State of Missouri
2018 Governor's Award for Quality and Productivity
Executive Summary

Project or Team Name: Nursing Recruitment and Retention Turnaround

Nominator: Felix T. Vincenz, Ph.D.

Nominating Department: (Nominations must include names of all agencies/departments/organizations/businesses, etc.) Department of Mental Health, Division of Behavioral Health, St. Louis Psychiatric Rehabilitation Center

Category: Efficiency/Process Improvement

Executive Summary: (Executive Summary page must be 500 words or less, 12 points, Times New Roman font, and left justified. **Attach the Executive Summary to the front of the nomination.**)

St. Louis Psychiatric Rehabilitation Center (SLPRC) has long struggled with turnover among its nursing ranks, regardless of skill mix, resulting in unacceptable losses of Psychiatric Technicians (PTs), Licensed Practical Nurses (LPNs), and Registered Nurses (RNs). In the course of 2 years, the entire population of PTs would be replaced more than twice over, with less than a fifth of the professional nurses remaining to provide the supervisory oversight and direction needed by a group of paraprofessionals that comprised 37% of the entire SLPRC workforce. This substantially contributed to difficulties in continuity of care, and both staff and client safety concerns, and was a significant determinant of overtime and recruitment costs, contributing to a history of large supplemental overtime requests. HR analyses suggest that for an 18-month baseline period, beginning in January of 2016, ending in June of 2017, the costs for **RNs alone** amounted to $563,332, and that a 20% reduction in turnover could net savings of $112,872.

The SLPRC team addressed this by:
- Adopting private sector schedules for RNs and LPNs
  - Conversion of RN/LPN shifts from 8-hours to 12-hours.
  - Provision of the option for 0.9 FTE employment
  - Development of a Preceptor program
  - Converting vacant LPN positions to RNs
- Use of Robust Process Improvement to reduce costs, errors, and inefficient processes
- Commitment to Trauma Informed Care, recognizing pervasive chronic stress and trauma exposure in behavioral health settings.
  - Adoption of the Assaulted Staff Action Program
  - Utilization of Alive and Well training provided by the St. Louis Regional Health Commission to mitigate toxic health effects of chronic stress
  - Utilization of training adopted from the Racial Equity Learning Exchange in recognition of SLPRC's role as a minority institution
- Commitment to the enhancement of Staff Satisfaction for Direct Care Staff through the -
  - Implementation of a Staff Satisfaction Action Plan
  - Use of Listening Sessions
  - Movement away from a punishment/investigation model for staff discipline, toward a system improvement model. This included a commitment to -
    - Career progression opportunities for PTs
    - Peer mentorship program for PT1s
    - Commitment to hiring in anticipation of attrition

The results of these efforts for FY18 were remarkable, with highlights including:
- For Psychiatric Technicians
  - 60.1% decrease in vacancies, to a rate 1.3% below the state-wide benchmark for the Missouri Hospital Association (MHA)
  - 16.7% decrease in turnover
- For Licensed Professional Nurses
  - 40% decrease in turnover
- For Behavioral Health Registered Nurses
  - 54.2% decrease in vacancies, to a rate 9.1% below the MHA benchmark
  - A 25% decrease in turnover, **exceeding the hospital's initial cost avoidance goal of $112,872**

These accomplishments were exceptional in transforming the hospital's organizational culture and the safety of its environment for both patients and staff. Missourians should be proud of how this team were stewards of the public trust, saving money for the State, and making personnel operations more efficient and effective, exhibiting a level of effort and commitment to the process improvements that were well beyond their normal work responsibilities.

