

Women Risk and Needs Assessment (WRNA) Project

'A Gender Responsive Approach'



**Project by
Oregon's Department of Corrections (ODOC) for
Institution and Community Corrections users**

Category: Data Management, Analytics & Visualization

Project Dates/Costs

Initiation Date: December 20th, 2016

Completion Date: August 29th, 2017

Implementation Date: August 31st, 2017

Effort (Estimate): 8,000 hours

Cost (Estimate): \$735,000

Oregon Department of Corrections Contacts

David Alamein, **Chief Information Officer**

Roy Bruce, **IT Application Services**

Project Leadership

Project Sponsor (Business): Heidi R Steward, Assistant Director, ODOC

Product Owner (Business): Lisa Hall, Administrator, ODOC

Project Sponsor (IT): Roy Bruce, IT Application Services Manager, ODOC

Scrum Master / DBA: Don Pack, IT Services, ODOC

Project Manager / System Analyst: Parm Kaur, IT Services, ODOC

EXECUTIVE SUMMARY

Coffee Creek Correctional Facility (CCCF) is located in Wilsonville, Oregon, where approximately 1300 women of minimum, medium, and maximum custody are serving their court-mandated sentences. As the only female prison in the state of Oregon, we take pride in being advocates for gender responsiveness and strive to provide gender-informed supervision, case management, medical and mental health care, education, and programming opportunities.

When an inmate/Adult in Custody arrives at Coffee Creek Correctional facility, an assessment is done which helps Institution counselors build the case management needed to help each inmate/Adult in Custody to enroll in programs, that will later help them (Inmate/Adult in Custody) to be successful, when they are released back into the community. Historically, many programs such as Alcoholics Anonymous and Criminal Justice programs were studied and designed with men and then applied to women. This practice continues today, as many don't realize that the research or program they are using, was not designed for the people they're serving. The reality is women, men, lesbian, gay, bisexual, and transgender communities experience very different barriers, inequalities, stigmas, traumas, and life experiences that should be reflected in the services and therapeutic treatment they receive.

As of March 2015, the Oregon Department of Corrections (ODOC) introduced the Gender-Responsive assessment for Female population, WRNA: Women Risk/Needs Assessment. Including gender in programming simply promotes practices that recognize and reflect on the effects of gender on a person's experiences. Subsequently, undergoing a department-wide analysis of services provided by utilizing WRNA data, guides programming and policy decisions. Higher levels of engagement and partnership among Counselors and the Female inmate/Adult in Custody population was noticed soon after the implementation of this assessment.

In December 2016, ODOC and the Information Technology Services staff started working with WRNA Institutional and Community Corrections stakeholders to automate these Assessments. Originally, all of the calculations and scoring were done manually by users. The software development process followed an agile methodology, and focused on iterations of incremental product development. In addition, this project is in alignment with the 2018 NASCIO Priorities of Data Management and Analytics, and Agile and Incremental Software Delivery.

Automated WRNA was fully implemented statewide on August 31st, 2017. **Oregon is the first state to fully automate and integrate the WRNA assessment tool with ODOC's home grown Correctional Case Management planning tool.** A survey was sent to stakeholders six weeks after system deployment. 100% positive feedback was received from these users, and they agreed that the new system increased the speed of completing and processing WRNA assessments. Automation of this tool provides more functionality and ease of use to users, by interfacing between the case management tool and assessment results, and intra-agency transactions.

DESCRIPTION OF PROJECT

Problem Statement: Prior to the WRNA, the Level of Services Case Management Inventory (LSCMI) assessment tool was used for the entire inmate/Adult in Custody population (male and female). Although the LSCMI is a great tool to assess needs and risks, it is gender neutral and does not capture the specific issues (relationships, family support, etc.) that play a very important role in the female inmate/Adult in Custody population, and in determining program needs. Including gender when assessing programming needs promotes practices, which recognize and reflect the effects of gender on a person's experiences.

Some of the challenges are listed below:

- Historically most assessments were studied and designed with a male population, and missed the opportunity to build programming aimed toward female client needs and risks.
- The same historical assessment is also used for general Institutions and County locations. As challenges and opportunities can differ for a client based on their location (inmate/Adult in Custody vs. Parole/Probation/Post-prison supervision), assessments did not fully help the Release Counselors and Parole Officers to identify the most appropriate programming needs.

