

## Determining Analytic Maturity



### The road to building greater analytics capability and capacity

The American Public Human Services Association's (APHSA) "Roadmap to Capacity Building in Analytics"<sup>9</sup> has laid the groundwork for states to assess where they stand and how to establish their analytics operations.

However, the road to building greater analytics capability and capacity often isn't linear. Many capabilities need to come together to build an effective overall analytics program. Success requires a multi-dimensional approach that considers technology, human, clinical and process capabilities. Today, most states' capabilities aren't aligned: They may have a platform, but lack the skillset in house to interpret the data, or they may have intermediate data analyst skills, but lack automated tools to interpret the data.

Growing analytic maturity is one of the most important investments an agency can make, but it also is one of the most overlooked as agencies seek to solve problems now. That's why it's critical for states to have a flexible roadmap, one that reflects where capabilities are mature, where they are lacking and how agencies can build a path to align these capabilities and become more impactful.

The levels of analytic maturity are categorized based on how an agency defines its challenges, prepares data, conducts analysis, implements a plan of action, and presents and monitors data. As you can see on the following pages, overall analytic maturity varies based on a subset of capabilities within an organization. For example, an organization may be at Level 2 from a presentation and analysis standpoint, relying on advanced spreadsheet formulas and visualization functions to interpret data and Powerpoint presentations to convey information across its enterprise. But at the same time the organization understands the challenges it faces and has data analysts, data scientists and other skilled staff in place to address these challenges (Level 3). In this

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Optum characterizes analytic maturity based on the analytic method, on how an agency defines its challenges, prepares data, conducts analysis, implements a plan of action, and presents and monitors data.

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case, moving the technology further along the maturity model could improve staff efficiency. As an agency reaches higher levels of analytic maturity, things like predictive modeling, real-time performance monitoring and prescriptive analytics come into play, and the organization’s capabilities become more aligned, leading to greater automation and integration that can solve issues across departments.

However, analytic maturity is about more than just technology and automation. Today, most states likely are at a Level 1 or 2 and need to build platforms, train their staff and refine their processes to create an analytics mature culture. But even more importantly, they must restructure their organization to build internal analytics capability and capacity. Part of the solution will involve working with an external partner to anticipate the skillset needed for the future, but agencies also must leverage people skilled in analytic methodologies while helping existing staff and leadership understand the value that analytics brings.

Optum has built on APHSA’s work to create a maturity model that helps agencies move their analytics process forward, no matter where they lie on this continuum. The model involves a six-step analytics process across five varying levels of analytic maturity:

**1 When defining problems, we:**

**LEVEL 1 – SUSTAIN:**

Don’t know there is a problem until after it happens.

**LEVEL 2 – INFORM:**

Are aware of problem as it occurs.

**LEVEL 3 – TRANSFORM:**

Know there could be a problem and can take steps to address it.

**LEVEL 4 – REFINE:**

Are actively predicting problems and corrective action needed.

**LEVEL 5 – GOVERN:**

Are able to clearly define the problem across the enterprise, and the problem definition clearly identifies the data that is required.

**2 When defining problems, we:**

**LEVEL 1 – SUSTAIN:**

Have “beginner” skillsets and basic knowledge of data and spreadsheet tools. Advanced analytics are completed by contractors.

**LEVEL 2 – INFORM:**

Have intermediate data analyst skills and a working knowledge of data, graphing and presentation tools.

**LEVEL 3 – TRANSFORM:**

Have an Enterprise Data Warehouse (EDW) with an adaptable data model that acts as a single source of truth for enterprise data.

**LEVEL 4 – REFINE:**

Maintain the accuracy and value of the data and apply the right statistical method to the problem.

**LEVEL 5 – GOVERN:**

Have an active data governance program in place.

**3 When conducting analysis, we:**

**LEVEL 1 – SUSTAIN:**

Conduct no proactive analysis.

**LEVEL 2 – INFORM:**

Utilize advanced spreadsheet formulas and visualization functions to perform computations and analysis.

**LEVEL 3 – TRANSFORM:**

Can take corrective action to prevent performance and financial thresholds from being broken.

**LEVEL 4 – REFINE:**

Know our organization and staff are ready to address issues and have established processes and owners in place.

**LEVEL 5 – GOVERN:**

Keep clinical and agency data in the EDW and easily accessible.

**To learn more about determining analytic maturity, contact us:**

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**4 In our action plan:**

**LEVEL 1 – SUSTAIN:**

Required action is not intuitive or obvious from the analysis.

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**LEVEL 2 – INFORM:**

Required action is derived from single processes and contained within a single program, group or system.

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**LEVEL 3 – TRANSFORM:**

Specific tasks and work plans identify what needs to be done and when.

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**LEVEL 4 – REFINE:**

We can solve issues across agency departments.

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**LEVEL 5 – GOVERN:**

We can solve issues across state and federal agencies.

**5 Our presentations:**

**LEVEL 1 – SUSTAIN:**

Are in static documents.

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**LEVEL 2 – INFORM:**

Are still limited to static documents, but now show more of the analytics process, including formulas, etc.

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**LEVEL 3 – TRANSFORM:**

Use advanced analytic visualization tools to present process, methods, models and outcomes to tell the story.

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**LEVEL 4 – REFINE:**

Are made to agency leadership and clearly and concisely present the problem, analysis, alternatives and recommendation.

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**LEVEL 5 – GOVERN:**

Cover all impacted stakeholders and include clear messaging. Updates and opportunities are automated.

**6 When monitoring:**

**LEVEL 1 – SUSTAIN:**

Have no good way to monitor and measure effectiveness of changes.

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**LEVEL 2 – INFORM:**

Can identify anticipated changes, but cannot predict quality or quantity.

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**LEVEL 3 – TRANSFORM:**

Can build predictive models and measures to monitor progress.

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**LEVEL 4 – REFINE:**

Can build and rely on prescriptive models.

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**LEVEL 5 – GOVERN:**

Monitor performance measures in real time.

Building A Culture of Analytics for HHS Programs: A Handbook for State Executives & Administrators by Governing Institute & Optum



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