The Commonwealth of Massachusetts

Executive Office of Health and Human Services Department of Public Health

250 Washington Street, Boston, MA 02108-4619

617-624-6000 | mass.gov/dph

### Maura T. Healey Kiame Mahaniah, MD, MBA

Governor Secretary

### Kimberley Driscoll Robert Goldstein, MD, PhD

Lieutenant Governor Commissioner

July 22, 2025

Timothy Carroll House Clerk

State House Room 145 Boston, MA 02133

Michael Hurley Senate Clerk

State House Room 335 Boston, MA 02133

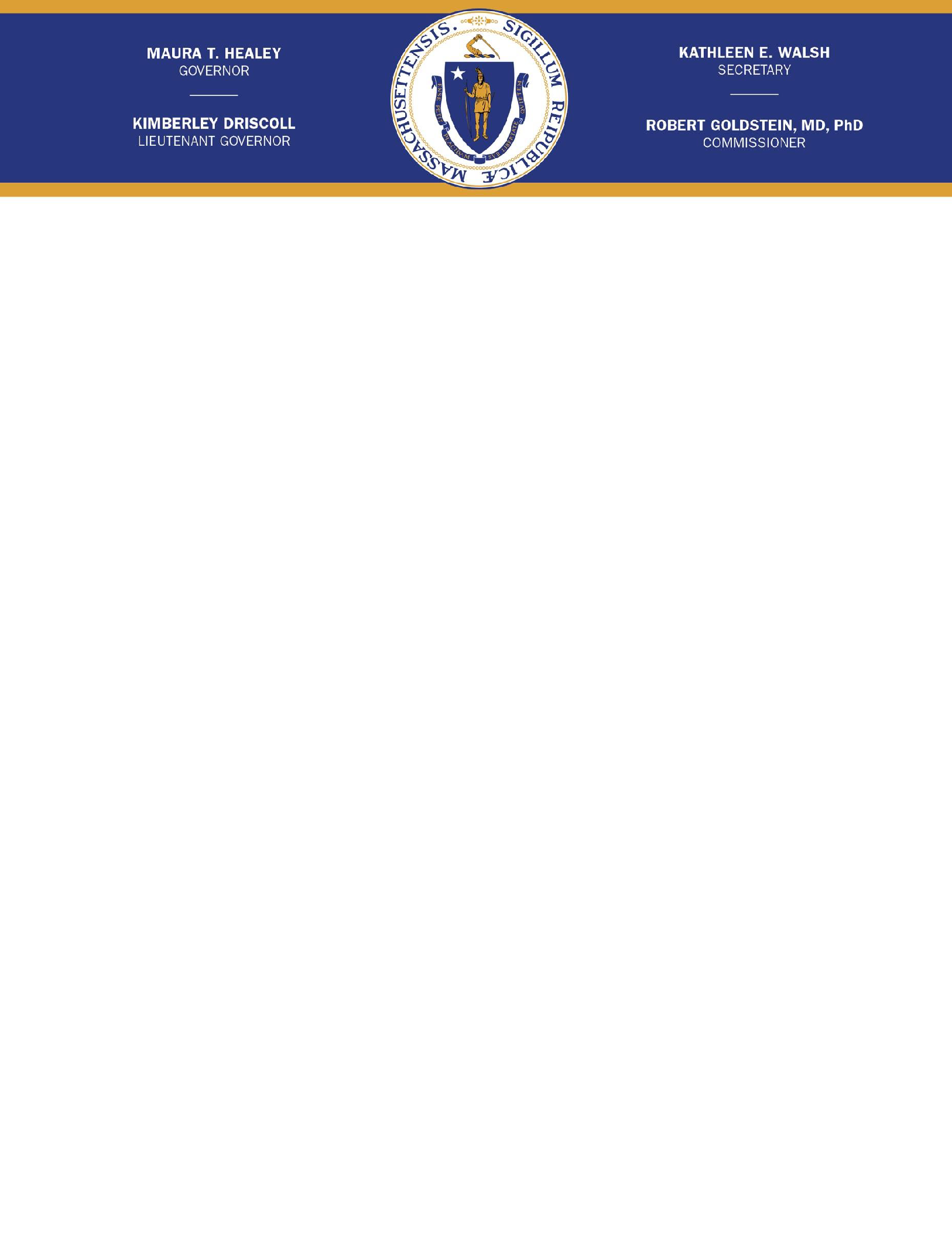
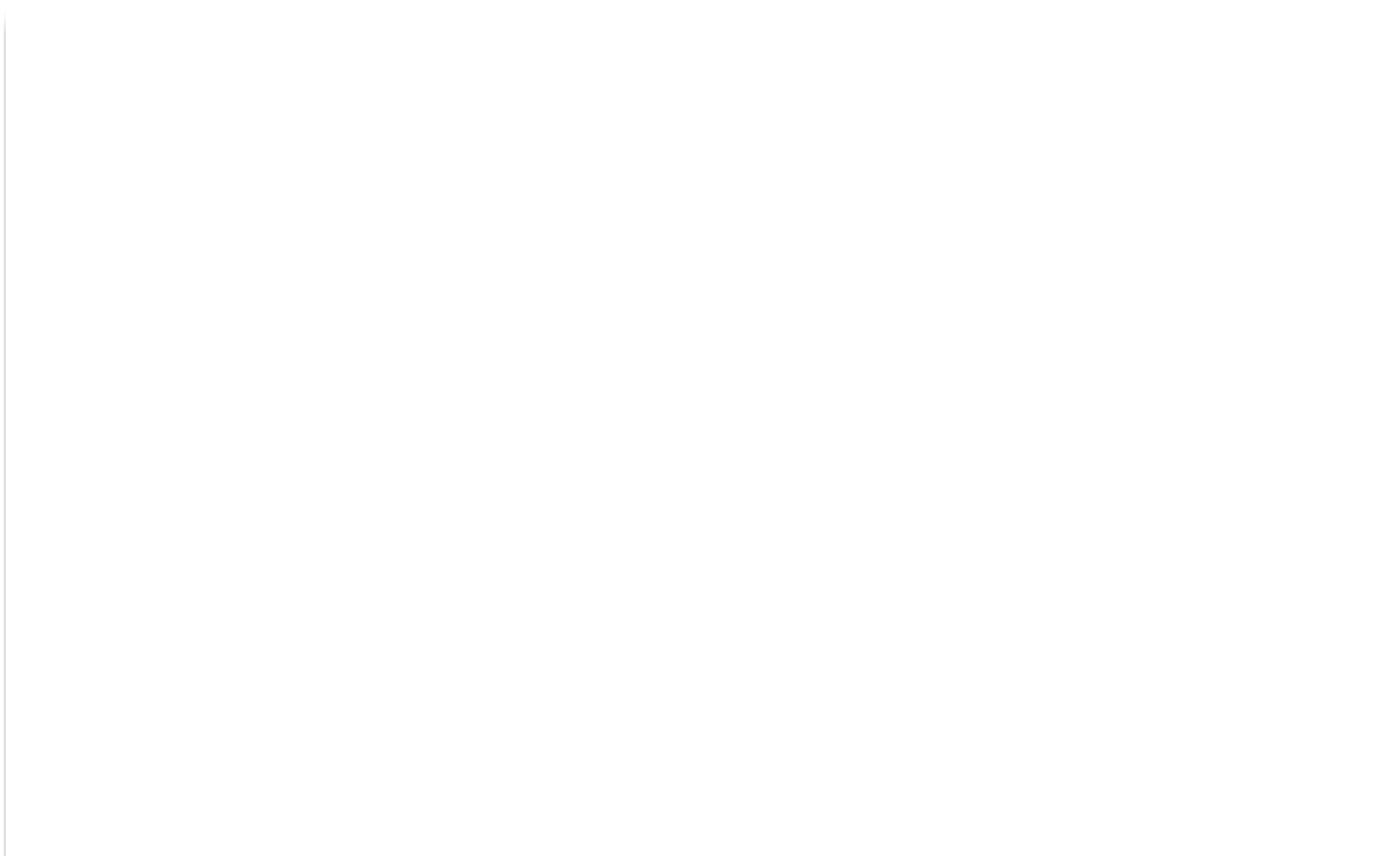
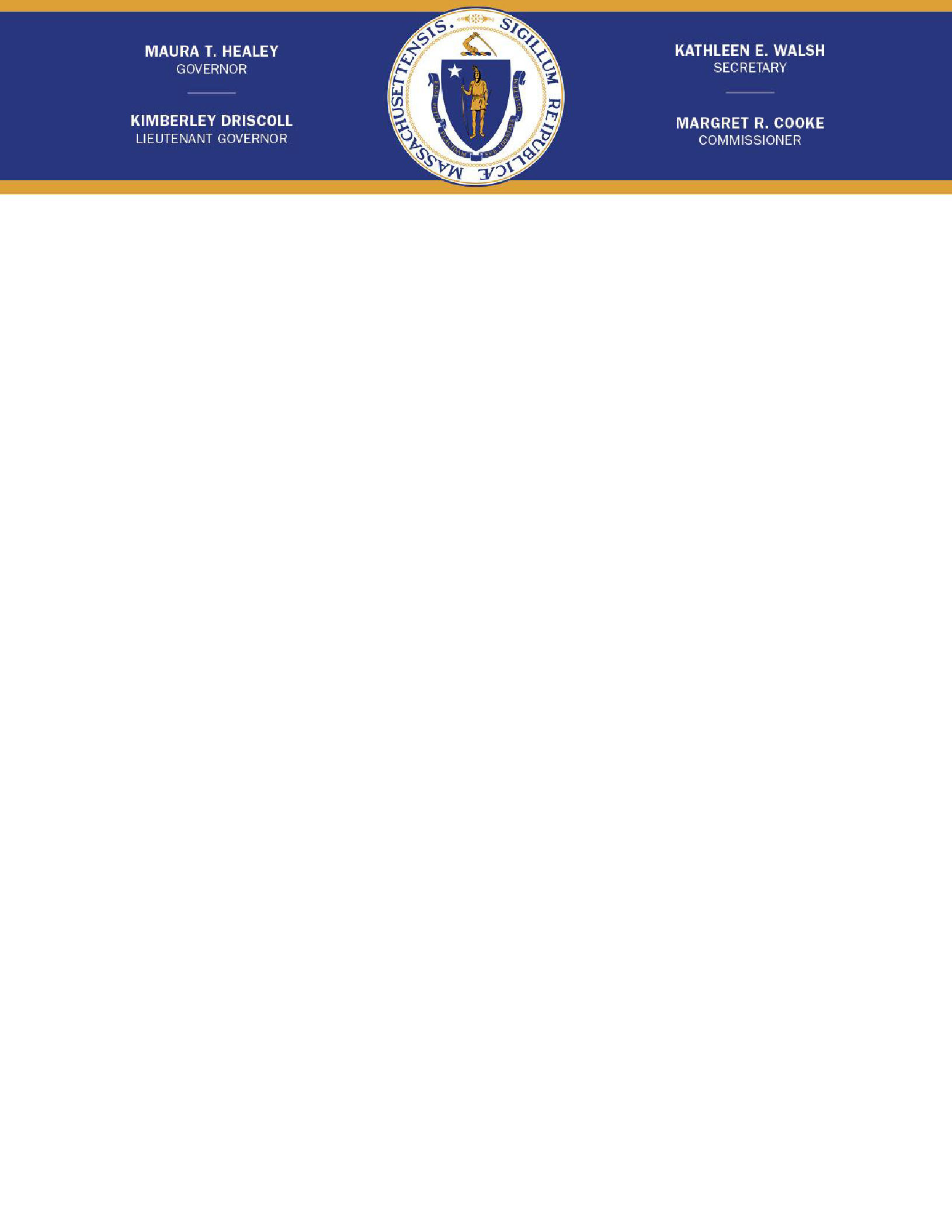
Dear Mr. Clerk,

