

# Life Course Indicator: Postpartum Depression

## The Life Course Metrics Project

As MCH programs begin to develop new programming guided by a life course framework, measures are needed to determine the success of their approaches. In response to the need for standardized metrics for the life course approach, AMCHP launched a project designed to identify and promote a set of indicators that can be used to measure progress using the life course approach to improve maternal and child health. This project was funded with support from the [W.K. Kellogg Foundation](#).

Using an RFA process, AMCHP selected seven state teams, Florida, Iowa, Louisiana, Massachusetts, Michigan, Nebraska and North Carolina, to propose, screen, select and develop potential life course indicators across four domains: Capacity, Outcomes, Services, and Risk. The first round of indicators, proposed both by the teams and members of the public included 413 indicators for consideration. The teams distilled the 413 proposed indicators down to 104 indicators that were written up according to three data and five life course criteria for final selection.

In June of 2013, state teams selected 59 indicators for the final set. The indicators were put out for public comment in July 2013, and the final set was released in the Fall of 2013.

### Basic Indicator Information

**Name of indicator:** Postpartum Depression (LC-44)

**Brief description:** Percent of women who have recently given birth who reported experiencing postpartum depression following a live birth

**Indicator category:** Mental Health

**Indicator domain:** Risk/Outcome

**Numerator:** Number of women who experienced self-reported postpartum depression following a live birth

**Denominator:** Total live births to recent mothers

**Potential modifiers:** Race/ethnicity, education, age, nativity, household income, employment, marital status, stress, social support, personal/family history of mood disorder, number of children

**Data source:** Pregnancy Risk Assessment Monitoring System (PRAMS)

**Notes on calculation:** Three survey questions found in PRAMS assess postpartum depressive symptoms: (1) "Since your new baby was born, how often have you felt down, depressed, or sad?" (2) "Since your new baby was born, how often have you felt hopeless?" and (3) "Since your new baby was born, how often have you felt slowed down?" Women who report a response of "often" or "always" to any of these questions are defined as experiencing self-reported postpartum depression (1). Analysts who use the raw datasets should apply the appropriate survey weights to generate the final estimates.

**Similar measures in other indicator sets:** Preconception Health Indicator G3; MIECHV Benchmark Area Improved Maternal and Newborn Health: Screening for maternal depressive symptoms

## Life Course Criteria

### **Introduction**

Maternal mental health, which includes postpartum mood disorders like the “baby blues,” postpartum depression, and the comparatively rare postpartum psychosis, can be a challenge for families, particularly families with low income, young maternal age or unmarried parents (3). Postpartum depression, which impacts a relatively large number of women and has consequences more serious and longer in duration than the “baby blues,” has the ability to negatively affect maternal life course and the developmental trajectories of children through a number of possible avenues. Depressed mothers report higher incidences of intimate partner violence, rape, child abuse (3) and are at increased risk for future major depression or mood disorders (4,15). Postpartum depression in mothers is also associated with negative health effects in their children. Infants of mothers with postpartum depression are more likely to be abused, neglected, become hospitalized with health issues, and to be diagnosed with failure to thrive (25). The cognitive, social-emotional, and behavior development of these children can all also be negatively affected (25). Effective evidence-based interventions and practices such as providing social support or cognitive behavioral therapy exist to prevent postpartum depression or lessen the intensity of the symptoms (3). Other innovative practices currently being examined include lengthening of maternity leave and increasing father involvement in infant care. Delivering these interventions to mothers at risk for postpartum depression or currently suffering from depressive symptoms will require resources and new partnerships, but will ultimately result in better outcomes for mothers and their babies.

### **Implications for equity**

In the United States, maternal postpartum depression occurs in 10 to 20 percent of women after birth; the timeframe for developing postpartum depression can vary from immediately after birth to up to about a year, but it most commonly occurs in the three to six months prior to birth (4). Higher estimates have been reported among socially disadvantaged groups of women. Studies of adolescent mothers have reported prevalences of postpartum depression at 53 and 56 percent (5). Among low-income women, the prevalence of postpartum depression is nearly double that of the general population (6).

