Pay Now or Pay Later

The Financial Consequences of Untreated Maternal Mental Health: The Role of the Arizona Psychiatry Access Line

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Financial Disclosure

Nothing to disclose.

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The Scope of the Problem

- PMADs affect more than 1 in 5 pregnant/postpartum individuals.
- PMADs are the leading preventable cause of pregnancy-related mortality in the U.S.
- Most maternal deaths related to mental health are preventable.
- Despite effective treatments, PMADs remain under detected and undertreated – fewer than 1 in 4 affected individuals receive treatment.

ACOG Clinical Practice Guideline No. 4, Obstet Gynecol 2023; Miller ES et al., Obstet Gynecol 2026; Wisner KL et al., JAMA Psychiatry 2024; Trost SL et al., Health Aff 2021.

Maternal Mortality: The Ultimate Cost of Inaction

#1 Cause	Mental health conditions are the #1 cause of pregnancy -related deaths (22.7%)
Drug-related deaths on the rise	Drug-related deaths increased 190% from 2010 to 2019 .
100% preventable	100% of pregnancy-related mental health deaths are deemed preventable .
After Medicaid Coverage Ends	63% of pregnancy-related mental health deaths occur 43 –365 days postpartum —after traditional Medicaid coverage ends.
Racial/Ethnic Disparities	Non-Hispanic American Indian/Alaska Native individuals at highest risk for drug -related and suicide death; Non -Hispanic Black individuals at highest risk for homicide .

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Wisner KL et al. JAMA Psychiatry. 2024;81(5):521-526; Margerison CE et al. Obstet Gynecol. 2022;139(2):172-180; Trost SL et al. Health Aff. 2021;40(10):1551-1559; Zivin K et al. JAMA Netw Open. 2024;7(6):e2418887.

The Economic Burden: National Data

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Estimated **$14 Billion cost** for the 2017 U.S. birth cohort

Average cost per affected mother-child dyad: **~$31,800**

Mothers incur 65% of costs; children incur 35%

Largest cost drivers:

- Reduced economic productivity among affected mothers (largest single driver)
- Increased preterm births
- Increased maternal healthcare expenditures

Luca DL et al. Am J Public Health. 2020;110(6):888-896.

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State-Level Validation

- Vermont analysis: $48 million for a single annual birth cohort; $35,910 per affected dyad
- Comparable to national estimates ($35,500 per dyad, adjusted to 2021 $)
- Texas analysis: $2.2 billion for a single birth cohort
- Arizona context: Over 80% of Health Start Program participants are Medicaid-insured; women with pregnancy-related Medicaid had 30% lower odds of attending postpartum visits

Platt IS et al. Arch Womens Ment Health. 2024;27(4):585-594. Margiotta C et al. BMC Pregnancy Childbirth. 2022;22(1):700; Okechukwu A et al. Front Public Health. 2023;11:1281574; Wightman P et al. BMJ Open. 2025;15(11):e094445.

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Healthcare Utilization: Medicaid Data

Among Medicaid Enrollees with perinatal depression (vs. without) n = 330,000+

Higher healthcare utilization:

+1.7 additional emergency department visits

+0.95 additional inpatient delays

+14 outpatient visits

Higher costs:

+$5,078 in excess expenditures per individual

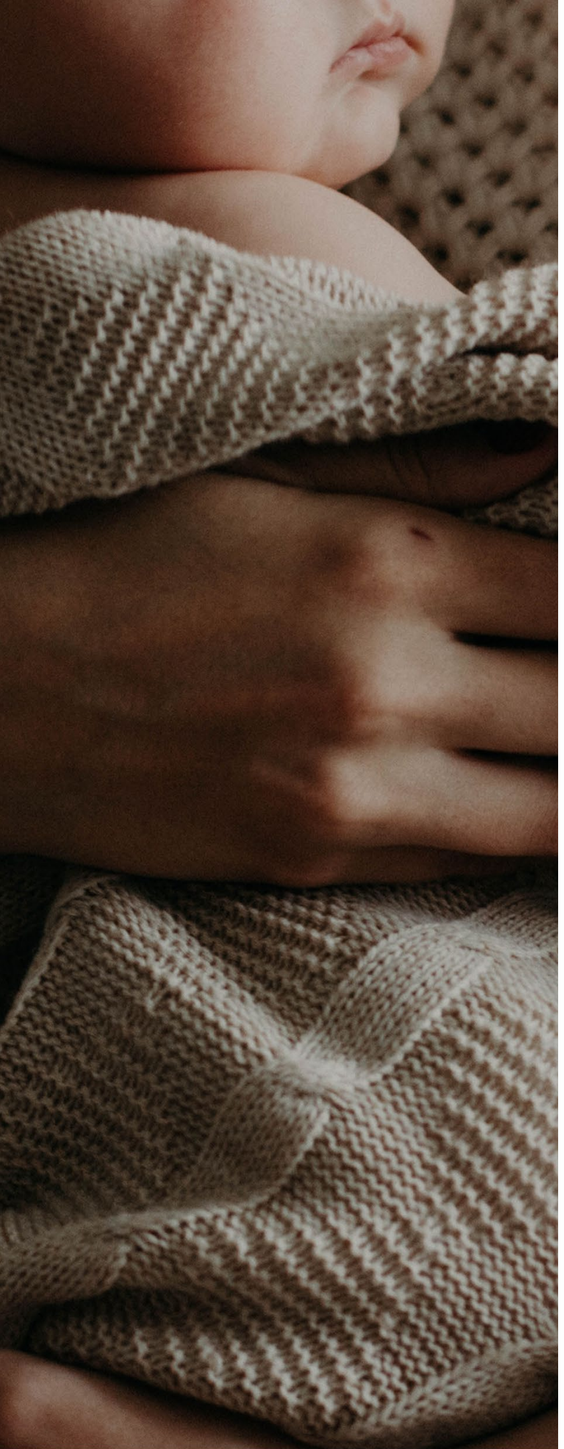
Racial/Ethnic Disparities compound the burden:

Larger inpatient utilization differences among Non-Hispanic Black individuals.