When WRNA Assessments were initially introduced at ODOC, they were manually filled in and scored by the Intake and Comprehensive Institution Correctional Counselors' (in Institutions) and Parole/Probation officers (in Community). Manual processing is prone to human error and incorrect scoring, leading to incorrect programming assignments for the particular client (Adult in custody or on Post-Prison supervision)

Soon after ODOC (Oregon Department of Corrections) and Community Corrections started using the WRNA they came across the following challenges:

- Scoring: As these assessments are long (around 120 – 130 questions in each assessment) and include dynamic scoring for some questions (e.g. if previous answer yes, then next answer should be no), the possibility of human error resulting in incorrect scores increases.
- Time Spent on workarounds: When the users came up with an Excel spreadsheet workaround for scoring, time spent entering all the information into the case management tool was still around 1.5 hours – 2 hours for each assessment.
- Case Management: WRNA was not integrated with the existing case management tool, presenting yet another challenge to the users.

Solution Statement: To address these issues and enable the WRNA tool to be used efficiently to reduce the risk of human errors, the WRNA Assessments were automated and synchronized it with Case Management tools for effective programming.

The Oregon Department of Corrections (ODOC) became the first Agency worldwide to implement a fully automated WRNA Assessment tool, and integrate the assessment results within the Offender Case Management tool for Institution and Community corrections users.

The Information Technology Services (IT SERVICES) team worked with all stakeholders at the Institutions (Intake and Comprehensive Institutional Correctional Counselors) and out in Communities (Parole/Probation Officers), to provide them with a solution that works to ensure that our female (Inmate/Adult, in Custody/Adult, in Custody and on Post-prison supervision) population is screened more accurately, and provided with effective and directive programming, which also assists in lowering recidivism rates.

Ownership: The National Institution of Corrections and University of Cincinnati jointly hold the copyright to the WRNA Assessment questionnaire/assessments, whereas the ODOC's (Oregon Department of Corrections) IT Services unit owns the automation code for the same, and will be responsible for updating the code as needed in the future.

Architect: The ODOC (Oregon Department of Corrections) IT Services unit is required to present and receive approval from an Architecture Review Board (ARB) before starting development on any Software/Application development Project. This project went through the ARB Review, and the architectural design was approved by the ARB members.

Accessibility and Security: Automated WRNA Assessments are developed per the rules and guidelines provided and defined by the Office of the State Chief Information Office – Enterprise Security Office (ESO).

Development: The WRNA Assessments Project followed ODOC's IT Services Project Management methodology (PMBOK based). The project team facilitated:

- Close communication, collaboration, and interactions;
- Business experts and developers working together throughout the project;
- Frequent reviews of development to verify accurate functionality;
- Sprint Testing by business stakeholders at the end of each sprint (AGILE Methodology);
- Detailed user acceptance testing (lasted 6 days) before implementation;
- Continuous attention to technical excellence and good design.

The WRNA automation project was completed over a period of 9 months and followed an "Agile" methodology, focusing on iterations of incremental product development. This enabled the stakeholders to constantly provide feedback, see and test the application on a monthly basis, while it was still a work in process. However, the entire system had to be completed and deployed as a waterfall implementation, to ensure that all the stakeholders (statewide) Institutional and Community users, could start using this application at the same time.

Tasks and functions were identified for each Sprint/Iteration, and required the project team to work through a full software development cycle, including planning, requirements analysis, design, coding, developer testing, and user functionality testing for each module.

Automating Data Management and Analytics:

The assessment provides a higher level of data analytics and business intelligence tools to the system users. They can now see all the scores, strengths, and areas that need

