



Resizing Information Systems to Support Mental Health

Patricia Alafaireet*

Applied Health Informatics, University of Missouri, USA

Editorial

Like Goldilocks, we need a data product that is “just right”, not data that is too big (data and information at the national, state or county level only), and not data that is too small (healthcare generated data and information at the individual or aggregate patient level only) to address mental health in the US. With a estimated 56% opportunity gap (untreated individuals) and a benefit to cost ratio of 2.3 to 3.0 for mental health provision (when only economic benefits are considered), addressing mental health is a high value venture [1,2].

Addressing this high value arena may be best carried out at the community level, rather than at the overall population level. With only about 11% of health provided by medical care, the majority of the determinants of mental health reside in the lifestyle choices of the individual and in the characteristics of the community lived in, such as safe housing, health food availability, etc [3]. Addressing mental health effectively means collecting, managing, and disbursing data across nine domains. The demographics domain could include gender, age, immigration status and background, primary relationship status, community resource related, such as food deserts, and education status [4]. The economic data domain includes health insurance availability, income level, employment status, treatment payment methods outside of insurance, and availability of other community economic related resources [4]. The cultural domain includes characteristics related to region of country, religion, familial customs and employment business culture [4]. The criminal and legal domains encompass criminal history, participation in criminal activity prevention programs, family and domestic crime issues, probation status, etc., when those factors impact mental health [4]. The diagnosis and treatment domains include disease classification code(s) including co-morbidities, results of health screenings, pre-hospitalization and hospitalization characteristics, outpatient care characteristics, and other treatment characteristics [4]. The prescription drug domain includes use of specific medications, compliance with medications, and side effects of taking prescription medications [4]. Finally, the living arrangement domain should include information on availability of, and access to, stable and safe housing, community related housing issues such as zoning or other restrictions, and information about specific unsafe situations such as lead paint prevalence and poor air quality [4]. This data and information will likely come from disparate sources including national, state or local government agencies or non-governmental organizations, laws, legal judgments, policies and reports from the same, academic research, news stories, payers and funders, social media, oral history and from commercial businesses. This data and information will be available in differing formats, and will be refreshed on differing schedules such that filtering, re-formatting and other data preparation measures will be needed to “right size” the available material.

OPEN ACCESS

*Correspondence:

Patricia E Alafaireet, Director of Applied Health Informatics, 734 CS&E Building, University of Missouri, Columbia, MO 65212, USA, Tel: 573-882-9904; E-mail: alafaireetp@health.missouri.edu

Received Date: 12 Oct 2017

Accepted Date: 23 Oct 2017

Published Date: 30 Oct 2017

Citation:

Alafaireet P. Resizing Information Systems to Support Mental Health. *World J Psychiatry Ment Health Res.* 2017; 1(1): 1005.

Copyright © 2017 Patricia Alafaireet.

This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

To be effective at community level provision of mental health a number of non-traditional “providers” or entities will require varying levels of data access. Depending on how the community approaches provision of mental health, access to data will likely need to be provided to community residents, employers, social service agencies, community business, available health plans, governmental agencies, public health authorities, hospitals and clinics, traditional and non-traditional providers of mental and behavioral health, community organizations, and community level educators. These entities will need to use data and information to improve social support, adjust governmental policies, rules, procedures as needed, improve and expand available resources and address environmental issues. Each of these entities will need access to data and information that is appropriate to their needs while maintaining the security and integrity of the individual’s protected information and privacy. It is doubtful that we even understand, at present, what those exact needs are, and it is almost impossible to be certain that all of the tools and techniques needed to manage the data and the information flow are available and accessible.

Finally, data analysis tools and methods may require substantial adjustment to provide utility and usability to a variety of individuals and entities who may not have had previous access to the

data. It is possible, given the probable information needs of addressing mental health at the community level, that there will be considerable increase in attention to outliers in the data. This “right-sizing” may require not only adaption of data analysis tools and techniques, but also may require substantial refocus of types of analyses needed. For example, data normalization techniques may need modification.

Overall, to improve mental health, we need to re-assess our ability to collect the correct data and process it for a wider set of potential users with more disparate information needs than those found in strictly clinical care. Doing so, may allow us to better address a burgeoning health issue with more effective use of critical resources.

References

1. The State of Mental Health in America. Mental Health America; 2017.
2. Chisholm D, Sweeny K, Sheehan P, Rasmussen B, Smit F, Cuijpers P, et al. Scaling-up treatment of depression and anxiety: a global return on investment analysis. *Lancet Psychiatry*. 2016;3(5):415-24.
3. <http://www.goinvo.com/features/determinants-of-health/>
4. Alafaireet P, Bouras A, Houghton HL, Lavoie BJ, Lavoie JP, Cressman B, et al. Applying concept mapping to solving in-patient mental health recidivism. *Mo Med*. 2015;112(1):63-6.