Performance Improvement Project
Implementation & Submission Tool

PLANNING TEMPLATE

INTRODUCTION & INSTRUCTION

This tool provides a structure for development and submission of Performance Improvement Projects (PIPs). It is based on EQR Protocol 3: Validating Performance Improvement Projects (PIPs), as a mandatory protocol delivered by the Centers for Medicare & Medicaid Services (CMS) in September of 2012.

The use of this format for PIP submission will assure that the MHP addresses all of the required elements of a PIP. If the MHP uses another format, they must ensure that all of the required elements of the PIP are addressed and included in their submission.

- The PIP should target improvement in either a clinical or non-clinical service delivered by the MHP.
- The PIP process is not used to evaluate the effectiveness of a specific program operated by the MHP. If a specific program is experiencing identified problems, changes and interventions can be studied using the PIP process. This can be done to create improvements in the program and should be included in the narrative.
- The narrative should explain how addressing the study issue will also address a broad spectrum of consumer care and services over time. If the PIP addresses a high-impact or high risk condition, it may involve a smaller portion of the MHP consumer population, so the importance of addressing this type of issue must be detailed in the study narrative.
- Each year a PIP is evaluated is separate and specific. Although topic selection and explanation may cover more the one PIP year, every section should be reviewed and updated, as needed, to ensure continued relevance and to address on-going and new interventions or changes to the study.
- If sampling methods are used the documentation presented must include the appropriateness and validity of the sampling method, the type of sampling method used and why, and what statistical subset of the consumer population was used.
- General information about the use of sampling methods and the types of sampling methods to use to obtain valid and reliable information can be found in Appendix II of the EQR Protocols.[1]

[1] EQR Protocol: Appendix II: Sampling Approaches, Sept. 2012, DHHS, Centers for Medicare & Medicaid Services (CMS), OMB Approval No. 0938-0786

IDENTIFICATION OF PLAN/PROJECT

Plan Name:

Project Title: Vacancy Adjustment and Notification System Clinical: ____ Non-Clinical: __X___

Project Leader: **Edward Vidaurri** Title**: MH Clinical District Chief** Role:

Initiation Date: **July 2013**

Completion: **June 2016**

Section 1: Select & Describe The Study Topic

1. The PIP Study Topic selection narrative should include a description of stakeholders involved in developing and implementing the PIP. MHPs are encouraged to seek input from consumers and all stakeholders who are users of, or are concerned with specific areas of service.

   The PIP team consists of

   - Ann Lee, Clinical Psychologist II, SA 8 Administration, LACDMH
   - Chris Chapman, Information Technology Specialist, Los Angeles County Internal Services Department
   - Edward Vidaurri, Mental Health Clinical District Chief, SA 4 and Project Lead, LACDMH
   - Ella Granston, Health Program Analyst II, Quality Improvement Division, LACDMH
   - Gwendolyn Davis, Mental Health Clinical Supervisor, SA 5 Administration, LACDMH
   - Helena Ditko, Director, Office of Consumer and Family Affairs, LACDMH
   - Jacquelyn Wilcoxen, Mental Health Clinical District Chief, SA 5, LACDMH
   - Linnea Koopman, Psychiatric Social Worker, LACDMH
   - Lisa Wicker, Mental Health Clinical District Chief, LACDMH
   - Michael Tredinnick, Supervising Psychologist-ACCESS Center, LACDMH
   - Monika Johnson, Clinical Psychologist II, SA 5 Administration, LACDMH
   - Naga Kasarabada, Mental Health Clinical Program Manager III, Quality Improvement Division, LACDMH

- Robert Rivera, Information Technology Manager I, Los Angeles County Internal Services Department
- Shawn Collins, Mental Health Services Coordinator, LACDMH
- Sylvia M. Guerrero, Health Program Analyst II, SA 4 Administration, LACDMH
- Sylvia Liu, Principal Information Systems Analyst, Chief Information Office Bureau, LACDM
- Tonia Jones, Senior Mental Health Counselor - RN, Quality Improvement Division, LACDMH
- Vandana Joshi, Mental Health Clinical Program Head, Quality Improvement Division, LACDMH
- Yolanda Whittington, Mental Health Clinical District Chief, SA 6, LACDMH
- Youngsook Kim-Sasaki, Mental Health Clinical Program Manager III, LACDMH
- SA 4, 5, 6 and 8 Providers

The Vacancy Adjustment and Notification System (VANS) is an online tool that allows providers to share real-time information on available program slots at their agencies to make appropriate and timely referrals to consumers. The stakeholders involved in developing this PIP is a multifunctional team consisting of SA 4 Administration who is also the Project Lead, Quality Improvement Division (QID), Chief Information Office-Bureau (CIOB), Internal Services Department (ISD), Office of Consumer and Family Affairs and SA 5 Administration.

The concept of the VANS project began with Service Area (SA) 4 administration seeking a solution for providers to fill vacant program slots and make appropriate referrals to other agencies when program slots are unavailable at their own agency. SA 4 administration and providers noted that they did not have real-time information on available slots at other provider agencies in order to refer a client. To do so they have to either email or make a phone call to get this information. This is time consuming and delays providing timely services to clients. SA 4 District Chief collaborated with QID to explore existing resources to implement a solution to improve timely and appropriate referrals to clients between agencies.

