ARIZONA

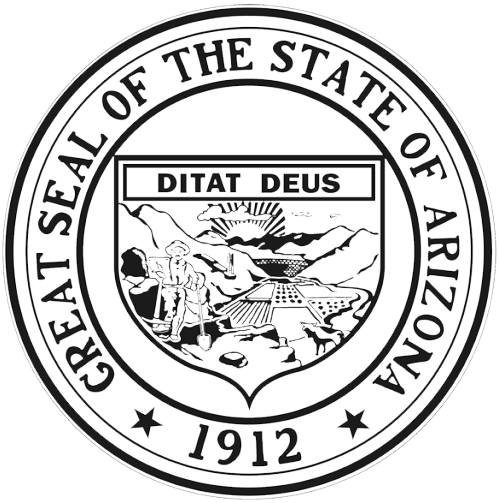
2022

ANNUAL REPORT

BLOOD LEAD SURVEILLANCE

CHILDHOOD LEAD POISONING PREVENTION PROGRAM

ARIZONA DEPARTMENT
OF HEALTH SERVICES



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EXECUTIVE SUMMARY

Per Arizona Administrative Code R9-4-302, all blood lead results are reportable to the Arizona Department of Health Services (ADHS). This Annual Blood Lead Surveillance Report provides data for children tested for lead in Arizona during the calendar year 2022. Data were extracted from the Department's electronic reportable disease surveillance system, Medical Electronic Disease Surveillance Intelligence System (MEDSIS).

The intent of this report is to provide information for stakeholders to identify areas across Arizona to target interventions. In this report, we have expanded our focus to include valuable insights and data concerning vulnerable populations, notably children enrolled in the Arizona Health Care Cost Containment System (AHCCCS). The report contains an analysis of statewide and county level data, a breakdown of blood lead levels above the Centers for Disease Control and Prevention's (CDC) blood lead reference value (BLRV), and screening rates for statewide and high-risk ZIP codes. The high-risk ZIP codes used for analyses in this report came from the 2018 Targeted Lead Screening Plan for the Prevention of Childhood Lead Poisoning.

Data displayed are for children less than 6 years of age at the time of first reported blood lead level at or above the BLRV or first reported test. The CDC updated the BLRV from 5 µg/dL to 3.5 µg/dL in October, 2021 and ADHS adopted the new BLRV in January, 2022.

Screening rates were calculated using venous and capillary blood lead test results reported to ADHS. These rates do not include verbal assessments or questionnaires administered by health care providers. Please note that there is an underestimation of counts and rates presented in this report due to ADHS' reliance on provider and laboratory reporting of blood lead test results.

EXECUTIVE SUMMARY (CONT.)

For the children living in high-risk ZIP codes, 19.3% had a blood lead test done at age 1, and 12.0% had a blood lead test at age 2. The Arizona Childhood Lead Poisoning Prevention Program (AzCLPPP) strongly recommends all children receive a blood lead test because lead can harm a child's growth, behavior, and ability to learn even at low levels. In Arizona, providers are required to test all children on the Arizona Health Care Cost Containment System (AHCCCS) at 1 and 2 years of age, or at least once before the child reaches 6 years of age if not previously tested. Providers should also screen refugee children ages 6 months to 16 years within 90 days of arrival. Follow-up lead screening should occur again after 3-6 months of placement in a permanent residence, regardless of the results of the initial lead test. A top priority for AzCLPPP is to improve screening rates by increasing outreach and collaboration efforts with partners and stakeholders. The program also aims to improve the identification of common lead sources throughout the state of Arizona by offering more environmental investigations.

In 2022, 45,391 Arizona children under the age of 6 received either a venous or capillary blood lead test. Of these, 461 were found to have a venous blood lead level (BLL) at or above the BLRV. Arizona's 1 and 2 year screening rate had been increasing from 2016 to 2019, however, it has been decreasing since 2020. The 1 and 2 year screening rate decreased from 7.8% in 2021 to 6.1% in 2022 for children living in high-risk ZIP codes.

AzCLPPP provides case management services to all children with a confirmed blood level at or above the BLRV. Case management includes mailing educational materials to the parents of all children identified with blood lead levels at or above the BLRV, and in some cases conducting a comprehensive interview or an environmental investigation to determine potential sources of lead exposure.

GLOSSARY OF DEFINITIONS

Blood Lead Reference Value	Reference value based on the 97.5th percentile of blood lead values among U.S. children ages 1-5 years from the National Health and Nutrition Examination Survey
Capillary	Test where a blood sample is taken from the finger or heel of a child, used for screening purposes
Claritas© Data	Demographic data sets and population projections produced annually at the Block Group and ZIP Code level by Claritas, LLC
Confirmed	One venous blood specimen with lead concentration, or two capillary blood specimens, drawn within 12 weeks of each other, both with lead concentration at or above the blood lead reference value
Incidence	Number of new cases during a specified time period
MEDSIS	The Medical Electronic Disease Surveillance Intelligence System (MEDSIS) is the secure, web-based surveillance system used to manage blood lead data
Prevalence	Number of current cases (new and preexisting) over a specified time period
STELLAR	The Systematic Tracking of Elevated Lead Levels and Remediation was a Centers for Disease Control and Prevention (CDC) database previously used to maintain blood lead data
Unique Child	An individual child who had at least one blood lead test result within the dataset within the calendar year
µg/dL	Micrograms per deciliter
Venous	Blood sample taken from a vein; typically used for diagnostic purposes and to confirm an initial capillary test that meets or exceeds the blood lead reference values
Verbal Assessment	Screening questions asked by the health care provider to determine the risk level of a child for lead exposure

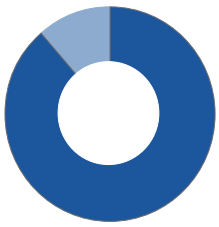
2022 ANNUAL SURVEILLANCE REPORT HIGHLIGHTS

Young children are at higher risk for lead poisoning due to their behaviors and rapid development. There is no known safe level of lead for anyone to be exposed to and the only way to identify lead poisoning is through a blood lead test. Although lead poisoning is 100% preventable, hundreds of Arizona children are diagnosed with it each year.

45,391 children under the age of 6 had a blood lead test.

≥ 3.5 µg/dL

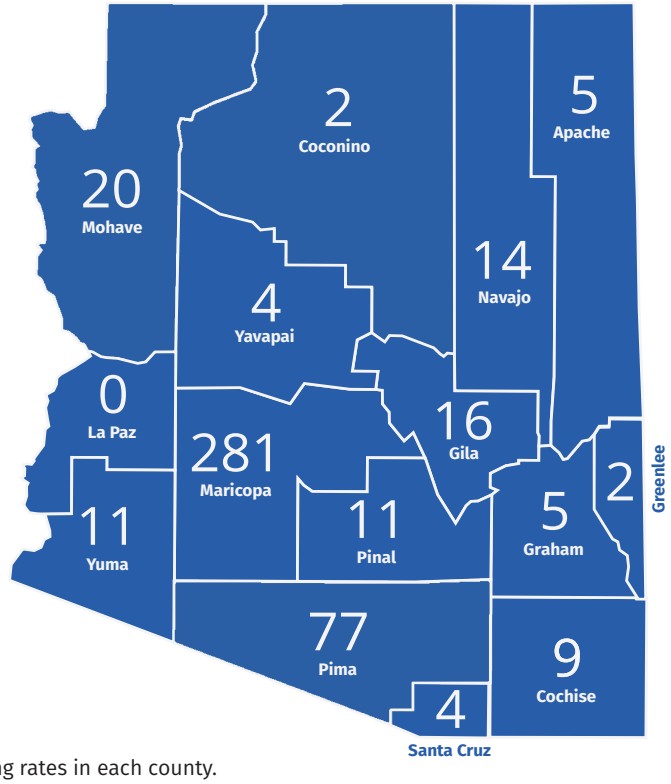
461 of these children <6 years old had blood lead levels at or above the BLRV of 3.5 µg/dL.



88.7% of cases lived in high-risk ZIP codes.

Case Distribution Across the State

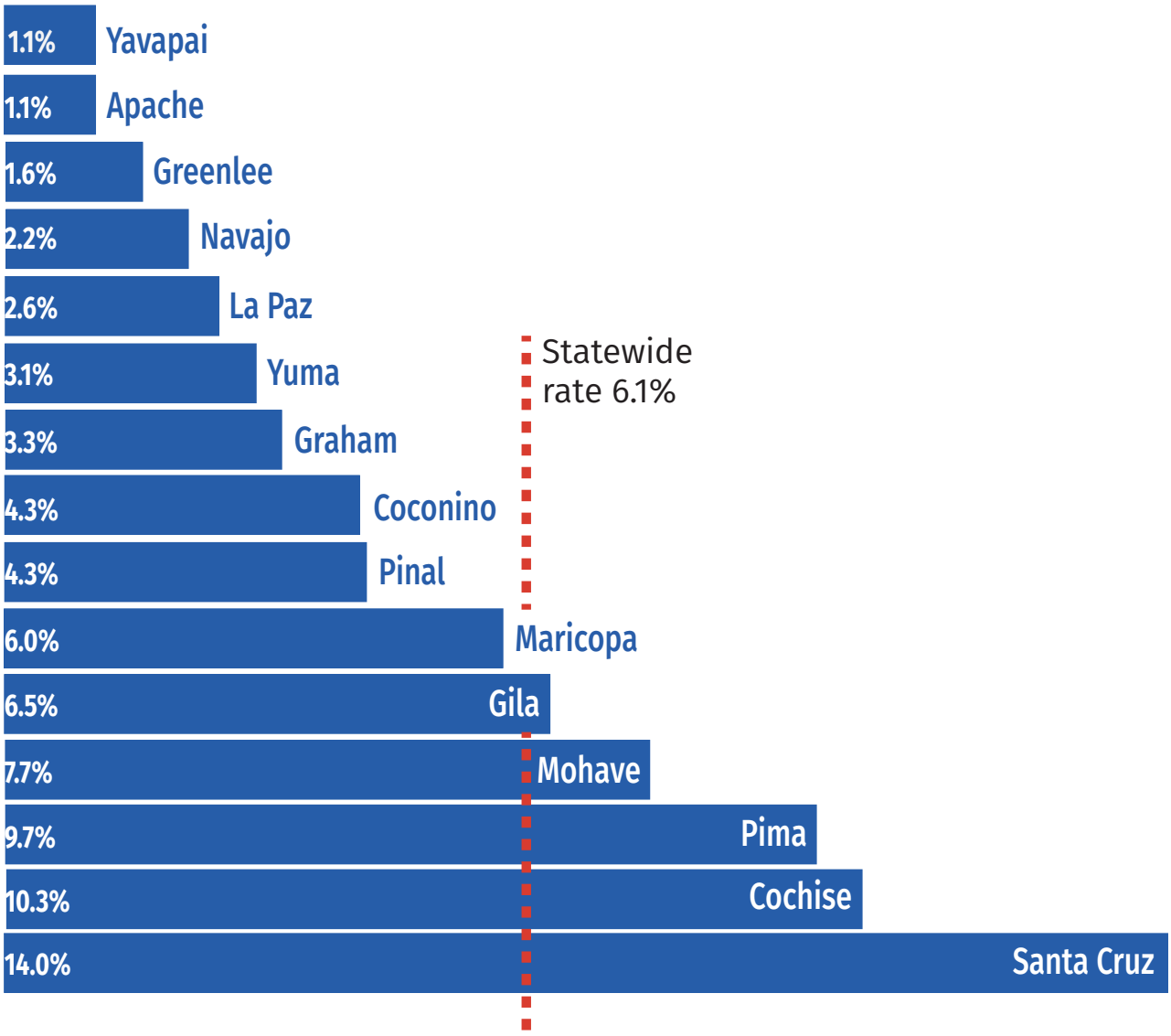
This map shows the distribution of unique children under the age of 6 years reported with a venous blood lead level at or above the BLRV in 2022. Cases of childhood lead poisoning were identified in 14 of the 15 counties in the state. Maricopa and Pima Counties are the most populated counties in Arizona and make up approximately 77.6% of all cases identified in 2022 (60.9% and 16.7%, respectively). Of the 461 cases, 88.7% lived in high-risk ZIP codes.



