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From: Office of Reporting, Research, Analytics, and Implementation at DHS
Subj: Oregon's data strategy
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The Office of Reporting, Research, Analytics, and Implementation (ORRAI) at the Department of Human Services is excited about Oregon's draft data strategy. As both a DHS centralized unit focused on the application of research in five human service programs, as well as providing enterprise wide research across state agencies, we are excited to maximize the outcomes of Oregon children and families through a strategy that promotes using data, engaging in data-informed conversations, leveraging analytics to generate knowledge, and aligning research with program needs Evidence-based decisions that create best practices is what ORRAI is all about. It is with that spirit that we offer some feedback on the state's draft strategy as it is currently formulated. Below are several key areas of focus not in any particular order.

Geographic Information Systems

The current draft strategy is necessarily high level in offering guidance to individual agencies, however, we believe Geographic Information Systems (GIS) and geospatial analyses should be mentioned and clarified in the current draft strategy. Traditionally, spatial data has inconsistent support across state agencies. Natural resource agencies generally embrace, manage, share and analyze spatial data while human services agencies generally do not. ORRAI does provide spatial data analysis and mapping for DHS, but also supports the state's spatial data infrastructure by supporting the state geocoder and providing spatial data services to sister agencies that lack GIS resources.

The inconsistent support for GIS across multiple agencies and the lack of centralized state spatial data resources (e.g. state geocoder and spatial data library), suggest more consideration for spatial data in the state data strategy. A review of the spatial capabilities and resources within state agencies should be considered. In addition, the state should support existing spatial data and analysts while encouraging the expansion of spatial data analyses beyond descriptive mapping. Currently, our spatial data infrastructure, both physical and human, are underinvested in human service organizations.

Analytics

Analytics, and their role with improving the outcomes of children and families, are also lightly mentioned. The plan only mentions the provision of platforms for analysis and visualization. While the availability of those platforms is important to assure more flexibility and open platforms, the capacity to conduct analyses and transform data into knowledge should also be considered in the draft. One opportunity to promote analytics is to encourage analytics as a Center of Excellence; this center could support agencies much like the Washington State Institute for Public Policy (WISPP) does for our neighbor to the north.

ORRAI applies analytics to mission critical problems and program evaluation. To effectively glean information from millions of observations and thousands of variables, it requires highly skilled analysts from social and natural sciences, psychology, statistics, and data science. Most analysts are highly trained, have extensive knowledge and have higher education credentials; this combination of skill and experience is necessary for applying analytics and implementing high quality research. One example is the Child Welfare screening tool that uses a novel algorithmic fairness correction procedure to mitigate race- and ethnicity-based bias in individual risk estimates. This project required sophisticated statistical analyses, statistical programming, and a long and sophisticated implementation process. This implementation process required collaboration between researchers, project managers, child welfare screeners, and a variety of other stakeholders. The effort created a tool, substantively mitigated of bias, that helps screeners better identify children who are truly at risk.

Projects like the new screening tool clearly require appropriate data platforms, but more importantly, also requires competent analysts and implementation specialists to transform data into useful knowledge. Oregon's data strategy should encourage the sharing of analytics knowledge and encourage the expanded use of data and analytics. Expanding the number of researchers, statistical programmers, data scientists and other highly skilled analysts across a wide range of disciplines can only promote the use of data and encourage data-informed decisions.

Implementation

Use of data for reports and dashboards creates information. Use of data for analysis and research creates knowledge. Transforming knowledge to wisdom rarely occurs. That transformation is a collaborative effort between the research scientists and those front-line workers using this new empirically derived information. That process is implementation. Implementation is vitally important but only lightly touched upon in the draft data strategy. Data analytics or data informed policy/program evaluation encompasses everything from the calculation of basic descriptive statistics to thematic maps to fully fledged machine learning-based tool building (i.e. our child welfare call screening tool). Research implementation requires knowledge about this wide breadth of data uses, requires understanding of the specifics of analytics and data infrastructure issues, and requires project management expertise. Implementation also requires intimate program operational knowledge and understanding to ensure data, research and practice are aligned. Furthermore, successful implementation requires the ability to provide ongoing technical assistance, data and statistical feedback on outcomes and metrics, and communication to internal and external stakeholders. The draft strategy should recognize implementation as a necessary effort when transforming data into wisdom. Implementation will require program expertise provided by contributing agencies; these agencies should be encouraged to develop implementation strategies and identify assets necessary to implement research. We would suggest that implementation be included as a center of excellence or be embedded in another Center (e.g. Analytics).

Master Client Index (MCI)

The draft strategy mentions making data more easily available across state agencies. This is an important goal but we believe the draft statement could more explicitly mention supporting the creation of a MCI; this MCI dataset will enable quick merging of data between/among disparate systems and allow for life-course tracking and analyses across all agencies. This effort should be coupled with

assurance of using de-identified data for analysis. A MCI project should be mentioned and listed as a goal for the draft data strategy.

Equity and Fairness

The draft strategy mentions approaching questions of data management, analysis and distribution with an "equity lens," but the draft would benefit from more detail. Greater specificity on that vision should be added, as well as potential approaches for addressing past and current bias embedded in existing administrative datasets. Developing common race/ethnicity categories should be considered. There should be some consideration for the resources necessary for identifying such biases across domains. Biased administrative data due to historic discrimination requires different approaches than current program criteria that may disproportionately exclude certain populations. Both intimately involve the use of data and analysis but require distinctly different approaches. While it may not be appropriate for the plan to be overly prescriptive, offering some perspective and detail on the "equity lens" would be enlightening.

To conclude, Oregon needs a data strategy and we commend your efforts to start this important conversation. We consider the components of the draft to be necessary and crucial to Oregon's future; we have identified a few "enhancements" which might benefit the data strategy. The state data strategy will help shape the way we approach the ongoing data revolution and how it impacts essential programs and policies. This is an excellent start and we hope to see it carry forward taking these suggestions into account. We are willing to contribute to this effort and look forward to the final vision.