An online survey using VOVICI was developed and administered to the SA 4 providers to establish baseline benchmarks related to the need for this information. Survey data showed that only 55% of providers: 1) provide referrals based on immediate knowledge of available slots or openings and 2) provide referrals based upon knowledge of availability of slots related to the consumer's preferred language request. About 63% of survey respondents reported they provide referrals based upon knowledge of availability of slots related to consumer's preferred location of services. In addition 58% reported that they make three or more calls for each referral.

Various options were explored such as posting a list on the website, emailing a list to provider agencies etc. However an efficient solution was needed that would allow all providers to see the same information for each agency simultaneously. As a result a dedicated web interactive tool was considered appropriate for this problem so that providers could update vacancies at their agency as well as view vacancies at other provider agencies.

After discussions between QID, SA 4 Administration, and technical staff from DMH-CIOB, a web development specialist staff from ISD was contracted to build this tool. Several technical issues needed to be resolved to build this application. Some of these included the need for providers updating this list to be able to access DMH servers via a common User ID and password using the Active Directory (AD). The CIOB staff assisted the QID and ISD team in developing a solution for providers to obtain access to this web based tool. This tool as the Vacancy Adjustment Notification System (VANS) allows providers to update their program slot information by service type, language and funding source as well as view the same information for other provider agencies known.

SA 4 contract providers began using VANS in 2013. Each contract provider agency in SA 4 who expressed an interest in using this tool was trained on the use of VANS and User IDs were given for provider analysts to access this application on the internet. Initially out of the 75 contract provider sites in SA 4 only about 5 providers began using VANS. Subsequently this number increased from 11 providers in August 2014, to 92 providers in June 2015 and 120 providers in December 2015.

After about one year and a half of implementation of VANS in SA 4, another SA in DMH, SA 5 expressed an interest in implementing a tool to track availability of slots by funding source and type of services for providers, to address issues related to timely access for consumers in SA 5. On March 23, 2015, the QID team met with the SA 5 District Chief and her administrative team to discuss the implementation of VANS. The SA 5 administrative staff worked with QID staff to prepare SA 5 provider lists for the creation of VANS User IDs. In addition, QID presented the VANS application at the SA 5 Executive Provider Meeting on April 3, 2015 and began collecting baseline data using the survey to assess the need for immediate knowledge of availability of program slots at provider agencies. Baseline data indicated that in the prior 2 weeks, between 2-8 referrals were provided to consumers; 75% of referrals were made without definite or immediate knowledge of slot availability; 45% of respondents either knew “sometimes”, or “rarely”, or “never” about the immediate slot availability based on preferred language; 35% of respondents either knew “sometimes”, “rarely”, or “never” about the immediate slot availability based on specific mental health services; 65% made between 1-4 calls to another provider for each referral made; ~21% reported receiving client referrals “always” and “often” when they did not have available slots; 21% reported they “sometimes” received and 10.5% “often” received complaints regarding lack of slot available at the agency they were referred to. **VANS was implemented in SA 5 on October 7, 2015.**

The planning for VANS implementation in SA 6 began in November 2015. QID held a meeting with the SA 6 District Chief on January 5, 2016 to discuss roll out plans. Additionally, QID provided a VANS presentation to SA 6 providers on January 14, 2016. To date, user IDs have been issued and information on services provided and contact personnel is currently being entered. **A provider training webinar was held on March 22, 2016**. It was attended by SA 6 administration, QID staff, and seventeen SA 6 providers. QID also presented the VANS application to the SA 8 leadership team on January 26, 2016. SA 8 providers are scheduled to receive their user IDs and attend a training webinar in **April 2016**.

Rollout is pending in the remaining Service Areas, with SA 2 and SA 7 slated for the next round. SA 1 and SA 3 will be the last remaining SAs to be rolled out. Once roll out to all 8 service areas has been completed, the VANS application will be expanded to the ACCESS Center. Ultimately, VANS will be available to all directly operated and legal entities countywide.

The sharing of information countywide on the availability of program slots between all provider agencies and the ACCESS Center will help LACDMH meet its timeliness goal of providing timely and appropriate referrals to Consumers within 21 calendar days.

Section 2: Define & Include The Study Question

The study question must be stated in a clear, concise and answerable format. It should identify the focus of the PIP. The study question establishes a framework for the goals, measurement, and evaluation of the study.

Will the continued implementation of VANS increase the number of referrals to consumers by providers using VANS in SAs 4, 5, 6 and 8 and thereby improve access to care?

Will updates of slot information by funding source such as for Medi-Cal versus Indigent by providers using VANS increase referrals to consumers and thereby increase their access to care?

Will the updates of slot information by language capacity by providers using VANS increase referrals and thereby improve access to care for Non-English speaking consumers in SAs 4, 5, 6 and 8?

Section 3: Identify Study Population

Clearly identify the consumer population included in the study. An explanation about how the study will address the entire consumer population, or a specific sample of that population. If the study pertains to an identified sector of the MHP consumer population, how inclusion of all members will occur is required. The documentation must include data on the MHPs enrolled consumers, as well as the number of consumers relevant to the study topic.