See the County pages for more details on case counts and screening rates in each county.

2022 ANNUAL SURVEILLANCE REPORT HIGHLIGHTS (CONT.)

1 & 2 Year Screening Rates in High-Risk ZIP Codes*



*AzCLPPP strongly recommends that all children receive a blood lead test at both 1 and 2 years of age, especially children living in high-risk ZIP codes. For current high-risk areas, visit www.azhealth.gov/leadmap.

Statewide Case Count Data

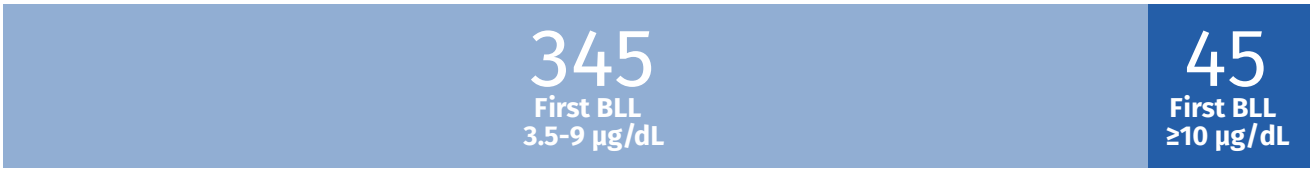
45,391 unique children under the age of 6 had a venous or capillary blood lead test in 2022 with 83.2% of children tested living in high-risk ZIP codes. 461 had a venous blood lead level greater than or equal to the blood lead reference value (BLRV). Of the 461 children, over 84% (390) were identified as new cases as they had their first reported blood lead level at or above the BLRV in 2022. 404 children had blood lead levels (BLLs) between 3.5 and 9 µg/dL, and 57 children had levels greater than or equal to 10 µg/dL. All children identified with BLLs greater than or equal to the BLRV receive case coordination services and resources from AzCLPPP, though additional resources are offered to children with higher levels. The highest venous blood lead level identified in a child was 27.6 µg/dL.

Prevalent Cases of Lead At or Above the BLRV

461 total children had a blood lead level at or above the BLRV.

Incident Cases of Lead At or Above the BLRV

390 of the 460 children had their first reported blood lead level at or above the BLRV.



Statewide Screening Rates

Children living in high-risk ZIP codes* in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. For the children living in high-risk ZIP codes, 19.3% had a blood lead test at 1 year of age, and 12.0% had a blood lead test at 2 years of age. Only 6.1%, had received blood lead tests at both 1 and 2 years old as recommended by AzCLPPP and the CDC.

While Arizona's current screening guidelines recommend that children living in high-risk neighborhoods should receive a blood lead test at 1 and 2 years of age, this targeted approach may not detect children with lead levels higher than the CDC BLRV living in non-high-risk neighborhoods. Therefore, AzCLPPP wants to emphasize that all children be screened for lead to help identify any children that may be at risk of lead exposure regardless of where they live.

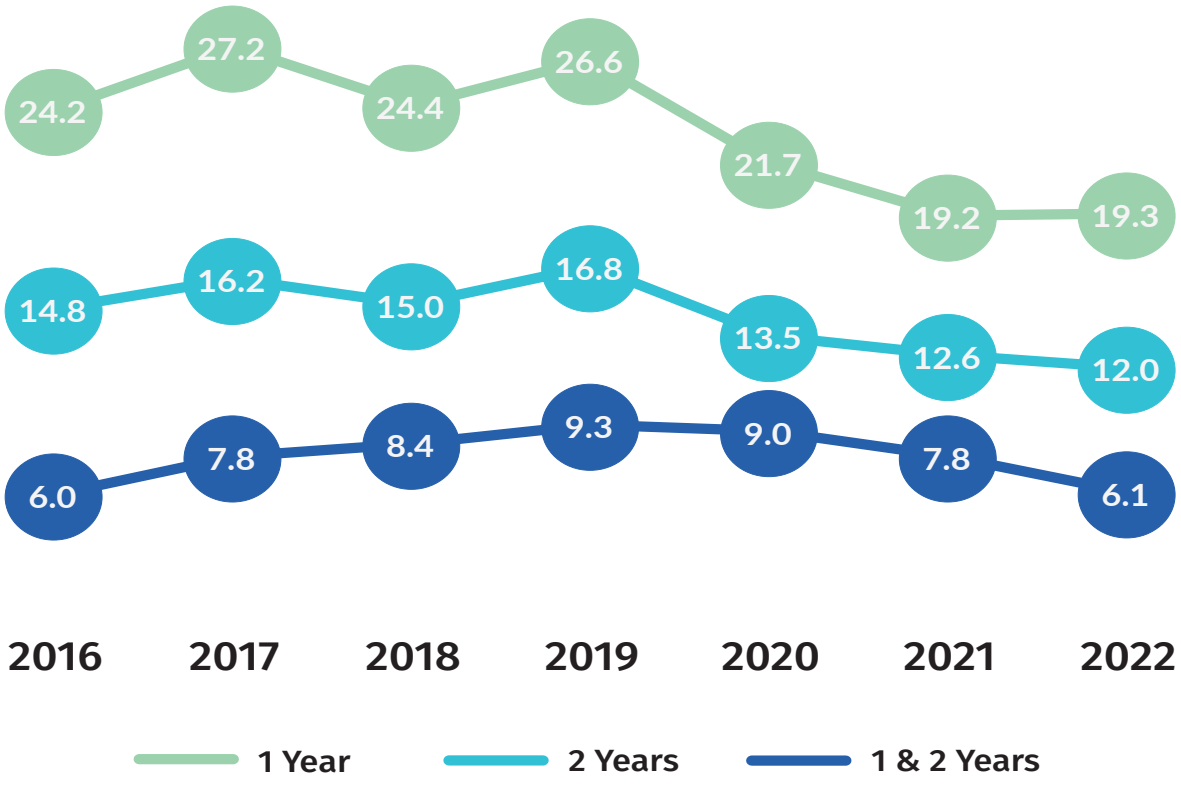
In 2022, screening rates for children living in high-risk ZIP codes were higher than the screening rates for children in all ZIP codes regardless of risk.

	ZIP Codes		
Screening Age	High-Risk	Non-High-Risk	All
1 & 2 years	**6.1%**†	2.7%	5.5%†
1 year	**19.3%**	13.7%	18.2%
2 years	**12.0%**	6.7%	11.0%

*A list of high-risk ZIP codes by county can be found in appendix F.
† Significantly different from 2021 rate (p <0.05)
See appendix A for a description on how screening rates are calculated.
See appendix L for a full list of screening rates for the state and counties.

Statewide High-Risk Screening Rate Trends

Overall, screening rates for children living in high-risk ZIP codes continued to decline from 2021 to 2022, with the exception of the 1 year high-risk screening rate. The 1 year high-risk screening rate slightly increased from 19.2% to 19.3% while the 2 year and 1 & 2 year high-risk screening rates experienced a 0.6% and 1.7% decrease, respectively.