In addition to young age and low socioeconomic status, single marital status (i.e. unwed or separated/divorced) and low educational attainment have been found to increase a woman’s risk for postpartum depression (4,7). A contributor to the association between single marital status and postpartum depression could be lack of sufficient father involvement during pregnancy and in parenting after birth (26,27). Mothers’ satisfaction with father involvement in parenting is associated with fewer depressive symptoms (26) and lack of paternal involvement in infant care is associated with increased intensity of maternal postpartum depression (27). A personal or family history of previous mood disorder, lack of social support, and exposure to stressful or traumatic life experiences (e.g. marital changes, domestic violence, occupational changes, unsafe residence) are also cited as risk factors (4,7).

Whether or not maternal postpartum depression varies by racial/ethnic group remains unclear. There is some evidence to suggest that minority women, particularly African-American women, are at an increased risk for depressed mood following birth (8,9,10). However, other studies on maternal postpartum depression report conflicting results (11,17). In the broad mental health literature, empirical findings often reveal that African-Americans suffer the same or lower rates of mental disorders compared to whites, despite greater physical morbidity and mortality rates (20,21). Further research on racial/ethnic disparities with regard to maternal postpartum depression is warranted. It may be that mental health patterns evident in the broad mental health literature extend to maternal postpartum depression as well.

### **Public health impact**

Maternal postpartum depression represents a public health concern due to its prevalence, effects on health and well-being, and costs. In addition to the direct repercussions maternal postpartum depression has on the health of women and children, interpersonal relationships (e.g. family dynamics and marital harmony) and social roles are negatively affected. Additionally, maternal postpartum depression reduces the enjoyment mothers receive from their parenting role. Compared to non-depressed mothers, mothers suffering from postpartum depression exhibit reduced sensitivity and responsiveness to their infants as well as reduced healthy feeding and sleep practices (25). The effect postpartum depression has on the maternal-infant relationship may be a mechanism behind associations between maternal postpartum depression and increased health problems and behavioral and emotional issues in children. Furthermore, maternal postpartum depression contributes to increased costs of medical care and inappropriate medical care (6).

Given the repercussions of maternal postpartum depression, identification, treatment, and prevention are essential to improving outcomes for current and future generations. However, this indicator often goes undiagnosed (4,17,18) despite the existence of standard postnatal screening tools such as the Edinburgh Postnatal Depression Scale (34). Postpartum depression screening has variable sensitivity and specificity depending on the screening tool and is slowly coming into standard practice (17). One of the best opportunities for screening is the postpartum visit, but many childbearing women miss this visit or do not see a health care practitioner regularly during the postpartum year (4). There are other opportunities for screening and diagnosis despite these potential gaps; most early childhood home visiting programs are targeted towards women and families that have higher risks for poor outcomes and screening for postpartum (or perinatal) depression is a component of most home visiting program. While women in the postpartum year may not see providers for their own health needs, most will take their child to a pediatric provider, which is another opportunity for screening and referral. The American Academy of Pediatrics Bright Futures Initiative includes three different screening tools, including the Edinburgh screening tool, in their clinical practice tool and resource kit (35). Perhaps the biggest barrier to consistent screening and follow up is an area of opportunity for public health: a healthcare workforce that is skilled and proficient in using screening tools. Public health departments can have a role in providing training for providers that see women of childbearing age, including OBs, pediatricians, and family practice physicians, on the tools available, the opportunities to screen, and the steps to follow up and refer for services using the model of home visiting.

### ***Leverage or realign resources***

Based on the nature of maternal postpartum depression, this indicator has moderate potential to leverage and realign resources beyond the health sector. Maternal postpartum depression threatens the health and well-being of a woman, her infant, the mother-infant bond, and the family unit. As such, family support groups, mental health service providers, and early child care programs should collaborate with health entities to promote screening, treatment, support, and follow-up for new mothers and their families.

Unfortunately, few studies examining public health interventions that can prevent or alter maternal postpartum depression and its impact currently exist (18). In a 2006 review, no clear beneficial effects of psychosocial and psychological interventions for preventing postpartum depression were found (22). Interventions that were individually based, targeted “at risk” mothers, and were initiated in the postnatal period did show promise (22). However, the ability to identify “at risk” women is hindered by the lack of a consistent, predictive, and accurate screening tool for use in the antenatal period (22). Several recommendations from clinical investigations are also in place (4,6,17). Educating families, public health officials, and health care providers about the prevalence, risk factors, and symptoms of maternal postpartum depression is warranted. Development of a proper screening program and pooling of community and medical resources are recommended.

