

COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS

Comprehensive screening and referral programs are an effective state STRATEGY to impact:



Parents' Ability to Work Sufficient Household Resources

Healthy and Equitable Births Parental Health and Emotional Wellbeing Nurturing and Responsive Child-Parent Relationships

Nurturing and Responsive Child Care in Safe Settings



Comprehensive screening and referral programs:

- increase families' connections to needed services; and
- have mixed impacts on children's health and development.

8

states have both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.

WHAT ARE COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS?

Comprehensive screening and referral programs assess children and parents for a range of factors that contribute to long-term child and family wellbeing, including physical development, behavioral issues, parental mental and physical health, and social predictors of health.¹ Based on identified needs, families are referred to necessary services and supports to address risk factors early. Two models of comprehensive screening and referral programs, Family Connects and Healthy Steps, have been rigorously studied and have demonstrated effectiveness in impacting prenatal-to-3 goals. In participating sites, each program provides comprehensive screenings to families universally.

A Key Program, Family Connects, Screens Families Postpartum

Family Connects links parents and infants to resources soon after birth. Following delivery, all mothers in participating hospitals are offered the opportunity to participate in the program, and those who choose to participate receive a home visit from a nurse who completes a risk assessment of the family.² Based on the results of the assessment, families are offered services tailored to their specific needs and levels of risk, including referrals to available community resources.

Another Important Program, Healthy Steps, Serves Families in the Pediatric Setting

Healthy Steps incorporates a child development specialist and other services into routine pediatric care at participating sites.³ The primary goal of the program is to improve parenting knowledge and behaviors to promote optimal growth and development over a child's first three years.

WHY ARE COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS IMPORTANT?

Periodic Screenings Help Identify Needs Early

Screening families during the prenatal, postpartum, and early childhood periods can help proactively identify needs. Referrals to community resources can help families access services and supports they need during this sensitive period of development. Comprehensive screening programs identify a wide range of potential risks early, which can promote long-term optimal child development and family wellbeing.⁴

Comprehensive Screenings Foster a Holistic Approach to Health and Wellbeing

Screening for indicators of health beyond behavioral and biological factors encourages providers to take a more holistic approach to the many factors affecting a family's health and wellbeing.⁵

But Screening Families Is Only Effective When Paired with Subsequent Referral and Receipt of Services

Identifying needs through screenings alone is not enough to move the mark on child outcomes. Referrals to resources and initiation of effective services are key aspects in addressing identified needs.

What Is the Difference Between Policies and Strategies?

We define policies here as having clear legislative or regulatory action, based on research gleaned through comprehensive reviews of rigorous evidence. By contrast, the evidence on effective strategies does not provide clear legislative guidance on how to fund or implement the strategy to garner the impacts at a statewide level that were demonstrated in studies. The evidence base will continue to expand to provide more direction to states. Please see pn3policy.org for additional information.

WHAT IMPACT DO COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS HAVE?

Family Connects and Healthy Steps connect families to needed services and can promote optimal child health and development through timely vaccinations and pediatric appointments.

Strong Causal Studies Show That Comprehensive Screening and Referral Programs Impact Two Prenatal-to-3 Policy Goals

Examples of Impact:



- FC families accessed between 0.7 (B) and 0.9 (D) more community resources
- HS families had 3.5 times higher odds of being informed about community resources (E)



- FC had both positive and null impacts on total infant emergency care use (A, B, C, D)
- HS families had 1.3 times higher odds of timely vaccinations and 2.3 times higher odds of timely pediatric appointments (F)

Notes. FC=Family Connects; HS=Healthy Steps; results are based on comprehensive reviews of the evidence. The letters in parentheses in the table above correspond to a strong causal study in the comprehensive evidence review of comprehensive screening and referral programs. Each strong causal study reviewed has been assigned a letter. A complete list of causal studies can be found in the references section of this document. Comprehensive evidence reviews of each policy and strategy, as well as more details about our standards of evidence and review method, can be found at pn3policy.org.



Search the new Prenatal-to-3 Policy Clearinghouse for an ongoing inventory of rigorous evidence reviews at pn3policy.org/clearinghouse.

WHAT DO WE STILL NEED TO LEARN ABOUT COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS?