State of Missouri – 2018 Governor's Award for Quality and Productivity

NOMINATION FORM

I. GENERAL INFORMATION

Department: Department of Mental Health

1. **Project or team name:** Recruitment & Retention Turnaround at St. Louis Psychiatric Rehabilitation Center

2. **List the name of all team members, job titles, state agency department, and/or other organizations including public, private sector or business:** *(Please list alphabetically by last name – 2 to 20 team members maximum.)*

   Anderson-Hawkins, Cheryl, RN, MSN, Preceptor
   Atkins, Aaron, Quality Assurance Specialist
   Boyd, Gwen, MSN, Director of Staff Education
   Brown, Cathy, HR Analyst
   Dancy, Dakota, SOSA
   Ellis, Lisa, Ph.D., Clinical Director
   Finch, Yvonne, Psychiatric Technician II
   Hanson, Jim, RN, Chair Nurse Leadership Council, Preceptor
   King, Brittany, Mental Health Instructor
   McFarlane, Michael, HR Manager
   Mitchell, Jim, LCSW, ASAP Coordinator, Director of Social Work
   Morrison, Terra, MSN, Chief Nurse Executive
   Norris, Kris, Quality Assurance Director
   Randazzo, Jan, HR Investigator
   Schneider, Blake, LCSW, Program Director
   Scroggins, Nichole, HR SOSA
   Shepherd, Maggie, SpEd Teacher, Program Director
   Steinhoff, Mary, MSN, Clinical Nurse Specialist
   Wilson, Demetrius, Psychiatric Technician II
   Wright, Delmar, Psychiatric Technician II

3. **Nomination Category:** *(Check only one.)*

   ☐ INNOVATION　　　　　　　　　　☐ CUSTOMER SERVICE

   ☒ EFFICIENCY / PROCESS IMPROVEMENT

4. **Explain why you selected this category:** Improvement in cost savings due to reduction in turnover and vacancies, and associated improvement in system processes, employee morale, and client and staff safety

II. BACKGROUND

1. **When did the team begin its work?** CY2017

2. **What date did the team initiate the implementation phase of the project?** June, 2017

3. **Is the project:**

   ☐ Time Limited　　　　　☐ Completed　　　　　☒ Ongoing

1. Why was the project necessary? St. Louis Psychiatric Rehabilitation Center (SLPRC) has long struggled with turnover among its nursing ranks, regardless of skill mix, resulting in unacceptable losses of Psychiatric Technicians (PTs), Licensed Practical Nurses (LPNs), and Registered Nurses (RNs). In the course of 2 years, the entire population of PTs would be replaced more than twice over, with less than a fifth of the professional nurses remaining to provide the supervisory oversight and direction needed by a group of paraprofessionals that comprised 37% of the entire SLPRC workforce. This substantially contributed to difficulties in continuity of care, and both staff and client safety concerns, and was a significant determinant of overtime and recruitment costs, contributing to a history of large supplemental overtime requests. We projected that the costs for SLPRC in CY2017 for RNs alone amounted to $563,332.

2. What were the primary goals of the project? Reduce the average number of PT, LPN and RN vacancies, and reduce the annual turnover percentages of those same classifications. For RNs alone, the goal was a 20% reduction in turnover with a cost avoidance of $112,872. *(150 words or less.)*

3. Describe the project:
1. Adoption of Private Sector schedules for RNs and LPNs that are standard of practice in the healthcare industry
- Conversion of RN/LPN shifts from 8-hours to 12-hours.
- Provision of the option for 0.9 FTE employment
- Development of a Preceptor program
- Converting vacant LPN positions to RNs
2. Use of Robust Process Improvement to reduce costs, errors, and inefficient processes
3. Commitment to Trauma Informed Care, recognizing pervasive chronic stress and trauma exposure in behavioral health settings.
- Adoption of the Assaulted Staff Action Program
- Utilization of Alive and Well training provided by the St. Louis Regional Health Commission to mitigate toxic health effects of chronic stress
- Utilization of training adopted from the Racial Equity Learning Exchange in recognition of SLPRC's role as a minority institution
4. Commitment to the enhancement of Staff Satisfaction for Direct Care Staff through the -
- Implementation of a Staff Satisfaction Action Plan
- Use of Listening Sessions
- Movement away from a punishment/investigation model for staff discipline, toward a system improvement model. This included a commitment to -
    + Career progression opportunities for PTs
    + Peer mentorship program for PT1s
    + Commitment to hiring in anticipation of attrition *(200 words or less.)*