This section may include:

- Demographic information;
- Utilization and outcome data or information available; and
- Other study sources (such as pharmacy data) that may be utilized to identify all consumers who are to be included in the study

SA 4 has 6 Directly Operated clinics and Wellness Centers, and 75 contract provider sites, serving approximately 44,000 consumers annually. Nearly 25% are African Americans, 6% Asians, 51% Latinos, 0.7% Native Americans and 17% White. A majority of the consumers (72%) are English speaking, 21% Spanish speaking and the remaining 7% speak other languages. The PIP will evaluate referrals for appropriate services to consumers by contract providers in SA 4.

SA 5 has 1 Directly Operated Outpatient clinic and a Wellness Center for both adults and children, 2 Outpatient clinics for Specialized Foster Care and approximately 30 contract provider sites, serving approximately 9,500 consumers annually. Nearly 27% are African Americans, 3% Asians, 32% Latinos, 0.5% Native Americans and 38% White. Majority of these consumers (88%) speak English, 11% speak Spanish, 0.4% speak Farsi and the remaining 1.0% speak other languages. The PIP will evaluate referrals for appropriate services to consumers by contract providers in SA 5.

SA 6 has 13 Directly Operated Outpatient clinics, 1 FFS, and 45 contract provider sites serving approximately 33,498 consumers in FY 2013-2014. Nearly 49.5% are African Americans, 46% Latinos, .9% Asians, 0.16% Native Americans and 3.3% White. Majority of these consumers (76%) speak English, 24% speak Spanish and remaining .02% speak Korean. The PIP will evaluate referrals for appropriate services to consumers by contract providers in SA 6.

SA 8 has 16 Directly Operated Outpatient clinics and approximately 55 contract provider sites serving approximately 35,956 consumers in FY 2013-2014. Nearly 43% Latinos, 31% are African Americans, 20% White, 6.4% Asians, and 0.38% Native Americans. Majority of these consumers (77%) speak English, 18% speak Spanish, 2.4% speak Cambodian, 0.8% speak Vietnamese and the remaining 2.0% speak other languages. The PIP will evaluate referrals for appropriate services to consumers by contract providers in SA 8.

- Utilization and outcome data or information available; and

Quarterly performance indicators for SA 4 and SA 5 (Q3-Q4 2015) showed that the number of providers updating available slots in VANS on a monthly basis increased from 14 to 20; the number of legal entities selected for VANS implementation

increased from 49 to 67; the number of all providers (directly operated and legal entity) selected for VANS implementation increased from 92 to 120.

- Other study sources (such as pharmacy data) that may be utilized to identify all consumers who are to be included in the study.

  In CY 2014, the Los Angeles County Department of Mental Health (LACDMH) implemented the Service Request Tracking System (SRTS), an electronic tracking system which is designed to track timeliness of appointments for initial service requests. LACDMH also implemented the Service Request Log (SRL) to track the same for programs that implemented the Integrated Behavioral Health Information Systems (IBHIS). All referrals and requests for initial services from consumers via phone or in person are tracked on the SRTS and SRL. The outcomes of referrals made via VANS to another provider can be tracked via the SRTS/SRL to check if these referrals resulted in scheduled appointments with the provider receiving the referral. A VANS-SRTS link has been established on the test site and the workgroup planned for a tentative Go Live date of January 2016. This vital connection of VANS with SRTS will allow providers to send and receive client referrals in a seamless fashion as they will be utilizing a single sign-on process. Furthermore, this VANS-SRTS connection will enable tracking of scheduled appointments for all initial service requests from consumers for whom referrals were made using vacancy slot information. The deployment of the VANS-SRTS link is tentatively scheduled for late April 2016 due to a number of factors making the current sprint larger and more complex than can be handled in one sprint session and, as a result, it will be split into an additional sprint.

SECTION 4: SELECT & EXPLAIN THE STUDY INDICATORS

A study indicator is a measurable characteristic, quality, trait, or attribute of a particular individual, object, or situation to be studied."[2] Each PIP must include one or more measurable indicators to track performance and improvement over a specific period of time. Indicators should be:

- Objective;
- Clearly defined;
- Based on current clinical knowledge or health service research; and
- A valid indicator of consumer outcomes.

[2] EQR Protocol 3, Validation of Performance Improvement Project, Sept. 2012, DHHS, Centers for Medicare & Medicaid Services (CMS), OMB Approval No. 0938-0786

The PIP study includes both process and outcome measures.
Process measures:

1) Number of providers issued VANS User IDs
2) Number of providers using VANS
3) Number of providers updating available slots by service and program type
4) Number of providers updating available slots for language capacity
5) Number of providers updating available slots by funding source (Medi-Cal versus Non Medi-Cal).

Outcome Measures:

1) Number of referrals made using VANS
2) Number of referrals from VANS with an appointment in the Service Request Tracking System (SRTS)/Service Request Log (SRL)

The indicators will be evaluated based on:

- Why they were selected;
- How they measure performance;
- How they measure change a mental health status, functional status, beneficiary satisfaction; and/or
- Have outcomes improved that are strongly associated with a process of care;

The measures can be based on current clinical practice guidelines or health services research. The MHP must document the basis for adopting the specific indicator.