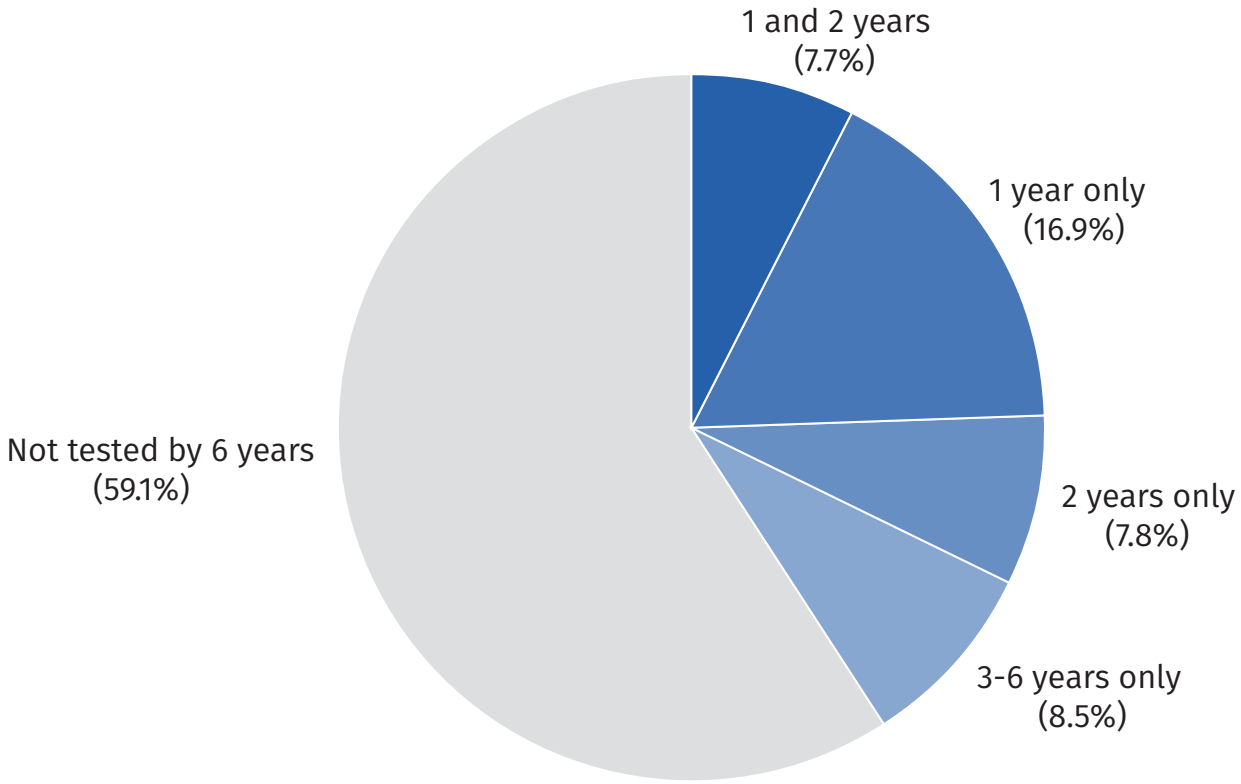


See appendix K for a full list of screening rates for the state and counties.

Statewide High-Risk Screening Compliance

Blood lead testing of children at a young age helps to identify children exposed to lead as early as possible. Once a lead-exposed child is identified, the appropropiate education and resources can be provided to the family to reduce and prevent ongoing exposure. According to current screening recommendations outlined in the AzCLPPP 2018 Targeted Lead Screening Plan for the Prevention of Childhood Lead Poisoning, children living in high-risk ZIP codes should have a blood lead test at both 1 and 2 years of age. Children aged 3 to 6 years should be tested if they have not been previously tested.

Approximately 40.9% of children turning 6 years of age in 2022 that lived in high-risk ZIP codes had received at least one blood lead test. Only 7.7% were tested at 1 and 2 years as recommended by the Arizona Department of Health Services.

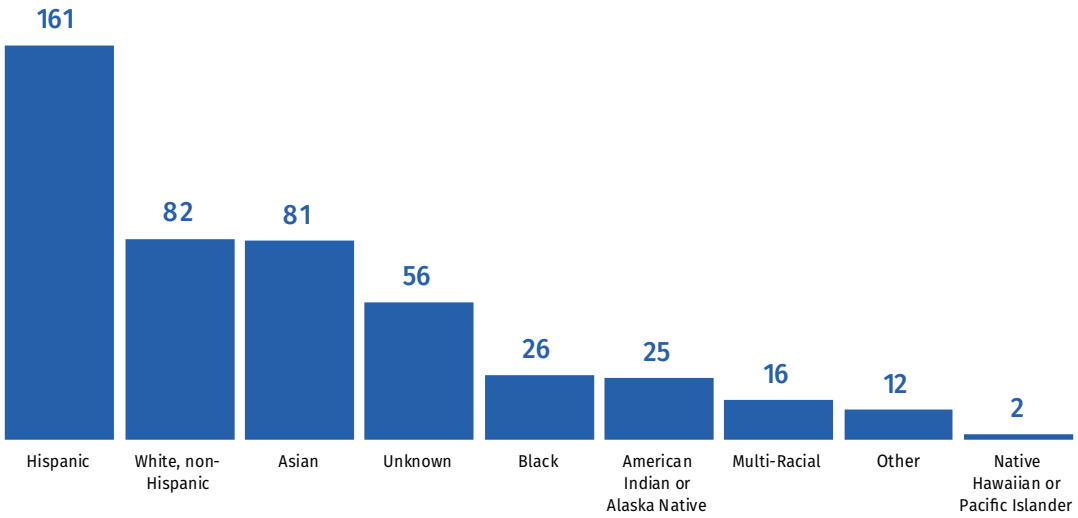


Statewide Case Demographics

Lead poisoning can disproportionately affect young children based on risk factors such as race or ethnicity, household income, immigrant or refugee status, and age of housing.

Race/Ethnicity

461 children in Arizona had blood lead levels at or above the BLRV; however, race and ethnicity information was not available for all children. Efforts to improve completeness for race and ethnicity data are underway. 161 (35.0%) of the children under the age of 6 with a confirmed blood lead level at or above the BLRV were Hispanic, followed by 82 (17.8%) White, non-Hispanic, and 81 (17.6%) Asian. Children who identified as Black, American Indian or Alaska Native, Multi-Racial, Native Hawaiian or Pacific Islander, or Other made up 17.6% of cases. Children who identified as a race other than those listed are included under Other. Of the children with a blood lead level at or above the BLRV, 56 (12.2%) had missing race or ethnicity data.



Statewide Vulnerable Populations

Medicaid Enrolled Children

State and federal mandates require lead testing for children under 6 enrolled in the Arizona Health Care Cost Containment System (AHCCCS) medical programs. The AHCCCS Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) Periodicity Schedule provides guidelines for the timing and frequency of various health and developmental screenings, measurements, and assessments, and indicates which screenings require follow up. Early developmental and behavioral screenings are essential to identify possible growth and development delays and ensure timely treatment to correct or improve them. Through comprehensive screening and surveillance, lead-poisoned infants and children can be treated and monitored as soon as possible.

The following are AHCCCS requirements for lead per AHCCCS MPM Chapter 400:

- Blood lead testing is required for all members at 1 year and 2 years of age and for those members between the ages of 2 years through 6 years who have not been previously tested or who missed either the 1-year or 2-year test.
- Blood lead levels may be measured at times other than those specified if thought to be medically indicated.
- Use a venous blood sample to confirm results when finger stick samples indicate blood lead levels greater than or equal to 3.5 ug/dl.
- Medical providers must report all lead results to the Childhood Lead Poisoning Prevention Program at ADHS.
- Follow-up and care coordination is required for members with blood lead results at or above the CDC's lead reference value.

Table 1: Blood lead testing claims for AHCCCS members aged 1 and 2 years in 2022

Age	AHCCCS enrolled children tested	AHCCCS enrolled children total population	Percent of AHCCCS beneficiaries tested
1 year	7,761	15,658	49.6%
2 years	5,463	19,788	27.6%

Source: AHCCCS, Office of Data Analytics

See appendix A for additional description of data.

Statewide Vulnerable Populations

Blood lead testing claims for 2022 show that 49.6% of 1 year old AHCCCS beneficiaries were tested for lead, while only 27.6% of 2 years old beneficiaries were tested. Although the proportion of Medicaid-enrolled children that were tested for lead increased at both 1 year and 2 years of age from 2021 to 2022, rising from 25% to 49.6% and 17% to 27.6%, respectively, the goal is for all AHCCCS beneficiaries to be tested at both 1 and 2 years of age. AzCLPPP is committed to collaborating with AHCCCS to further increase screening rates among AHCCCS eligible children. Current efforts include developing a provider toolkit and updating screening guidelines to ensure consistent and clear messaging to health care providers regarding testing requirements.

AzCLPPP is only able to track AHCCCS coverage for children with blood lead levels greater than or equal to the BLRV in MEDSIS. 81.3% of children with a blood lead level greater than or equal to the BLRV were AHCCCS beneficiaries in 2022. The majority of children with a blood lead level at or above the BLRV are Medicaid recipients, likely because Medicaid recipients are more likely to be tested for lead than non-Medicaid recipients. This may also reflect the increased risk experienced by children who qualify for Medicaid, due to factors such as socioeconomic status and living in older homes.

See appendix A for additional description of data.

Statewide Sources

In order to gather more information about a child's environment and behavior, AzCLPPP makes efforts to complete a questionnaire regarding potential sources of lead exposure with the families. Per case management protocol, cases with BLLs of 10 µg/dL or higher are interviewed over the phone. When a potential source is identified, AzCLPPP provides guidance to families on ways to reduce exposure.

If the address provided for the child is for a home built before 1978, the child is considered to have lived in a pre-1978 home. The rest of the information summarized below has been reported by parents and guardians for children identified with an BLL at or above the BLRV in 2022. Not all sources can be or have been confirmed as the source of lead exposure for each child, but this summary may give a better understanding of the possible sources of lead that impact Arizona children.

157 children had a history of **living in pre-1978 housing in Arizona**.

44 children were reported to have **mouthed or eaten soil and/or non-food items**.

33 children were reported to have **products from another country** in their home, such as candy, spices, or makeup.

15 children were reported to have **imported or handmade glazed ceramics, pewter, crystal, or porcelain** in their home.

30 children were reported to **live with someone who has an occupation or hobby with a potential lead exposure**.

29 children were reported to have **lived or visited outside of the U.S.** in the past year.

Among the samples collected during environmental investigations in 2022 for children identified with a BLL at or above the BLRV in the same year, CLPPP identified the following confirmed lead sources: pre-1978 paint, pottery, toys or jewelry, spices and makeup brought from another country.

Apache County

177 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 5 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 4 children in 2021.‡

Unique children with BLL ≥ BLRV

5 children had a blood lead level exceeding the BLRV in 2022. 2 of these children had their first reported BLL exceeding the BLRV in 2022.