4. What technology, if any, was used in the development, implementation, maintenance or measurement of the project? (a) Use of Robust Process Improvement, a performance improvement methodology long utilized in various private sector industries to reduce costs, errors, and inefficient processes (AKA Six Sigma, LEAN, and Change Management); (b) Ongoing statistical analysis of recruitment and retention rates, and comparisons against benchmark data provided by the Missouri Hospital Association. *(150 words or less.)*

5. Explain how the accomplishment of the team exceeds its regular duties and responsibilities. This effort involved staff at all levels of the organization in a concerted effort to improve recruitment and retention. The leadership members of this team are responsible for the budget, for the day-to-day management of Human Relations, and for strategic planning; nevertheless, the range,

complexity, and strategic initiatives developed and implemented far exceeded the routine responsibilities of any group, leadership included. *(150 words or less.)*

6. **Which of the following describes the intended benefits of the project?** (Check all that apply and provide an explanation.)

☒ Cost Reduction ☐ Time Savings ☒ Increased Effectiveness

☒ Improved Process ☐ Other: Describe

IV. RESULTS / MEASUREMENT

1. Explain how the success of the project was measured and what outcomes were achieved.
The results of these efforts in FY18 have been nothing short of dramatic, as evidenced in Table 2, both when comparing FY18 against the baseline data, and when comparing FY18 against the state-wide benchmark from the Missouri Hospital Association (MHA), a consortium of all Missouri hospitals, both private and public sector. Key findings include the following:

•PTs in FY18
 - Dramatically lower vacancy rates from the baseline data (decreased from 15.8% to 6.3%, a drop of 9.5%, which represents a 60.1% decrease in the average number of positions that were vacant)
 - Significantly lower turnover rates from the baseline data (decreased from 55.5% to 46.2%, a drop of 9.3%, which represents a 16.7% decrease in the total number of separations from employment)
 - These reductions place the vacancy rate 1.3% below the MHA benchmark, although turnover numbers remain some 13% higher.

•Behavioral Health RNs in FY18
 - Dramatically lower vacancy rates from the baseline data (decreased from 11.1% to 5%, a drop of 6.1%, which represents a 54.2% decrease in the average number of positions that were vacant).
 - Dramatically lower turnover rates from the baseline data (decreased from 40.7% to 30.3%, a drop of 10.5%, which represents a 25% decrease in the total number of separations from employment. This indicates that the hospital was successful in its cost avoidance goal (estimated at more than $112,000) by reducing the total turnover numbers by more than 20%.
 - These reductions place the vacancy rate 9% below the MHA benchmark, although turnover numbers remain some 5.9% higher.

•LPNs in FY18
 - Higher vacancy rates from the baseline data (increased from 7.6% to 12.1%, a jump of 4.5%, which represents a 56.8% increase in the average number of positions that were vacant). This was the basis for the decision to convert vacant LPN positions to RN positions.
 - Dramatically lower turnover rates from the baseline data (decreased from 41.7% to 25.3%, a drop of 16.4%, which represents a 40% decrease in the total number of separations from employment).
 - These numbers place the vacancy rate some 2.3% above the MHA benchmark, with turnover numbers remaining 7.2% higher.

These largely positive findings are all the more compelling, given that: (a) salary rates for PTs in the St. Louis metropolitan region lag far behind those of their counterparts in the private sector (due to the expectation that their Unlicensed Assistive Personnel are Certified Nursing Assistants); and (b) the recruitment disadvantages DBH facilities are facing in today's better economic climate compared to their private sector counterparts, particularly when not able to offer the salary levels and recruitment incentives that are routinely available to RNs in private hospitals, or the salary levels made available to LPNs in nursing home settings. This is exacerbated by

overtime demands made of such classifications due to increased patient acuity, and loss of FTE associated with past budget reductions. (Explanation should not exceed 300-500 words.)

2. Are the benefits derived from this project: (Check only one.)

☒ Recurring   ☐ One-time

3. If recurring, how will the benefits be sustained? Continued commitment to these same initiatives, coupled with ongoing measurement (Explain in 150 words or less.)