In reporting on the chosen indicators include:

- A description of the indicator;
- The numerator and denominator;
- The baseline for each performance indicator; and
- The performance goal.

Specify the performance indicators in a Table. For example:

#	Describe Performance Indicator	Numerator	Denominator	Baseline for Performance Indicator (number)	Goal (number)

Please refer to *Attachment 3E.10*

Section 5: Develop & Describe Study Interventions

The MHP must develop reasonable interventions that address causes/barriers identified through data analysis and QI processes. Summarize interventions in a table that:

- Describes each intervention;
- Identifies the specific barriers/causes each intervention is designed to address;
- Identifies the corresponding indicator that measures the performance of the intervention; and
- Maintains the integrity/measurability of each intervention.

For example:

Number of Intervention	List each Specific Intervention	Barriers/Causes Intervention Designed to Target	Corresponding Indicator	Date Applied
1	Launch application SA 5	Lack of accurate information regarding slot availability	Increase access to care	October 2015
2	Training webinar for SA 6 providers	Lack of accurate information regarding slot availability	Increase access to care	March 22, 2016
3	Launch application SA 8	Lack of accurate information regarding slot availability	Increase access to care	April 2016

In April 2014 during the annual EQRO review, EQRO reviewers recommended that a referral tracking button be added to the website to keep track of the number of clients being referred as a result of information available in VANS. This recommendation was implemented in August of 2014 by the PIP team in collaboration with ISD.

On June 8, 2015, a demonstration of the VANS application was presented at the Departmental QIC meeting. In attendance were QID staff, directly operated and contract providers from all eight SAs. This presentation prepared the SA QI liaisons to implement VANS in their respective SAs by developing familiarity with the VANS application and the steps involved in implementing this.

On June 10, 2015, the QID team met with SA 4 and 5 Program Managers to discuss the status of the VANS rollout in their respective SAs. Plans going forward included: convening monthly meetings, QID leadership presented the VANS application at August 12, 2015 District Chief meeting to facilitate system wide roll-out, **and exploring the possibility of linking VANS to the SRTS system. SRTS users would be able to look at vacancies via the VANS application, and then enter scheduled appointments directly into SRTS.**

On June 22, 2015, the VANS application was demonstrated at the ACCESS Center. In attendance was QID and ACCESS Center staff. The purpose of the meeting was to provide an overview of the product, demonstrate the application, review its functionality, answer program related questions and receive feedback regarding its usefulness in assisting ACCESS Center staff with identifying provider vacancies. VANS was well-received by ACCESS Center staff and plans moving forward included providing ACCESS Center staff with administrative/user rights only to familiarize themselves with VANS functions, utilization, usability, etc.

On July 6, 2015, a VANS-SRTS workgroup was formed which consisted of QID staff and SRTS Administrative staff. During the meeting**, it was agreed that linking these two systems which would allow SRTS users to refer a client by clicking on a "VANS" button which will take them directly to the VANS application. SRTS users would have the ability to view the "rolled-up" services/slots available at a particular provider site.** They will then "loop-back" and/or "Click" the "Referral Button" in the VANS application which will open the "Calendar" in SRTS to offer an appointment to a client. **This will allow both SRTS and VANS administrators to keep track of "referrals" and "appointments" offered to clients.** Additionally, representatives from CIOB, the ACCESS Center and IT were invited to join the workgroup as well.

On July 8, 2015, the QID team met with SA 4 and 5 (Program Managers and administrative staff) to review the status of the VANS implementation, system updates, etc. Follow-up plans included QID staff working with ISD and CIOB to complete identified system enhancements, QID staff training of SA 5 administrative staff on User ID set-up, **adding a drop-down search capability by EBP**, training navigators on the VANS system, **adding a single sign-on function when linking VANS and SRTS, etc.**

On August 13, 2015, the VANS-SRTS workgroup met to discuss adding a VANS application web-link inside the SRTS application. If a SRTS user has a VANS user ID, they will not need to sign-on to VANS and will be

directed to VANS "available services" page. **Providers will be able to search for available slots in VANS, then will enter the selected provider number in SRTS and proceed with the referral in SRTS. The number of VANS referrals which resulted in SRTS appointments will be tracked.**

A VANS-SRTS workgroup meeting occurred on September 9, 2015. A Web-EX demo was provided specific to the proposed VANS website layout revision. Plans included having a combined QID, SRTS, CIOB, ISD, and SA administrator monthly meeting. A deadline of October 31, 2015 was established for the following: complete VANS site design, add a link from SRTS to VANS, configure service roll-ups, etc.

Rollout of VANS in SA 5 occurred on October 7, 2015. End users in SA 5 have been trained and a future webinar date was established. A VANS-SRTS meeting took place on October 14, 2015. **The VANS site redesign is underway and sample roll-ups have been drafted.** VANS-SRTS linkage is in process. A tentative system-wide roll-out schedule and workflow form were reviewed ***(Attachment 3E.1)***. VANS will be rolled out to ACCESS Center once rolled out to all SAs.