More Research Is Needed to Identify a State Policy Lever to Implement Comprehensive Screening and Referral Programs

Family Connects and Healthy Steps have only been studied as local interventions; therefore, the evidence does not provide clear guidance for states on the most effective way to fund or implement comprehensive screening and referral programs as a statewide policy.

Additional Comprehensive Screening and Referral Models Need to Be Evaluated

To date, rigorous evaluations have only been conducted on two models: Family Connects and Healthy Steps. Some states have designed their own models, and other models are being implemented that need to be rigorously studied.

Little Is Known About the Impacts of Comprehensive Screening and Referral Programs on Fathers

The impacts of comprehensive screening and referral programs are largely focused on mothers, who constitute the vast majority of the study samples. One randomized control trial (RCT) of Family Connects examined father-infant relationship quality, but found no significant association.⁶ Future experimental research should explore the impacts on fathers, as well as mothers.

More Needs to Be Studied About the Impacts of Comprehensive Screening and Referral Programs on People of Color

Studies of Family Connects do not demonstrate effectiveness at reducing racial and ethnic disparities. At 12 months, positive effects were seen for all racial/ethnic subgroups, but White families experienced the largest positive effects on infant emergency care use.⁷ A follow-up study at 24 months found positive impacts only among White families and not among other racial/ethnic subgroups.⁸ A study of Healthy Steps also showed larger positive impacts on parental discipline for White mothers, but skewed attrition rates make it difficult to differentiate impacts by race and ethnicity, because White mothers were less likely to drop out of the study.^{9,10}

Additional Studies Will Be Helpful to Further Understand the Effects of Comprehensive Screening and Referral Programs on Other Policies

Comprehensive screening and referral programs often refer families to services such as evidence-based home visiting programs or Early Intervention services. More research is necessary to understand how comprehensive screening and referral programs interact with other policies and programs that impact the prenatal-to-3 population.

The Return on Investment for Comprehensive Screening and Referral Programs Needs to Be Studied More

Evidence suggests that every dollar invested in Family Connects returns more than \$3 in savings from emergency health care, but additional research needs to be done in other settings. No information about the return on investment of Healthy Steps was included in the experimental studies of the Healthy Steps program included in our evidence review.

Tracking and Evaluating How States Have Responded to COVID-19 Will Be Essential

Three states (California, Minnesota, and North Carolina) with Family Connects sites are offering virtual consultation and continuing referrals. An additional two states (Illinois and Texas) with Family Connects sites have issued guidance and resources related to COVID-19. Healthy Steps also has released guidance about providing services via telehealth for Healthy Steps sites. The effects of virtual comprehensive screening programs remain to be seen as services continue to adapt to telehealth methods in response to the COVID-19 pandemic.

HOW DO STATES VARY IN THEIR IMPLEMENTATION OF COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS?

In the absence of a clear state policy lever to assess variation across the states, we describe instead how states compare in their progress toward implementing evidence-based comprehensive screening programs—Family Connects and Healthy Steps.

Nearly Half of States Implement Family Connects or Healthy Steps, or Both

Two states implement Family Connects, 15 states implement Healthy Steps, and eight states implement both Family Connects and Healthy Steps (California, Illinois, Maryland, New York, North Carolina, Oklahoma, Oregon, and Texas). Approximately half of states (26) do not implement either program.

Some States Implement Alternate Comprehensive Screening and Referral Programs

One state, Illinois, implements both Family Connects and Healthy Steps plus an alternative screening program. Three other states implement either Family Connects or Healthy Steps and an alternate comprehensive screening program. Five states implement only alternative screening programs, but do not implement either Family Connects of Healthy Steps. To date, alternate screening programs included in the figure on the next page have not yet been rigorously studied, and future evaluations will be necessary to build the evidence base.

How Do We Determine States' Progress Toward Implementing Effective Policies and Strategies?

Without state statute or law to review for progress toward a defined legislative or regulatory action, we leveraged available data assessing state variation in each of the strategies to demonstrate how states are making progress implementing the six strategies relative to one another. Indicators of variation included factors such as the percentage of children or families that states serve through the strategy, states' eligibility criteria for the strategy, whether states invest state funds in the strategy, and whether states meet the federal recommendations for implementing the strategy.