Pursuant to Chapter 313 of the Acts of 2010, please find enclosed a report from the Department of Public Health entitled “CY22 – CY23 Summary of Activities related to Screening for Postpartum Depression.”

Sincerely,

Robert Goldstein, MD, PhD Commissioner

Department of Public Health



*CY22 – CY23 Summary of Activities related to Postpartum Depression*

# Legislative Mandate

The following report is hereby issued pursuant to Chapter 313 of the Acts of 2010 as follows:

The Department of Public Health “*shall issue regulations that require providers and carriers to annually submit data on screening for postpartum depression. Following the receipt of data, the commissioner of public health shall issue an annual summary of the activities related to screening for postpartum depression, including best practices and effective screening tools. The department shall annually file the summary with the commissioner of public health and the clerks of the house of representatives and the senate not later than June 30; provided, however, that the first report is due not later than June 30, 2011.”*

# Explanatory Summary

About one in seven birthing parents in the US experiences depressive symptoms after birth. Untreated postpartum depression (PPD) has negative consequences for both infants and birthing people. Although PPD is the most common complication of pregnancy and a treatable mental health condition, it is under-diagnosed and undertreated. To address this and promote the health and well-being of birthing people, children, and family, Chapter 313 of the Acts of 2010, *An Act Relative to Postpartum Depression*, was signed into law on August 19, 2010 in Massachusetts. Pursuant to this law, a PPD Special Legislative Commission was established, and the PPD Regulations (105 CMR 271.000) were promulgated in December 2014 requiring data reporting by both carriers and providers for routine clinical appointments in which medical services are provided to a person who has given birth within the previous six months.

To further improve PPD screening data reporting and to investigate the status of perinatal mental health and its impacts on birthing people and their children, the Massachusetts Department of Public Health (DPH) adopted depressive symptom questions in the Pregnancy Risk Assessment Monitoring System (PRAMS) in FY11. To improve PPD screening, engagement, referral to treatment, DPH has funded universal PPD screening programs at community health centers and home visiting programs serving pregnant and parenting families.

This report summarizes recent national and state policy levers related to promoting parental and infant mental health during the perinatal period as well as data collected from Massachusetts PPD screening services.

Note on Language Used in this Report

The Massachusetts Department of Public Health recognizes that families come in many different forms. A person may become a parent/mother in many ways, including by giving birth, adopting a child, or co-parenting a child with someone else. On the other hand, not everyone who becomes pregnant is a parent. For example, someone who carries a child as a surrogate may not see herself as the child's parent. A non-binary or transgender person who carries a child may also not use the term "mother" to describe themselves.

This report is about experiences related to pregnancy, not about the experiences of all people who may be parenting a child or may have recently given birth. For this reason, we use terms like "pregnant person" and "birthing people" to talk about people affected by postpartum depression. We use the term "second parent" or "support parent" to talk about the people who may be supporting the pregnant person, whether that person is a father, a mother who is not carrying the child, or another adult who is co-parenting with the pregnant person. When citing specific research, we use the term used in the data analysis.

