Reduce and Improve

January 2019 – December 2020

Summary:
The objective of the Reduce and Improve pilot is to improve the collaboration between physical and oral health. This will be done by developing processes and workflows for an Expanded Practice Dental Hygienist (EPDH) to work within the Hospital Community as a dental "hospitalist" and then, utilizing those workflows, place an EPDH at Samaritan Lebanon Community Hospital. The EPDH will provide oral health services and navigation for patients and act as an oral health resource for the medical staff.

Budget:

- **Total amount of pilot funds used:** 141,450
- **Please list and describe any additional funds used to support the pilot.**

Capitol Dental covered the staff costs once grant funds were expended- roughly an additional $75K for the EPDH and another 10K for administration.

B. Provide a brief summary of the goals, measures, activities, and results and complete the grid below.

Successfully tracked IHN and community members receiving dental care visits. Created Implementation Guide for replication purposes. Created then executed workflows for dental consults inpatients and outpatients throughout most hospital departments. Provided oral hygiene education for Diabetes Management and Childhood Preparation courses. Created, distributed and monitored patient and staff satisfaction surveys with overwhelmingly positive feedback received. Diverted the number of non-traumatic dental conditions (NTDC) admitted to the emergency department (ED) or free up physician time for other ED care. EPDH assisted in triage of dental conditions, providing services to minimize pain and referral to access definitive dental treatment.

Goal	Measure(s)	Activities	Results to Date
Document all IHN-CCO members served by the pilot, tracking which members are pregnant and/or have diabetes.	IHN-CCO members served by the pilot.	Developed efficient tracking methods to export required demographics from Epic to IHN. The technology barriers have been one of the greatest challenges (and time most consuming) of this pilot!	Consult Visits: 164 IHN (primary), 48 (secondary) 56 Diabetic (likely low estimate due to inaccuracy in Epic reporting) 3 Pregnant
Actively participate in at least one DST workgroup; DST recommends Universal Care Coordination.	Attend either by phone or in person.	Attended Universal Care Coordination (UCC) monthly meetings until postponed. Plan to attend once meetings resume. Representative attends DST meetings biweekly.	Pending next UCC meeting findings.
Explore the processes and solutions to barriers in integrating an Expanded Practice Dental Hygienist (EPDH) in Samaritan Lebanon Community Hospital.	Creation of an Implementation Guide. Survey of Samaritan Lebanon Community Hospital clinic staff.	Implementation Guide noting barriers, challenges, alternatives and chosen solutions. Developed efficient workflow for dental consult referral protocol throughout hospital	Electronically tracked/stored encountered barriers, solutions and deficits throughout pilot.

		departments for inpatients. Developed out-patient dental consult protocol for patients with appointments in hospital clinics (e.g. diabetic out-patients visiting diabetic clinic, pregnant women). EPDH providing oral education in diabetic management classes to outpatients and new parents expecting baby in Childhood Preparation class. Provided ongoing protocol assessment, training and revision modifications as needed for oral care program. Acquired patient satisfaction surveys via Survey Monkey (ensuring anonymity) completed bedside after dental consult visits. Acquired satisfaction surveys from students in outpatients classes.	Survey Monkey in- and out-patient satisfaction surveys overwhelmingly positive throughout pilot, as well as paper surveys acquired from Diabetic Management classes.
Provide oral health access (services) and simplify navigation within a hospital setting.	Number of patients referred from hospital or cancer center staff to EPDH for assessment. Number of patients screened by EPDH Survey questions regarding navigation simplification and improved services offered patients in hospital and infusion clinic.	487 patients screened out of 502 consults requested (exact calculation estimated to be higher due to initial tracking and workflow barriers). Surveys acquired via Survey Monkey as described previously.	Workflow protocol and hospital software created and/or altered for EPDH to use daily for clinical and electronic health record workflows, tracking accurate numbers of dental consult and progress visits within hospital settings.
Explore workflows to divert the number of non-traumatic dental conditions (NTDC) admitted to the emergency department (ED) or free up	Workflow processes created. Survey physicians to determine if they have more time for other ED patients.	Developed efficient workflows to utilize EPDH in ED as well as assisted patients with referral process to access definitive dental services.	Triaged patients earlier in ED encounter to streamline and attain pertinent history, signs and symptoms to assist physician in determining best course of action.