Larger outpatient utilization differences among Hispanic individuals.

Medicaid finances ~42% of U.S. births, these costs represent a significant and improvable component of state healthcare spending.

Pollack LM et al. Am J Prev Med. 2022;62(6):e333-e341



Obstetric & Neonatal Consequences

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Every preterm birth and NICU admission represents both a human and financial cost.

Untreated antenatal depression increases risk of:

- Preterm birth: OR 1.56 (95% Cl 1.25-1.94)
- Low birth weight: OR 1.96 (95% Cl 1.24-3.10)

Worsening depressive trajectories across gestation further increase preterm birth risk: OR 1.68 (95% Cl 1.10-2.57)

NICU cost implications:

- Term infant birth hospitalization: **$2,433**
- Late preterm (32-36 weeks): **$22,102**
- Very preterm (32 weeks): **$223,931**
- Extremely preterm (28 weeks): **$317,982**

Preterm infants = 8% of births but 61% of neonatal costs

Jarde A et al. JAMA Psychiatry. 2016;73(8):826-37; Miller ES et al. Am J Obstet Gynecol. 2022;226(1):108.e1-108.e9; Bua A et al. Eur J Pediatr. 2024;183(6):2769-2781

The Intergenerational Toll: Impact on Child Development

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- Meta-analysis of 191 studies (n = 195,751 mother-child dyads): Perinatal depression and anxiety associated with poorer offspring outcomes across ALL developmental domains
  - Social-emotional development: r = 0.24 (postnatal)
  - Cognitive development: r = −0.25 (postnatal)
  - Language development: r = −0.22 (postnatal)
  - Attachment difficulties: r = −0.30 (postnatal)
- **These associations do NOT weaken with age — they persist from infancy through adolescence**

Children of mothers with depression/anxiety also have increased healthcare utilization:

+ 26% increase in ED visits

+ 75% increase in hospitalizations (first 18 months of life)

Rogers A et al. JAMA Pediatrics. 2020;174(11):1082-1092; Bua A et al. Eur J Pediatr. 2024;183(6):2769-2781.

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The Intergenerational Toll: Offspring Psychiatric Disorders

- Children of mothers with postnatal depression are:
  - 2x more likely to develop anxiety disorders
  - ~2x more likely to develop depression
  - 1.9x more likely to develop ADHD
  - 1.75x more likely to develop ASD

  Persistent, severe postnatal depression: 7.4x increased risk of offspring depression at age 18
- **Comorbid maternal depression + anxiety: 3.4x** risk of comorbid offspring depression + anxiety

Key insight:

Non-persistent moderate or marked PND was NOT associated with increased offspring depression at 18—chronicity of untreated illness drives the worst outcomes.

Chithiramohan T Eslick GD. JDBP. 2023;44(3):e231-e238; Kępińska A et al. Psychol Med. 2026;56:e26; Netsi E et al. JAMA Psychiatry. 2018;75(3):247-253; Tusa BS et al. Eur Child Adolesc Psychiatry. 2025

The Pediatric Cost Cascade: Why Treating Mothers is a Pediatric Investment

U.S. pediatric behavioral health spending: $41.8 billion in 2022	• Now 40% of ALL child medical expenditures (up from 22% in 2011) • Increased by $1.2 billion per year over the past decade
Children of mothers with mental illness use 27% more healthcare overall:	• +37% inpatient admissions • +34% emergency care visits • +30% outpatient visits • Estimated additional cost: £656 million/year (NHS England alone)
Treating maternal depression WORKS for children:	• STARD-Child: Remission of maternal depression → significant improvement in child psychiatric symptoms and functioning • Meta-analysis of 47 RCTs: Treatment of maternal depression → significant improvement in child mental health ($g = 0.29$), mother-child interaction ($g = 0.34$), and parenting ($g = 0.23$)

Foster AA et al. JAMA Pediatrics. 2025; Hope H et al. Br J Psychiatry. 2021;219(3):515-522; Wickramaratne P et al. Am J Psychiatry. 2011;168(6):593-602; Cuijpers P et al. JAACAP. 2026.

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The Maternal Productivity Crisis

- Reduced economic productivity is the **LARGEST** single cost driver in the **$14 billion burden**
- Postpartum depression is associated with sustained economic hardship lasting 15+ years:
  - $2,114 reduction in annual household income
  - 3 percentage point increase in unemployment
  - Increased material hardship, household poverty, and unemployment trajectories
- Among high-risk, low-income mothers:
  - Depression increased indirect costs from lost work productivity by **$523 million annually (national)**
  - Direct healthcare expenditures increased by **$1.89 billion annually**
- For employers and state economies: billions in lost productivity per year

Luca DL et al. Am J Public Health. 2020;110(6):888-896; Rokicki S et al. Am J Prev Med. 2022;62(2):165-173; McGovern ME et al. Soc Sci Med. 2022;305:115017; Ammerman RT et al. J Affect Disord. 2016;190:386-394; Margiotta C et al. BMC Pregnancy Childbirth. 2022;22(1):700.