Based on information from Family Connects and Healthy Steps national websites, state statues and legislature on comprehensive screenings, and state department websites' information on available screening programs, we determined whether states are making substantial progress toward having both evidence-based comprehensive screening and referral programs: Family Connects and Healthy Steps.

The figure on the following page shows the progress states have made to date toward implementing comprehensive screening and referral programs. For additional information, please refer to the Methods and Sources section of pn3policy.org.

Have States Made Substantial Progress Toward Implementing Both Evidence-Based Comprehensive Screening and Referral Programs: Family Connects and Healthy Steps?

Progress	Detail #	# of States
	10	
Substantial	State has a combination of Family Connects, Healthy Steps, and an alternative comprehensive screening program.	1
Progress	8	
	7 State has both Family Connects and Healthy Steps sites.	7
	State has Family Connects or Healthy Steps sites (but not both) and an alternative comprehensive screening program.	3
Some Progress	5 State has either Family Connects or Healthy Steps sites.	14
	4	
	State has neither Family Connects or Healthy Steps sites, but does have an alternative comprehensive screening program.	5
Little to No Progress	2	
	State does not have Family Connects sites, Healthy Steps sites, or an alternative comprehensive screening program.	21
	o e	

AK 1	Numbers in the map below correspond to each state's level of progress, shown in the figure above. A higher number indicates a greater level of progress.											
						WI 6				VT 1	NH 3	
W A 5	A	ID 1	M T 1	ND 1	MN 5	IL 9	MI 1		NY 7	MA 6		
O R 7	₹	NV 1	WY 3	SD 1	IA 3	IN 1	OH 5	PA 5	NJ 1	C T 5	RI 3	
CA 7	\	UT 1	co 5	NE 1	MO 5	KY 6	wv 1	VA 1	MD 7	DE 1		
		AZ 5	NM 1	KS 1	AR 5	TN 3	NC 7	SC 5	DC 5			
				ок 7	LA 1	MS 5	AL 5	GA 1				
HI 1				TX 7					FL 5			

References:

Strong Causal Studies

- A. Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M
- B. Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., Sato, J., & Guptill, S. (2014). Implementation and randomized controlled trial evaluation of universal postnatal nurse home visiting. *American Journal of Public Health*, 104 Suppl 1, S136-143. https://doi.org/10.2105/AIPH.2013.301361
- C. Goodman, W. B., Dodge, K. A., Bai, Y., O'Donnell, K. J., & Murphy, R. A. (2019). Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months. *Development and Psychopathology*, 31(5), 1863–1872. https://doi.org/10.1017/S0954579419000889
- D. Dodge, K. A., Goodman, W. B., Bai, Y., O'Donnell, K., & Murphy, R. A. (2019). Effect of a community agency—administered nurse home visitation program on program use and maternal and infant health outcomes: A randomized clinical trial. *JAMA Network Open*, 2(11), e1914522. https://doi.org/10.1001/jamanetworkopen.2019.14522
- E. Minkovitz, C. (2001). Early effects of the Healthy Steps for Young Children program. *Archives of Pediatrics & Adolescent Medicine*, 155(4), 470. https://doi.org/10.1001/archpedi.155.4.470
- F. Minkovitz, C. S., Hughart, N., Strobino, D., Scharfstein, D., Grason, H., Hou, W., Miller, T., Bishai, D., Augustyn, M., McLearn, K. T., & Guyer, B. (2003). A practice-based intervention to enhance quality of care in the first 3 years of life: The Healthy Steps for Young Children Program. *JAMA*, 290(23), 3081. https://doi.org/10.1001/jama.290.23.3081
- G. Minkovitz, C. S., Strobino, D., Mistry, K. B., Scharfstein, D. O., Grason, H., Hou, W., Ialongo, N., & Guyer, B. (2007). Healthy Steps for Young Children: Sustained results at 5.5 Years. *Pediatrics*, 120(3), e658–e668. https://doi.org/10.1542/peds.2006-1205
- H. Caughy, M. O., Miller, T. L., Genevro, J. L., Huang, K.-Y., & Nautiyal, C. (2003). The effects of Healthy Steps on discipline strategies of parents of young children. *Journal of Applied Developmental Psychology*, 24(5), 517–534. https://doi.org/10.1016/j. appdev.2003.08.004
- I. Caughy, M. O., Huang, K.-Y., Miller, T., & Genevro, J. L. (2004). The effects of the Healthy Steps for Young Children Program: Results from observations of parenting and child development. *Early Childhood Research Quarterly*, 19(4), 611–630. https://doi.org/10.1016/j.ecresq.2004.10.004

