/HEDA-Recommendations -Sept2020.pdf

⁴ As pandemic wears on, Connecticut prepares to launch its long-awaited health information exchange - CT Mirror 10/15/2020

https://ctmirror.org/2020/10/15/as-coronavirus-lingers-ct-prepares-to-launch-its-long-awaited-health-informationexchange/

⁵ Exploring 3 Levels of Health Information Exchange, Data Access - EHR Intelligence 10/12/2020 https://ehrintelligence.com/news/exploring-3-levels-of-health-information-exchange-data-access

⁶ Why Culture Is the Greatest Barrier to Data Success - MIT SMR 9/30/2020

https://sloanreview.mit.edu/article/why-culture-is-the-greatest-barrier-to-data-success/

orchestration is no easy task as it calls for exceptional 'data sharing' and the eradication of 'data silos'⁷.

All-Payer Claims Database (APCD)

There is an emphasis in the 'Data Use Strategy' for the use of the 'All-Payer Claims Database' (APCD)⁸. APCD databases accumulate data from public and private stakeholders and it includes data about pharmacy prescriptions, medical, dental, and insurance information. APCDs can be a beneficial tool to track spending trends and cost drivers⁹. However, it is constrained by legal barriers and the cooperation of the stakeholders within the healthcare system¹⁰. Such limitations may be addressed by (future) regulatory solutions. Other limitations may be structural and the procedures in how the APCD and other data are managed¹¹.

Few items to consider¹²:

- Representativeness Insurance program coverage over time and how captured in the data sample.
- Undercounting and Misclassification uniform use of the new ICD-10 codes across all data sources. In particular, the use of ICD-10 Z-codes and social determinants of health data¹³. However, more work is needed here and a description of how the 'Connie HIE' is to be used in this complex effort.
- Timeliness and Access Addressing the time lag in data capture and aggregation. This is critical for the longitudinal analysis of data.

Analysis and Stratification

The use of stratification of data for analysis is stated under the 'Analyzing Primary Care Spending Data' section of the report¹⁴ – *"The Technical Team highlighted the importance of*

⁷ What Managers Need to Know About Data Exchanges - MIT SMR 6/9/2020 https://sloanreview.mit.edu/article/what-managers-need-to-know-about-data-exchanges/

⁸ Page 6 in #2 above

⁹ Maximizing Use Of Claims Data To Address COVID-19: We Need To Revisit Gobeille v. Liberty Mutual - - Health Affairs 8/7/2020

https://www.healthaffairs.org/do/10.1377/hblog20200805.788636/full/

¹⁰ Strategies for Health System Innovation After Gobeille v Liberty Mutual Insurance Company - JAMA Network 8/9/2016 <u>https://jamanetwork.com/journals/jama/article-abstract/2532230</u>

¹¹ Health Care Claims Data May Be Useful For COVID-19 Research Despite Significant Limitations - Health Affairs 10/6/2020 <u>https://www.healthaffairs.org/do/10.1377/hblog20201001.977332/full/</u>

¹² ibid

¹³ Page 19 in #2 above – the footnote #11 on page 19 states the need for the ICD-10 Z codes and SDOH data.

¹⁴ Page 17 in #2 above. 'Stratification' is also mentioned on Page 19 in #2 above.

stratifying primary care spending data to understand current spending trends and identify opportunities for improvement. The future analyses included stratifying by provider/ACO, race/ethnicity, gender, multiple comorbidities, modality (e.g., telehealth, in-person visits) and payment model (e.g., fee-for-service or alternative payment model)."

However, the process of such algorithmic stratification is not clear. The recent discovery of bias in a decision-making algorithm¹⁵ has garnered interest in the medical press¹⁶, including the State of New York regulatory body¹⁷. A more recent study found the need for corrections of algorithmic bias across clinical fields – from cardiology to urology¹⁸. Stratification algorithms need transparency, accountability, and 'explainability' to mitigate legal and ethical issues.

Thank you,

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¹⁵ Dissecting racial bias in an algorithm used to manage the health of populations – SCIENCE - Oct 25, 2019 <u>https://science.sciencemag.org/content/366/6464/447</u>

¹⁶ Discovery of racial bias in health care AI wins STAT Madness 'Editors' Pick' - STAT News 4/6/2020 https://www.statnews.com/2020/04/06/stat-madness-editors-pick-racial-bias-in-health-care-ai/

¹⁷ Algorithmic Bias In Health Care: A Path Forward - Health Affairs 11/1/2019 https://www.healthaffairs.org/do/10.1377/hblog20191031.373615/full/

¹⁸ Hidden in Plain Sight — Reconsidering the Use of Race Correction in Clinical Algorithms - NEJM 8/27/2020 <u>https://www.nejm.org/doi/full/10.1056/NEJMms2004740</u>