

## Highlights

Software from IBM can help organizations that care for at-risk children achieve the following benefits:

- Improve youth outcome pathways
- Minimize the "revolving door," especially for low-risk children
- Reduce wasteful spending on inappropriate placements
- Improve risk assessment by gauging the impact of care programs
- Emphasize the importance of front-line point-of-care intervention



# Improving outcome paths for at-risk youth

The IBM Intelligent Outcome Management and Assessment solution accelerator

## Introduction

Juvenile detention is an important part of the American juvenile justice system, but it has several significant drawbacks. For example, detention is expensive, often unnecessary, and can be both socially and emotionally damaging. As a result, there is a pressing need for a mechanism other than detention to deal with the majority of juvenile offenders and at-risk individuals. The problem of juvenile care is daunting. Many American cities are experiencing growing gang violence as gangs members seek out and recruit homeless youth, with limited job skills or education, to help grow their masses. At the same time, the child investigators who try to protect at-risk children from abuse and neglect are overwhelmed with case loads, and sometimes have limited experience as social workers. Community-based care providers and their referral networks are stressed on all sides from budget cuts, expectations of better results and a growing competitive landscape. In brief, there are many problems confronting the caretakers who try to protect children at risk.

Beyond the obvious social impact of failing children, which can extend for generations, the government faces an economic burden imposed by its social welfare obligations. This burden only grows each time a system fails to guide a child on a successful path, and is worsened if the same child triggers multiple preventable care requests over a long period. So a single child who grows up to be, for example, a repeat adult offender can have an enormous economic burden for the state. This complex social and economic dilemma is both prevalent and persistent. As an example, studies have shown the average lifetime cost in the United States of one teenager improperly placed as a high-risk juvenile is in the range of 1.7–2.3 million US dollars.<sup>1</sup> Because of the large number of juveniles currently held in facilities across the United States, a staggering amount of money is being spent to imprison America's youth: an average of 5.7 billion dollars per US state.<sup>2</sup> IBM is pioneering a new tool to help address this problem: the Intelligent Outcome Management and Assessment solution accelerator (IOMA). By drawing from a diverse set of data sources and using a dynamic assessment instrument, IOMA can combine provider performance with juvenile assessment scores and deliver valuable, pertinent information to key stakeholders. IOMA can assist with the types of critical decisions that affect outcome placements and thereby help drive down the cost of child welfare and juvenile justice.

## New application of a powerful toolset

All children possess unique characteristics that make them special, regardless of their parental circumstances, gender or hometown. However, it has traditionally been difficult to assess children accurately. The scoring methods long used in assessing at-risk youths have tried to effectively categorize children based on relatively structured methods, but have had limited success. The IOMA solution accelerator improves on these traditional methods in three important ways by delivering analytic power, continual planning and actionable information.

#### Intelligent Outcome Management and Assessment (IOMA)

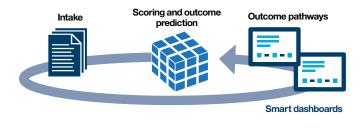


Figure 1: Intelligent Outcome Management and Assessment (IOMA)

First, IOMA uses smart predictive analytic technology, combining best practices in advanced analytics with best-inclass tools to better assess risk and determine near-real-time outcome pathways. IOMA uses a powerful analytics engine which recursively learns as intake data is combined with historical knowledge, enabling higher degrees of outcome predictability. This increased insight can improve the odds of a successful path for each youth.

In addition, IOMA includes an intelligent outcome planning capability that runs continually, helping to bridge the gaps that traditionally appear between intake and outcome determination. These gaps create uncertainty that is not only difficult for children, but can lead to costly failed placements or delays in service delivery. With more continual analysis, it is easier for case workers to determine social outcomes at near point-of-intervention cycles and more effectively optimize resource allocations or program assignments.

And finally, the frontline case worker using IOMA also benefits from an actionable plan, or "outcome pathway." This plan guides the case worker in delivering appropriate programming, while enabling recursive monitoring of the outcomes according to the plan. As a result, practitioners and operational managers are able to obtain information in an easily understood format that they can use to help improve the decisions they make on behalf of the child, family and their own agency. IBM Software Data Sheet

The Intelligent Outcome Management and Assessment solution accelerator from IBM provides a modernized framework to serve the needs of the frontline practitioner and enhance the contributions of the academic research community. It also provides agency managers a means of monitoring operational performance. The increased insight and oversight further increase the chance of a desirable outcome for every child. This is crucial, because improved youth outcomes have a measurable social and economic benefit for families, communities and the nation as a whole.

#### For more information

To learn more about the Intelligent Outcome Management and Assessment solution accelerator, please contact your IBM representative or visit **ibm.com**.



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- 1 Cohen, Mark A. (1998). "The Monetary Value of Saving a High Risk Youth." The Journal of Qualitative Criminology, 14 (1): 5-33
- 2 Justice Policy Institute (2009), "The Costs of Confinement: Why Good Juvenile Justice Policies Make Good Fiscal Sense"



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