# Introduction

About one in seven birthing people in the US experienced depressive symptoms after delivery in 2018.1 Untreated postpartum depression (PPD) has negative consequences for both children and birth parents. Children born to individuals with PPD are more likely to have poor cognitive functioning, behavioral inhibition, emotional maladjustment externalizing disorders, or psychiatric and medical disorders.2-9 Furthermore, individuals with PPD were more likely to have changes in eating habits, more likely to engage in substance use, and more likely to have social relationship problems, breastfeeding problems, or persistent depression.10-15 A 2017 study of births in the United States further estimated that untreated mood and anxiety disorders in birth parents cost a total of $14 billion from conception to 5 years

postpartum, with an average of $31,800 per mother-infant dyad.16

To promote the health and well-being of birthing parents, children, and families, on August 19, 2010, Chapter 313 of the Acts of 2010, *An Act Relative to Postpartum Depression*, was signed into law. This legislation has two primary components: (1) establishing a postpartum depression (PPD) Legislative Commission and (2) requiring that the Massachusetts Department of Public Health (DPH) promote a culture of awareness, de-stigmatization, and screening for postpartum depression. Specifically, DPH is charged with:

* Developing standards for effective PPD screening,
* Making recommendations to health plans and health care providers for PPD screening data reporting,
* Issuing regulations that require health plans and health care providers to annually submit data on screening for postpartum depression; and
* Issuing an annual summary of the activities related to screening for postpartum depression including best practices and effective screening tools.

A legislative requirement outlined in Chapter 313 of the Acts of 2010, *An Act Relative to Postpartum Depression*, is the implementation of PPD Screening Regulations, which requires providers to report their PPD screening data through the submission of service codes to the All Payors Claims Database (APCD). Due to challenges in accessing the APCD data from the Center for Health Information and Analysis (CHIA) and linking it to the birth data from Vital Records, there have been considerable delays in meeting this annual reporting component. This report provides a summary of activities and PPD screening program data for both calendar years of 2022 and 2023. However, the most recent data reported as part of the PPD regulations is only available from 2021.

Research has shown that a spectrum of mental health disorders can manifest during pregnancy and within one year after the end of the pregnancy. The range of Perinatal Mood and Anxiety Disorders (PMADs) beyond PPD include anxiety disorder (20.7%), bipolar-spectrum mood episodes (20.1%), obsessive-compulsive disorder (4-11%), posttraumatic stress disorder (PTSD) (1-2%), and Postpartum Psychosis (1 in 1,000 postpartum people)17-19. This expanded report seeks to explore strategic opportunities to include PMADs in data collection, programming, and

community engagement efforts to ensure pregnant and postpartum people receive appropriate and disorder-specific mental health care, treatment, and support.

# Report Body

This report is intended to summarize federal, state, and local initiatives working to increase the understanding of the prevalence of perinatal mood and anxiety disorder (PMAD), address the challenges faced by many families experiencing PMADs, and identify opportunities for policy changes that may improve the health and wellbeing of pregnant, birthing, and parenting families across the Commonwealth.

First, a review of federal initiatives is provided, followed by a statewide initiative’s summary and then the findings from community-based organizations working directly with families.

## FEDERAL INITIATIVES

Presidential Administration

In 2022, the [White House Blueprint for Addressing the Maternal Health Crisis](https://www.whitehouse.gov/wp-content/uploads/2022/06/Maternal-Health-Blueprint.pdf?lv=true) was released which identifies 60 specific action steps that the federal government will implement over several years to reduce maternal mortality and morbidity and reduce the disparities in maternal health outcomes in the United States. In addition, the [Biden-Harris Administration Highlights](https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/31/fact-sheet-biden-harris-administration-highlights-strategy-to-address-the-national-mental-health-crisis/) [Strategy to Address the National Mental Health Crisis (2022)](https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/31/fact-sheet-biden-harris-administration-highlights-strategy-to-address-the-national-mental-health-crisis/) fact sheet was subsequently released that includes a comprehensive strategy the federal government has undertaken to address the mental health crisis coming out of the pandemic and transform the mental health service delivery system. DPH has used both reports to develop a crosswalk to organize and prioritize activities of the DPH Perinatal Mental Health Team and to identify gaps and/or areas of improvement in the provision of perinatal mental health services in Massachusetts.

National Policy Center for Maternal Mental Health

In 2023, the [Policy Center for Maternal Mental Health](https://www.2020mom.org/) released their inaugural annual state report cards. Massachusetts received an overall grade of C while the national grade was a D and 40 other states and DC received either a D or F grade. The 2023 Report Card grades each state in three domains including:

1. *Providers and Programs* (MA Grade = C) - Areas for improvement includes:
   * Opening one inpatient maternal mental health program
   * Establishing a maternal mental health outpatient intensive or partial hospitalization program
   * State Perinatal Quality Improvement Collaborative has prioritized maternal mental health (In 2024, [PNQINMA](https://pnqinma.org/) will be adopting the [Alliance for Innovation on](https://saferbirth.org/psbs/perinatal-mental-health-conditions/) [Maternal Health (AIM) Perinatal Mental Health Conditions Safety Bundle](https://saferbirth.org/psbs/perinatal-mental-health-conditions/))
2. *Screening and Screening Reimbursement* (MA Grade = F) - Areas for improvement include:
   * Top Performer on the “Prenatal Depression Screening” HealthCare Effectiveness Data and Information Set (HEDIS) Measure (Among Commercial Insurance or Medicaid)
   * Top Performer with Commercial Insurance and/or Medicaid on the “Postpartum Depression Screening” HEDIS Measure (Among Commercial Insurance or Medicaid)
   * Medicaid Requires MCOs to Collect the “Prenatal Depression Screening” HEDIS

Measure

* + Medicaid Requires MCOs to Collect the “Postpartum Depression Screening”

HEDIS Measure

* + Obstetric Providers Submit Claims to Private Insurers for Prenatal MMH Screening (Among at Least 1% of Prenatal Patients)

1. *Insurance Coverage and Treatment* (MA Grade = B) – The one area for improvement includes:
   * Requires health plans to develop a maternal mental health quality management program

DPH and MassHealth are working collaboratively to make improvements in data collection, reporting, and reimbursement under the Screening & Screening Reimbursement domain.

Link - [State Report Cards - Policy Center for Maternal Mental Health](https://policycentermmh.org/state-report-cards/#viewreportcard)

Two Recently FDA Approved Medications for the treatment of PPD

FDA has approved two medications for the treatment of postpartum depression -

Zulresso (IV Drip) and Zuranolone (oral pill). DPH is working with MassHealth and private insurers to ensure equitable access to these new treatment modalities. Below is additional information on each new treatment and issues for consideration with health plans:

Zulresso - [FDA approves first treatment for post-partum depression | FDA](https://www.fda.gov/news-events/press-announcements/fda-approves-first-treatment-post-partum-depression)

* This treatment method must be administered in an approved health care setting.
* There are no approved facilities or health care providers in MA for administration.
* The closest approved health care facility for MA patients to access this treatment is the Women & Infants Hospital in Providence, Rhode Island.
* Cost - a single 60 Hour IV Drip (2.5 days) currently costs $7-9K for the medication and

$34,000 or more for treatment/hospital stay

Zuranolone - [FDA Approves First Oral Treatment for Postpartum Depression | FDA](https://www.fda.gov/news-events/press-announcements/fda-approves-first-oral-treatment-postpartum-depression)