The Treatment Gap: Why PMADs Go Untreated

- Multi-level barriers identified by ACOG:
  - Limited obstetric clinician training in mental health
  - Limited standardized processes for integrating mental health care
  - Inadequate referral networks
  - Mental health professionals' reluctance to treat pregnant individuals
  - Limited capacity for follow-up and care coordination

- Result: >50% of affected individuals are never diagnosed; only **25%** receive treatment

- 50–70% of symptomatic women remain without a diagnosis even when screening is available

- The problem cannot be solved by training more psychiatrists alone — it requires a systems-level solution

ACOG Clinical Practice Guideline No. 4, Obstet Gynecol 2023; Solomonov N et al. JAMA Netw Open. 2025;8(9):e2533111; Ranchoff BL et al. Health Serv Res. 2025.

Arizona Birth Cohort and AHCCCS Coverage

- Arizona had 41,284 Medicaid-paid births in 2018
- 80.8% enrolled through pregnancy-specific Medicaid eligibility - among the highest rates nationally
- Nationally, Medicaid covers 41.5% of all U.S. births 2023 data: 3.6 million total births)
- AHCCCS is the single largest payer for childbirth in Arizona
- Arizona has extended postpartum Medicaid to 12 months — but coverage ≠ treatment:
  - Extended coverage increased enrollment by 2.9 additional months
  - Increased mental/behavioral health diagnoses by 3.2 percentage points
  - But NO increase in outpatient care — coverage without infrastructure does not translate to access

Gordon SH et al. Health Serv Res. 2026;61(1):e70053; Osterman MJK et al. Natl Vital Stat Rep. 2025; Eliason EL et al. Milbank Q. 2026.

Arizona's Vulnerability: Why the Risk is Higher Here

- **80.8% pregnancy-specific Medicaid** — highest-risk category for postpartum coverage disruption

- **Large rural and frontier geography**: 15 counties, many with no practicing psychiatrist
  - More than half of all U.S. counties (all rural) have no practicing psychiatrist, psychologist, or social worker
  - 85% of federally designated mental health professional shortage areas are in rural communities

- **Significant tribal communities** (Navajo Nation, Tohono O'odham, Gila River, Salt River, and others):
  - Non-Hispanic American Indian/Alaska Native individuals have the **highest rates of drug-related and suicide-related pregnancy-associated deaths**
  - Tribal communities face among the most severe mental health workforce shortages in the nation

- **Screening without treatment infrastructure is insufficient:**
  - Colorado's Medicaid screening reimbursement increased PPD detection by 9.6 percentage points and treatment by 3.3 percentage points
  - Arizona could replicate through AHCCCS — but only if treatment consultation (APAL) is available

- **Coverage + Screening + Treatment Consultation = Complete System**
  - Arizona has the coverage (postpartum extension)
  - AHCCCS reimburses screening – we need more of it
  - Arizona needs the treatment backbone

Gordon SH et al. Health Serv Res. 2026;61(1):e70053; Fontanella CA et al. JAMA Pediatrics. 2015;169(5):466-73; Gordon SH et al. JAMA Pediatrics. 2025;179(9):1009-1016; Andrilla CHA et al. Am J Prev Med. 2018;54(6 Suppl 3):S199-S207.

Arizona's Workforce Crisis:

Why We Can't Hire Our Way Out

- **National psychiatry workforce adequacy: → 49.8% by 2038**
  - Demand will exceed supply by more than 2:1
- **Non-metropolitan workforce adequacy: only 34.8%** (vs. 75.9% metropolitan)
- **Community perinatal psychiatrists are scarce nationwide**:
  - National deficit of **hundreds to thousands** of perinatal psychiatrists
  - Patients attempting to self-refer face severe access barriers in most states
- **Arizona cannot recruit what doesn't exist**
- **APAL is the force multiplier**:
  - Takes limited perinatal psychiatric expertise and makes it available to **every provider in the state** through a single phone call

Silvestre J et al. J Psychiatr Res. 2026;199:98-103; Koire A et al. JAMA Netw Open. 2024;7(8):e2426465; Andrilla CHA et al. Am J Prev Med. 2018;54(6 Suppl 3):S199-S207; Masters GA et al. Arch Womens Ment Health. 2023;26(3):401-410.

