TRANSFORMATION PROJECT SUGGESTIONS

Contact Information	Valerie Tarico, PhD, (206 898 8184) valerietarico@hotmail.com Katharine Harkins, CNM, MPH, (206 972 2063) harkinsjkd@msn.com Washington Families 2030
Project Title	Promising Practice: Use of culturally and linguistically competent Community Health Workers (CHWs) to increase life planning skills and sexual health literacy, and increase access to reproductive health care for young women at risk for unintended pregnancy.

Rationale for the Project

Problem statement – why this project is needed

- Unintended, meaning mistimed or unwanted, pregnancy and birth is a socio-determinant of health as it affects young women's potential to complete secondary and/or tertiary education, enter and advance within the workforce, and gain access to other resources that decrease stressors such as poverty, violence, depression and anxiety – all associated with poor health outcomes. Unintended birth is a socio-determinant of health for infants and children as it affects parental investment and social support and may increase exposure to toxic stressors linked to poor mental and physical health and developmental outcomes.
- Unintended birth is also closely associated with Low Birth Weight (LBW) and Very Low Birth Weight (VLBW) and other poor birth outcomes.
- Washington state has a high rate of unintended pregnancy – in and of itself a potential toxic stressor. Washington births are 78% unintended for women under 20, and ~70% unintended for 20-24. Many adolescents and women at highest risk for unintended pregnancy are also those who experience cultural, linguistic, geographic, knowledge and confidentiality barriers to accessing family planning specialists or primary care providers who are trained in the full range of contraceptive options and preconception care.
- CHWs are able to coordinate care, linking potential patients to providers via mobile interface and/or to clinical settings. As a result of being culturally competent and "of the community," along with having more flexibility around when, where and for how long they meet with clients, CHWs are able to be "whole-person centered" in their approach.
- The Patient Protection and Affordable Care Act of 2010 includes provisions relevant to CHWs. Section 5313, Grants to Promote the Community Health Workforce, amends Part P of Title III of the Public Health Service Act (42 U.S.C. 280g et seq.) to authorize CDC, in collaboration with the Secretary of Health and Human Services, to award grants to "eligible entities to promote positive health behaviors and outcomes for populations in medically underserved communities through the use of CHWs" using evidence-based interventions to educate, guide, and provide outreach in community settings

Supporting research (evidence-based and promising practices) for the value of the proposed project.

- Community Health Worker Programs demonstrate both cost efficiency and effectiveness per CDC.i
- Model Family Planning Community Health Worker Program in Boston, MA cited for effectiveness by Guttmacher.ii
- The Nurse-Family Partnership provides a successful mentoring model for working with adolescents.iii
- International multi-model family planning community health worker programs considered high impact way to meet unmet family planning needs per Johns Hopkins University School of Public Health and USAID.iv
- Promising practice: community health workers could implement pregnancy intention screening. Initial findings from implementation of One Key Question in Oregon showed positive patient response, increased uptake of contraceptives and provided opportunity for client counseling or referral re: preconception health concerns.v
- Cost savings or return on investment of family planning programs is well demonstrated with a return on investment in Washington state of $5.68 to $1.00 spent. vi
- Per Guttmacher institute, contraceptive use to delay childbearing and determine family size has a strong positive association with increased socio-economic mobility, increasing the likelihood young women: graduate from high school, enter and complete higher education, are able to participate in the workforce and invest their resources in fewer children, and decreased risks associated with potential toxic stressors of: poverty, unintended birth itself, inter-partner conflict and domestic violence, maternal anxiety and depression.vii
- Toxic Stress Paradigm explains the biological relationship between exposure to stressors such as poverty, violence, parent depression and exposure to stress hormones epigenetically, in utero, in infancy and early childhood resulting in impaired neuro development and learning skills, poor physical health outcomes such as

chronic illness -- heart disease, diabetes -- and mental health outcomes such as chemical dependency, depression and anxiety per The Center for the Developing Child at The Harvard School of Public Health.viii

- Women perceive strong socio-economic benefits of contraceptive use per Guttmacher Institute survey of 2000 women.ix
- Meta-analysis shows unintended birth is significantly more likely to result in low birth weight.x
- The removal of financial barriers to LARC methods coupled with tiered counseling, describing risks and benefits of contraceptive methods beginning with the most effective methods resulted in a two thirds increase in request and uptake of LARC methods.xi
- Increased LARC use positively associated with a reduction in Preterm birth.xii

Relationship to federal objectives for Medicaid with particular attention to how this project benefits Medicaid beneficiaries.