physician time for other ED care.		Survey Monkey surveys requested from ED physicians.	Provided anesthetic for patients to free up physician's time. Developed better workflow to decrease patient wait time (e.g. notify EPDH ASAP to assist in triage, EPDH review dental coverage prior to seeing patient).
Improve perceived quality of care for hospital patients receiving EPDH services.	Staff survey. Patient discharge survey.	Surveyed hospital staff to gain insight into successes and areas needing improvement, verbally, in-person, as well as via Survey Monkey. Received patient satisfaction surveys via Survey Monkey (to ensure anonymity) upon dental consult completion.	Hospital staff tremendously positive, expressing appreciation for in-house dental professional's oral care expertise, in which many are not comfortable providing, properly trained to do, nor have the necessary time to accomplish. EPDH received mostly extremely positive feedback from patients who expressed appreciation that dental care was included and addressed during hospital stay. In addition, most communicated their plan to implement newly learned oral health techniques because they gained an impactful understanding that oral disease is preventable and directly related to overall health, thus deeming the importance for thorough daily oral hygiene and to seek in-office dental care.

C. What were the most important outcomes of the pilot?

Incorporated an in-house contracted dental professional into an existing hospital team by overcoming significant and time-consuming barriers to meet requirements by Capitol Dental Care and Samaritan Health through an extensive pre-planning phase as well as the implementation phase, thus creating collaborative protocol and effective workflows.

Assisted patients with referral process to improve access to dental care.

Numerous hospital patients and employees discovered the importance for optimum oral health, linking oral conditions to systemic health outcomes, then learned how to improve their oral health by providing detailed hands-on techniques and written instructions.

Several opportunities arose to present the pilot success including:

- EPDH presented the pilot model at the 36th annual Oregon Rural Health Conference October 2019, in Bend, OR.
- EPDH and Capitol Dental Care, Community Outreach Director, scheduled to present the pilot at National Oral Health Conference in San Diego on April 2020 but event canceled due to pandemic.
- EPDH chosen to speak at Diabetes Empowerment Days, an event at Albany Fairgrounds May 2020 but canceled due to pandemic.
- EPDH and Capitol Dental Care, Community Outreach Director, presented the pilot at the National Network Oral Health Association conference on October 2020.

D. How has the pilot contributed to Triple Aim of improving health; increasing quality, reliability, and availability of care; and lowering or containing the cost of care?

Incorporated an EPDH into a hospital setting whereby improved patient's health by providing desperately needed and lacking dental services.

Increased quality, reliability and availability of care by identifying oral disease directly linked to affect overall health.

Although this pilot was unable to measure definitive monetary savings, identifying unknown diseases, affecting patient's overall health, must also provide an impact on lowering or containing the cost of care.

E. What has been most successful?

- Successfully integrated an EPDH into a complex healthcare system, whereby meeting stringent requirements by two separate organizations.
- Other organizations pursuing similar model.
- Provided numerous oral health education classes to hospital personnel, diabetic patients and parents to be.
- Strove to implement consistent oral hygiene protocol to all hospital patients.
- Assisted patients in referral process to access definitive dental care as needed.
- Custom access, applications and reports built to accommodate a dental provider in the hospital electronic health record to document encounters, locate pertinent patient health information and obtain required patient demographics to submit to IHN.
- Collaboration between the EPDH and hospital medical professionals, integrating specialized expertise, thereby improving patients' overall health outcomes. In specific, the hospital EPDH collaborated with:
    - i. Respiratory Therapists producing improved oral hygiene to intubated patients.
    - ii. Speech Language Pathologists ensuring oral hygiene adequately assessed and executed for dysphagia patients (difficulty swallowing increasing risk of aspiration pneumonia).
    - iii. Diabetic Clinic providers delivering education, screening and dental care to patients with diabetes.
    - iv. Occupational Therapists ensuring oral hygiene techniques measured and facilitated correctly.
    - v. CNA's (who routinely provide oral hygiene to patients) teaching techniques and combining forces to deliver oral hygiene to extremely difficult patients.
    - vi. Physician's throughout all hospital departments, addressing dental problems beyond their scope of practice as well as forwarding observed oral pathologic conditions requiring prescription medications and/or outside referrals.