Psychiatry Access Lines Are a National Standard — Not a Pilot

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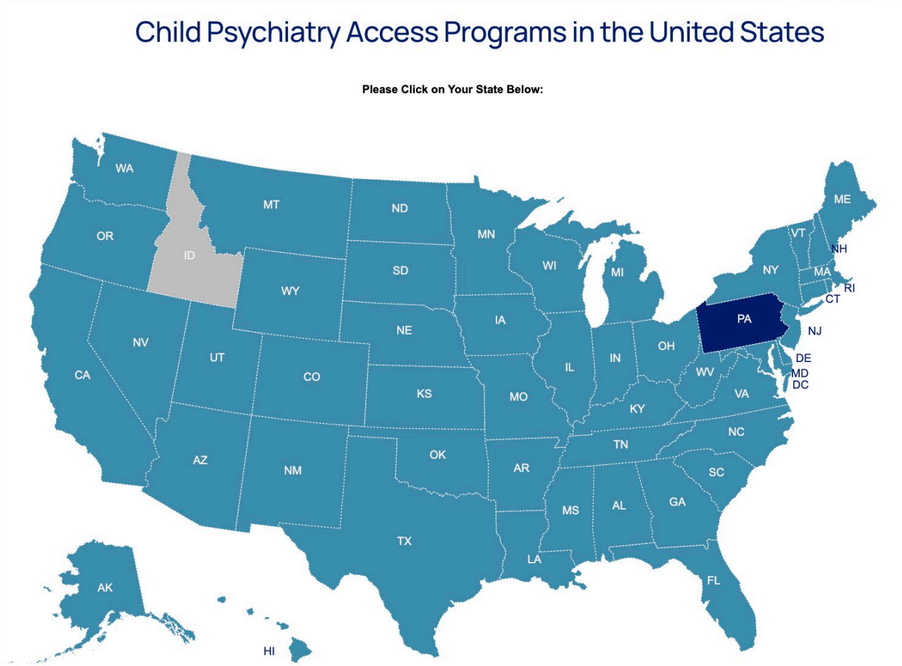
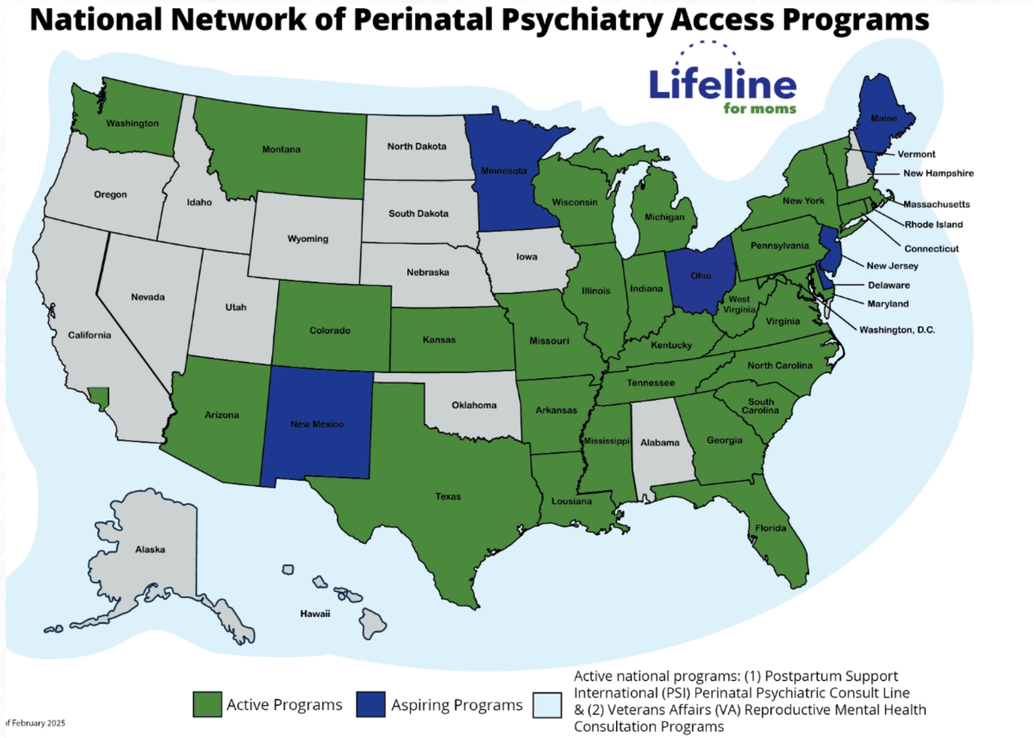
Pediatric / CPAPs

- **50 states + DC** have CPAP presence (full/partial/no coverage varies)



Perinatal Programs (Life Line)

26 active state/region programs listed + 4 “coming soon”



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Proof of Concept: MCPAP for Moms

- First statewide Perinatal Psychiatry Access Program (Massachusetts)

Massachusetts Child Psychiatry Access Project
MCPAP For Moms

- In first 3.5 years:
  - 145 obstetric practices enrolled
  - 145 trainings conducted for 1,174 providers
  - 3,699 women served

- 42% of consultations were with OB providers/midwives; 16% with psychiatrists

- Qualitative findings: Facilitated provider detection of depression, patient disclosure of symptoms, and treatment initiation

Byatt N et al. Obstet Gynecol. 2018;132(2):345-353.

The National Movement

- Numerous statewide and regional Perinatal Psychiatry Access Programs now exist across the U.S.
- Lifeline for Moms National Network coordinates programs and shares best practices.
- Multi-level approach with potential to reduce perinatal mental health inequities at:
  - Patient level: Increased access to evidence-based treatment
  - Clinician level: Training, confidence, and real-time support
  - Practice level: Workflow integration and standardized processes
  - Community level: Resource and referral linkages
  - Policy level: Advocacy and data for legislative action

- National resources complement state programs:
  - HRSA Maternal Mental Health Hotline: 1-833-9 HELP4MOMS (24/7, free, multilingual)
  - Postpartum Support International Perinatal Psychiatric Consult Line
  - Alliance for Innovation on Maternal Health (AIM) Perinatal Mental Health Patient Safety Bundle

Deichen Hansen ME et al. Gen Hosp Psychiatry. 2023;82:75-85.