- Low income adolescents and young women are at significantly higher risk of exposure to potential toxic stressors which may affect their health and alter their life course in their teens and early twenties, such as: poverty, violence (in their community and domestic violence in their homes), and are at higher risk for unintended pregnancy associated with increased morbidity and mortality for mothers and infants such as: gestational diabetes, preeclampsia, HELLP Syndrome, Low Birth Weight (LBW) and Very Low Birth Weight (VBLW) and neural tube defects all of which result in significant increased healthcare costs.

Project Description

Which Medicaid Transformation Goals are supported by this project/intervention?

□ Reduce avoidable use of intensive services: Reduces aggregate Medicaid costs associated with pregnancy and birth: unintended vaginal and caesarian birth, low birth weight, very low birth weight, aggregate cost of care associated with HELLP Syndrome, pre-eclampsia and neural tube defects

□ Improve population health, focused on prevention: □ Women's health improvements associated increasing a sense of reproductive and life agency and a sense of empowerment around life decisions. Identifying and offering health education and increasing access to treatment or services to women at risk for poor health or birth outcomes to prevent or reduce malnutrition, folic acid deficiency, obesity, tobacco, other substance use, reduce risks associate with increase in domestic violence during pregnancy, potential reduction in stress related to improved life choices and support secondary to delayed childbearing. Infants health improvements effected by decreasing: risk of LBW, VLBW, expose to potential toxins, Neural Tube Defects, decreased exposure to high levels maternal stress hormones and increased parent child psycho-social and financial investment. Child health improvements effected by improved maternal socio-economic status associated with delayed childbearing and subsequent improved access to completing secondary and tertiary education, lower risk for Adverse Childhood Events (ACEs)

□ Ensure Medicaid per-capita growth is below national trends: The return on investment of family planning programs over 1-5 years ranges from five to seven dollars per dollar spent on providing family planning services. In Washington State the ROI was 5.68 dollars for every dollar spent, although this does not capture the potential savings accrued over time if intentional childbearing decreases a child's exposure to toxic stress thereby decreasing the likelihood of chronic health and mental health sequelae.

Which Transformation Project Domain(s) are involved? Check box(es)

□ Health Systems Capacity Building X

□ Care Delivery Redesign X

□ Population Health Improvement – prevention activities X

Region(s) and sub-population(s) impacted by the project:

- Populations where language and cultural barriers adversely affect access to care and accurate information: immigrant communities, native communities, communities where access to accurate medical information and reproductive health services for adolescent women is limited by conservative cultural attitudes.
- Populations affected by chronic illness which puts them at risk for adverse health effects related to pregnancy or poor pregnancy outcomes related to their illness.
- Regions where medical practitioners or facilities are difficult to access, in rural settings or because transport is limited.
- Adolescent populations where standard medical providers maybe less trusted or may be perceived as intimidating or hostile or where accessing a fixed care site maybe perceived to compromise confidentiality.
- Populations affected by substance dependency with reduced ability to make or manage appointments.

- Counties with significant immigrant populations.
- Counties with the highest rates of unintended births, and poor birth outcomes, LBW, VLBW, neural tube defects.

Relationship to Washington's Medicaid Transformation goals.

- Will reduce use of intensive services and settings by: reducing number vaginal and caesarian births.
- Will reduce use of acute care and nursing care related to premature birth and other serious pregnancy complications and poor birth outcomes associated with unintended birth.
- Will offer a formidable preventive duo: the provision of accurate information, increased access to needed services and within the context of a trusting, potentially mentoring relationship.

Project goals, interventions and outcomes expected during the waiver period, including relationship to improving health equity /reducing health disparities.