A VANS-SRTS workgroup meeting took place on December 21, 2015. VANS site redesign is still in process. The workgroup decided that the first page of VANS should only show total number of available slots. Provider roll-up is still in construction and will be presented to the workgroup once completed. Classification categories will continue to be expanded with input from ACCESS Center staff. **A VANS-SRTS link has been established on the test site and the workgroup is planning for a tentative Go Live date of January 2016.** It was decided that a focus group consisting of SA 4 and SA 5 VANS users and non-users would be tentatively scheduled January 2016. **This provider focus group will be utilized to finalize which programs and services should be placed under "General Outpatient" and "Special Programs".**

A VANS-SRTS workgroup meeting took occurred on January 13, 2016. The workgroup viewed a demonstration of the first page for SRTS users which shows the provider ID, client age, number of slots, etc. ***(Attachment 3E.2).*** The workgroup team discussed which programs should be placed under "General Outpatient" vs. "Special Programs". **The workgroup agreed that the first page should only show the provider name and Yes or No for slot availability and not the total Number nor the details of the types of slots.** QID leadership and the SA 6 District Chief had a meeting on January 5, 2016 to discuss VANS roll out plans. The majority of SA 6 providers have been entered in VANS. Fifty percent of SA 5 providers have been updating their slot availabilities. A meeting between QID leadership and the SA 8 District Chief and staff occurred on January 26, 2016 to discuss roll out plans. The names of SA 8 providers have been input into VANS.

On February 10, 2016, a VANS-SRTS workgroup meeting was held. **CIOB verified that the connection between VANS and SRTS has been established and announced that the link can be tentatively deployed on February 18, 2016.** A demonstration of the VANS view in SRTS was provided. The workgroup discussed that different user roles would need to refer for different reasons, i.e. navigator, ACCESS Center agent, clinician. User IDs for SA 6 providers have been created and SA 8 provider information has been entered into VANS. **The workgroup agreed that page one would contain 3 filters- location, age and language. Page two would be filtered by program type, i.e. General Outpatient, FSP, PEI, and FCCS. Programs would be excluded that require special authorizations. Tabs at the top of page two would be added back, so as to indicate general outpatient programs and special programs.** Exact category roll-up to be determined by focus group providers.

A Provider focus group was assembled on February 18, 2016 ***(Attachment 3E.3)***. The focus group was attended by 8 provider representatives from SA 4 and SA 5. A brief overview of the Vacancy Adjustment Notification System (VANS) project was provided. Linkage between VANS-SRTS is slated for February 18, 2016 and this will allow SRTS users to view available openings/slots in VANS when providing appointments/referrals to consumers in a seamless fashion. Roll up **suggestions** provided by the focus group included: develop a 0-5 years of age group filter besides Child, TAY, Adult and Older Adult; do not search by PEI, but scroll by name/program and the list of available services would then appear; add Center for the Assessment and Prevention of Prodromal States (CAPPS) category; filters on the first page should allow the provider to search by funding source, i.e. Medi-Cal/Indigent; add COD programs as a filter and add school based services. **Recommendations included: 1) re-educating providers on the importance of "checking" the referral button to adequately log the number of referrals made, 2) frequently refresh the vacancies sections to show recency of the update, 3) add a "check box" for school based providers designated by Service Area, and 4) add date of last update of vacancy slots on the search results page of VANS.**

QID management suggested that filters for COD services, school based programs may not be possible. A more efficient solution may be to have a list of programs that have COD services and a list that has school based services available on the VANS application. Adding CAPPS which is a very specialized program as a category is not a practical or efficient solution.

One problem reported by a SA 4 provider was difficulty using the referral button in January and February 2016 as this "freezes" when they try to click it. QID analyst will follow up on this issue to address and ensure proper functioning of the referral button. QID management requested this provider keep a track of referrals made using VANS for January and February and report these numbers to QID.

As of February 24, 2016, **VANS system enhancement**s **included: the date of last update after login to the VANS application now appears on the "Search Results" page.** For the SRTS view of VANS, a hyperlink was added to the front page allowing the user to view the services rolled up into Outpatient, FSP, FCCS and PEI. The original rollup is General Outpatient and Special Programs.

On March 9, 2016, a VANS-SRTS workgroup meeting was held. The workgroup viewed the VANS-SRTS website and discussed the following: deployment of the VANS-SRTS link will tentatively occur on March 17, 2016 during the next IBHIS Sprint upgrade; **add a first page to the website which consists of four filters on the left side categorized by age group, location, Indigent/Uninsured/Medi-Cal and language;** invite SA 4 and SA 5 focus group attendees to attend the April 2016 EQRO Non-Clinical PIP session; SA 4 and SA 5 providers to be asked to provide information on the number of clients referred to other agencies utilizing the VANS application who subsequently received an SRTS appointment; do not add a school based program filter due to providers are unable to refer directly to those programs. SA 6 providers have been issued user IDs. Services provided are currently being entered and a training webinar is slated for March 22, 2016. Additionally, SA 8 providers are poised to receive user IDs for a tentative rollout and training webinar in April 2016.