V. RECOGNITION / AWARDS

1. Has this **project** previously been nominated for the Governor's Award for Quality and Productivity? If yes, when? No

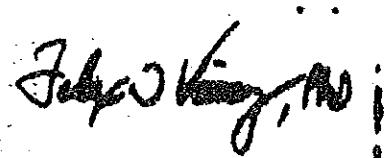2. If yes, for which category was it nominated? N/A

3. Has this project received any other awards or recognition? If yes, describe. No

VI. NOMINATOR'S INFORMATION

Nominating Department: Department of Mental Health

Name: Felix T. Vincenz, Ph.D.   Signature:
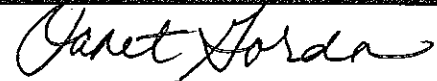
Telephone Number: 314-877-5988   E-Mail Address: felix.vincenz@dmh.mo.gov

VII. DEPARTMENT COORDINATOR'S INFORMATION

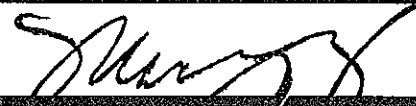Name: Janet Gordon,   Signature:

Telephone Number: 573-751-8067   E-Mail Address: janet.gordon@dmh.mo.gov

VIII. DEPARTMENT DIRECTOR APPROVAL

Department Director's Name: Mark Stringer   Signature:

Nomination must be signed ONLY by the Department Director to be eligible for consideration. Nominations not signed by the Department Director will be returned to the agency coordinator.

2018 Governor's Award for Quality and Productivity
Category: Efficiency/Process Improvement
St. Louis Psychiatric Rehabilitation Center – "Recruitment and Retention Turnaround"
Division of Behavioral Health, Missouri Department of Mental Health

St. Louis Psychiatric Rehabilitation Center (SLPRC) is one of several Division of Behavioral Health (DBH) facilities that has long struggled with turnover among its nursing ranks, regardless of skill mix, resulting in unacceptable losses of Psychiatric Technicians (PTs), Licensed Practical Nurses (LPNs), and Registered Nurses (RNs). For an 18-month baseline period, beginning in January of 2016, ending in June of 2017, the numbers were as follows:

Table 1	PTs	LPNs	RNs
Annualized Vacancy Rate	15.8%	7.6%	11.1%
Annualized Turnover Rate	55.5%	41.7%	40.7%

The turnover numbers were especially distressing: in the course of 2 years, the entire population of PTs would be replaced more than twice over, with less than a fifth of the professional nurses remaining to provide the supervisory oversight and direction needed by a group of paraprofessionals that comprised 37% of the entire SLPRC workforce. This substantially contributed to difficulties in continuity of care, and both staff and client safety concerns, and was a significant determinant of overtime and recruitment costs, contributing to a history of large supplemental overtime requests.

This is consistent with findings in the human resources literature, which has reported that the average costs associated with replacing an RN is $36,567, while that of other healthcare positions, exclusive of physicians, is 20% of their annual salary (Robert Woods Johnson, 2008, https://www.rwjf.org/content/dam/files/legacy-files/article-files/2/reviewinevalrnturnover.pdf). Use of a professionally developed Turnover Calculator (C-Suite Analytics http://c-suiteanalytics.com) projected that the costs for SLPRC during this baseline period **for RNs alone** amounted to $563,332, and that as little as a 20% reduction in turnover could net savings of $112,872.

Over the past several years, SLPRC has engaged in a concerted and multifactorial approach to address this problem, focusing in particular on reducing the total number of RN separations by a minimum of 20%. Efforts have included the following:

- Adoption of Private Sector schedules for RNs and LPNs that have increasingly become the standard of practice in the healthcare industry, and when not available within the state system, constitute an impediment to both the recruitment and retention of professional nurses.
  - *Conversion of RN/LPN schedules from 8-hour to 12-hour shifts*, providing professional nurses the options for full time employment with extended weekends, while limiting any mandatory overtime obligations to 4 hours on any given day.
  - *Provision of the option for 0.9 FTE employment*, enabling professional nurses who were interested the opportunity to work only 3 days a week.
  - *Development of a Preceptor program*, providing new nurses the opportunity to benefit from mentoring provided by more senior professionals, enabling new nurses to develop the competence and experience necessary to be successful at SLPRC, while providing for a more graduated and incremental acculturation into the state environment.
  - *Converting Long-Standing LPN Vacancies to RNs*, recognizing the inability to compete with the salaries offered in the private sector for LPNs, while realizing additional gains associated with the greater availability of charge RNs.