Home visiting programs may be a valuable partner in the prevention and treatment of postpartum depression. Research has found that home visiting is not currently effectively lowering maternal postpartum depression (3). However, home visitors have access to a population with a high prevalence of maternal postpartum depression and need to overcome numerous challenges posed by depression (3). Home visiting programs may be able to boost their support for maternal mental health through innovative therapeutic practices. One method involves including a licensed social worker in home visitation to administer In-Home Cognitive Behavioral Therapy (IH-CBT), which was developed by Ammerman et al (2005) (28,29). IH-CBT was able to partially or fully relieve 84.6 percent of depressed mother’s PPD symptoms in a 2005 open trial (28). Academic partnerships with home visiting programs have trained home visiting nurses to administer simple evidence-based interventions such as problem-solving therapy (3).

Research has found longer maternity leave is associated with a decreased risk of postpartum depression (30). However, the United States policies surrounding parental leave are some of the least generous of all industrialized nations. The Family and Medical Leave Act (FMLA) currently provides employees who have worked for a minimum of 1,250 hours in the public sector or for a private employer with more than 50 employees with 12 weeks of unpaid, job protected parental leave to care for a newborn or newly adopted child (30). Many mothers are not covered by this policy, particularly low-income mothers who have been found to be at a higher risk for postpartum depression. Moreover, recent evidence indicates that the 12 weeks included in the FMLA may not be sufficient to assist mothers struggling with postpartum depressive symptoms (36). Maternity leave policies that cover all employees or are paid as opposed to unpaid would increase the amount of time many new mothers could afford to take off of work, which could reduce postpartum

depressive symptoms (30). Other family friendly workplace policies, such as flexible schedules, paid sick leave, and infant at work policies have the potential to improve outcomes for mothers and infants including and beyond postpartum depression, including promotion of breastfeeding, increasing maternal-infant bonding, and reducing sick days used to care for a sick child. Women who work hourly jobs and those who cannot afford to take unpaid leave are disproportionately affected by poor maternal and infant outcomes; public and private sector workplaces need to be leaders in promoting policies that promote healthy families, ultimately resulting in a more productive workforce.

Lower levels of social support are associated with higher levels of maternal postpartum depression (31). Social support can be provided to expectant or new mothers through several interventions involving peers, family members, or even online communities. Programs connecting mothers to a peer over the phone have been found to reduce the risk of postpartum depression (33) and studies of online communities of new mothers show these networks provide key emotional, informational, and instrumental support (31). Nurses or midwives are also a useful partner in heightening awareness of a mother's need for social support among family and friends (32). Fathers are a crucial resource for mothers who are suffering from postpartum depression as these mothers often look to their partners as a main source of support (25). Mothers experience fewer postpartum depressive symptoms when they have higher levels of satisfaction with father involvement in parenting (27). Programs aimed to increase father involvement in the life of their infant may in turn decrease prevalence or intensity of postpartum depression.

### ***Predict an individual's health and wellness and/or that of their offspring***

Maternal postpartum depression can result in poor health outcomes for both women and children that can be severe and long lasting. The symptoms of maternal postpartum depression mirror those of major depression, including sadness, despair, anxiety, compulsive thoughts, insomnia, and appetite disturbances (12). In some instances, women have thoughts of suicide or self-harm (12,13). These symptoms not only disable women from performing daily activities (14), but also affect parenting behaviors and attitudes (6). In addition, studies have found that women who have experienced postpartum depression are at an increased risk for future episodes of major depression, and recurrent postpartum mood disorders in subsequent pregnancies (4,15). This often causes women to alter their reproductive plans, choosing to avoid future pregnancies (4).

Children of depressed mothers (including infants and toddlers) are also adversely affected. Research has linked maternal depression to developmental delays, insecure attachment patterns, and behavioral problems in infants (4,6). Women with postpartum depression often discontinue breastfeeding infants as well (6). Moreover, school-age children who had postnatally depressed mothers are at a higher risk for child abuse and/or neglect (4), exhibit higher rates of behavioral disturbance (4,16), and are three to five times more likely to develop psychiatric disorders as adults (6).