QID provided a training webinar for SA 6 providers on March 22, 2016. The webinar was attended by 17 provider representatives and SA 6 administration. This webinar served to demonstrate the VANS application, preview the VANS-SRTS webpage, answer technical and program related questions from providers, and obtain feedback on potential improvements needed.

Continued efforts were made to increase the use of VANS and thereby increase provider's capacity to provide more appropriate and timely referrals. Some improvements to the application were made via PDSA cycles.

The **first PDSA cycle** was carried out to obtain provider recommendations as to how services/programs should be rolled up on the VANS website ***(Attachment 3E.4)***. Discussions ensued by the VANS-SRTS workgroup members and it was determined that this best could be decided by frontline providers who are currently utilizing the VANS application. The action step in this PDSA cycle was to schedule a group meeting of provider users of the VANS application representing SA 4 and SA5. This focus group was held on February 18, 2016 with eight SA 4 and SA 5 providers (***Attachment 3E.3*** – **Focus Group Meeting Agenda and Questions**). The focus group participants suggested: 1) developing a 0-5 years of age group filter besides Child, TAY, Adult and Older Adult; 2) add school based services, 3) add COD services filter, and 4) add a Center for the Assessment and Prevention of Prodromal States (CAPPS) category. QID management reviewed these suggestions and determined that filters for COD services and school based programs may not be possible. A more efficient solution may be to have a list of COD and school based services available on the VANS application. Adding CAPPS which is a very specialized

program as a category is not a practical or efficient solution. The QID analyst and CIOB staff member worked collaboratively to configure the VANS website with the agreed roll ups.

The **second PDSA cycle** was completed when barriers to the use of VANS referral button were addressed in a PIP meeting. Factors contributing to the successful use of the VANS referral button were discussed. The action step in this PDSA cycle was to schedule a group meeting with active and non-active provider users of the VANS application (***Attachment 3E.5***). This focus group was held on February 18, 2016 with eight SA 4 and SA 5 providers. It was identified that during the months of January and February 2016, the referral button would "freeze" when a provider tried to click it indicating that a client referral had been made. QID and CIOB jointly worked collaboratively to promptly correct this ensuring proper functioning of the referral button. QID leadership reinforced the need for providers to report problems with the VANS website to PSBQI for timely tracking and resolution of these issues. One such reporting manner may be via a PSBQI mailbox. Additionally, QID staff contacted providers in SA 4 and 5 to ascertain the number of client referrals made in January and February 2016 utilizing the VANS application to identify client vacancies. Eighteen (18) providers reported that 63 consumer referrals were made.

The **final PDSA cycle** ***(Attachment 3E.6)*** was completed to increase the number of providers updating their available slots on a monthly basis. Eight providers from SA 4 and SA 5 participated in a focus group on February 18, 2016. The participants recommended "adding date of last update of vacancy slots" on the search results page of VANS and explained that this information is important for them to ensure referrals made are based on recent updates to slot information. QID management reaffirmed the need for providers to be educated to refresh their vacancies frequently to show recency of the update. Subsequently the QID analyst and a CIOB staff member worked collaboratively to reconfigure the VANS website and added "date of last update of the vacancy slots" function on the VANS search results page on February 25, 2016 ***(Attachment 3E.7)***.

Section 6: Develop Study Design & Data Collection Procedures

A study design must be developed that will show the impact of all planned interventions. Include the information describing the following:

- Describe the data to be collected.
- Describe the methods of data collection and sources of the data. How do these factors produce valid and reliable data representing the entire consumer population to which the study indicators apply?
- Describe the instruments for data collection, and how they provided for consistent and accurate data collection over time.

- Describe the prospective data analysis plan. Include contingencies for untoward results.
- Identify the staff that will be collecting data, and their qualifications. Include contractual, temporary, or consultative personnel.

SQL data reports are being used to build monthly reports. These reports are disseminated to PIP workgroup members for monitoring purposes. These reports are reviewed in detail by the District Chiefs of SA 4 and SA 5 to monitor availability of slots *(**Attachments 3E.8 and 3E.9**)*. Based on these reports, the SA 4 District Chief and the SA 5 District Chief communicate with providers frequently to ensure providers are using VANS to update their program slot information.

In SA 6, a demonstration of the VANS application by QID staff to the Executive Providers occurred on January 14, 2016. In addition, SA 6 administration sent provider information on "type of service offered," "funding source," and "language capacity," to QID for preparation to enter the information in the VANS application and generate user IDs.

In SA 8, a demonstration of the VANS application by QID staff to the SA 8 District Chief and QI Lead occurred on January 26, 2016. In addition, SA 8 administration sent provider information on "type of service offered," "funding source," and "language capacity," to QID in preparation for entering information into VANS and generating user IDs. A meeting with providers and a training webinar is tentatively scheduled for **April 2016**.

Section 7: Data Analysis & Interpretation Of Study Results

Data analysis begins with examining the performance of each intervention, based on the defined indicators. (For detailed guidance, follow the criteria outlined in Protocol 3, Activity 1, Step 8.)

- Describe the data analysis process. Did it occur as planned?