The first two interventions were particularly crucial in facilitating greater work/life balance for the nurses, and enabled them to pursue secondary employment/professional education consistent with their personal and professional interests.

- Use of Robust Process Improvement, a performance improvement methodology long utilized in various private sector industries to reduce costs, errors, and inefficient processes (AKA Six Sigma, LEAN, and Change Management). One such effort among others included a Yellow Belt team specifically formed to reduce the cycle time associated with RN hiring, after having identified that delays in the on-boarding process resulted in many hires being lost to other hospitals prior to the actual start of employment.

- Commitment to Trauma Informed Care, in recognition of the chronic stress and trauma exposure fundamental to working in a behavioral health setting.
  - *Adoption of the Assaulted Staff Action Program*, an Evidence Based Practice developed and published by Raymond Flannery, Ph.D., to address the trauma so often experienced by behavioral health staff victimized by the population that they are treating. This capitalized on the experience of an initial implementation of ASAP at a sister DBH facility, Fulton State Hospital.
  - *Utilization of the Alive and Well training provided by the St. Louis Regional Health Commission* to address and mitigate the toxic health effects of chronic stress typical in both urban environments and behavioral health settings. Staff at all levels of the organization were provided the opportunity to receive this training and to become trainers themselves.
  - *Utilization of training adopted from the Racial Equity Learning Exchange (RELE)*, in recognition of SLPRC's historical role as a minority institution, with primarily African American employees serving primarily African American patients, but embedded within a mélange of an ethnically and culturally diverse population.

- Commitment to the enhancement of Staff Satisfaction for Direct Care Staff, particularly PTs through the -
  - *Development and implementation of a Staff Satisfaction Survey* and accompanying action plan
  - *Use of Listening Sessions for direct care staff* with participation from facility executive and program leadership
  - *Movement away from a punishment/investigation model for staff discipline, toward a system improvement model (AKA Coach & Console Algorithm)*, based on identification of opportunities for both process, employee, and supervisory improvement, with an emphasis on coaching toward success. This included a commitment to -
    - Career progression opportunities for PTs – including the conversion of 9 PT1 positions to PT2s, and 2 Training Technician positions to Mental Health Instructors, and using SOSA and QAS positions as
    - Use of 27 PT2 as Mentorship positions for new PT1s, to develop the competence and experience necessary to be successful at SLPRC, while providing for a more graduated and incremental acculturation into the state environment
  - *Commitment to hiring in anticipation of attrition*, to limit the compounding effects of extended on-boarding times and prolonged vacancies, contributing to staff dissatisfaction, increased overtime demands, and decreased staff and patient safety.

	Average # Employees Per Month	Average Vacancies Per Month	Employee Vacancy Rate	Total Employee Separations	Employee Turnover Rate
MHA - 2017					
Rehavioral Health RN	557	78	14.0%	136	24.4%
LPN (non IV certifed)	388	38	9.8%	70	18.0%
Unlicensed Assistive Personnel	7,014	533	7.6%	2,329	33.2%
SLPRC Baseline Period (Jan, 2016 - June 2017) Annualized for Turnover					
Rehavioral Health RN	36	4.00	11.1%	14.67	40.7%
LPN (non IV certifed)	16	1.22	7.6%	6.67	41.7%
Unlicensed Assistive Personnel	173	27.39	15.8%	96	55.5%
SLPRC - FY18					
Rehavioral Health RN	36.33	1.83	5.0%	11	30.3%
LPN (non IV certifed)	15.83	1.92	12.1%	4	25.3%
Unlicensed Assistive Personnel	173.17	10.92	6.3%	60	46.2%