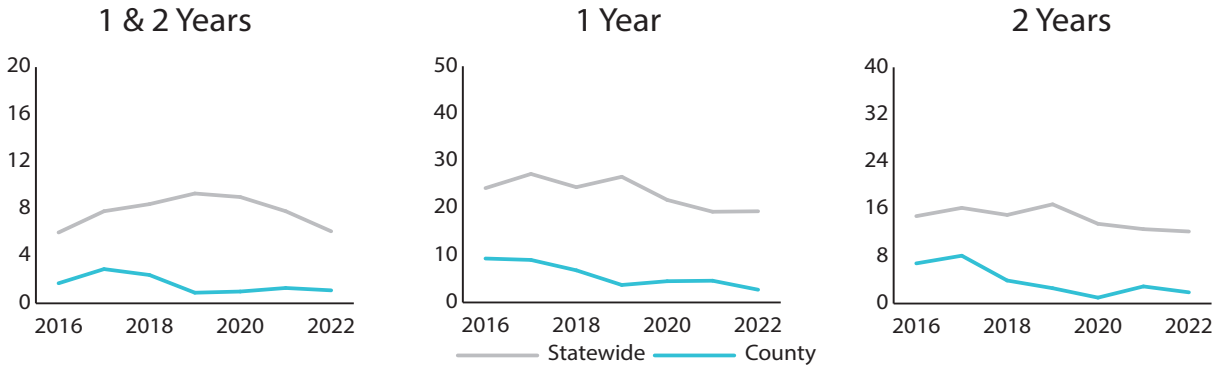
5
3.5-9 µg/dL

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Apache	Statewide
1 & 2 years	**1.1%**	6.1%†
1 year	**2.7%**	19.3%
2 years	**1.9%**	12.0%

Of the children in Apache County, 79.3% of children under 3 years old lived in high-risk ZIP codes. 2.7% of children living in a high-risk ZIP code in Apache County had a blood lead test at 1 year of age. 1.9% of children had a blood lead test at 2 years of age and 1.1% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)

Cochise County

667 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 9 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 7 children in 2021.‡

Unique children with BLL ≥ BLRV

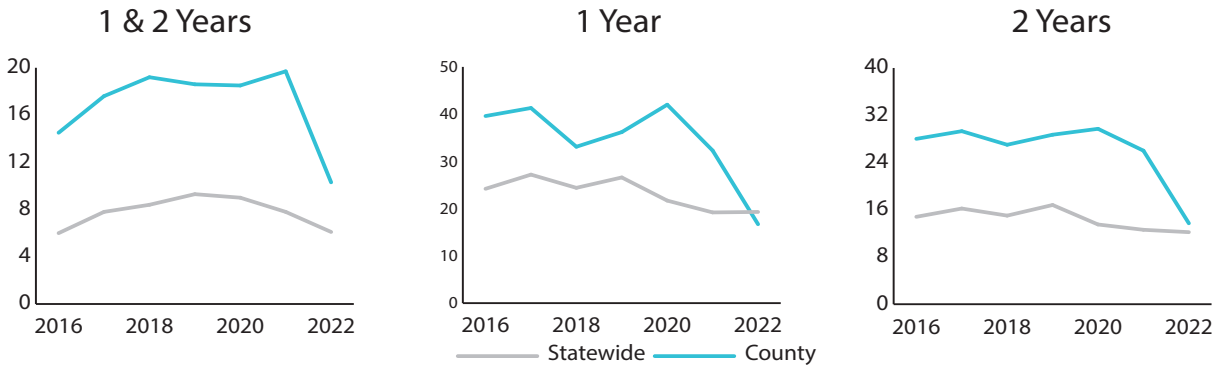
9 total children had a blood lead level exceeding the BLRV in 2022. 7 of these children had their first reported BLL exceeding the BLRV in 2022.

Screening Rates*

Screening Age	High-Risk ZIP Codes Cochise	High-Risk ZIP Codes Statewide
1 & 2 years	10.3%†	6.1%†
1 year	16.7%†	19.3%
2 years	13.7%†	12.0%

Of the children in Cochise County, 85.9% of children under 3 years old lived in high-risk ZIP codes. 16.7% of children living in a high-risk ZIP code in Cochise County had a blood lead test at 1 year of age. 13.7% of children had a blood lead test at 2 years of age and 10.3% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



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† Significantly different from 2021 rate ($p < 0.05$)

Coconino County

646 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 2 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 2 children in 2021.‡

Unique children with BLL ≥ BLRV

2 total children had a blood lead level exceeding the BLRV in 2022. Both of these children had their first reported BLL exceeding the BLRV in 2022.

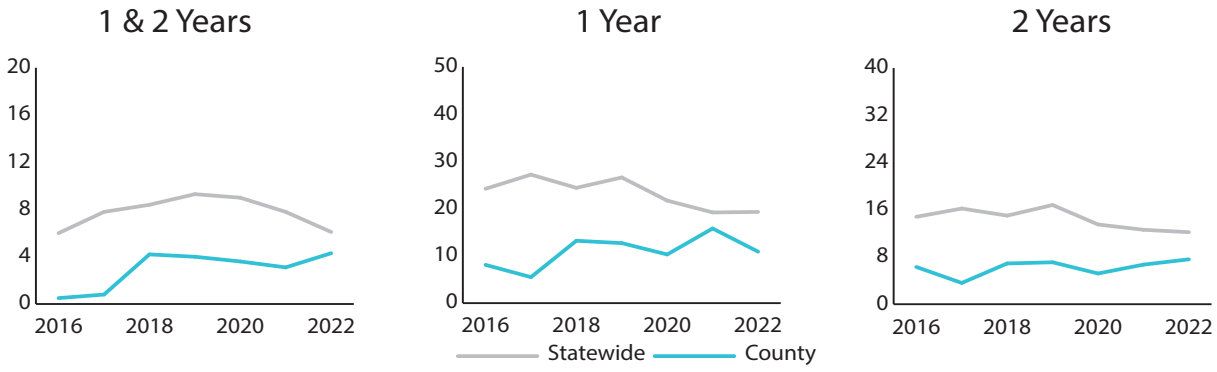
2
3.5-9 µg/dL

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Coconino	Statewide
1 & 2 years	4.3%	6.1%†
1 year	10.9%†	19.3%
2 years	7.6%	12.0%

Of the children in Coconino County, 68.1% of children under 3 years old lived in high-risk ZIP codes. 10.9% of children living in a high-risk ZIP code in Coconino County had a blood lead test at 1 year of age. 7.6% of children had a blood lead test at 2 years of age and 4.3% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



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† Significantly different from 2021 rate ($p < 0.05$)

Gila County

535 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 16 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 7 children in 2021.‡

Unique children with BLL ≥ BLRV

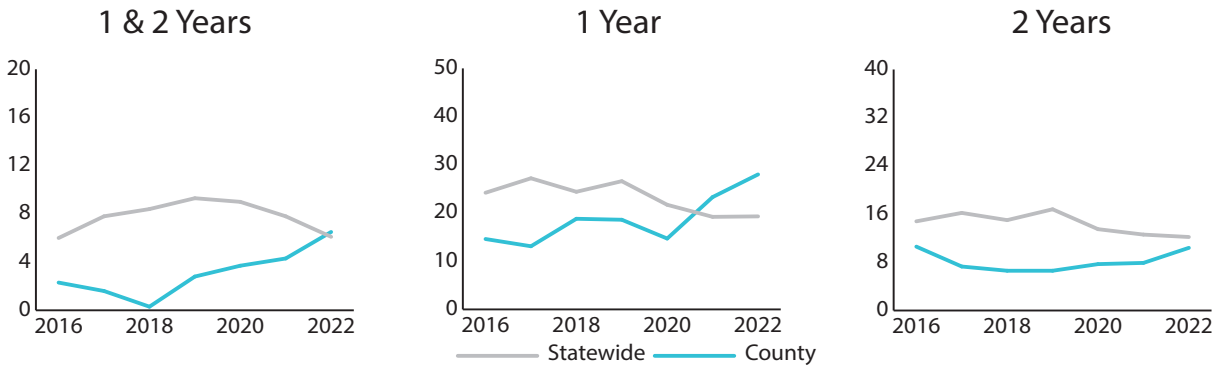
16 total children had a blood lead level exceeding the BLRV in 2022. 11 of these children had their first reported BLL exceeding the BLRV in 2022.

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Gila	Statewide
1 & 2 years	6.5%	6.1%†
1 year	28.0%	19.3%
2 years	10.4%	12.0%

Of the children in Gila County, 63.5% of children under 3 years old lived in high-risk ZIP codes. 28.0% of children living in a high-risk ZIP code in Gila County had a blood lead test at 1 year of age. 10.4% of children had a blood lead test at 2 years of age and 6.5% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



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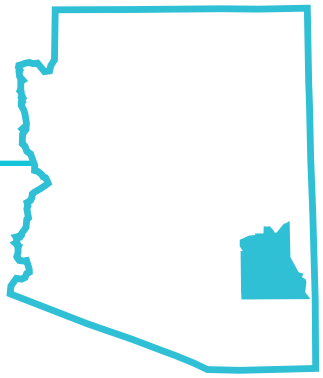


Graham County

214 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 5 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 5 children in 2021.‡

Unique children with BLL ≥ BLRV

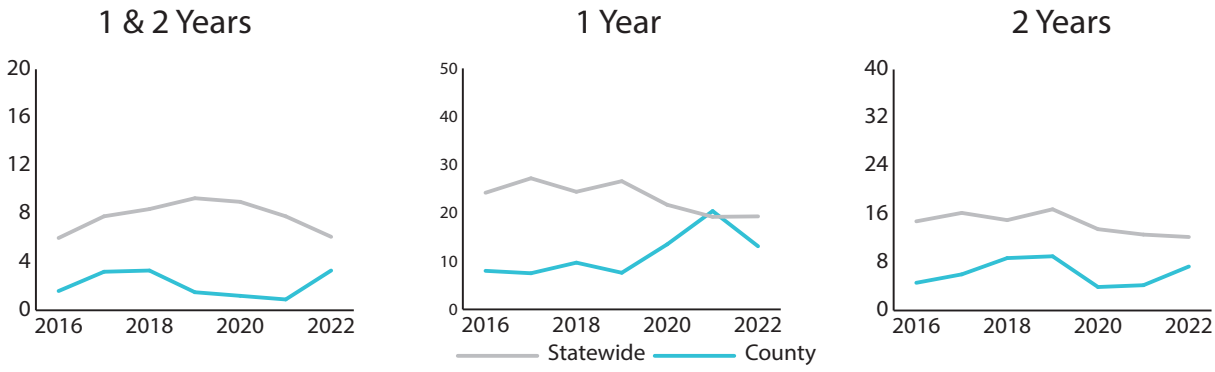
5 total children had a blood lead level exceeding the BLRV in 2022. 3 of these children had their first reported BLL exceeding the BLRV in 2022.

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Graham	Statewide
1 & 2 years	3.3%	6.1%†
1 year	13.1%	19.3%
2 years	7.3%	12.0%

Of the children in Graham County, 53.5% of children under 3 years old lived in high-risk ZIP codes. 13.1% of children living in a high-risk ZIP code in Graham County had a blood lead test at 1 year of age. 7.3% of children had a blood lead test at 2 years of age and 3.3% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



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* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)

Greenlee County

47 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 2 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 2 children in 2021.‡

Unique children with BLL ≥ BLRV

2 children had a blood lead level exceeding the BLRV in 2022. 1 of these children had their first reported BLL exceeding the BLRV in 2022.