## **Data Criteria**

### ***Data availability***

The Pregnancy Risk Assessment Monitoring System (PRAMS) was initiated in 1987. PRAMS is an ongoing population-based surveillance system designed to identify and monitor selected maternal experiences and behaviors that occur before and during pregnancy and during the child's early infancy. Forty states and New York City currently participate in PRAMS, representing approximately 78 percent of all U.S. live births. Six other states previously participated. The Centers for Disease Control and Prevention (CDC) maintains a combined dataset with information from all participating PRAMS states, which represents approximately 87 percent of all live births in the United States. CPONDER is a Web-based query system created to access data collected through Pregnancy Risk Assessment Monitoring System (PRAMS) surveys.

The length of time between an event and entry into the sampling frame is typically two to six months. Because PRAMS data are weighted to the final birth file, there is a data availability lag between the close of a calendar year and access to the final PRAMS dataset. As of July 2013, the most current year of data available in CPONDER was 2008.

Although the 40 states and one city that participate in PRAMS have access to their own state data, only states where the minimum response rates have been met are included in CPONDER. For 2000-2006, this required response rate was 70 percent, and for 2007-08 it was 65 percent. The required response rate may limit the availability of a "national" estimate through CPONDER, but states with PRAMS are encouraged to use their own data whenever possible.

The PRAMS survey consists of core questions that all states must include and standard, pilot-tested questions that states may choose to add. In addition, PRAMS allows states to design and add their own questions, and the state is responsible for completing question testing before the question can be included. PRAMS data is available from CDC by submitting a proposal for and data sharing agreement to CDC. Data from a single state can be requested from the state PRAMS coordinator.

Data on postpartum depressive symptoms are collected by all participating states, representing approximately 78 percent of all U.S. live births (1, 19). Six other states previously participated in PRAMS. A dataset combining information from all states that have participated in PRAMS, including the six that are not currently involved, is maintained by the CDC and represents approximately 87 percent of all U.S. live births (1). However, items that assess postpartum depression were not included in the core questionnaire prior to 2009; therefore, data on postpartum depression prior to 2009 is only available from states that included optional depression items (19).

### **Data quality**

PRAMS is a mixed-mode surveillance system that combines mail and telephone surveillance. Each year's sample is weighted to represent all births that meet the inclusion criteria before reporting. Unlike many health surveys, the PRAMS project has a wealth of information from the birth certificate on those who do not respond by either mode of contact, and therefore weighting can be effective at minimizing differences between respondents and non-respondents.

Since the PRAMS survey is completed retrospectively by a woman two to six months after her birth outcome, some bias may occur due to self-reporting and recall. PRAMS is sampled from live births only, so the data do not include information on other pregnancy outcomes such as abortions, miscarriages, or stillbirths; the data do include responses from women who have experienced an infant death. PRAMS is sampled among singleton, twin, and triplet births, and therefore it is not representative of higher order births.

Currently, three survey items found in PRAMS assess postpartum depressive symptoms. The combination of these three items yields 57 percent sensitivity, a high positive predictive value (PPV = 60 percent), and produces a high value of specificity (87 percent), indicating that these items are sensitive and accurate screening questions for this indicator (19). The two optional depression items included in the PRAMS survey prior to 2009 yield 63 percent sensitivity, 83 percent specificity, and a positive predictive value of 55 percent (19). However, the PRAMS data relies on women's self-reports; therefore, data may over- or underestimate the prevalence of the indicator. Other biases, including recall bias, are also a possibility. In addition, only women who gave birth to a live infant are surveyed. Thus data does not capture information on stillbirths, miscarriages, or abortions. Nevertheless, data quality is generally consistent and representative of populations across time and location (1).

### **Simplicity of indicator**

The level of complexity in calculating this indicator is relatively low, especially when analyzing prevalence estimates of the indicator through CPONDER. Although the PRAMS uses a complex survey design, data weighting and adjustments are conducted by the CDC prior to release on CPONDER. However, states that prefer to use the PRAMS analytic research file in place of estimates from CPONDER will have to weight data. Use of the PRAMS analytic research file also requires appropriate software that can account for the complex sampling design of the PRAMS survey (1).

Overall, the indicator is easy to understand and interpret. Estimates of maternal postpartum depression are generally reported as a percentage of women in the population who meet the criteria for depressive symptoms following birth.