* Once daily pill taken over 14 days
* Cost - $15,900 for 14-day cycle

## STATE INITIATIVES

Massachusetts Special Commission on Racial Inequities in Maternal Health (2021 – 2022) In 2021, the Special Commission on Racial Inequities in Maternal Health was created by a [legislative act](https://malegislature.gov/Commissions/Detail/539/About) in January 2021. The 28-member body’s charge was to investigate and study

methods to reduce racial inequities in maternal health. In May 2022, the [Racial Inequities in](https://malegislature.gov/Commissions/Detail/539/Documents) [Maternal Health Report](https://malegislature.gov/Commissions/Detail/539/Documents) was released highlighting over 100 recommendations “*to improve*

*maternal health outcomes and experiences for the historically and currently most vulnerable residents in the state of Massachusetts, with a particular attention on racial inequities*.” Recommendations specific to PMADs include:

*Health Systems:*

* Extend monitoring for postpartum mental health care screening and linkage care to 12 months (beyond even the 4th trimester) because this is what the data show as the time frame for increased maternal mortality related to mental health and substance use.
* Provide treatment when and where people need it to reduce disparities in access to behavioral health services related to transportation, time off from work and childcare including maintain broad coverage of telehealth, expand the availability of integrated behavioral health services within primary care, and extend hours to including weekends, at Community Behavioral Health Centers (CBHCs) and behavioral health urgent care

*Insurance Carriers:*

* Improve reimbursement for Medicaid/ MassHealth for behavioral health screening and services.
* Expand support for co-located interdisciplinary models of care/medical homes for families with perinatal SUD (psychiatry, addiction medicine, MFM/CNM OB care, Social Work and Peer Support) all in one program (HOPE Program at MGH, Project RESPECT at BMC)

*Health Care Providers:*

* Increase access to postpartum support groups for Black/POC Mothers and their Partners/Spouses
* Support people who give birth with maternal mental health conditions and alcohol/substance use disorders
* Increase education regarding trauma, mental health, and substance use disorder (SUD) and stigma/bias among DCF staff

Recommendations from this report were added to the DPH Perinatal Mental Health Team crosswalk to inform the work of the team. Current priorities include improvements in data collection and perinatal mood and anxiety disorder screening rates including seeking funding to implement the [Perinatal Mental Health Data Analysis Plan](https://search.mass.gov/?q=perinatal%2Bmental%2Bhealth%2Bdata%2Banalysis&_gl=1%2A739icn%2A_ga%2ANTI4NTExOTIuMTcyNzI4NTc2NQ..%2A_ga_E2HYQ6TW32%2AMTcyOTc3NDg1Ni42NC4xLjE3Mjk3NzQ5OTYuMC4wLjA.%2A_ga_SW2TVH2WBY%2AMTcyOTc3MTQzNS4yNy4xLjE3Mjk3NzQ5OTYuMC4wLjA).

Review of Maternal Health Services, 2023

In 2023, the Massachusetts Department of Public Health (DPH) conducted a review of access to all maternal health services in the Commonwealth and developed a plan to support or improve access and quality, where needed. The [Maternal Health Services Report](https://www.mass.gov/doc/maternal-health-report/download) included a review of prenatal, birthing, postpartum, and reproductive health services. It also included consultation and collaboration with providers and community leaders in the area to ensure that access to high-quality maternal health services is protected following recent closure of inpatient maternity units.

DPH identified 25 action-oriented recommendations to improve maternal health across the state, with a lens of health equity and health outcomes. The recommendations related to PMADs include:

1. DPH will expand and promote existing training to provide support to frontline health care providers on screening, assessment, treatment, and referral for maternal depression and related behavioral disorders. Training will also focus on the importance of maintaining the parent-child dyad.
2. DPH will continue to work with MassHealth and other payors to promote increased uptake of evidence-based programs like Moms Do Care and First Steps Together for pregnant members with SUD; services to be covered include peer support, care coordination services, doulas, and case management.
3. EOHHS, in collaboration with DPH and DCF, will update guidance for healthcare providers to share best practices and document the establishment of a dual reporting system whereby substance exposed newborns with no indication of neglect or abuse can be identified for support but not investigated for neglect or abuse.
4. EOHHS, including MassHealth, DMH, and DPH, will work together to explore the establishment and ongoing implementation of Outpatient Intensive or Partial Hospitalization Programs and foster development of inpatient behavioral health programs where infants are able to board with mom while they are treated.

DPH has begun exploring opportunities to establish an inpatient psychiatric hospitalization program through collaboration with DMH, MassHealth, community advocates, people with lived experience, and others and this work will continue in 2024.

Massachusetts Legislative Bill

[An Act Relative to Birthing Justice in the Commonwealth](https://malegislature.gov/Bills/193/S1415) was introduced in the 2022-2023 Massachusetts Legislative Session. This bill includes language specific to universal PPD screening and the establishment of a statewide system of programs providing universal postpartum home visiting services modeled after the [Welcome Family Program](https://www.mass.gov/welcome-family). ~~As this bill~~ ~~moved through the legislative process, it gained significant community support and~~ ~~subsequently passed in 2024.~~ DPH will report on implementation of the bill ~~components~~ ~~in~~components in the 2024 annual PPD Legislative Report

PMADs Training

DPH developed and offers a free three-hour training entitled *Perinatal Mental Health: Review of the Prevalence, Impact, Interventions, and Resources in the Commonwealth*. The session provides an overview of perinatal mental health needs, co-morbidities including substance use, interpersonal violence and racism, impact on early childhood mental health and development, and how MA is addressing these needs. In CY22-CY23, DPH conducted eleven trainings to over 300 state and national health care providers including social workers, peer support specialists, nurses, early intervention specialists, and state employees.

PPD Regulations - 105 CMR 271.000

*An Act Relative to Postpartum Depression, Chapter 313 of the Acts of 2010* charged DPH to issue regulations that require carriers and health care providers to annually submit data on screening for PPD. This data reporting is intended to help DPH understand statewide PPD screening patterns and outcomes, to improve the detection of this prevalent condition, and ultimately facilitate treatment for birthing parents in need of further support and referral.

The PPD Regulations (105 CMR 271.000) were promulgated in December 2014 and require annual reporting by a provider that conducts or oversees screening for PPD, using a validated screening tool, during a routine clinical appointment in which medical services are provided to a person who has given birth within the previous six months. The regulation also applies to a carrier that receives a claim for this PPD screening.

Providers responsible for adhering to these regulations are obstetrician-gynecologists (OB- GYNs), Family Medicine Practitioners, Advanced Practice Nurses (including Nurse Midwives and Nurse Practitioners), and Physician Assistants, who practice in a family medicine or OB-GYN setting.

Data collection from providers began in calendar year 2015. Providers may report their PPD Screening data to DPH in one of two ways:

1. Providers can submit an annual written report to DPH by March 1 for the previous

calendar year using the “Annual PPD Data Reporting Form” available on the [DPH web](https://www.mass.gov/postpartum-depression) [page dedicated to PPD](https://www.mass.gov/postpartum-depression).

1. Alternatively, providers may use the Healthcare Common Procedure Coding System (HCPCS) code of S3005 (Performance Measurement, Evaluation of Patient Self- Assessment, Depression) with a diagnostic range Z39.2 (Routine Postpartum follow up, formerly ICD9 V24 - Screening for Postpartum Depression) and with a modifier as a mechanism for reporting PPD screening (see below).

|  |  |  |
| --- | --- | --- |
| **Servicing Provider** | **Modifier for use with a positive PPD**  **screen** | **Modifier for use with a negative PPD**  **screen** |
| *OB-GYNs, Family Medicine Practitioners, Advanced Practice Nurses including Nurse Midwifes and Nurse*  *Practitioners, & Physician Assistants* | U1 | U2 |

Depending on the private carrier, the service code is set to pay at $0.00 or at $0.01. Private carriers have been accepting this service code from the servicing providers identified above and are reporting it directly to the [All Payer Claims Database (APCD)](https://www.chiamass.gov/ma-apcd/) at the Massachusetts [Center](https://www.chiamass.gov/) [for Health Information & Analysis (CHIA)](https://www.chiamass.gov/), as required under PPD Regulations.