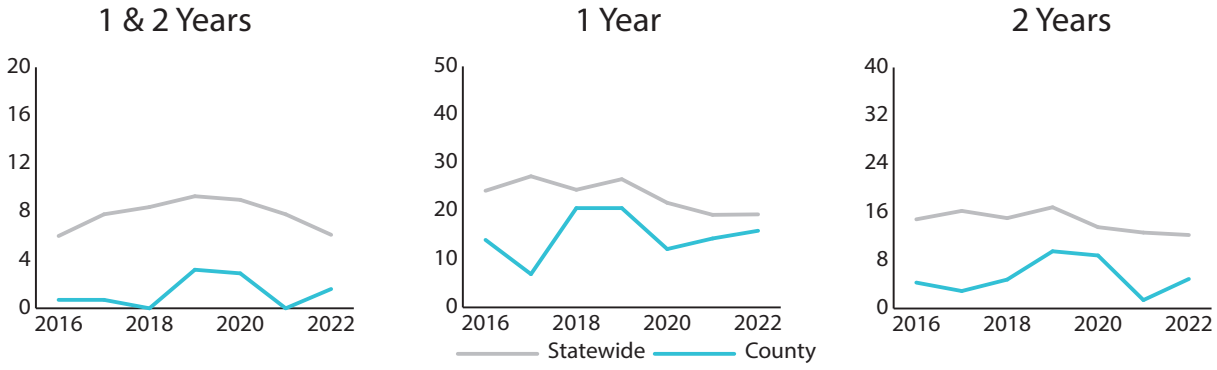
2
3.5-9 µg/dL

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Greenlee	Statewide
1 & 2 years	1.6%†	6.1%†
1 year	15.9%	19.3%
2 years	4.9%	12.0%

Of the children in Greenlee County, 42.8% of children under 3 years old lived in high-risk ZIP codes. 15.9% of children living in a high-risk ZIP code in Greenlee County had a blood lead test at 1 year of age. 4.9% of children had a blood lead test at 2 years of age and 1.6% of children had received both recommended blood lead tests at 1 and 2 years of age.

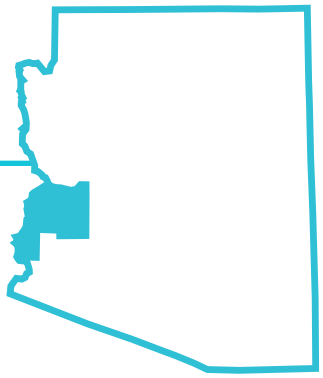
Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)



La Paz County

51 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, no children had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 1 child in 2021.‡

Unique children with BLL ≥ BLRV

0 children had a blood lead level exceeding the BLRV in 2022.

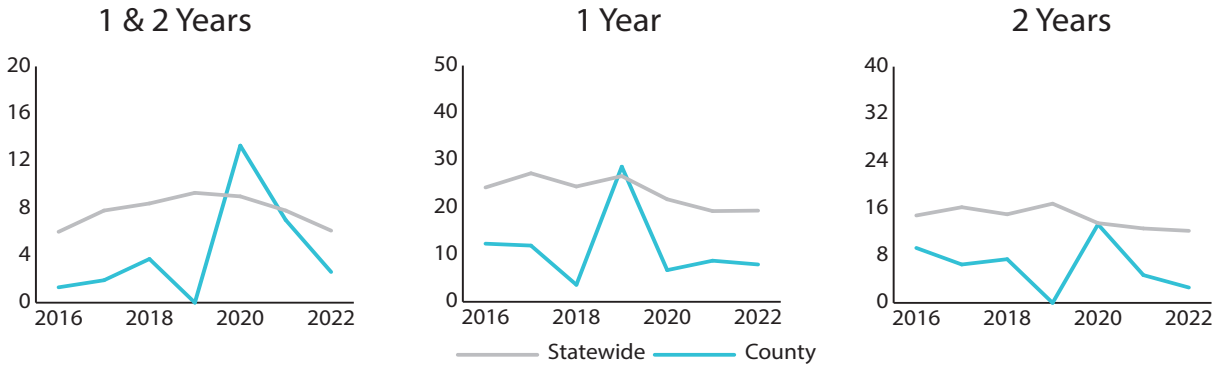
0
3.5-9 µg/dL

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	La Paz	Statewide
1 & 2 years	**2.6%**	6.1%†
1 year	**7.9%**	19.3%
2 years	**2.6%**	12.0%

Of the children in La Paz County, 20.2% of children under 3 years old lived in high-risk ZIP codes. 7.9% of children living in a high-risk ZIP code in La Paz County had a blood lead test at 1 year of age. 2.6% of children had a blood lead test at 2 years of age and 2.6% of children had received both recommended blood lead tests at 1 and 2 years of age.

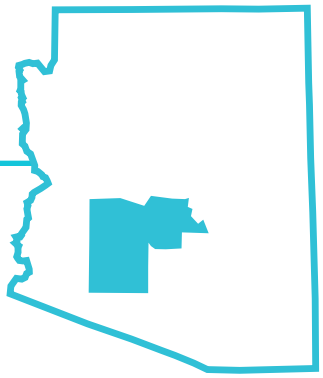
Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)



Maricopa County

26,450 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 281 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 77 children in 2021.‡

Unique children with BLL ≥ BLRV

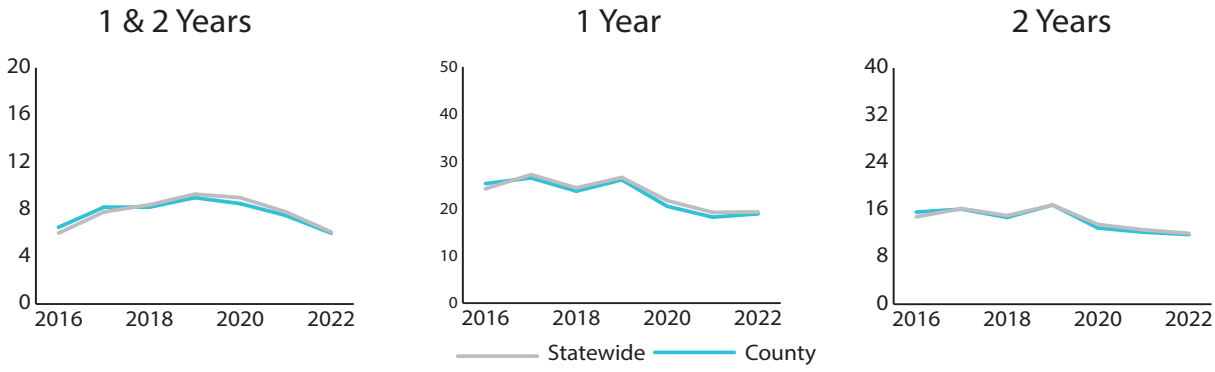
281 total children had a blood lead level exceeding the BLRV in 2022. 246 of these children had their first reported BLL exceeding the BLRV in 2022.

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Maricopa	Statewide
1 & 2 years	**6.0%**†	6.1%†
1 year	**18.9%**	19.3%
2 years	**11.8%**	12.0%

Of the children in Maricopa County, 80.7% of children under 3 years old lived in high-risk ZIP codes. 18.9% of children living in a high-risk ZIP code in Maricopa County had a blood lead test at 1 year of age. 11.8% of children had a blood lead test at 2 years of age and 6.0% of children had received both recommended blood lead tests at 1 and 2 years of age.

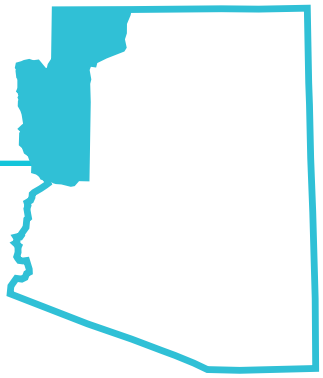
Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)



Mohave County

1,259 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 20 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 4 children in 2021.‡

Unique children with BLL ≥ BLRV

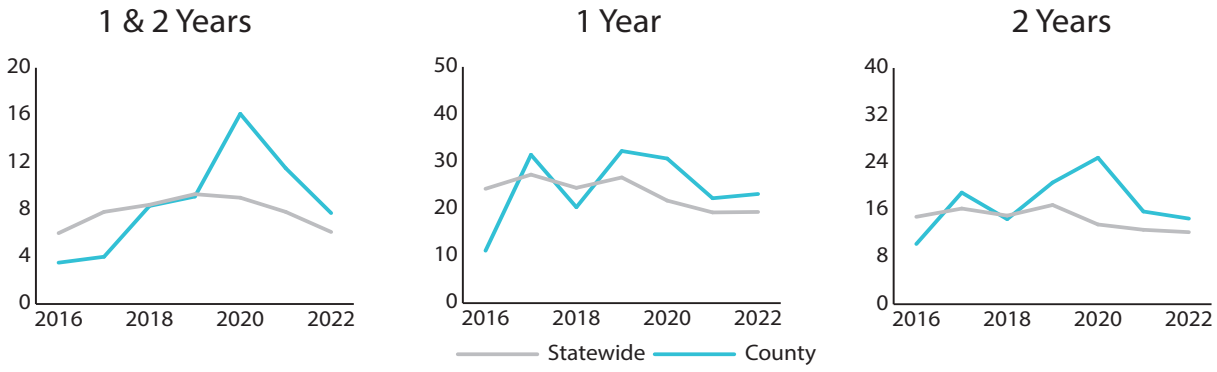
20 total children had a blood lead level exceeding the BLRV in 2022. 19 of these children had their first reported BLL exceeding the BLRV in 2022.

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Mohave	Statewide
1 & 2 years	7.7%†	6.1%†
1 year	23.1%	19.3%
2 years	14.5%	12.0%

Of the children in Mohave County, 64.5% of children under 3 years old lived in high-risk ZIP codes. 23.1% of children living in a high-risk ZIP code in Mohave County had a blood lead test at 1 year of age. 14.5% of children had a blood lead test at 2 years of age and 7.7% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)

Navajo County

658 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 14 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 8 children in 2021.‡

Unique children with BLL ≥ BLRV

14 total children had a blood lead level exceeding the BLRV in 2022. 11 of these children had their first reported BLL exceeding the BLRV in 2022.