## **References**

1. Centers for Disease Control and Prevention. Pregnancy Risk Assessment and Monitoring System. Available: <http://www.cdc.gov/prams/>. Accessed: February 26, 2013.
2. U.S. Preventive Services Task Force. (2002). Screening for Depression: Recommendations and Rationale. *Ann Intern Med.* 136(10): 760 – 764
3. Ammerman, R., Putnam, F., Bosse, N., Teeters, A., & Van Ginkel, J. (2010). Maternal depression in home visitation: a systematic review. *Aggression & Violent Behavior, 15*(3), 191-200. doi:10.1016/j.avb.2009.12.002
4. Chaudron, L.H. 2003. Postpartum Depression: What Pediatricians Need to Know. *Pediatrics in Review.* 24(5):154 – 161.
5. Reid, V., & Meadows-Oliver, M. (2007). Postpartum Depression in Adolescent Mothers: An Integrative Review of the Literature. *Journal of Pediatric Health Care.* 21:289 – 298.
6. Earls, M. F. (2010). Clinical Report Incorporating Recognition and Management of Perinatal and Postpartum Depression Into Pediatric Practice. *Pediatrics.* 126:1032 – 1039.

7. Beck, C.T. (2002). Revision of the Postpartum Depression Predictors Inventory. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 31:394 – 402.
8. Segre, L. S., Losch, M. E., & O'Hara, M. W. (2006). Race/Ethnicity and Perinatal Depressed Mood. *Journal of Reproductive and Infant Psychology*, 24:99 – 106.
9. Howell, E. A., Mora, P., Horowitz, C. R., & Leventhal, H. (2005). Racial and Ethnic Differences in Factors Associated With Early Postpartum Depressive Symptoms. *Obstetrics and Gynecology*, 105:1442 – 1450.
10. Logsdon, M.C., & Usui, W. (2001). Psychosocial Predictors of Postpartum Depression in Diverse Groups of Women. *Western Journal of Nursing Research*, 23:563 – 574.
11. Gross, K.H., Wells, C.S., Radigan-Garcia, A. & Dietz, P.M. (2002). Correlates of self-reports of being very depressed in the months after delivery: Results from the Pregnancy Risk Assessment Monitoring System. *Maternal and Child Health Journal*, 6:247 – 253.
12. Centers for Disease Control and Prevention. (2010). Depression Among Women of Reproductive Age and Postpartum Depression. Available: <http://www.cdc.gov/reproductivehealth/Depression/>. Accessed: May 1, 2011.
13. Beck, C.T. (2006). Postpartum Depression: It Isn't Just the Blues. *American Journal of Nursing*, 106:40 – 50.
14. National Institutes of Health. Postpartum Depression. Available: <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0004481/>. Accessed: June 30, 2012.
15. Philipps, L.H., & O'Hare, M.W. (1991). Prospective Study of Postpartum Depression: 4½-year follow-up of women and children. *Journal of Abnormal Psychology*, 100:151 – 155.
16. Essex, M.J., Klein, M.H., Miech, R., & Smider, N.A. (2001). Timing of Initial Exposure to Maternal Major Depression and Children's Mental Health Symptoms in Kindergarten. *British Journal of Psychiatry*, 179:151 – 156.
17. Horowitz, J.A., & Goodman, J.H. (2005). Identifying and Treating Postpartum Depression. *Journal Of Gynecologic and Neonatal Nursing*, 34:264 – 73.
18. Stewart, D.E., Robertson, E., Dennis C-L., Grace, S.L., & Wallington, T. (2003). Postpartum Depression: Literature Review of Risk Factors and Interventions.
19. O'Hara, M.W., Stuart, S., Watson, D., Dietz, P.M., Farr, S.L., & D'Angelo, D. (2012). Brief Scales to Detect Postpartum Depression and Anxiety Symptoms. *Journal of Women's Health*, 21:1237 – 1243.
20. Colen, C.G., & Boettner, B., (2011). Racial Disparities in Mental Health Outcomes: Possible Explanations for Unexpected Advantages among African American Adolescents.
21. Jackson, J. S., Knight, K.M., & Rafferty, J.A. (2010). Race and Unhealthy Behaviors: Chronic Stress, the HPA Axis, and Physical and Mental Health Disparities Over the Life Course. *American Journal of Public Health*, 100:933 – 939.