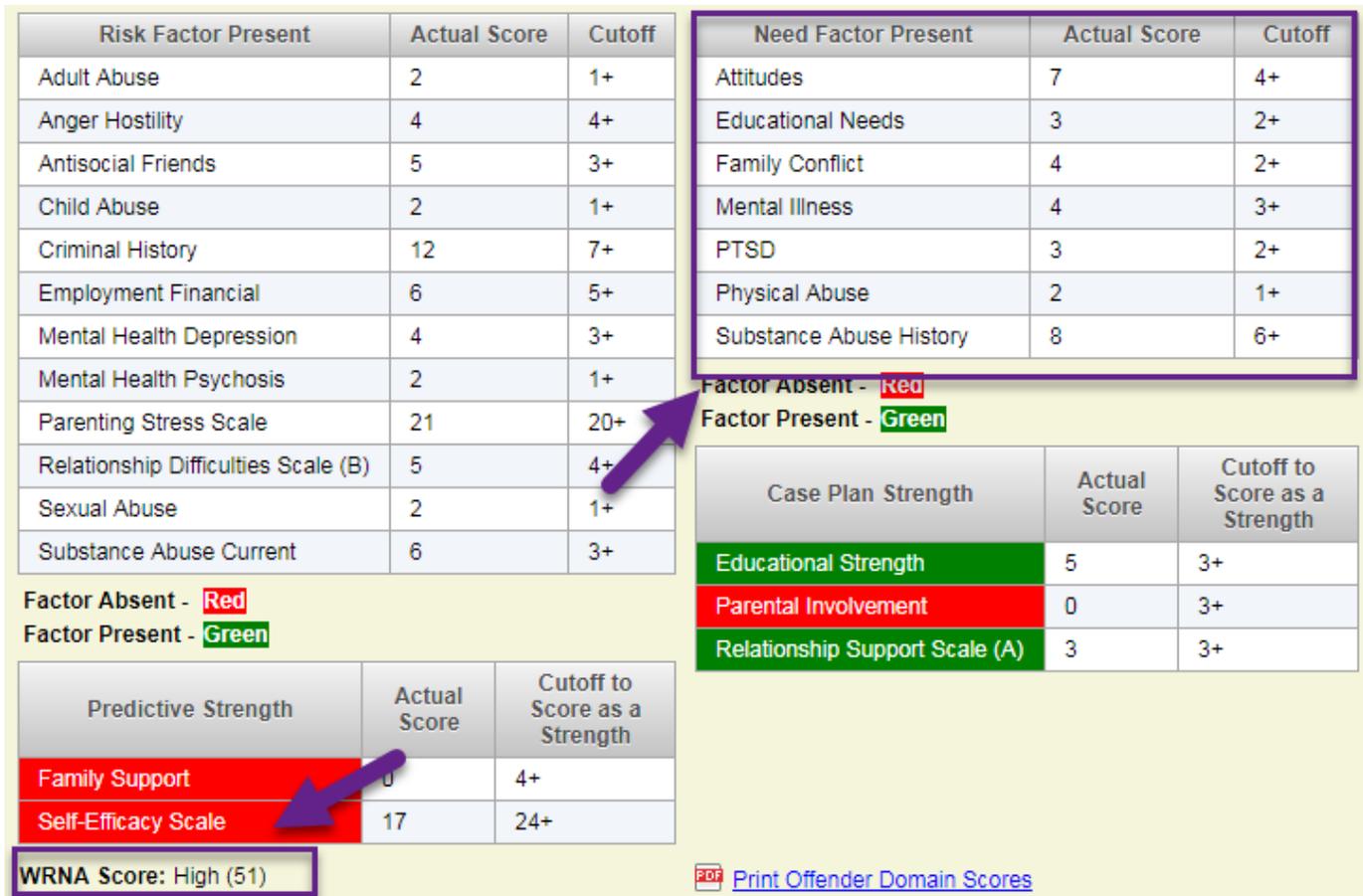
attention for the inmate/Adult in Custody/Clients within seconds (less than 5 seconds) after completing the assessment. Originally, the manual process took over 1.5 hours directly or via workarounds.

Now, all of the scores integrate with other case findings, are readily available, and are a part of the case management tools within the Offender Management System (OMS). This automated application also generates many reports for the various levels of users (Counselors, Managers, Researchers, etc.) to help with further improving the programming and resource allocation opportunities for each inmate.