Other References

- ¹ Shonkoff, J. (2017). Breakthrough impacts: What science teaches us about supporting early childhood development. *Young Children*, 72(2), 8–16. https://www.jstor.org/stable/90004117?seq=1
- ² Family Connects International. (2019). Family Connects: Frequently asked questions. http://www.familyconnects.org/faq
- ³ Healthy Steps & Zero to Three. (2019). Healthy Steps: Frequently asked questions. https://www.healthysteps.org/article/preview/5118ad75-b1d0-4755-a66e-c08234054188#13
- ⁴ Shonkoff, J. (2017). Breakthrough impacts: What science teaches us about supporting early childhood development. *Young Children*, 72(2), 8–16. https://www.jstor.org/stable/90004117?seq=1
- ⁵ Hagan, J.F., Shaw, J.S. & Duncan, P.M. (2017). Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. American Academy of Pediatrics. https://brightfutures.aap.org/materials-and-tools/guidelines-and-pocket-guide/Pages/default.aspx
- ⁶ Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M
- ⁷ Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M
- ⁸ Goodman, W. B., Dodge, K. A., Bai, Y., O'Donnell, K. J., & Murphy, R. A. (2019). Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months. *Development and Psychopathology*, 31(5), 1863–1872. https://doi.org/10.1017/S0954579419000889
- ⁹ Caughy, M. O., Miller, T. L., Genevro, J. L., Huang, K.-Y., & Nautiyal, C. (2003). The effects of Healthy Steps on discipline strategies of parents of young children. Journal of Applied Developmental Psychology, 24(5), 517–534. https://doi.org/10.1016/j.appdev.2003.08.004

STRATEGY: COMPREHENSIVE SCREENING AND REFERRAL PROGRAMS

- ¹⁰ Caughy, M. O., Huang, K.-Y., Miller, T., & Genevro, J. L. (2004). The effects of the Healthy Steps for Young Children Program: Results from observations of parenting and child development. *Early Childhood Research Quarterly*, 19(4), 611–630. https://doi.org/10.1016/j.ecresq.2004.10.004
- ¹¹ Dodge, K. A., Goodman, W. B., Murphy, R. A., O'Donnell, K., & Sato, J. (2013). Randomized controlled trial of universal postnatal nurse home visiting: Impact on emergency care. *Pediatrics*, 132(Supplement 2), S140–S146. https://doi.org/10.1542/peds.2013-1021M
- ¹² Goodman, W. B., Dodge, K. A., Bai, Y., O'Donnell, K. J., & Murphy, R. A. (2019). Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months. *Development and Psychopathology*, 31(5), 1863–1872. https://doi.org/10.1017/S0954579419000889
- ¹³ Santa Barbara County Education Office. (2020). Welcome Every Baby Family Connects services during COVID-19. https://www.sbceo.org/site/Default.aspx?PageID=395
- 14 Center for Child & Family Health. (n.d.). Family connects Durham. https://www.ccfhnc.org/programs/family-connects-durham/
- 15 Hennepin Healthcare. (2020). https://www.hennepinhealthcare.org/make-an-appointment/
- ¹⁶ The National Child Traumatic Stress Network. (2020). *Parent/caregiver guide to helping families cope with the Coronavirus disease 2019 (COVID-19)*. https://www.chail.org/Images/webpages/NCTSN_Parent_guide_fo_helping_families_cope_with_COVID-19.pdf
- ¹⁷ Family Connects Texas. (2020). COVID-19 support for parents. https://www.familyconnectstexas.org/covid19-support-for-parents
- ¹⁸ Healthy Steps. (2020). Telehealth and Remote Service Delivery Resources amid COVID-19. https://www.healthysteps.org/article/telehealth-and-remote-service-delivery-resources-amid-covid-19-162