Effective May 16, 2016, [MassHealth](https://www.mass.gov/doc/phy-148-payment-for-postpartum-depression-screening-0/download) began paying perinatal care providers for the administration of standardized depression screening during pregnancy and the postpartum period utilizing the above HCPCS code.

PPD Data Collected through Claims Codes & Linkage with APCD

*Background:* Chapter 313 of the Acts of 2010, An Act Relative to Postpartum Depression, called for submission of data on postpartum depression (PPD) screening to examine the frequency and scope of PPD among people who recently gave birth in Massachusetts. PPD defined as depression occurring within 12 months after giving birth, includes feelings of sadness, hopelessness and anhedonia—the loss of interest in previously pleasurable activities. PPD is an important public health issue with profound long-term consequences for birthing people and families if left untreated, including impaired parent-infant bonding, delayed social and cognitive development in children, and increased risk of maternal suicide and infant death. It is recognized that greater than 50% of birthing people with PPD are not identified and thus do not seek help from a health care or mental health professional.

*Methodology:* The Public Health Data Warehouse (PHD) was initially created via Chapter 55 of the Acts of 2015 as amended by Chapter 133 of the Acts of 2016 and furthered by Chapter 111 Section 237 of the General Laws in 2017. It provides access to timely, linkable, longitudinal data from across state and local government agencies to enable analysis of priority population health trends. The PHD is a nationally recognized innovation, proven as an effective tool for accelerating data analysis and dissemination of actionable information to guide the

Commonwealth’s response to priority public health issues, including maternal and child health disparities, substance use, COVID-19, and the effects of climate change on health. Analyses from the PHD are used to inform policies and programs to reduce morbidity and mortality and keep residents healthy. All analyses are guided by a health and racial equity frame that acknowledges the differential impacts among historically marginalized communities and supports the mission of DPH to promote wellness and health equity for all people in the Commonwealth.

To build the PHD, most datasets are linked at the individual level to the All-Payer Claims Database (APCD), which serves as the spine for linking individual information across datasets. This linkage is accomplished using the following fields: first name, last name, date of birth, sex, social security number, and zip code of residence. After each dataset is linked, the personal identifiers (except for the zip codes and dates) are dropped to protect privacy. Lastly, event dates are masked so that this information is retained for analytic purposes while still maintaining the privacy of the data. This linkage process was developed with CHIA support. It is only through their work developing the Master Patient Index (which assigns a single unique surrogate key to each person, regardless of how many different insurance carriers have submitted data about that person) that the development of the APCD spine was possible.

*Results:* During the time period of January 2021 through Dec 2021, there are 65,828 unique deliveries from birth certificate, of which 46,574 (70.8%) were linked to an APCD claim.

The numbers of birthing people screened for PPD within 6 months after delivery ranged from 563 in November 2021 to 707 in June 2021 (Figure 1). During the time period of January 2021 through December 2021, 7,775 (16.7%) out of 46,574 deliveries were screened for PPD and 1,349 (17.4%) had a positive screen.

The proportion of birthing people who were screened for PPD was higher among Asian (21.2%) and American Indian or other (19.0%) and compared to 14.9% and 14.7% among Hispanic and Black non-Hispanic, respectively. The proportion of PPD screening was higher among deliveries with Medicaid compared to other deliveries (17.3% vs. 15.9%). A lower proportion of screening was seen among birthing people with lower level of education (no high school degree, 14.9%) and the highest percentage of screening was observed among birthing people with associate or bachelor’s degrees (16.9%, Table 1).

When we look at the results of screening, American Indians (23.5%) and Black non-Hispanic (22.4%) had higher positive proportion compared to White non-Hispanic (16.4%), Asian (14.1%), or other (15.5%). The positive proportion was higher among birthing people who were covered by Medicaid than those on private insurance (20.1% vs.13.0%). The positive percentage of screening was lower among birthing people with higher education levels (Table 2).

PPD Screening Data Collected through Written Reports

For calendar year 2022 and 2023, no written Annual PPD Screening Data Reporting Forms were received from medical practices or carriers.

Pregnancy Risk Assessment Monitoring System (PRAMS)

Since 2007, DPH has monitored the health of birthing parents and children in the Commonwealth with the [Massachusetts Pregnancy Risk Assessment Monitoring System](https://www.mass.gov/service-details/pregnancy-risk-assessment-monitoring-system-prams) [(PRAMS)](https://www.mass.gov/service-details/pregnancy-risk-assessment-monitoring-system-prams), an ongoing survey of new birthing parents. The survey asks a set of two questions related to the experience of postpartum depression (PPD).

PRAMS data from 2022 suggest that some Massachusetts birthing parents are more likely to report experiencing PPD symptoms than others. Compared to White non-Hispanic birthing parents (7.6%), Black non-Hispanic birthing parents (14.7%) and Asian non-Hispanic birthing parents (16.9%) were more likely to experience PPD symptoms always or often, although these differences were statistically significant only for Asian non-Hispanic birthing parents.

Statistically higher prevalence of PPD symptoms was observed among birthing parents with a high school education (18.4%) compared to birthing parents with a college education (7.7%). Those who self-identified as having a disability reported significantly higher PPD symptoms compared to those who reported having no disability (26.5% vs 7.2%). Although higher prevalence of PPD symptoms was observed among those who had MassHealth compared to those with private insurance (12.3% vs 8.6%), those who are not married (12.1%) compared to birthing parents who are married (9.1%), and those whose nativity was non-US-born reported higher PPD symptoms compared to birthing parents born in the US (12.6 vs 8.8%), these differences were not statistically significant.

The 2022 Massachusetts PRAMS data show significant improvement in screening for PPD during the postpartum visit compared to 2021. Overall, in 2022, 93.5% of birthing parents reported that their health care providers asked if they were depressed (proxy for PPD screening), a statistically significant increase from 88.3% in 2021. For the first time, compared to White non- Hispanic birthing parents (92.8%), there were no statistical differences in screening across race and Hispanic ethnicity groups, with Hispanic birthing parents at 94.7%, Black non-Hispanic birthing parents at 94.8% and Asian non-Hispanic birthing parents at 93.0%. No differences were apparent by maternal age or education level, reflecting significant improvement in a standardized approach to asking postpartum patients if they were feeling depressed.

PPD Screening Programs in Community Health Centers

The Fiscal Year (FY) 2022 and 2023 budget included language requiring DPH to continue PPD screening programs at Community Health Centers (CHC) at five sites across the Commonwealth. A procurement waiver was granted, and the contracts were re-established. Funding for these contracts totaled $360,000 annually, distributed evenly across all five sites. This funding allowed these CHCs to continue to employ part time Community Health Workers (CHWs) to assist with PPD screening and referral activities. The five CHCs included: Family Health Center in Worcester, Holyoke Health Center, North Shore Community Health in Salem, Stanley Street Treatment & Resource Inc, (SSTAR) in Fall River, and the Lynn Community Health Center.