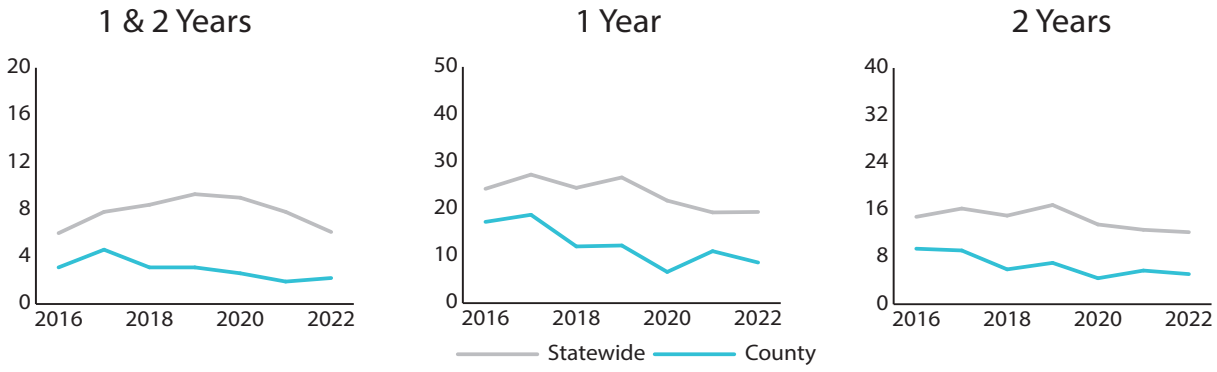
10	4
3.5-9 µg/dL	≥10 µg/dL

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Navajo	Statewide
1 & 2 years	2.2%	6.1%†
1 year	8.6%	19.3%
2 years	5.1%	12.0%

Of the children in Navajo County, 63.1% of children under 3 years old lived in high-risk ZIP codes. 8.6% of children living in a high-risk ZIP code in Navajo County had a blood lead test at 1 year of age. 5.1% of children had a blood lead test at 2 years of age and 2.2% of children had received both recommended blood lead tests at 1 and 2 years of age.

Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)

Pima County

6,835 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 77 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 29 children in 2021.‡

Unique children with BLL ≥ BLRV

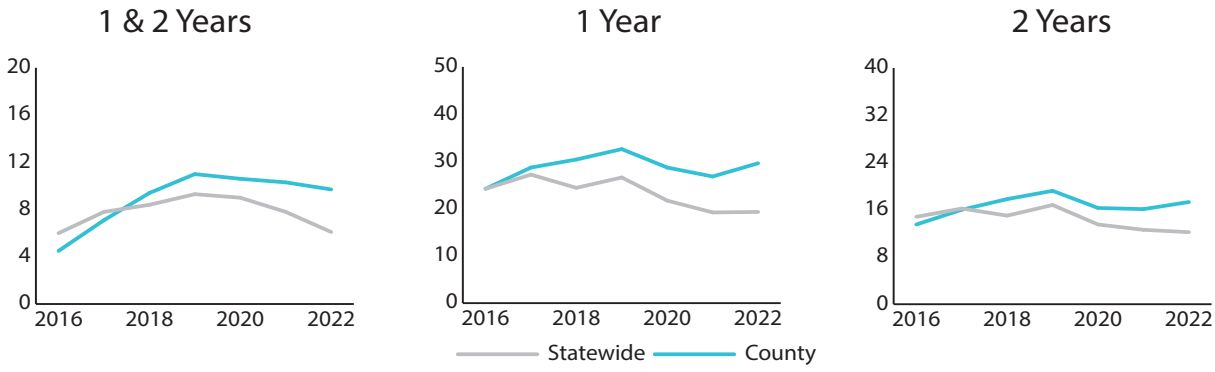
77 total children had a blood lead level exceeding the BLRV in 2022. 63 of these children had their first reported BLL exceeding the BLRV in 2022.

Screening Rates*

Of the children in Pima County, 70.7% of children under 3 years old lived in high-risk ZIP codes. 29.6% of children living in a high-risk ZIP code in Pima County had a blood lead test at 1 year of age. 17.3% of children had a blood lead test at 2 years of age and 9.7% of children had received both recommended blood lead tests at 1 and 2 years of age.

	High-Risk Zip Codes	
Screening Age	Pima	Statewide
1 & 2 years	**9.7%**	6.1%†
1 year	**29.6%**†	19.3%
2 years	**17.3%**	12.0%

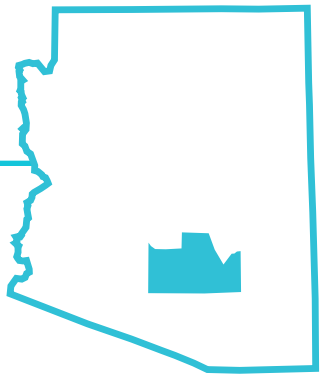
Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)



Pinal County

3,204 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 11 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 6 children in 2021.‡

Unique children with BLL ≥ BLRV

11 total children had a blood lead level exceeding the BLRV in 2022. 10 of these children had their first reported BLL exceeding the BLRV in 2022.

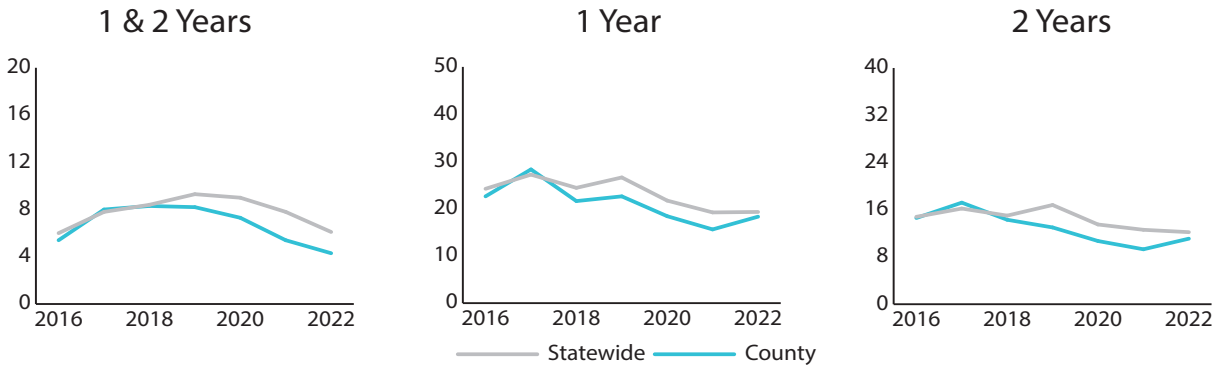
8	3
3.5-9 µg/dL	≥10 µg/dL

Screening Rates*

Of the children in Pinal County, 94.3% of children under 3 years old lived in high-risk ZIP codes. 18.3% of children living in a high-risk ZIP code in Pinal County had a blood lead test at 1 year of age. 11.1% of children had a blood lead test at 2 years of age and 4.3% of children had received both recommended blood lead tests at 1 and 2 years of age.

	High-Risk ZIP Codes	
Screening Age	Pinal	Statewide
1 & 2 years	**4.3%**	6.1%†
1 year	**18.3%**†	19.3%
2 years	**11.1%**†	12.0%

Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)

Santa Cruz County

577 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 4 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 3 children in 2021.‡

Unique children with BLL ≥ BLRV

4 children had a blood lead level exceeding the BLRV in 2022. 3 of these children had their first reported BLL exceeding the BLRV in 2022.

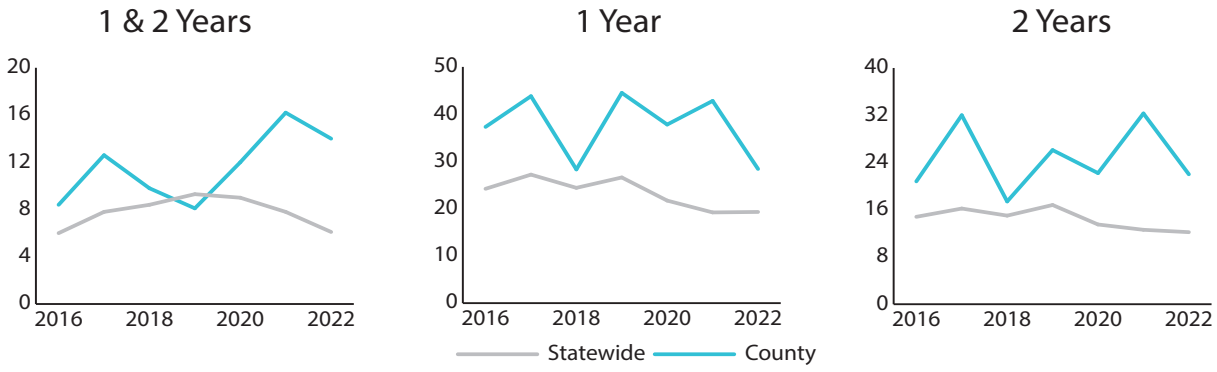
3.5-9 µg/dL	≥10 µg/dL
1	3

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Santa Cruz	Statewide
1 & 2 years	14.0%	6.1%†
1 year	28.4%†	19.3%
2 years	22.0%	12.0%

Of the children in Santa Cruz County, 97.5% of children under 3 years old lived in high-risk ZIP codes. 28.4% of children living in a high-risk ZIP code in Santa Cruz County had a blood lead test at 1 year of age. 22.0% of children had a blood lead test at 2 years of age and 14.0% of children had received both recommended blood lead tests at 1 and 2 years of age.

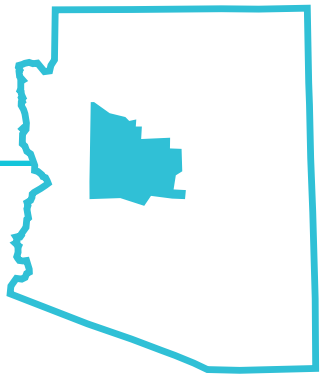
Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)



Yavapai County

636 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 4 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 1 child in 2021.‡

Unique children with BLL ≥ BLRV

4 children had a blood lead level exceeding the BLRV in 2022. 3 of these children had their first reported BLL exceeding the BLRV in 2022.