APAL: Arizona's Model

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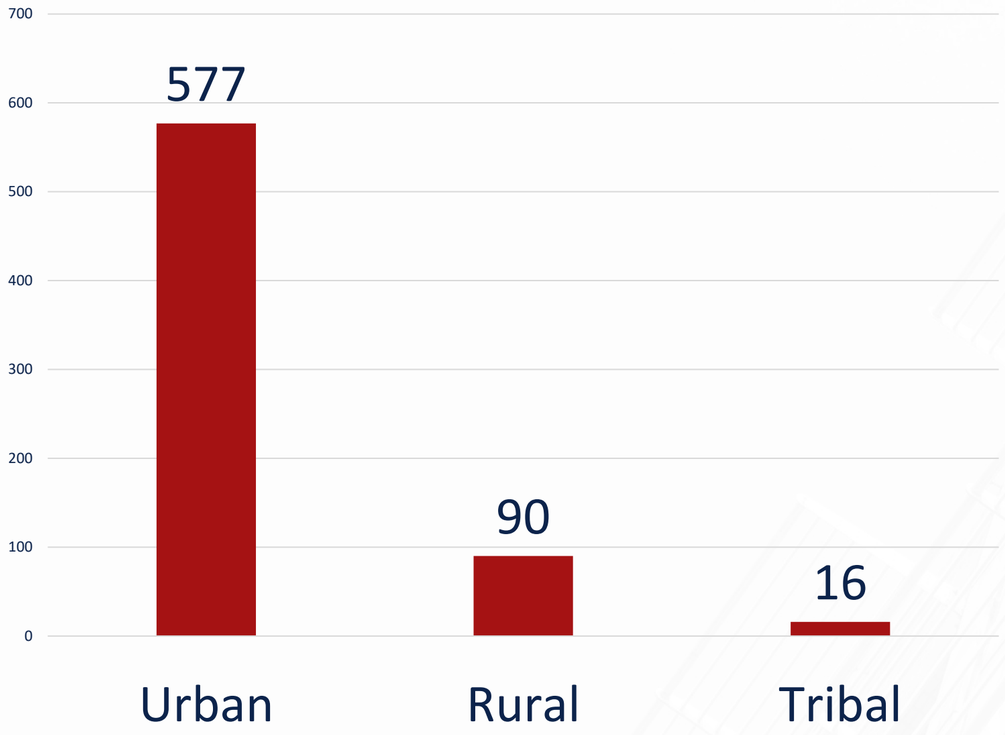
- Same-day psychiatric guidance for frontline clinicians.
- Resource/referral support
- Educational programming and toolkits.
- Designed to improve access without requiring direct psychiatrist availability statewide.

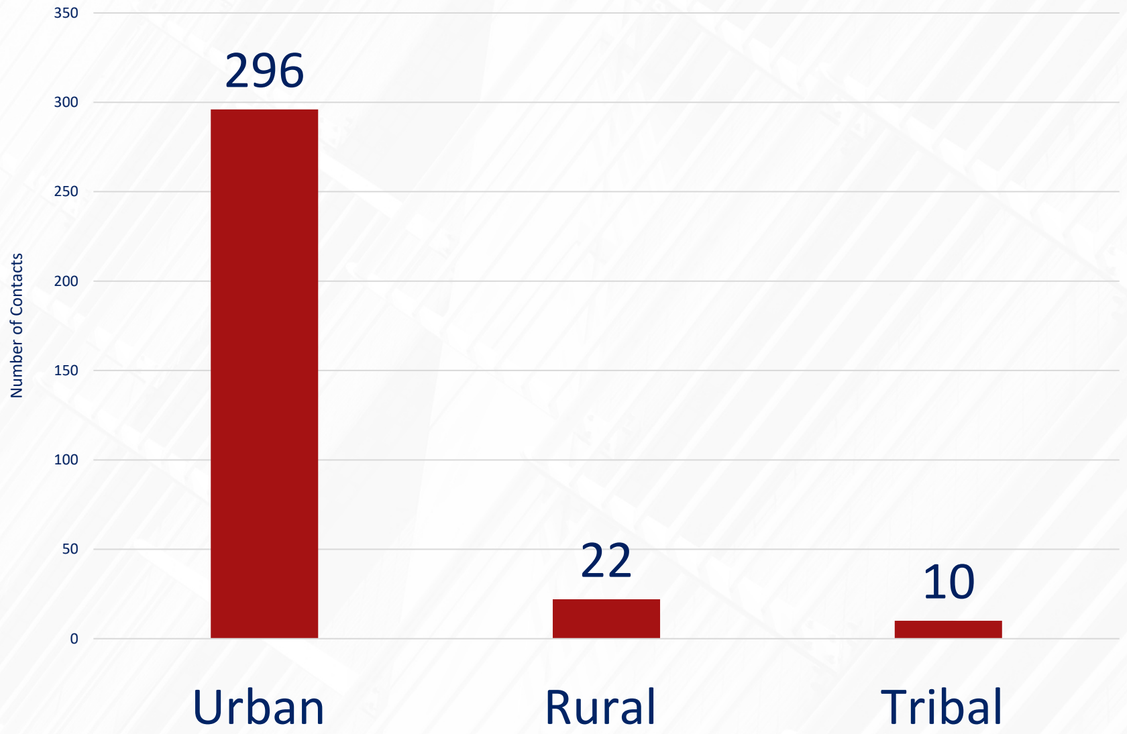
Geographic Reach

APAL eliminates geographic barriers, giving clinicians in rural and frontier communities the same access to psychiatric expertise as those in Phoenix or Tucson.