The CHCs are required to submit PPD screening data on a quarterly basis to DPH, inclusive of all dates during which services were provided. Coming out of the pandemic, telehealth visits continue to be offered with patients responding well to follow up. However, not all patients have internet access and therefore, services may also be provided by phone. The following is a summary of the data received from all five sites:

* CHCs reported 1,146 (FY22) and 1,958 (FY23) face-to-face encounters (including telehealth) with pregnant individuals during clinical visits, with 1,059 (92.4% in FY22) and 1,651 (84.3% in FY23) receiving a PPD screen.
* CHCs reported 1,155 (FY22) and 1,171 (FY23) postpartum individuals during clinical visits receiving a PPD screen.

‒ Of the 1,155 postpartum individuals who received a PPD screen in FY22, 26 (2.3%) scored either a 10, 11 or 12 on the [Edinburgh Postnatal Depression Scale](https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf) [(EPDS)](https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf) or 1 – 9 on the [Patient Health Questionnaire (PHQ-9)](https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf), indicating mild depressive symptoms and 19 (1.6%) scored either a 13 or above on the [EPDS](https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf) or 10 or above on the [PHQ-9](https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf), indicating moderate to severe depressive symptoms.

‒ Of the 1,171 postpartum individuals who received a PPD screen in FY23, 64 (5.5%) scored either a 10, 11 or 12 on the [EPDS](https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf) or 1 – 9 on the [PHQ-9](https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf), indicating mild depressive symptoms and 63 (5.4%) scored either a 13 or above on the [EPDS](https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf) or 10 or above on the [PHQ-9](https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf), indicating moderate to severe depressive symptoms.

* CHCs reported that their CHW provided 1,636 and 1,928 face-to-face encounters (including telehealth visits) with a parent in FY22 and FY23 respectively.
* CHCs reported 5,627 in FY22 and 9,281 in FY23 indirect/collateral contacts, including phone calls, made on behalf of the parents serviced by the program, including but not limited to: searches for basic need items, calls to providers to determine availability versus a wait list for services, and referral screens for eligibility with community-based organizations.
* CHCs reported 1,625 (FY22) and 1,781 (FY23) referrals initiated with 1,407 (86.6% in FY22) and 1,549 (87.0% in FY23) referrals completed.

## DPH FUNDED COMMUNITY BASED PMAD INTERVENTIONS & SERVICES

*Early Intervention Parenting Partnerships Home Visiting Program*

DPH’s [Early Intervention Parenting Partnerships (EIPP)](https://www.mass.gov/early-intervention-parenting-partnerships-eipp) is a home visiting program for expectant parents and families with infants who are high need due to practical barriers (e.g., low financial resources, housing instability), emotional and/or behavioral health challenges (e.g., depression, substance use), or other stressors (e.g., immigration-related stress). The goals of EIPP are to:

* Connect families with local resources;
* Provide and build families’ social support;
* Appropriately engage families in health care systems;
* Provide parenting education;
* Promote positive parent-child attachment and healthy child development; and
* Support families experiencing multiple stressors to prevent child social and emotional delays, and link with Early Intervention (EI) services where appropriate.

EIPP provides home visiting and group services to almost 300 families annually by a maternal- child health (MCH) team that includes a MCH nurse, a mental health clinical professional, and a community health worker (CHW). Additional supports are provided by a lactation consultant and nutritionist as requested by participants. EIPP provides parental and infant health assessment and monitoring, health education and guidance, screening and appropriate referrals, and linkage with the [Women, Infants & Children (WIC) Program](https://www.mass.gov/wic-information-for-participants) and other resources.

Programmatic performance measures and parental and infant outcomes range from improved management of alcohol, tobacco and other drug use, improved parenting skills, improved emotional health, increased rates of exclusive breastfeeding, increased attendance at postpartum visits, and improved nutrition.

Data on the 205 EIPP Participants enrolled during CY23 include the following eligibility criteria (participants may meet more than one):

### Percent of Participants Eligibility Criteria

95.5% High level of stress

67.8% Inadequate food or clothing

44.8% History of depression including postpartum depression 18.5% Homelessness or housing instability

7.3% Current High-Risk Pregnancy

11.7% Less than a 10th grade education 3.4% Tobacco use

4.3% Substance abuse in the home 1.4% Violence in the home

At enrollment and at other key stages of program engagement, all EIPP participants receive a Comprehensive Health Assessment (CHA) that assesses the social, emotional, and physical well- being of the participant and infant in the context of their family. This CHA includes both a Social Connectedness screen utilizing a three-question survey and a PPD screen, utilizing the [Edinburgh Postnatal Depression Scale (EPDS)](https://www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf).

*In CY23, 121 participants received the Social Connectedness screening, utilizing a screening tool at 2 months postpartum.*

* Twenty participants (16.5%) indicated that they felt they were not getting the support they needed from others.
* Twenty-five participants (20.6%) indicated that they did not have someone to call when they needed someone to care for their baby.
* Eight participants (6.6%) indicated they did not have someone they could count on to listen to them when they needed to talk.

*In addition, 67 PPD screens were conducted with EIPP participants at 2 months postpartum.*

* Forty-nine participants (73.1%) received a score below 9, indicating that they were not experiencing depressive symptoms.
* Four participants (5.9%) received a score between 10 – 12, indicating mild depressive symptoms.
* Four participants (5.9%) reported moderate or high depressive symptoms.

Participants who screen positive for depression are then supported in accessing mental health services including counseling, psychiatric treatment, and support groups. In 2023, 16 EIPP Participants were referred to mental health counseling services and 13 enrolled in services. In addition, 7 EIPP Participants were referred to support group services and6 enrolled. Additional barriers to accessing mental health services in a timely manner included language, stigma, transportation, and lack of insurance for participants who were undocumented.

Massachusetts Maternal, Infant and Early Childhood Home Visiting (MA MIECHV) Initiative

Since the spring of 2010, DPH has been operating the [Maternal, Infant, and Early Childhood](https://mchb.hrsa.gov/maternal-child-health-initiatives/home-visiting-overview) [Home Visiting Program (MIECHV)](https://mchb.hrsa.gov/maternal-child-health-initiatives/home-visiting-overview), a federally funded program for states, tribes, and territories to develop and implement one or more evidence-based maternal, infant, and early childhood home visiting model(s). The state’s program is referred to as MA MIECHV.

In September 2021, DPH was awarded $6.9 million in federal funds in support of MA MIECHV, marking the 10th year of funding. MA MIECHV funds evidenced-based home visiting programs, including [Parents as Teachers](https://parentsasteachers.org/) and [Healthy Families America](https://www.healthyfamiliesamerica.org/). MA MIECHV prioritized 18 communities for services identified through the 2020 Massachusetts MIECHV needs assessment (list of communities is in the Appendix). The needs assessment ranked communities based on quantitative data indicators in nine domains: (1) socioeconomic status; (2) housing; (3) populations of special interest (e.g., teen births, foreign born residents); (4) substance use; (5) crime; (6) child unintentional injuries; (7) child maltreatment; (8) adverse perinatal outcomes; and (9) child development and health and school outcomes. There are 23 MA MIECHV home visiting programs across the 18 communities.

Depression screening is conducted with all program participants and data are analyzed for home visiting programs on a quarterly basis. An annual report to the federal funding agency, the Health Resources and Services Administration (HRSA), is submitted every October. Screens are conducted within three months of enrollment and are updated in compliance with model fidelity respective to each evidence-based home visiting program.

In Federal FY22 (October 1, 2021 – September 30, 2022), 74% of expected screenings for depressive symptoms were completed within three months of enrollment.

