

MATERNAL AND INFANT HEALTH

SHIP Work Team packet, HPIO 9/14/16

Priority topic definition

Maternal and infant health includes infant and maternal mortality, birth outcomes and related risk factors impacting preconception, pregnancy and infancy such as teen pregnancy, unintended births, women's physical and mental health, and reproductive and sexual health – as well as paternal health and involvement and related family and community contexts.

Development of priority topic outcome objectives

The first task of the Work Team will be to select no more than three (3) desired outcomes to focus on in the SHIP. The internal state agency team reviewed a list of 20 potential outcomes and has narrowed it down to the ones listed below.

Condition or clinical risk factor	Desired outcome (source)	Directly related to	
		PCMH quality measure	SIM episode quality measure
Infant mortality	<ol style="list-style-type: none"> 1. Decreased infant deaths (ODH Vital Statistics) 2. Decreased infant death rate from sudden unexpected infant deaths (SUID), which includes sudden infant death syndrome (SIDS), unknown cause, accidental suffocation, and strangulation in bed (Ohio Child Fatality Review Annual Report) 		
Birth outcomes	<ol style="list-style-type: none"> 3. Decreased rate of preterm births (<37 weeks of gestation) (ODH Vital Statistics) 4. Decreased rate of low birth weight births in which the newborn weighs less than 2,500 grams (ODH Vital Statistics) 5. Decreased rate of infants born with a birth defect (Ohio's Connections for Children with Special Needs) 	X	X
Unintended pregnancies	<ol style="list-style-type: none"> 6. Decreased rate of unintended pregnancies (TBD) 		
Women's health: Chronic disease	<ol style="list-style-type: none"> 7. Decreased prevalence of diabetes among pregnant women and/or women of childbearing age (TBD) 8. Decreased prevalence of obesity among pregnant women and/or women of childbearing age (TBD) 9. Decreased rate of underweight pregnant women and/or women of childbearing age (TBD) 	X	X

Inventory of evidence-based strategies and related outcomes

Please consider this inventory of strategies when narrowing down desired outcomes to address in the SHIP.

Sources

The strategies listed here have been systematically reviewed by the following national organizations and found to be effective in reaching desired outcomes within this SHIP priority area.

Systematic review or evidence registry	Recommendation level(s) included in this inventory
Hi-5 (Health Impact in 5 Years): U.S. Centers for Disease Control and Prevention (CDC) <i>(includes cost considerations)</i>	<ul style="list-style-type: none"> Recommended
6/18 (Accelerating Evidence into Action): CDC <i>(includes cost considerations)</i>	<ul style="list-style-type: none"> Recommended
The Guide to Community Preventive Services (Community Guide or CG): Systematic reviews from CDC	<ul style="list-style-type: none"> Recommended
What Works for Health (WWFH): Evidence registry from County Health Rankings and Roadmaps, a project of the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation	<ul style="list-style-type: none"> Scientifically supported Some evidence
U.S. Preventive Services Task Force Recommendations (USPSTF): Systematic reviews from the Agency for Healthcare Research and Quality	<ul style="list-style-type: none"> Grade A (recommended; high certainty of benefit) Grade B (recommended; moderate certainty of benefit)
Additional recommendation from the Ohio Department of Health (ODH)	

See also:

- [Collaborative Improvement and Innovation Network to Reduce Infant Mortality, Social determinants of health learning network, Recommended strategies](#)
- [Teen Pregnancy Prevention Evidence-Based Programs Database](#)
- [Forging a comprehensive initiative to improve birth outcomes and reduce infant mortality](#)

Table 1. Health equity [note: this table is the same for all 3 priority topics]

Outcome area	Strategy/Intervention	Outcomes
Education	Early childhood education	CG: "When provided to low-income or racial and ethnic minority communities, (center-based) ECE programs are likely to reduce educational achievement gaps, improve the health of these student populations, and promote health equity."
	Full-day kindergarten programs*	CG: "Full-day kindergarten programs improve the health prospects of low-income and racial and ethnic minority children, based on strong evidence that full-day programs substantially improve reading and mathematics achievement—determinants of long-term academic and health-related outcomes."
	High school completion programs	CG: "Because academic achievement is linked with long-term health, and because high school completion programs are commonly implemented in racial and ethnic minority or low-income communities, these programs are likely to improve health equity."
	Out-of-school-time academic programs: Reading-focused, math-focused and general	CG: "Because academic achievement is linked with long-term health, and because out-of-school-time academic programs are commonly implemented in racial and ethnic minority or low-income communities, these programs are likely to improve health equity."
	School-based health centers*	CG: "If targeted to low-income communities, SBHCs are likely to reduce educational gaps and advance health equity."
Equity in birth outcomes	Ohio Institute for Equity in Birth Outcomes (OEI)	See http://www.odh.ohio.gov/OEI .
	Best Baby Zones	See http://www.bestbabieszone.org/ .
Other	See below for additional strategies likely to reduce health disparities. *= programs and policies likely to reduce disparities, based on review by What Works for Health	