- By improving access to care and increasing sexual health, and health literacy CHWS may preventive or reduce a host of poor health outcomes.
- Reduce unintended births to populations with limited access to clinical settings as a result of cultural, language, confidentiality, or transportation barriers.
- Increased access to contraception, preconception care and best health practices in health care settings.
- Increase health and sexual health literacy among young women at risk for unintended childbirth.
- Supportive mentoring relationships for young women at risk for mistimed or unwanted pregnancy.

Links to complementary transformation:

- CHW programs are potential complementary components of transformation initiatives being submitted by North Sound ACH and King County Public Health, each of which proposes a more extensive retooling of primary care clinics and services to provide state-of-the-art patient-centered family planning services.

Potential partners, systems, and organizations (e.g., health and social service providers, ACH participants) needed to be engaged to achieve the results of the proposed project:

- Public health family planning programs, Planned Parenthood, primary care providers, social services, community groups, school systems

Core Investment Components

Proposed activities and cost estimates ("order of magnitude") for the project.

- Training of CHWs in core knowledge of reproductive health
- Establishing linkages to clinicians and clinical settings – the referral and clinical support network
- Importation or development of a mobile app to support CHWs work, allowing communication with clinical site and clinicians and confidential tracking of interventions and outcomes.

Best estimate (or ballpark if unknown) for:

How many people you expect to serve, on a monthly or annual basis, when fully implemented.

- *50,000 women of reproductive age at high risk for unintended pregnancy over 5 years of implementation*

How much you expect the program to cost per person served, on a monthly or annual basis.

- $250/yr per client served in the first year

How long it will take to fully implement the project within a region where you expect it will have to be phased in.

5 years

The financial return on investment (ROI) opportunity, including estimated amounts and associated ROI timeline.

- Increases efficiency of family planning services which have an ROI of 5:1

Project Metrics

Key process and outcome measures

- Improved birth and pregnancy outcomes: reduction unintended pregnancy among population served by CHWs, LBW, VLBW, increase secondary school attendance and completion, increase entry into tertiary education, increase workforce participation.
- Number of CHWs, case load of CHWs, referrals of CHWs, mobile app anonymized client/mentee tracking data, measures of health and sexual health literacy. Comparative figures: number of clients/mentees serviced who were previously unserved and without primary and or reproductive health care relationship
- Documentation of pregnancy intention screen and f/u counseling, referrals, prescriptions
- 1st trimester care; •Preconception care; •Contraceptive uptake; Shared decision making; Health promotion and education
- Coordination of care

---

i **Potential Model Community Health Worker Programs demonstrate efficiency and effectiveness.**

Guttmacher Institute Policy Review: 'I Am Who I Serve'—Community Health Workers In Family Planning Programs, By Rachel Benson Gold

CDC Policy Brief on Community Health Workers (http://www.cdc.gov/dhdsp/docs/chw_brief.pdf) ; Open Arms Perinatal Services – a community-based doula service in south Seattle (http://www.openarmsps.org)

Global to Local, Seatac, Community Health Promotion -- meets needs of immigrant and refugee population with chronic illness, obesity, tobacco dependency using community health promoters and mobile app (http://www.globaltolocal.org/current-initiatives/)

ii **Model Family Planning Community Health Worker Program:** The Boston–based ABCD Family Planning Community Health Workers: http://www.bostonabcd.org/abcd-family-planning-program.aspx

iii **Nurse-Family Partnership Mentoring National Model and Evidence Base:**

Olds DL, Kitzman HJ, Cole RE, et al. Enduring Effects of Prenatal and Infancy Home Visiting by Nurses on Maternal Life Course and Government Spending: Follow-up of a Randomized Trial Among Children at Age 12 Years. *Archives of pediatrics & adolescent medicine*. 2010;164(5):419-424. doi:10.1001/archpediatrics.2010.49.