22. Dennis, C.L., & Creedy, D. (2004). Psychosocial and Psychological Interventions for Preventing Postpartum Depression. *The Cochrane Database of Systematic Reviews*.
23. Shulman, M.S., Gilbert, B.C., & Lansky, A. (2006). The Pregnancy Risk Assessment Monitoring System (PRAMS): Current Methods and Evaluation of 2001 Response Rates. *Public Health Reports*, 121:74 – 83.
24. MacDonald, S.E., Newburn-Cook, C.V., Schopflocher, D., & Richter, S. (2006). Addressing Nonresponse Bias in Postal Surveys. *Public Health Nursing*, 26:95 – 105.
25. Letourneau, N., Dennis, C., Benzies, K., Duffett-Leger, L., Stewart, M., Tryphonopoulos, P. D., & ... Watson, W. (2012). Postpartum Depression is a Family Affair: Addressing the Impact on Mothers, Fathers, and Children. *Issues In Mental Health Nursing*, 33(7), 445-457. doi:10.3109/01612840.2012.673054
26. Séjourné, N. N., Vaslot, V. V., Beaumé, M. M., Goutaudier, N. N., & Chabrol, H. H. (2012). The impact of paternity leave and paternal involvement in child care on maternal postpartum depression. *Journal Of Reproductive & Infant Psychology*, 30(2), 135-144. doi:10.1080/02646838.2012.693155
27. Fagan, J., & Lee, Y. (2010). Perceptions and Satisfaction with Father Involvement and Adolescent Mothers' Postpartum Depressive Symptoms. *Journal Of Youth And Adolescence*, 39(9), 1109-1121.
28. Ammerman, R. T., Putnam, F. W., Stevens, J., Holleb, L. J., Novak, A. L., & van Ginkel, J. B. (2005). In-Home Cognitive-Behavior Therapy for Depression: An Adapted Treatment for First-Time Mothers in Home Visitation. *Best Practice In Mental Health*, 1(1), 1-14.
29. Ammerman, R., Putnam, F., Stevens, J., Bosse, N., Short, J., Bodley, A., & Ginkel, J. (2011). An Open Trial of In-Home CBT for Depressed Mothers in Home Visitation. *Maternal & Child Health Journal*, 15(8), 1333-1341. doi:10.1007/s10995-010-0691-7
30. Dagher, R., McGovern, P., & Dowd, B. (2013). Maternity Leave Duration and Postpartum Mental and Physical Health: Implications for Leave Policies. *Journal Of Health Politics, Policy And Law*,
31. Evans, M., Donelle, L., & Hume-Loveland, L. (2012). Social support and online postpartum depression discussion groups: A content analysis. *Patient Education & Counseling*, 87(3), 405-410.
32. Leahy-Warren, P., McCarthy, G., & Corcoran, P. (2012). First-time mothers: social support, maternal parental self-efficacy and postnatal depression. *Journal Of Clinical Nursing*, 21(3/4), 388-397. doi:10.1111/j.1365-2702.2011.03701.x
33. Dennis, C., Hodnett, E., Kenton, L., Weston, J., Zupancic, J., Stewart, D., & Kiss, A. (2009). Effect of peer support on prevention of postnatal depression among high risk women: multisite randomised controlled trial. *BMJ (Clinical Research Ed.)*, 338a3064. doi:10.1136/bmj.a3064
34. Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *The British journal of psychiatry*, 150(6), 782-786.
35. American Academy of Pediatrics Bright Futures. [http://brightfutures.aap.org/tool\\_and\\_resource\\_kit.html](http://brightfutures.aap.org/tool_and_resource_kit.html)

*This publication was supported by a grant from the W.K. Kellogg Foundation. Its contents are solely the responsibility of the author and do not necessarily represent the official views of the W.K. Kellogg Foundation.*

To learn more, please contact Caroline Stampfel, Senior Epidemiologist at [cstampfel@amchp.org](mailto:cstampfel@amchp.org) or (202) 775-0436.

## Association of Maternal & Child Health Programs

2030 M Street, NW, Suite 350

Washington, DC 20036

(202) 775-0436 ▪ [www.amchp.org](http://www.amchp.org)