Bold= strategies are included in Hi-5 or 6/18 (both include cost considerations)

*= programs and policies likely to reduce disparities, based on review by What Works for Health

Table 2. Social determinants of health (including the social, economic and physical environment)

Outcome area	Strategy/Intervention	Outcomes
Economic environment	Earned income tax credits* (increase take-up of existing credits, extend state credit, etc.)	Hi-5: <ul style="list-style-type: none"> • Reduced Infant mortality • Reduced low birth weight • Health improvements for infants • Improved maternal mental health • Improved maternal physical health Also <ul style="list-style-type: none"> • Reduced poverty • Increased income
Physical environment: Secondhand smoke exposure	<i>See tobacco use prevention strategies in Chronic disease outcome and evidence inventory</i>	Multiple sources: <ul style="list-style-type: none"> • Decreased secondhand smoke exposure • Decreased tobacco use
Early childhood/ Child maltreatment	Early childhood education See also: <ul style="list-style-type: none"> • CG: Center-based early childhood education • WWFH: Preschool education programs, Universal pre-kindergarten*, and HighScope Perry Preschool approach* • Early Childhood Mental Health Consultation for children in center-based early childhood education 	Hi-5: <ul style="list-style-type: none"> • Decreased child maltreatment • Improved emotional development • Increased self-regulation • Improved cognitive development • Healthy weight • Decreased teen birth rates • Improved academic achievement • Decreased crime rates • Improved infant mental health
	Early childhood home visiting programs—to prevent child maltreatment* See also: WWFH: Early childhood home visiting programs*	CG: <ul style="list-style-type: none"> • Reduced child maltreatment
	Nurse-Family Partnership* (specific home visiting model)	WWFH: <ul style="list-style-type: none"> • Reduced child maltreatment • Improved well-being • Improved family functioning • Reduced risky health behaviors
Youth development/ Teen pregnancy	School-based health clinics with reproductive health services*	WWFH: <ul style="list-style-type: none"> • Reduced low birthweight births • Improved student attendance • Increased high school graduation
	Service learning programs: pregnancy and STIs*	WWFH: <ul style="list-style-type: none"> • Reduced teen pregnancy • Reduced risky sexual behavior
	Treatment Foster Care Oregon	WWFH: <ul style="list-style-type: none"> • Reduced recidivism • Reduced violence • Reduced delinquent behavior

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		<ul style="list-style-type: none">• Reduced teen pregnancy• Increased academic achievement
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Table 3. Public health system, prevention and health behaviors

Outcome area	Strategy/Intervention	Outcomes
Breastfeeding	Breastfeeding promotion programs*	WWFH: <ul style="list-style-type: none"> Increased breastfeeding rates
Birth defects	Community-Wide Campaigns to Promote the Use of Folic Acid Supplements	CG: <ul style="list-style-type: none"> Increased consumption of folic acid supplements Reduced neural tube birth defects
Preconception	Preconception education interventions	WWFH: <ul style="list-style-type: none"> Increased preconception planning Improved health-related knowledge Improved birth outcomes
Teen pregnancy/ unintended pregnancy/STI/risky sexual behavior prevention	Group-Based Comprehensive Risk Reduction Interventions for Adolescents See also: WWFH: Multi-component interventions—Pregnancy and STIs and Teen pregnancy prevention programs	CG: <ul style="list-style-type: none"> Reduced sexual activity and risky sexual activity Increased use of contraception and STI protection Reduced incidence of STIs
	Youth Development Behavioral Interventions Coordinated with Community Service to Reduce Sexual Risk Behaviors in Adolescents See also: WWFH: Service learning programs—Pregnancy and STIs	CG: <ul style="list-style-type: none"> Reduced sexual risk behaviors
	Mass media campaigns to prevent pregnancy & STIs	WWFH: <ul style="list-style-type: none"> Increased STI testing Increased HIV and STI knowledge
	Computer-based interventions to prevent HIV and other STIs	WWFH: <ul style="list-style-type: none"> Increased HIV and STI knowledge Increased self-efficacy
	Behavioral interventions to prevent HIV and other STIs*	WWFH: <ul style="list-style-type: none"> Reduced incidence of STIs Reduced risky sexual behavior Increased condom use
	Condom availability programs	WWFH: <ul style="list-style-type: none"> Increased condom use Increased condom acquisition
	Case management for pregnant women/prenatal care support	CenteringPregnancy*
Intensive case management for pregnant and parenting teens*		WWFH: <ul style="list-style-type: none"> Reduced teenage pregnancy Reduced rapid repeat pregnancies
Women's health: Tobacco use	See Chronic disease evidence inventory	Multiple sources: <ul style="list-style-type: none"> Reduced smoking among pregnant women/women of childbearing age Reduced exposure to secondhand