Data from providers using VANS was collected in a SQL database with relational tables on number of providers using VANS, number of providers updating slots, number of providers updating slots based on funding source, number of providers with additional language capacity besides English updating available slots, number of unique referrals to consumers made by providers and number of unique providers making referrals to consumers. This data was collected real-time, as providers used the VANS application. Monthly reports were generated for each provider site indicating number of slots available for each program type. Monthly data was used to create a 2015 calendar year, quarterly table to show

improvement in the use of VANS by providers from January 2015 to December 2015. The data analysis showed slight improvement between each quarter and significant improvement for some measures between Q1 and Q4.

- Did results trigger modifications to the project or its interventions?

  Yes. The main outcome variable for the application, namely number of referrals made to consumers was not showing significant improvement over time. The PIP workgroup collaborated with the SRTS workgroup to link VANS to SRTS application to make the use of VANS more meaningful to providers by providing the SRTS users the ability to search for available and appropriate program slots to schedule an appointment.

- Did analysis trigger other QI projects? No

- Review results in adherence to the statistical analysis techniques defined in the data analysis plan.

  Statistical testing using z scores were conducted to measure significant change in proportions between Q1 and Q2 and Q1 and Q4. Results indicated no statistically significant change for any Performance Indicator between Q1 and Q2. However, statistically significant changes were observed between Q1 and Q4 for the following Performance Indicators:

  1) Number of Providers using VANS (z value significant at $p < .05$)
  2) Number of Providers Monthly Updating Available Slots (z value significant at $p < .05$)
  3) Number of referrals made to consumers (z value significant at $p < .05$)
  4) and 5) Number of unique providers making referrals and number of unique providers with additional language capacity.

- Does the analysis identify factors that influence the comparability of initial and repeat measurements?

  Yes. Rolling out additional Service Area providers in Q4 of CY 2015 (SA 5) increased the total number of providers using VANS. However, the use of VANS by SA 4 providers dropped by 8% between Q2 and Q3. Hence, an increase in VANS utilization in Q4 as shown in Table 1 is influenced by new SA 5 VANS users.

The analysis of the study data must include an interpretation of the extent to which the PIP is successful and any follow-up activities planned.

Present objective data analysis results for each performance indicator. A Table can be included (see example), and attach all supporting data, tables, charts, or graphs as appropriate.

Performance Indicator	**Date of Baseline Measurement**	**Baseline Measurement** (numerator/ denominator)	**Goal for % Improvement**	**Intervention Applied & Date**	**Date of Re-measurement**	**Results** (numerator/ denominator	**% Improvement Achieved**

(**Please Refer to *Attachment 3E.10***

Upon review of VANS Performance Indicators for the period of January 2015 (Q1) to December 2015 (Q4), the total number of referrals from providers using VANS increased from 16 to 60. This represents a 50% improvement between Q1 and Q4. The expected achievement was 20% or greater *(**Attachment 3E.10**).*

The number of providers using VANS increased by 34% between January 2015 and December 2015, from 59% to 93%, respectively *(**Attachment 3E.10**).*

The number of providers updating available slots by funding source on a monthly basis increased by 2% between January 2015 and December 2015, from 78% to 80%, respectively (***Attachment 3E.10**).*

The number of providers with additional language capacity besides English updating available slots increased by 7% between January 2015 and December 2015, from 78% to 85%, respectively *(**Attachment 3E.10**).*

The VANS application also has information on language capacity of providers. Therefore it also helps providers in making appropriate referrals by language. Currently the referrals and availability of slots is available from providers with the following language capacity: Arabic, Cantonese, Ethiopian, English, Spanish, Farsi, Armenian, Japanese, Cambodian, Korean, Lao, Mandarin, Russian, Thai, Tagalog, Vietnamese and Other Chinese. Future reports will track referral notification by intake agency's language capacity to see how many non-English referrals are being made using VANS.

Overall, the current PIP has expanded its scope to SA 5, SA 6 and SA 8 and also plans to track the outcome of the referrals made via VANS from data related to the scheduled appointments for these referrals via the SRTS/SRL. The providers in SA 4 and SA 5 who have been using VANS have found this to be a valuable tool for

tracking accurate referral information on availability of slots by type of service, funding, and language and have reported that this has been helpful to improve access and timeliness to the consumers served. SA 6 and SA 8 are hopeful of similar outcomes with the usage of VANS in their SAs.

Section 8: Assess Outcomes Of Pip

Real and sustained improvement are the result of a continuous cycle of measuring and analyzing performance, thoroughly analyzing results, and ensuring implementation of appropriate solutions. To analyze the results of the PIP the MPH must document the following steps:

- Describe issues associated with data analysis –
- Did data cycles clearly identify when measurements occurred? Should monitoring have occurred more frequently?

Yes, data cycles clearly identify measurements occurred for each quarter of CY 2015. Monitoring was done monthly to compute the quarterly data and this was adequate monitoring to allow for change to occur during the one month cycle.

-Results of statistical significance testing.

As shown in ***Attachment 3E.10***, the Z values computed for statistical significance on all measures for differences between Quarter 1 and Quarter 4 of CY 2015 showed positive and significant differences thereby demonstrating significant improvement in the number of providers updating slots information on VANS and number of referrals made.