David L. Olds; John Eckenrode; Charles R. Henderson Jr.; Harriet Kitzman; Jane Powers; Robert Cole; Kimberly Sidora; Pamela Morris; Lisa M. Pettitt; Dennis Luckey, Long-term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect: Fifteen-year Follow-up of a Randomized Trial, International *JAMA*. 1997;278(8):637-643. - See more at: http://www.nursefamilypartnership.org/proven-results/published-research#sthash.kLiNPOMo.dpuf

iv **Multi-Model Family Planning Community Health Worker International Evidence Base:**

High-Impact Practices in Family Planning (HIPs). Community health workers: bringing family planning services to where people live and work. Washington (DC): USAID; 2015. Available from: http://www.fphighimpactpractices.org/resources/ community-health-workers-bringing-family- planning-services-where-people-live-and-work (Johns Hopkins University School of Public Health/USAID)

v **Pregnancy Intention Screen Potentially implemented by Community Health Workers Model and Evidence Base, Initial Findings:**

The One Key Question is being implemented in Oregon and has already resulted in an increased contraceptive uptake along with a shift to the most effective methods (LARCs). An Initial finding from Pilot Study: Women with serious health concerns or support needs considering or hoping for pregnancy as well as women who do not wish to be come pregnant are more are more likely to be identified by using the One Key Question. Michele Stranger Hunter, ED, Oregon Reproductive Health Foundation: http://www.onekeyquestion.org

vi **Cost savings or return on investment of family planning programs**:

- Medicaid covers cost of approximately two thirds of unintended births nationwide (Laliberté F, Lefebvre P, Law A, et al. Medicaid spending on contraceptive coverage and pregnancy-related care. *Reproductive Health*. 2014;11:20. doi:10.1186/1742-4755-11-20)
- All contraceptive methods produced cost savings. Cost Savings of LARC were 5.60 dollars to 1.00 dollars spent (Foster DG, Rostovtseva DP, Brindis CD, Biggs MA, Hulett D, Darney PD. Cost Savings From the Provision of Specific Methods of Contraception in a Publicly Funded Program. *American Journal of Public Health*. 2009;99(3):446-451. doi:10.2105/AJPH.2007.129353.

vii **Contraceptive use to delay childbearing and determine family size has a strong positive association with increased socio-economic mobility, increasing the likelihood young women: graduate from high school, enter and complete higher education, are able to participate in the workforce and invest their resources in fewer children, and decreased risks associated with potential toxic stressors of: poverty, unintended birth itself, inter-partner conflict and domestic violence, maternal anxiety and depression**.
Sonfield A et al., *The Social and Economic Benefits of Women's Ability to Determine Whether and When to Have Children,* New York: Guttmacher Institute, 2013, <www.guttmacher.org/pubs/ social-economic-benefits.pdf>

viii Toxic Stress (Center for the Developing Child, Harvard School of Public Health)
http://developingchild.harvard.edu/science/key-concepts/toxic-stress/

National Scientific Council on the Developing Child (2005/2014). *Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper No. 3*. Updated Edition. Retrieved from www.developingchild.harvard.edu

ix **Women desire effective contraceptive because of their perceived socio-economic benefits**.
Frost JJ and Lindberg LD, Reasons for using contraception: perspectives of U.S. women seeking care at specialized family planning clinics, 2012, *Contraception*,
<http://www.guttmacher.org/pubs/journals/j.contraception.2012.08.012.pd

x **Meta-analysis: unintended birth is significantly more likely to result in low birth weight**.
Matern Child Health J. 2011 Feb;15(2):205-16. doi: 10.1007/s10995-009-0546-2.
Intention to become pregnant and low birth weight and preterm birth: a systematic review.
Shah PS1, Balkhair T, Ohlsson A, Beyene J, Scott F, Frick C

xi **Increased LARC use positively associated with a reduction in Preterm birth.**
Goldthwaite LM, Duca L, Johnson RK, Ostendorf D, Sheeder J. Adverse Birth Outcomes in Colorado: Assessing the Impact of a Statewide Initiative to Prevent Unintended Pregnancy. *American Journal of Public Health*. 2015;105(9):e60-e66. doi:10.2105/AJPH.2015.302711.

xii **Adverse Birth Outcomes in Colorado: Assessing the Impact of a Statewide Initiative to Prevent Unintended Pregnancy.**
Goldthwaite LM, Duca L, Johnson RK, Ostendorf D, Sheeder J.
Am J Public Health. 2015 Sep;105(9):e60-6. doi: 10.2105/AJPH.2015.302711. Epub 2015 Jul 16.