Welcome Family

The [Welcome Family](https://www.mass.gov/welcome-family) program, funded through MA MIECHV, offers a one-time nurse home visit to all birthing parents with newborns and their families, regardless of age, income, or other criteria, in five Massachusetts communities. The goal of Welcome Family is to promote optimal parental and infant physical and mental well-being and to provide an entry point into a system of care for families with newborns. Each visit is conducted within 8 weeks postpartum, lasts approximately 90 minutes, and is conducted by a nurse with maternal and child health experience. All services are provided at no cost to families. The primary focus of Welcome Family is the birthing parent and their newborn, but any caregiver is eligible for a visit, including fathers, grandparents, adoptive parents, and foster parents.

*During the visit, the Welcome Family nurse assesses the following six areas. Each area includes screening, brief intervention, education, and referrals to services as needed:*

* Parental emotional health, including a depression screen
* Parental and infant nutrition, including breastfeeding
* Unmet health needs
* Domestic violence
* Substance use
* Parental and infant clinical assessment

The nurse also spends time addressing the family’s questions or concerns. Participants receive a Welcome Family bag with gifts and information to support parents and baby. In addition, participants receive a follow-up phone call to inquire about the outcome of the referrals made during the visit and assess the need for any additional referrals.

Marketing and outreach activities are conducted at the community level to identify and recruit mothers with newborns. Relationships are fostered with potential referral sources in the community including birth hospitals, OB-GYNs, midwives, pediatricians, and WIC.

Welcome Family is available to families living or giving birth in five communities: Fall River, Boston, Lowell, Holyoke, and Springfield. During 2023, 1,047 PPD depression screens were offered during Welcome Family visits. There were 290 (27.7.%) positive PPD screens, of which 243 (83.8%) received a referral to services. A family may decline a referral, or the nurse may not offer a referral if the family is already receiving services. Families who did not receive a referral received brief interventions by the Welcome Family nurse.

*“The open dialogue and authenticity of the conversation made me feel comfortable and it*

*was a judgment free zone very relaxing and informative.” – Welcome Family participant*

## ADDITIONAL ACTIVITIES

In CY22 and CY23, additional activities were conducted, and products were developed with the goal of supporting health care providers and health plans. Activities included:

1. In partnership with the PPD Legislative Commission subcommittee focused on community resources, DPH maintains and updates the web [page dedicated to PPD](https://www.mass.gov/postpartum-depression) with additional resources.
2. DPH continues to make available free to the public the brochure entitled “[Being A](https://massclearinghouse.ehs.state.ma.us/PROG-PERIN/PP2801kit.html) [Mother Is A Hard Job](https://massclearinghouse.ehs.state.ma.us/PROG-PERIN/PP2801kit.html)” through the Massachusetts Health Promotion Clearinghouse.
3. DPH has funded Tufts University from FY20-FY23 to evaluate the effectiveness of EIPP with focus on PPD Screening and referral services.
4. DPH participated in the quarterly PPD Legislative Commission Meetings and the annual PPD Awareness Day event at the State House.

## CONCLUSION

Perinatal Mood and Anxiety Disorders (PMADs) have significant adverse impacts on birthing parents, infants, and their families. Access to appropriate and quality treatment and support are essential.

Massachusetts is leading the way in innovative health policies to address postpartum depression. The Massachusetts Department of Public Health will continue to work diligently to improve the health and wellbeing of all birthing parents and infants across the Commonwealth, by prioritizing expanded and comprehensive PMAD data collection and analysis, while also promoting early detection and treatment across health sectors.

However, more work and support are needed to close the gaps in the percentage of birthing parents screened for PMADs and successful completion of referrals to timely, high-quality supports and treatment.

### References

1. Bauman, B.L., Ko, J.Y., Cox, S., D’Angelo, D.V., Warner, L., Folger, S., Tevendale, H.D., Coy, K.C., Harrison, L., Barfield, W.D. (2020). Vital Signs – Postpartum Depression Symptoms and Provider Discussions about Perinatal Depression. *MMWR Morb Mortal Wkly Rep*; 69: 575–581.
2. Misri S, Reebye P, Kendrick K, et al. Internalizing behaviors in 4-year-old children exposed in utero to psychotropic medications. Am J Psychiatry 2006; 163(6): 1026–1032.
3. Carter AS, Garrity-Rokous FE, Chazan-Cohen R, et al. Maternal depression and comorbidity: predicting early parenting, attachment security, and toddler social-emotional problems and competencies. J Am Acad Child Adolesc Psychiatry 2001; 40(1): 18–26.
4. Sohr-Preston SL, Scaramella LV. Implications of timing of maternal depressive symptoms for early cognitive and language development. Clin Child Fam Psychol Rev 2006; 9(1): 65–83.
5. Oberlander TF, Reebye P, Misri S, et al. Externalizing and attentional behaviors in children of depressed mothers treated with a selective serotonin reuptake inhibitor antidepressant during pregnancy. Arch Pediatr Adolesc Med 2007; 161(1): 22–29.
6. Weissman MM, Pilowsky DJ, Wickramaratne PJ, et al. Remissions in maternal depression and child psychopathology: a STAR\*D-child report. JAMA 2006; 295(12): 1389–1398.
7. Hay DF, Pawlby S, Angold A, et al. Pathways to violence in the children of mothers who were depressed postpartum. Dev Psychol 2003; 39(6): 1083–1094.
8. Weissman MM, Wickramaratne P, Nomura Y, et al. Offspring of depressed parents: 20 years later. Am J Psychiatry 2006; 163(6): 1001–1008.
9. Society CP. Maternal depression and child development. Paediatr Child Health 2004; 9(8): 575–598.
10. Xiao RS, Kroll-Desrosiers AR, Goldberg RJ, et al. The impact of sleep, stress, and depression on postpartum weight retention: a systematic review. J Psychosom Res 2014; 77(5): 351–358.
11. Milgrom J, Skouteris H, Worotniuk T, et al. The association between ante- and postnatal depressive symptoms and obesity in both mother and child: a systematic review of the literature. Women’s Health Issues 2016; 22(3): e319–e328.
12. Chapman SLC, Wu L-T. Postpartum substance use and depressive symptoms: a review. Women Health 2013; 53(5): 479– 503.
13. Jones E, Coast E. Social relationships and postpartum depression in South Asia: a systematic review. Int J Soc Psychiatry 2013; 59(7): 690–700.
14. Dias CC, Figueiredo B. Breastfeeding and depression: a systematic review of the literature. J Affect Disord 2014; 171: 142– 154.
15. Vliegen N, Casalin S, Luyten P. The course of postpartum depression: a review of longitudinal studies. Harv Rev Psychiatry 2016; 22(1): 1–22.
16. Luca DL, Margiotta C, Staatz C, Garlow E, Christensen A, Zivin K, “Financial Toll of Untreated Perinatal Mood and Anxiety Disorders Among 2017 Births in the United States”, *American Journal of Public Health* 110, no. 6 (June 1, 2020): pp. 888- 896.
17. Farr SL, Dietz PM, O’Hara MW, Burley K, Ko JY. (2013) Postpartum anxiety and comorbid depression in a population-based sample of women. Journal of Women’s Health, 23(2), 120-128.
18. Masters GA, Hugunin J, Xu L, Ulbricht CM, Moore Simas TA, Ko JY, Byatt N. Prevalence of bipolar disorder in perinatal women: a systematic review and meta-analysis. J Clin Psychiatry 2022;83:21r14045. doi: 10.4088/JCP.21r14045
19. Fawcett EJ, Fairbrother N, Cox ML, White IR, Fawcett JM. The prevalence of anxiety disorders during pregnancy and the postpartum period: a multivariate Bayesian meta-analysis. J Clin Psychiatry 2019;80:18r12527. doi: 10.4088/JCP.18r12527
20. Wouk K, Stuebe AM, Meltzer-Brody S. Postpartum mental health and breastfeeding practices: an analysis using the 2010– 2011 Pregnancy Risk Assessment Monitoring System. Matern Child Health J 2016. Epub July 22,