-What factors influenced comparability of the initial and repeat measures?

Rolling out additional Service Area providers in Q4 of CY 2015 (SA 5) increased the total number of providers using VANS. However, the use of VANS by SA 4 providers dropped by 8% between Q2 and Q3. Hence, an increase in VANS utilization in Q4 as shown in Table 1 is influenced by new SA 5 VANS users.

-What, in any, factors threatened the internal or external validity of the outcomes?

The external validity of measuring the actual number of referrals made to consumers using the VANS application was impacted by some providers choosing to make “warm hand-offs” by calling another provider and informing them about sending some potential clients to their location instead of hitting the

referral button. This underestimated the number of referrals made to consumers using VANS as reflected in Table 1 *(**Attachment 3E.10**)*.

The internal validity of number of providers updating available slots and making referrals was impacted by providers not knowing when the last update was made to an available slot by an agency. This was resolved by modifying the VANS application and making the "Date of Last Update" visible on the search results page as mentioned in PDSA #3 *(**Attachment 3E.6**)*

- To what extent was the PIP successful and how did the interventions applied contribute to this success?

The PIP was successful because during FY 15-16, the VANS implementation expanded to three more SAs – SAs 5, 6, and 8 and there has been a significant increase in the number of providers using VANS and the number of referrals given to consumers. Once the VANS SRTS link is established for SRTS users, there will be even more significant increase in the use of VANS by providers. All SAs are ready to embrace VANS as a means of updating their slot information and this will be a key tool for the ACCESS Center to use once all SAs have implemented VANS. The collaboration between the multiple stakeholders has been consistent and strong leading to a QI project that has resulted in continuous quality improvement of VANS to better serve the "users" needs based on the "user role" – SA and providers, ACCESS Center, SRTS users and the spread and diffusion of this tool system-wide to improve access to care.

Per the qualitative information and success story from a provider and consumer perspective as stated below. VANS has been a great tool to improve access to care.

Success story:

"Fortunately, St Anne's did have accurate vacancy data, and I was able to link both families to them. While it is challenging to strike a good balance with this new process and while it may be a bit of an administrative burden for agencies to keep this up to date, it is because one of the agencies did have accurate data that we were able to ensure prompt linkage and the families themselves did not have to deal with the complex phone menus and back and forth messaging. One of the families we linked today consisted of a parent who has terminal cancer and whose children are really struggling with their impending loss. All members of this family have Medi-Cal but the parent is quite weak due to chemo and would have struggled being able to navigate the maze of calls/messages/voicemails, etc. If this vacancy website gets utilized as it should, we will all be better able to expedite services for clients as an area wide team. St Anne's will be providing services to this family in the near future."

- Are there plans for follow-up activities? Yes. The plans for follow up activities are:

  1. To ensure VANS-SRTS link is implemented in the upcoming months and to implement VANS in the remaining four Service Areas.
  2. Once all the SAs implement the VANS to update their slot information, ACCESS Center will be provided to access VANS to provide referrals to callers who call the LACDMH 24/7 hotline.
  3. Other follow up activities include developing reports for outcome measures to track the number of referrals from VANS that generated scheduled appointments in SRTS and further the number of appointments that resulted in clinical assessments and services.
  4. Continued enhancement of the VANS to serve the needs of the multiple users and to refine the filters to make this tool user friendly and useful to search for slots per the user's needs.

- Does the data analysis demonstrate an improvement in processes or consumer outcomes?

  Yes, as discussed earlier the use of VANS has increased the number of referrals to consumers and per the success story shared earlier resulted in timely access to care to address system barriers such poor appointment systems and communication regarding referral information to the consumers.

Section 9: Plan For "Real" Improvement

It is essential to determine if the reported change is "real" change, or the result of an environmental or unintended consequence, or random chance. The following questions should be answered in the documentation:

- How did you validate that the same methodology was used when each measurement was repeated?

  The data source was consistent throughout the data collection period. Data was consistently collected in SQL for data analysis.

- Was there documented quantitative improvement in process or outcomes of care?

  Yes, statistically significant improvement over a 12 month period was observed for:

  1) The use of VANS by providers
  2) Number of providers monthly updating available slots
  3) Number of referrals made to consumers
  4) Number of providers making referrals to consumers
  5) Number of providers with additional language capacity making referrals

- Describe the "face validity," or how the improvements appear to be the results of the PIP interventions.

  The interventions such as executive provider meetings, technical webinars and provider focus group meetings provide evidence that the improvement in the use of VANS was a result of the above interventions.

- Describe the statistical evidence supporting that the improvement is true improvement.

  Statistically significant change and improvement between Q1 and Q4 for 5 out of the 8 Performance Indicators supports that the improvement is a true improvement.

- Was the improvement sustained through repeated measurements over comparable time periods? (If this is a new PIP, what is the plan for monitoring and sustaining improvement?)

  Data was consistently collected each month via provider reports. Statistical tests conducted for CY 2015 for the eight Performance Indicators will be repeated for CY 2016 to test for sustained improvement.