APAL Peri Geographic Reach



APAL Peds Geographic Reach



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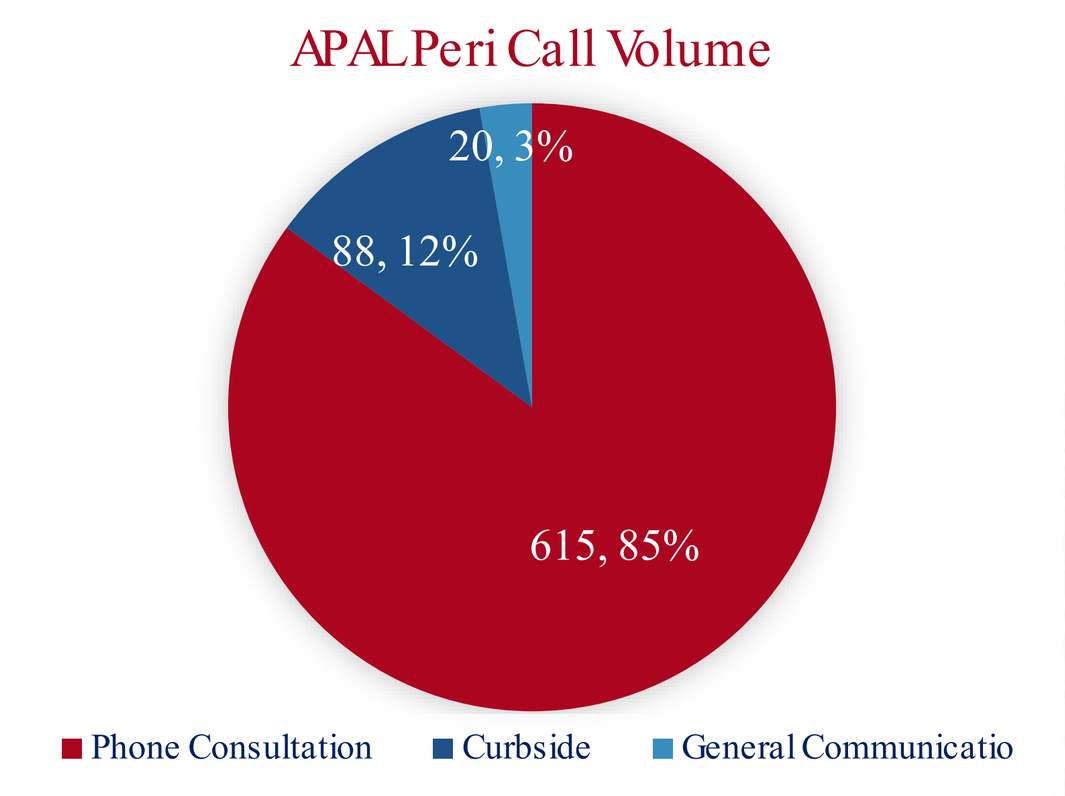
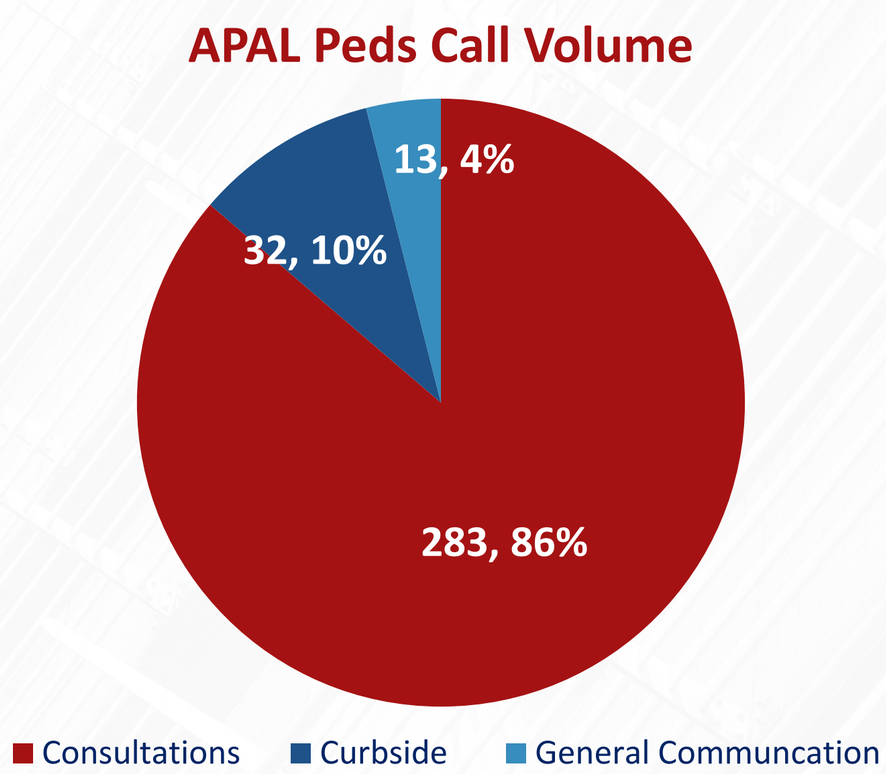
Strengthening Existing Systems of Care

With 85–86% of calls resulting in clinical consultation, APAL is delivering psychiatric expertise directly to the clinicians already caring for Arizona's mothers, children, and families.