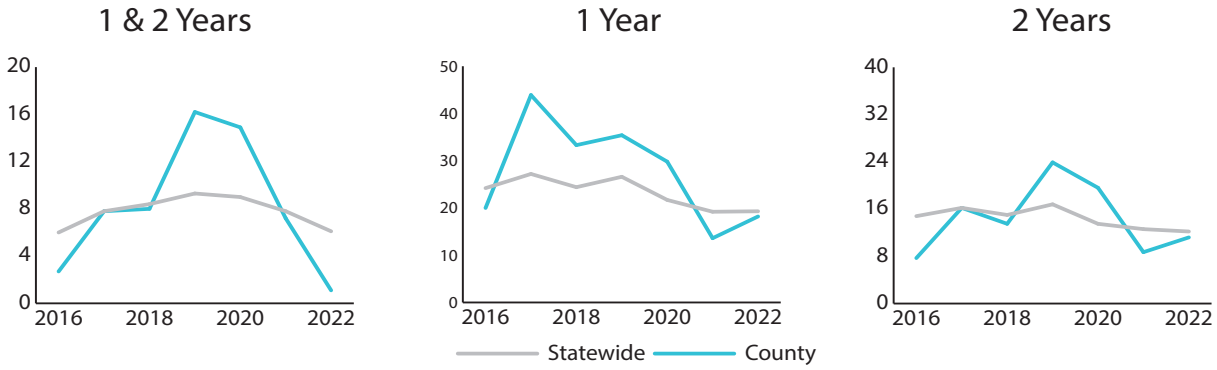
4
3.5-9 µg/dL

Screening Rates*

	High-Risk ZIP Codes	
Screening Age	Yavapai	Statewide
1 & 2 years	**1.1%**†	6.1%†
1 year	**18.2%**†	19.3%
2 years	**11.2%**	12.0%

Of the children in Yavapai County, 85.1% of children under 3 years old lived in high-risk ZIP codes. 18.2% of children living in a high-risk ZIP code in Yavapai County had a blood lead test at 1 year of age. 11.2% of children had a blood lead test at 2 years of age and 1.1% of children had received both recommended blood lead tests at 1 and 2 years of age.

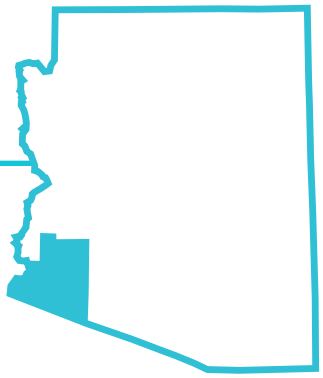
Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)



Yuma County

1,879 unique children under the age of 6 had a venous or capillary blood lead test in 2022. Of those children tested, there were 11 who had a venous blood lead level (BLL) greater than or equal to 3.5 µg/dL, compared to 4 children in 2021.‡

Unique children with BLL ≥ BLRV

11 total children had a blood lead level exceeding the BLRV in 2022. 9 of these children had their first reported BLL exceeding the BLRV in 2022.

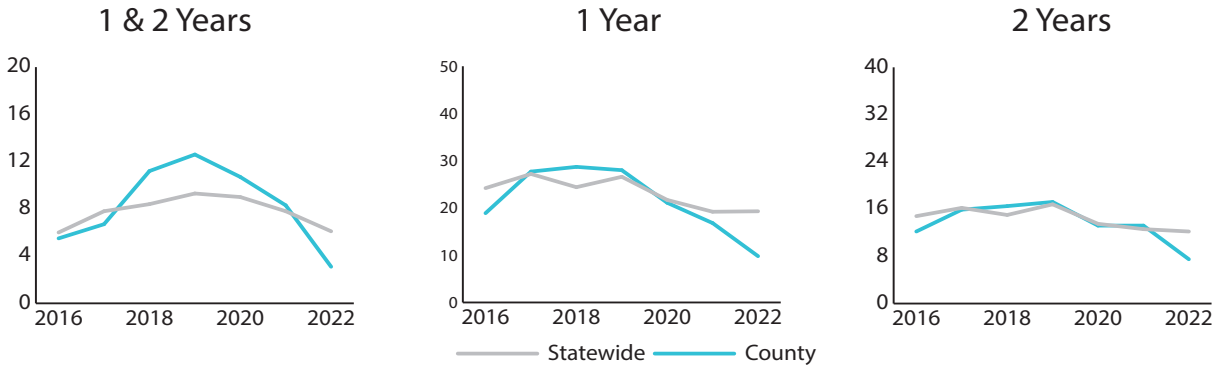
3.5-9 µg/dL	≥10 µg/dL
8	3

Screening Rates*

Of the children in Yuma County, 99.7% of children under 3 years old lived in high-risk ZIP codes. 9.8% of children living in a high-risk ZIP code in Yuma County had a blood lead test at 1 year of age. 7.5% of children had a blood lead test at 2 years of age and 3.1% of children had received both recommended blood lead tests at 1 and 2 years of age.

	High-Risk ZIP Codes	
Screening Age	Yuma	Statewide
1 & 2 years	**3.1%**†	6.1%†
1 year	**9.8%**	19.3%
2 years	**7.5%**	12.0%

Screening Rate Trends, 2016-2022



‡ The CDC updated the BLRV to 3.5 µg/dL from 5 µg/dL in October, 2021. Case Counts in 2021 are based off of the 5 µg/dL BLRV while case counts in 2022 are based off of the 3.5 µg/dL BLRV.

* Children living in high-risk ZIP codes in Arizona should receive a blood lead test at 1 and 2 years of age through their health care provider. A list of high-risk ZIP codes by county can be found in Appendix F.

† Significantly different from 2021 rate ($p < 0.05$)

APPENDIX A: DESCRIPTION OF DATA

Per Arizona Administrative Code R9-4-302, all blood lead results are reportable to the Arizona Department of Health Services (ADHS). 2011-2016 data were maintained in the Arizona lead registry database, Systematic Tracking of Elevated Lead Levels and Remediation (STELLAR), and 2017-2022 data were maintained in the Arizona Medical Electronic Disease Surveillance Intelligence System (MEDSIS). Data were combined and managed in SAS (statistical analysis system) version 9.4. Prior to analyses, efforts were taken to de-duplicate test results and children based on demographic and test result data.

Analyses were performed on first reported blood lead result or blood lead result at or above the blood lead reference value (BLRV) per child in 2022 whose age was less than 6 years. Test results were excluded when the child's address was outside of Arizona. Children with a blank address were assumed to have resided in Arizona at the time of the test.

Claritas 2022 population estimates were used to calculate screening rates. Results are not representative of all children living in Arizona because blood lead testing is not universal. Please note that there is a potential underestimation of counts and rates presented in this report due to ADHS' reliance on provider and laboratory reporting of blood lead test results. Rates based on counts less than 20 may be unstable and should be interpreted with caution.

APPENDIX A: DESCRIPTION OF DATA (CONT.)

Children with missing address information were not included in screening rate calculations. Test results reported for PO Box ZIP codes were excluded from screening rate calculations due to lack of population estimate data for these ZIP codes with the exception of 85135, 85141, 85191, 85320, 85329, 85334, 85336, 85352, 85532, 85620, 85626, 85721, 85932, 86015, 86018, and 86431.

AzCLPPP is only able to track verified AHCCCS coverage for children with blood lead levels greater than or equal to the BLRV in MEDSIS. AHCCCS coverage requires verification in the AHCCCS information system called Prepaid Medical Management Information System (PMMIS) for all children with lead levels at or above the BLRV by AzCLPPP staff. Data on blood lead testing claims were obtained from AHCCCS.

APPENDIX B: BACKGROUND

Lead is a naturally occurring heavy metal, but most high levels in the environment that people are exposed to come from human activities. Lead has properties that make it easy to work with and has been widely used in a variety of products and materials such as pipes, paints, ceramics, and gasoline. When ingested or inhaled, lead can have adverse effects on nearly all organ systems in the body. Children under the age of six years are especially at risk because they are still developing, have a tendency to put objects and their hands in their mouth, and absorb lead easily. Lead exposure often occurs with no obvious signs and symptoms. In children, lead poisoning can cause slowed development, reading and other learning problems, behavioral problems, as well as brain, liver, and kidney damage. Pregnant women can also pass lead to their unborn babies. For these reasons, major public health campaigns have focused on eliminating childhood lead poisoning.

Childhood lead poisoning is entirely preventable; however, it remains one of the most common environmental health dangers to children. In October 2021, the Centers for Disease Control and Prevention (CDC) adopted the blood lead reference value of 3.5 µg/dL. This reference level was determined as the 97.5th percentile of the blood lead distribution in children one to five years of age from the National Health and Nutrition Examination Survey (NHANES). Children with blood lead levels at the reference level or higher are considered to have been exposed to more lead than most other children.

APPENDIX C: SUMMARY OF ADHS SCREENING RECOMMENDATIONS

The Arizona Department of Health Services developed and used the following recommendations in 2022 to identify children with blood lead levels at or above the BLRV in order to eliminate exposure and reduce the effects of lead on Arizona children.

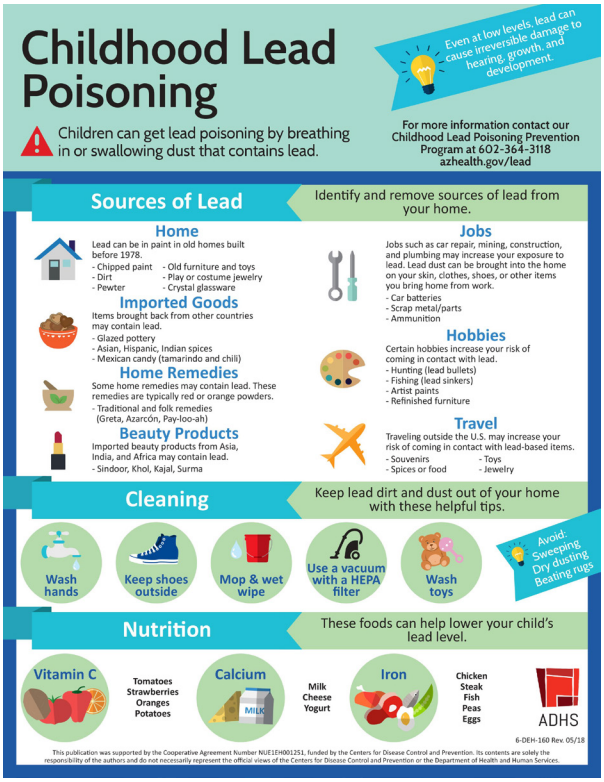
A more in-depth discussion of our current screening recommendations can be found in Arizona's Targeted Lead Screening Plan for the Prevention of Childhood Lead Poisoning. For current high-risk areas, visit www.azhealth.gov/leadmap.