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		smoke
Women's health: Chronic disease	See Chronic disease evidence inventory	Multiple sources: <ul style="list-style-type: none"> • Reduced diabetes among women of childbearing age • Reduce gestational diabetes • Reduced hypertension prevalence among women of childbearing age • Increased healthy weight among women of childbearing age
Women's health: Mental health	See Mental health and addiction inventory	Multiple sources: <ul style="list-style-type: none"> • Reduced prevalence of depression among pregnant women/women of childbearing age • Reduced prevalence of post-partum depression

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Table 4. Healthcare system and access

Outcome area	Strategy/Intervention	Outcomes
Contraception and reproductive health	Access and payment for full range of contraceptive services, including LARC	6/18: <ul style="list-style-type: none"> Reduced unintended pregnancy
	Mobile reproductive health clinics*	WWFH: <ul style="list-style-type: none"> Improved prenatal care
Breastfeeding	Breastfeeding: Counseling for all women	USPSTF: <ul style="list-style-type: none"> Increased initiation, duration, and exclusivity of breastfeeding
Birth defects	Folic Acid to Prevent Neural Tube Defects: Preventive Medication for women planning or capable of pregnancy	USPSTF: <ul style="list-style-type: none"> Reduced risk for neural tube defects
Infectious disease screenings	Hepatitis B in Pregnant Women: Screening	USPSTF: <ul style="list-style-type: none"> Reduced perinatal transmission of HBV and the subsequent development of chronic HBV infection
	Chlamydia and Gonorrhea: Screening, sexually active women	USPSTF: <ul style="list-style-type: none"> Reduced complications of chlamydial infection in women who are at increased risk
	Syphilis Infection in Pregnancy: Screening	USPSTF: <ul style="list-style-type: none"> Reduced proportion of infants with clinical manifestations of syphilis infection
	HIV Infection: Screening for pregnant women	USPSTF: <ul style="list-style-type: none"> Reduced mother-to-child transmission Reduced risk for progression to AIDS, AIDS-related events, and death in individuals with immunologically advanced disease
	Interventions to Identify HIV-Positive People Through Partner Counseling and Referral Services* See also: WWFH: Partner counseling and referral services (PCRS)*	CG: <ul style="list-style-type: none"> Increased HIV testing Increased identification of previously undiagnosed HIV-positive individuals
Other screenings and clinical preventive services	Asymptomatic Bacteriuria in Adults: Screening for pregnant women at 12 to 16 weeks' gestation	USPSTF: <ul style="list-style-type: none"> Reduced incidence of symptomatic maternal urinary tract infections Reduced low birthweight
	Gestational Diabetes Mellitus, Screening for asymptomatic pregnant women, after 24 weeks of gestation	USPSTF: <ul style="list-style-type: none"> Reduced risk of preeclampsia, fetal macrosomia, and shoulder dystocia
	Low-Dose Aspirin Use for the Prevention of Morbidity and Mortality From Preeclampsia for pregnant women who are at high risk for preeclampsia	USPSTF: <ul style="list-style-type: none"> Reduced risk for preeclampsia, preterm birth, and IUGR in women at increased risk for

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		preeclampsia
Teen pregnancy	Comprehensive clinic-based programs for pregnant and parenting teens*	WWFH: <ul style="list-style-type: none"> • Reduced teenage pregnancy • Reduced rapid repeat pregnancies

Relevant state plans:

- [Ohio 2015-2016 State Health Improvement Plan Addendum](#)
- [Ohio Infant Mortality Reduction Plan](#)
- [Ohio Injury Prevention Partnership, Child Injury Action Group Strategic Plan](#)
- [Ohio Commission on Minority Health White Paper: Achieving Equity and Eliminating Infant Mortality Disparities within Racial and Ethnic Populations: From Data to Action](#)
- [Ohio Commission on Infant Mortality Committee Report, Recommendations, and Data Inventory](#)
- Ohio Department of Health Maternal and Child Health (MCH) Priority Action Group Overview

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