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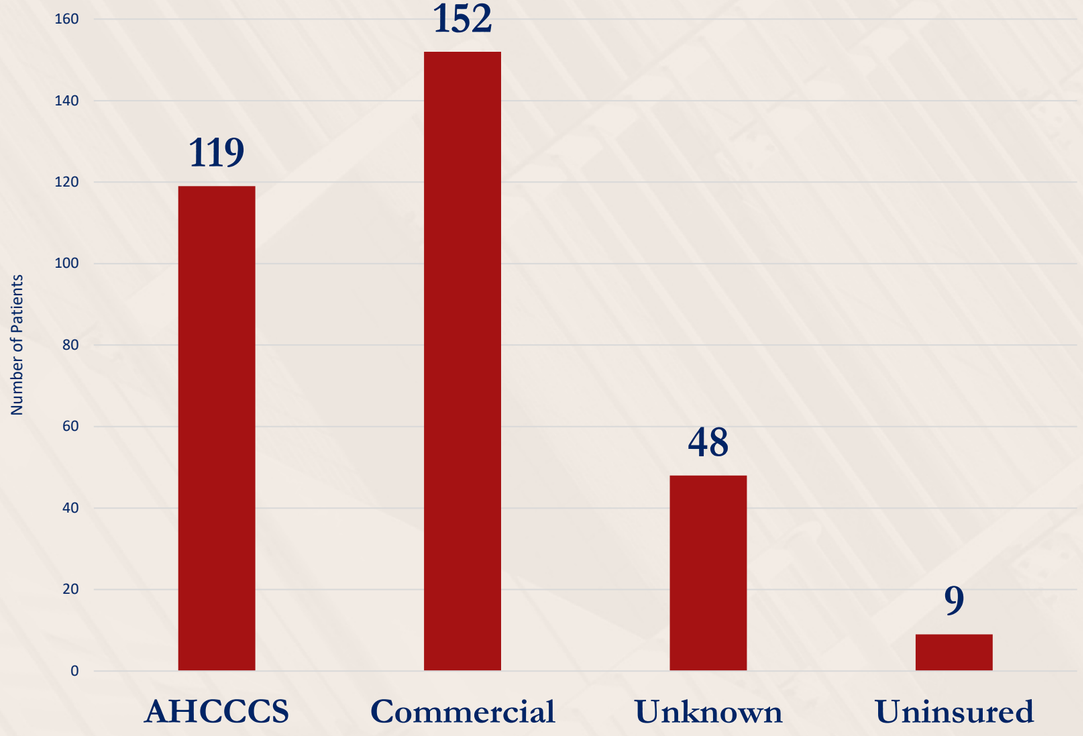
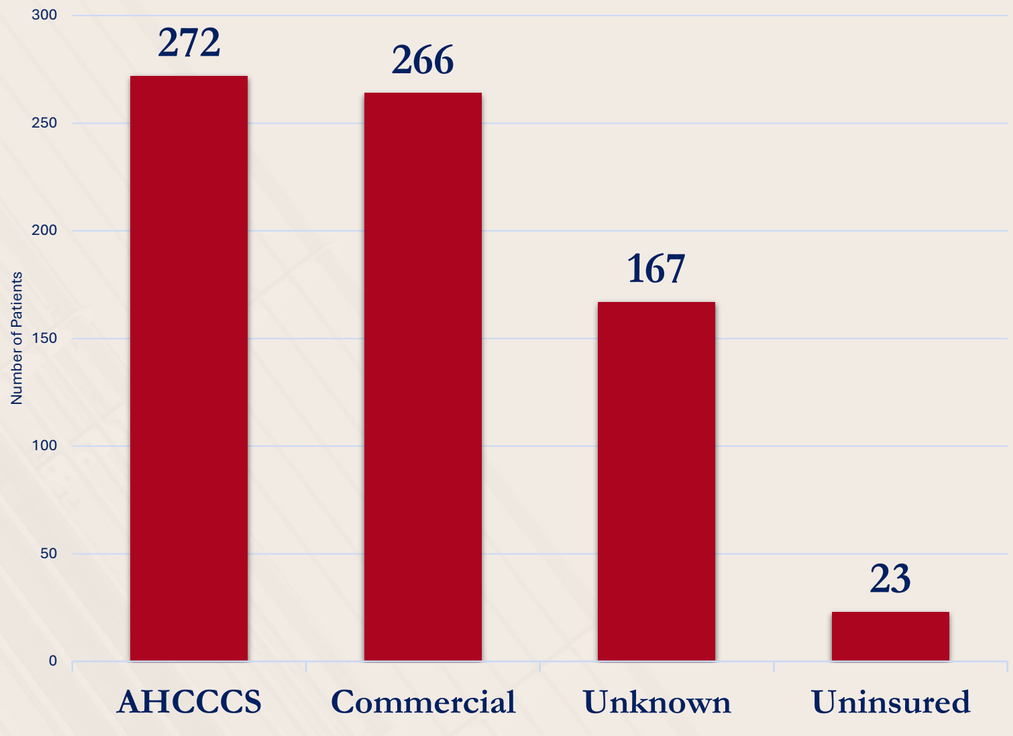
Patient demographics & Medicaid coverage rates

AHCCCS-insured patients accounted for a substantial share of consultations in both APAL programs, highlighting the program's reach among Arizona's Medicaid population.

APAL Peds Patient Insurance Type



APAL Peri Patient Insurance Type



One Call Can Change the Trajectory

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A 32-year-old patient in Pinal County, pregnant with her third child, had a history of significant depression in a prior pregnancy/postpartum period. This time, she wanted things to be different.

Her OB provider had discussed this with her, she was now taking vortioxetine. But the provider was not familiar with this medication in pregnancy and called APAL for guidance.

The clinical question was not simply: “Is this medication safe?”