COMPARISONS				
SLPRC FY18 vs. Baseline	AvgChange Vacancies	% Drop	AvgChange Separations	% Drop
Rehavioral Health RN		54.2%	6.1%	25.0%	10.5%
LPN (non IV certifed)		-56.8%	-4.5%	40.0%	16.4%
Unlicensed Assistive Personnel		60.1%	9.5%	16.7%	9.3%
SLPRC FY18 vs. MHA 2017				
Rehavioral Health RN			9.0%		-5.9%
LPN (non IV certifed)			-2.3%		7.2%
Unlicensed Assistive Personnel			1.3%		-13.0%

Table 2: SLPRC 2017 vs. 2018, and comparison to MHA Benchmark

Conclusions

The results of these efforts in FY18 have been nothing short of dramatic, as evidenced in Table 2, both when comparing FY18 against the baseline data, and when comparing FY18 against the state-wide benchmark from the Missouri Hospital Association (MHA), a consortium of all Missouri hospitals, both private and public sector. Key findings include the following:

- PTs in FY18
  - Dramatically lower vacancy rates from the baseline data (decreased from 15.8% to 6.3%, a drop of 9.5%, which represents a **60.1% decrease in the average number of positions that were vacant**)
  - Significantly lower turnover rates from the baseline data (decreased from 55.5% to 46.2%, a drop of 9.3%, which represents a **16.7% decrease in the total number of separations from employment**)
  - These reductions place the **vacancy rate 1.3% below the MHA benchmark**, although turnover numbers remain some 13% higher.

- Behavioral Health RNs in FY18
  - Dramatically lower vacancy rates from the baseline data (decreased from 11.1% to 5%, a drop of 6.1%, which represents a **54.2% decrease in the average number of positions that were vacant**).
  - Dramatically lower turnover rates from the baseline data (decreased from 40.7% to 30.3%, a drop of 10.5%, which represents a **25% decrease in the total number of separations from employment.** This indicates that the hospital was successful in its cost avoidance goal (estimated at more than $112,000) by reducing the total turnover numbers by more than 20%.
  - These reductions place the **vacancy rate 9% below the MHA benchmark**, although turnover numbers remain some 5.9% higher.

- LPNs in FY18
  - Higher vacancy rates from the baseline data (increased from 7.6% to 12.1%, a jump of 4.5%, which represents a 56.8% increase in the average number of positions that were vacant). This was the basis for the decision to convert vacant LPN positions to RN positions.
  - Dramatically lower turnover rates from the baseline data (decreased from 41.7% to 25.3%, a drop of 16.4%, which represents a **40% decrease in the total number of separations from employment**).
  - These numbers place the vacancy rate some 2.3% above the MHA benchmark, with turnover numbers remaining 7.2% higher.

These largely positive findings are all the more compelling, given that: (a) salary rates for PTs in the St. Louis metropolitan region lag far behind those of their counterparts in the private sector (due to the expectation that their Unlicensed Assistive Personnel are Certified Nursing Assistants); and (b) the recruitment disadvantages DBH facilities are facing in today's better economic climate compared to their private sector counterparts, particularly when not able to offer the salary levels and recruitment incentives that are routinely available to RNs in private hospitals, or the salary levels made available to LPNs in nursing home settings. This is exacerbated by overtime demands made of such classifications due to increased patient acuity, and loss of FTE associated with past budget reductions.

Members of the Team

Anderson-Hawkins, Cheryl, RN, MSN, Preceptor
Atkins, Aaron, Quality Assurance Specialist
Boyd, Gwen, MSN, Director of Staff Education

Brown, Cathy, HR Analyst
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Ellis, Lisa, Ph.D., Clinical Director
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Hanson, Jim, RN, Chair Nurse Leadership Council, Preceptor
King, Brittany, Mental Health Instructor
McFarlane, Michael, HR Manager
Mitchell, Jim, LCSW, ASAP Coordinator, Director of Social Work
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Randazzo, Jan, HR Investigator
Schneider, Blake, LCSW, Program Director
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