F. Were there barriers to success? How were they addressed?

Sustainability- Because the EPDH saw all referred patients regardless of Medicaid enrollment and Dental Care Organization (DCO) selection, sustainability not achieved. Discussion has begun with other DCO's to collaborate

and submit encounters for each other, in hopes that in the future, reimbursement would be granted by the state for services rendered on any Medicaid eligible members, regardless of their assigned DCO.
Another viable option to establish sustainability is the pursuit in submitting medical claims to medical insurers for oral health services proven linked, caused or exacerbated by medical conditions.

Entering patient rooms- There are many specialists, CNA's, RN's, physician's competing to see patients, as well as diagnostic testing and other personal needs (e.g. eat, hygiene, rest, illness, pain, visitors, etc.) presenting as barriers to provide dental care visits. Therefore, remaining flexible and accommodating in staff and patient interactions was imperative.

Documentation inefficacy- In order to abide by hospital protocol and legally store documented encounters in dental health record and software, dual entry into Epic, hospital electronic health record (EHR), and dental EHR was required. Much of the information available in Epic had to be manually re-written into the dental record via the patient's note which was extremely time consuming (e.g. history of medical conditions, medications and surgeries, etc.). Improving documentation efficiency remains a difficult task. Although a definitive solution not identified during the pilot, understanding the arisen complexities is an integral first step to brainstorm and solve this problem in the future.

Technology barriers have been the greatest challenges (and most time consuming) of this pilot! Although, technology deficits remain, a better understanding how and where to seek assistance has helped navigate the complexities encountered working as a contracted, non-hospital employee, in an isolated and unique position. The EPDH utilizes programs from both companies as well as programs created solely for this pilot in which most technicians from either company are not aware. Thus, these unique problems were very difficult to solve. Through diligent efforts, progress continues to improve.

COVID-19 pandemic- Due to the governors mandated pause of non-emergent dental care delivery to preserve record low personal protective equipment (PPE) for emergent medical/dental use only, the dental pilot ceased for two+ months. After the pilot resumed, more barriers surfaced, adhering to newly mandated protocol factoring the highly contagious virus, decreasing an existing inefficient workflow. Therefore, the focus shifted away from providing comprehensive services, to an oral health champion role, providing triage, education, screening and managing referrals.

So much to do, so little time…A wide variety of opportunities for EPDH to contribute and improve dental care throughout the hospital were identified but were not realistic for one person to achieve. Therefore, reassessment needed to reprioritize the most important goals moving forward.

G. How readily would the pilot be scalable or replicable? Describe cautions and considerations when considering scaling, or replicating the Pilot. (i.e. Success dependent on personality/skills set, or activities appropriate under certain conditions like size, target population, etc.)

Through dental and medical joint forces, foundational groundwork has been established creating mutually acceptable protocol and workflows to replicate this pilot. Therefore, the time is now to seize this opportunity and implement a similar program in other hospitals. That said, discovering a sustainable model to fund this position remains problematic. Perhaps, isolating and providing services to only IHN eligible patients would resolve this issue. Placing focus on target populations (e.g. diabetes, pregnancy) identified by the state for reimbursement could also provide greater success in future implementations, thus is a potential strategy worth pursuing.

As a result of this pilot, the Benton, Lincoln and Linn County Regional Oral Health Coalition submitted for the Health Resources and Services Administration (HRSA) grant, led by JoAnn Miller [insert her title- no names allowed], to expand this model of care in Lincoln County.

A group from Klamath County Public Health inquired information in hopes of replicating this pilot in Klamath Falls, OR.

Recently, a group from the American Dental Association inquired information to potentially replicate this pilot in other hospital emergency departments to better serve patients presenting with non-traumatic dental conditions and assist in referrals for definitive dental services.

H. Will the activities and their impact continue? If so, how? If not, why?

Yes, Capitol Dental Care plans to continue this pilot, as is a valued, trailblazing model of care needed to improve access to dental care with hope to establish sustainability and replicate this pilot, expanding to other medical and hospital settings.