It was: **How do we help her stay well enough to avoid the same severe depression she experienced last time?**

Through APAL, the provider received same-day psychiatric consultation on:

- the risks of untreated or recurrent depression in pregnancy
- available reproductive safety data for vortioxetine
- whether to continue, switch, or adjust treatment
- how to monitor symptoms over time
- when to escalate care if symptoms worsened

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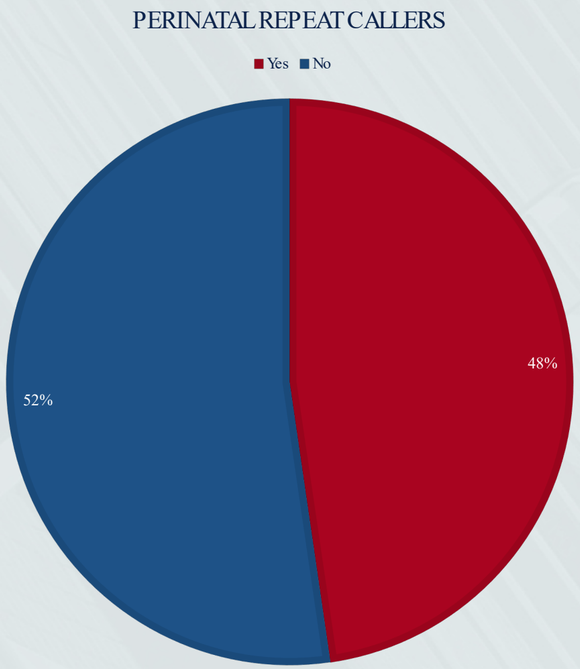
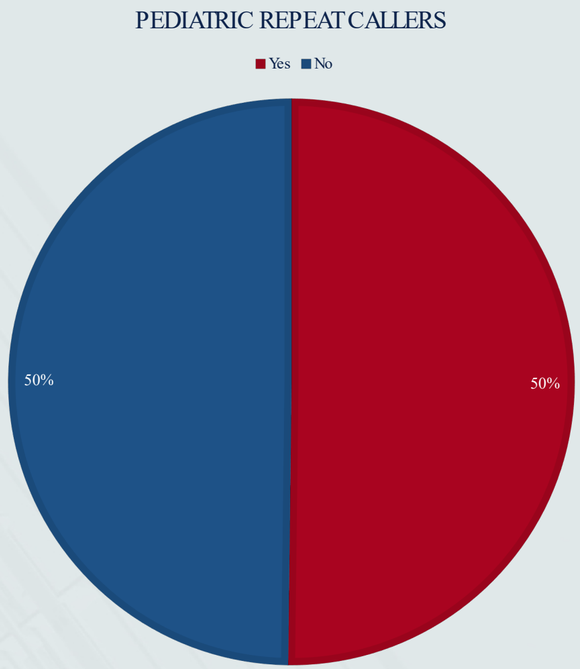
Access & Reach





Perinatal and Pediatric Consultation lines both have repeat callers – a positive sign of provider trust in services

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The Economic Case

- Systematic review of 37 economic evaluations (n = 218,525 participants):
  - **86.5% of PMAD interventions were cost-effective or economically favorable**
  - Includes prevention (28.1%), treatment (34.3%), screening (18.7%), and combined approaches (18.7%)

- Critical finding on time horizon:
  - 68.7% of cost-effective interventions used time horizons ≥1 year
  - 83.3% of non-cost-effective findings used time horizons 1 year

- Implication: Short-term budget analyses systematically underestimate the true return on investment

- Universal screening for postnatal depression is more cost-effective than targeted screening, which is more cost-effective than no screening

Alam S et al. Gen Hosp Psychiatry. 2025;97:253-274; Camacho EM et al. J Affect Disord. 2023;334:26-34; Tecirli G et al. Health Policy. 2025;154:105264.

Mechanisms of Cost Savings

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- Reduced excess healthcare utilization ($5,078/person among Medicaid enrollees)
- Reduced preterm birth and associated NICU costs ($22,102–$317,982 per preterm birth)
- Reduced infant and child healthcare utilization (26% more ED visits, 75% more hospitalizations)
- Reduced pediatric behavioral health burden ($41.8 billion/year nationally)
- Improved maternal economic productivity (largest single cost driver — 15-year sustained impact)
- Reduced maternal morbidity and mortality (100% preventable)
- Improved treatment engagement: 5.7-fold increase in treatment attendance vs. usual care

Pollack LM et al. Am J Prev Med. 2022; Phibbs CS et al. J Pediatr. 2019; Bua A et al. Eur J Pediatr. 2024; Foster AA et al. JAMA Pediatrics. 2025; Rokicki S et al. Am J Prev Med. 2022; Wisner KL et al. JAMA Psychiatry. 2024; Guille C et al. Health Aff. 2024.

The Value Proposition

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- Scalable: Leverages existing workforce; does not require new specialty hires
- High-impact: Reaches large numbers of providers and patients statewide
- Equitable: Addresses disparities in access to perinatal psychiatric expertise
- Cost-effective: 86.5% of PMAD interventions demonstrate favorable economics
- Addresses the leading preventable cause of maternal mortality

PAY NOW:

- Invest in APAL and psychiatry access infrastructure
- Support Medicaid postpartum coverage extension and screening
- Build data systems for accountability and quality improvement

OR PAY LATER:

- **$14 billion** per birth cohort in untreated PMAD costs
- **$5,078** per person in excess Medicaid expenditures
- **$22,102–$317,982** per preterm birth hospitalization
- **$41.8 billion** per year in pediatric behavioral health spending
- **15 years** of reduced maternal economic productivity
- **Preventable maternal deaths**

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References

- Luca DL et al. Am J Public Health. 2020.
- Platt IS et al. Arch Womens Ment Health. 2024.
- Pollack LM et al. Am J Prev Med. 2022.
- Jarde A et al. JAMA Psychiatry. 2016.

Additional references included in presenter notes.

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Thank you

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