User's comments on presentation of the data: *'WRNA has become a lot more functional, with the scores provided at the top of the assessment in red and green. This makes it a lot more useful in developing case plans.'*

Below is an example of a data presentation available to users:

Figure – Data Presentation to Users:



Risk Factor Present	Actual Score	Cutoff	Need Factor Present	Actual Score	Cutoff
Criminal History	8	7+	No domains meet cutoff values		
Employment Financial	5	5+	Factor Absent - Red Factor Present - Green		

Predictive Strength	Actual Score	Cutoff to Score as a Strength	Case Plan Strength	Actual Score	Cutoff to Score as a Strength
Family Support	5	4+	Educational Strength	0	3+
Self-Efficacy Scale	7	24+	Parental Involvement	3	3+
			Relationship Support Scale (A)	4	3+

WRNA Score: Moderate (12) [Print Offender Domain Scores](#)

SIGNIFICANCE

Automated WRNA Assessments became available to users as of August 31st, 2017 and are used by various Institutional and community Corrections staff on a daily basis (depending on their caseload and job requirements).

After six weeks, a survey was sent to all project team members, including all Community Corrections Parole/Probation Officers, Intake and Institution Correctional Counselors who participated in the UAT (User Acceptance testing), and SDLC (Software Development Life Cycle) via Sprint review and planning sessions, and ODOC IT Services' project team members. Each group was asked to compare the functionality and ease of completing WRNA Assessments via the new Automated System vs. the old manual entry system. All stakeholders actively participated in the development of this product via constant feedback and input through Sprint meetings and Sprint testing. As a result, a dynamic product was delivered to the stakeholders which is more functional, accessible, and useful to them in their case management planning on a daily basis.

IMPACTS AND RESULTS

The newly automated WRNA created greater efficiency for staff workload by reducing the number of steps taken through the automation of this assessment and case management tasks. It also reduced agency costs by substantially decreasing the amount of paper generated through daily tasks. All assessments are now scored and stored electronically in the OMS (Offender Management System) and WRNA scores are incorporated into Case Management system and used to identify programming needs for the female inmate/Adult in Custody, and post-prison supervision population.

Impacts include the following:

- Elimination of many workarounds, thus reducing time spent on completing each assessment has significantly helped with resource management;
- Estimates of savings from using the Automated system v/s Manually calculating WRNA scores and case planning is around: \$ 144,660 (Annually);

- Developed per the rules and guidelines provided and defined by the Office of the State Chief Information Office – Enterprise Security Office (ESO);
- Provides users with reporting for programming and research purposes through data analytics and built in business intelligence tools.

The number of WRNA Assessments completed as of April 4th, 2018:

- Institutional WRNA: 549
- Pre – Release WRNA: 1352
- Community WRNA: 2921

Table 1 – Stakeholder Survey Results: The table below contains the average scores of all survey respondents.

Topic / Subject	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Do not Apply to me
<i>Project Management</i>	86%	14%	0%	0%	0%	0%
<i>Roles and Communication</i>	86%	14%	0%	0%	0%	0%
<i>Business Analysis</i>	79%	21%	0%	0%	0%	0%
<i>Agile Development Approach</i>	81%	19%	0%	0%	0%	0%
<i>User Testing</i>	40%	54%	2%	0%	0%	4%
<i>Implementation (Deployment)</i>	39%	49%	3%	3%	3%	3%
<i>System Usability</i>	40%	45%	0%	5%	0%	10%
<i>Business Outcomes of the Project</i>	50%	25%	10%	0%	0%	15%

CONCLUSION

Automation of WRNA assessments and integration of the WRNA findings with (Offender /Inmate/Adult in Custody) Case Management Planning tools, was concluded and deployed as a great success for both Institution and Community users. This automated tool not only helps the system users with accurately scoring and assessing the WRNA assessments, but also enables pro-active planning according to the needs and risk factors, of the female population caseloads. Overall, the benefit and impact of this innovative automation is that it serves to provide members of the female population with the support and programming assistance needed to help them reenter the community, and lowers the recidivism rate.

The Automated WRNA Assessments system is user friendly, which has increased staff's accuracy and efficiency by reducing the number of steps taken, and the instances of human error through automation of various case planning and case management tasks. It has reduced agency costs by decreasing the generation of paper documents, now stored electronically in Offender Management System (OMS). This process also leads to increased transparency for public records requests, as the information is more readily available and easier to find. This development effort has also strengthened the partnership between ODOC and Community Corrections through shared resources.