2016. [CrossRefExternal](http://dx.doi.org/10.1007/s10995-016-2150-6) [PubMedExternal](http://www.ncbi.nlm.nih.gov/pubmed/27449655)

1. Stein A, Gath DH, Bucher J, Bond A, Day A, Cooper PJ. The relationship between post-natal depression and mother-child interaction. Br J Psychiatry 1991;158:46–52. [CrossRefExternal](http://dx.doi.org/10.1192/bjp.158.1.46) [PubMedExternal](http://www.ncbi.nlm.nih.gov/pubmed/2015451)
2. Kingston D, Tough S, Whitfield H. Prenatal and postpartum maternal psychological distress and infant development: a systematic review. Child Psychiatry Hum Dev 2012;43:683–714. [CrossRefExternal](http://dx.doi.org/10.1007/s10578-012-0291-4) [PubMedExternal](http://www.ncbi.nlm.nih.gov/pubmed/22407278)

### Addendum



**Figure 1. Number of Deliveries Screened for**

**Postpartum Depression within 6 Months**

**Postpartum by Delivery Date ̶ Massachusetts, 2021**

5000

4500

4000

3500

3000

2500

2000

1500

1000

500

0

2870

3246

3409 3434 3491 3458 3479

3337

2709

3133

3196 3037

589 578 643 656 694 707 682 694 706 651 563 612

Screened Not Screened

Table 1. Birthing People’s Characteristics by Status of PPD Screening, Jan 2021 -Dec 2021, MA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Screened** | | | |
| **No** | | **Yes** | |
| **N** | **%** | **N** | **%** |
|  | ***Race/Ethnicity ƚ*** |  |  |  |  |
|  | White non-Hispanic | 19,324 | 82.2 | 4,176 | 17.8 |
|  | Black non-Hispanic | 4,970 | 85.3 | 856 | 14.7 |
|  | Asian/PI non-Hispanic | 2,393 | 78.8 | 644 | 21.2 |
|  | Hispanic | 10,642 | 85.1 | 1,859 | 14.9 |
|  | American Indian or Other | 362 | 81.0 | 85 | 19.0 |
|  | unknown | 1,108 | 87.7 | 155 | 12.3 |
|  | ***Insurance ƚ*** |  |  |  |  |
|  | Medicaid | 22,905 | 82.7 | 4,776 | 17.3 |
|  | Other | 15894 | 84.1 | 2999 | 15.9 |
|  | ***Education ƚ*** |  |  |  |  |
|  | No HS degree | 3,915 | 85.1 | 686 | 14.9 |
|  | HS degree or GED | 7,947 | 83.4 | 1,580 | 16.6 |
|  | Associate or Bachelor degree | 11,194 | 83.1 | 2,284 | 16.9 |
|  | Post graduate | 7,258 | 84.0 | 1,378 | 16.0 |
|  | ***Preterm Birth*** |  |  |  |  |
|  | No | 35,370 | 83.2 | 7,146 | 16.8 |
|  | Yes | 3,304 | 84.1 | 626 | 15.9 |
|  | ***Plurality*** |  |  |  |  |
|  | Singleton | 38,144 | 83.3 | 7,649 | 16.7 |
|  | Multiple | 655 | 83.9 | 126 | 16.1 |
|  | ***Parity ƚ*** |  |  |  |  |
|  | 1 | 16,046 | 83.0 | 3,294 | 17.0 |
|  | 2 | 13,044 | 82.8 | 2,701 | 17.2 |
|  | 3+ | 9,709 | 84.5 | 1,780 | 15.5 |
|  | ***Married ƚ*** |  |  |  |  |
|  | No | 22,117 | 83.3 | 4,430 | 16.7 |
|  | Yes | 290 | 94.8 | 16 | 5.2 |
| ƚ P<0.01 |  |  |  |  |  |

Table 2. Birthing People’s Characteristics by Results of PPD Screening, Jan 2021 -Dec 2021, MA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Screen Results** | | | |
|  |  | **Negative** | | **Positive** | |
|  |  | **N** | **%** | **N** | **%** |
|  | ***Race/Ethnicity* ƚ** |  |  |  |  |
|  | White non-Hispanic | 3,492 | 83.6 | 684 | 16.4 |
|  | Black non-Hispanic | 664 | 77.6 | 192 | 22.4 |
|  | Asian/PI non-Hispanic | 553 | 85.9 | 91 | 14.1 |
|  | Hispanic | 1,521 | 81.8 | 338 | 18.2 |
|  | American Indian or Other | 65 | 76.5 | 20 | 23.5 |
|  | unknown | 131 | 84.5 | 24 | 15.5 |
|  | ***Insurance* ƚ** |  |  |  |  |
|  | Medicaid | 3,817 | 79.9 | 959 | 20.1 |
|  | Other | 2609 | 87.0 | 390 | 13.0 |
|  | ***Education* ƚ** |  |  |  |  |
|  | <HS | 547 | 79.7 | 139 | 20.3 |
|  | HS/GED | 1,234 | 78.1 | 346 | 21.9 |
|  | Some College/Associate Degree | 1,969 | 86.2 | 315 | 13.8 |
|  | Bachelor Degree | 1,169 | 84.8 | 209 | 15.2 |
|  | Graduate Degrees | 1,507 | 81.6 | 340 | 18.4 |
|  | ***Preterm Birth \**** |  |  |  |  |
|  | No | 5,928 | 83.0 | 1,218 | 17.0 |
|  | Yes | 496 | 79.2 | 130 | 20.8 |
|  | ***Plurality*** |  |  |  |  |
|  | Singleton | 6,325 | 82.7 | 1,324 | 17.3 |
|  | Multiple | 101 | 80.2 | 25 | 19.8 |
|  | ***Parity*** |  |  |  |  |
|  | 1 | 563 | 14.6 | 3,294 | 85.4 |
|  | 2 | 466 | 14.7 | 2,701 | 85.3 |
|  | 3 | 320 | 15.2 | 1,780 | 84.8 |
|  | ***Married ƚ*** |  |  |  |  |
|  | No | 2,660 | 79.9 | 669 | 20.1 |
|  | Yes | 3,751 | 84.7 | 679 | 15.3 |
| \*P <0.05  ƚP<0.01 |  |  |  |  |  |

**Percent (%)**

*The 18 Massachusetts Home Visiting Initiative Communities in Massachusetts include:*

Figure 2. Experience of postpartum depression

(PPD) symptoms in 2022, MA PRAMS

100.0%

90.0%

80.0%

70.0%

60.0%

50.0%

40.0%

30.0%

20.0%

10.0%

0.0%

62.3%

27.7%

10.0%

Often/always Sometimes Rarely/never

* Boston
* Brockton
* Chelsea
* Everett
* Fall River
* Fitchburg
* Holyoke
* Lawrence
* Lowell
* Lynn
* New Bedford
* North Adams
* Pittsfield
* Revere
* Southbridge
* Springfield
* Webster
* Worcester