1. **Children living in high-risk ZIP codes:** All children living in high-risk ZIP codes should have had a blood lead test at 1 and 2 years of age. Children aged 3 to 6 years should be tested if they have not been previously tested.

2. **Children living outside of high-risk ZIP codes:** Children living in Arizona, but not in a high-risk ZIP code, should have received an individual risk assessment questionnaire at 1 and 2 years of age.

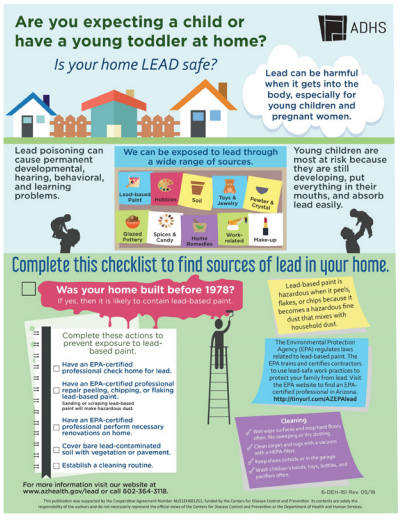
APPENDIX D: RESOURCES - EDUCATIONAL MATERIALS

Educational handouts are provided to the public and to health care professionals. Every family that has a child with a BLL at or above the BLRV will receive the primary educational handout (right) that details various sources of lead, cleaning techniques, and nutritional tips to increase awareness on preventative techniques for lead poisoning. Several of the educational handouts are available in both English and Spanish.



Each of these handouts are available on the AZDHS website.

Additional Educational Handouts



APPENDIX E: RESOURCES - CLPPP COALITION

In 2018, the Childhood Lead Poisoning Prevention Coalition was created with the purpose of establishing a network of partners to address lead poisoning prevention among various sectors and to provide a range of perspectives and expertise to address challenges encountered. The coalition aims to identify, prioritize, and address community and partner needs regarding lead poisoning prevention efforts and to achieve a widespread reach within our communities, connecting families to vital resources.

Current Priorities

- Increasing blood lead testing in high-risk areas
- Increasing education and awareness of lead poisoning in Arizona provided to health care providers and families
- Implementing new lead poisoning prevention activities

If you would like to participate in the CLPPP coalition, please send an email to HealthyHomes@azdhs.gov.

APPENDIX F: 2022 HIGH-RISK LEAD POISONING ZIP CODES

COUNTY	
City	ZIP Codes
City	*PO Box ZIP*
APACHE	
Blue Gap, Low Mountain	*86520*
Chambers	86502
	86512
Chinle	86503
Dennehotso	86535
Eagar	85925
Fort Defiance	*86504*
Ganado	86505
Greer	*85927*
Hawley Lake	*85930*
Houck	*86506*
Lupton	*86508*
Nazlini	*86540*
Nutrioso	*85932*
Red Rock	*86544*
Rock Point	*86545*
St. Johns	85936
Teec Nos Pos	86514
Tsaile	86556
Window Rock	*86515*
COCHISE	
Benson	85602
Bisbee	85603
Douglas	85607
	85608
	85655
Hereford	85615
Huachuca City	85616
Mc Neal	85617
Naco	*85620*
Pirtleville	*85626*
Pomerene	*85627*
San Simon	85632
Sierra Vista	85635
	85636
	85650
	85670
Tombstone	85638
Willcox	85643
	85644
COCONINO	
Bellemont	*86015*
Flagstaff	86001
	86002
	86003
	86004
	86005
Gray Mountain	*86016*
Page	86040
Parks	*86018*
Sedona	*86339*
GILA	
Claypool	*85532*
Globe	85501
	85502
Miami	85539
Peridot	85542
Winkelman	85192
Young	85554
GRAHAM	
Bylas	85530
Safford	85546
	85548
Solomon	*85551*
GREENLEE	
Clifton	85533
Duncan	85534
LA PAZ	
Parker	85334
Poston	*85371*
Salome	85348
Wenden	*85357*
MARICOPA	
Aguila	*85320*
Avondale	85323
	85329
	85392
Buckeye	85326
	85396
Chandler	85224
	85225
	85226
	85244
	85246
	85286
Chandler Heights	*85127*
El Mirage	85335
Fort McDowell	85264
Fountain Hills	85268
	85269
Gila Bend	85337
Gilbert	*85236*
	85296
	85299
Glendale	85301
	85302
	85303
	85304
	85306
	85307
	85311
	85312
	85318
Goodyear	85338
	85395
Laveen	85339
Litchfield Park	85340
Mesa	85201
	85202
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	85275
Peoria	85345
	85380
	85385
Phoenix	85003
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APPENDIX F: 2022 HIGH-RISK LEAD POISONING ZIP CODES

	85071
	85072
	85074
	85075
	85078
	85079
	85080
	85082
	85086
Queen Creek	85142
Scottsdale	85250
	85251
	85252
	85256
	85257
	85260
	85261
	85267
	85271
Sun City	85351
	85372
	85373
Surprise	85378
	85379
	85387
Tempe	*85280*
	85281
	85282
	85283
	85285
Tolleson	85353
Tonopah	85354
Tortilla Flat	*85190*
Wickenburg	*85358*
	85390
Wittmann	85361
Youngtown	85363

MOHAVE

Bullhead City	86442
	86439
Chloride	*86431*
Colorado City	86021
Golden Valley	86413
Kingman	86401
	86402
Lake Havasu City	
	86403
	86404
	86405
Mohave Valley	
	86440
	86446
Yucca	*86438*

NAVAJO

Cibecue	*85911*
Clay Springs	*85923*
Fort Apache	*85926*
Holbrook	86025
Hotevilla	86030
Indian Wells	*86031*
Pinedale	*85934*
Pinon	86510
Polacca	86042
Shonto	86054
Show Low	85901
	85902
Sun Valley	*86029*
White Mountain Lake	
	85912
Whiteriver	85941
Winslow	86047
Woodruff	*85942*

PIMA

Ajo	85321
Catalina Foothills	
	85751
Marana	85658
Sahuarita	85629
Sasabe	*85633*
Sells	85634
Topawa	*85639*
Tucson	85701
	85702
	85703
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	85706
	85710
	85711
	85712
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	85757

PINAL

Apache Junction	
	85117
	85119
	85120
	85178
Arizona City	85123
Casa Grande	85122
	85130
	85194
Coolidge	85128
Eloy	85131
Florence	85132
Gold Canyon	85118
Hayden	*85135*
Maricopa	85138
	85139
Oracle	85623
Picacho	*85141*
San Manuel	85631
San Tan Valley	85140
	85143
Superior	85173
Valley Farms	*85191*

SANTA CRUZ

Nogales	85621
Patagonia	85624
Rio Rico	*85628*
	85648
	85662
Tubac	85646

YAVAPAI

Camp Verde	86322
Chino Valley	86323
Cornville	86325
Cottonwood	86326
Lake Montezuma	
	86342
Paulden	86334
Prescott	86301
	86302
	86303
	86304
	86305
	86313
Prescott Valley	
	86312
	86314
	86315
Rimrock	86335
Sedona	86336
	86340
Skull Valley	*86338*

YUMA

Colfred	*85352*
Gadsden	*85336*
Roll	85347
San Luis	85349
Somerton	85350
Wellton	85356
Yuma	85364
	85365
	85366
	85367
	85369

APPENDIX G: NUMBER OF CHILDREN <6 YEARS WHO HAD A VENOUS OR CAPILLARY TEST, 2022

County	Total Children Screened
Arizona	**45,391***
Apache	177
Cochise	667
Coconino	646
Gila	535
Graham	214
Greenlee	47
La Paz	51
Maricopa	26,450
Mohave	1,259
Navajo	658
Pima	6,835
Pinal	3,204
Santa Cruz	577
Yavapai	636
Yuma	1,879

*1,556 screened children from 2022 were missing address information and were not counted at the county level.

APPENDIX H: PREVALENT CASES OF CHILDREN <6 YEARS OLD IDENTIFIED WITH A BLL AT OR ABOVE THE BLRV, 2022

County	Total children	Children with 3.5-9 µg/dL	Children with ≥10 µg/dL
Arizona	**461**	**404**	**57**
Apache	5	5	0
Cochise	9	8	1
Coconino	2	2	0
Gila	16	15	1
Graham	5	4	1
Greenlee	2	2	0
La Paz	0	0	0
Maricopa	281	247	34
Mohave	20	18	2
Navajo	14	10	4
Pima	77	72	5
Pinal	11	8	3
Santa Cruz	4	1	3
Yavapai	4	4	0
Yuma	11	8	3

APPENDIX I: PERCENT OF CHILDREN <6 YEARS SCREENED WHO HAD A BLL AT OR ABOVE THE BLRV, 2022

County	Percent Positivity
Arizona	**1.0***
Apache	2.8
Cochise	1.3
Coconino	0.3
Gila	3.0
Graham	2.3
Greenlee	4.3
La Paz	0.0
Maricopa	1.1
Mohave	1.6
Navajo	2.1
Pima	1.1
Pinal	0.3
Santa Cruz	0.7
Yavapai	0.6
Yuma	0.6

*1,556 screened children from 2022 were missing address information and were not counted at the county level.

APPENDIX J: SCREENING RATES OF CHILDREN <6 YEARS OLD IN HIGH-RISK ZIP CODES (%), 2022

County	At both 1 & 2 years*	At 1 year only*	At 2 years only*
Arizona	**6.1†**	**19.3**	**12.0**
Apache	1.1	2.7	1.9
Cochise	10.3†	16.7†	13.7†
Coconino	4.3	10.9†	7.6
Gila	6.5	28.0	10.4
Graham	3.3	13.1	7.3
Greenlee	1.6†	15.9	4.9
La Paz	2.6	7.9	2.6
Maricopa	6.0†	18.9	11.8
Mohave	7.7†	23.1	14.5
Navajo	2.2	8.6	5.1
Pima	9.7	29.6†	17.3
Pinal	4.3	18.3†	11.1†
Santa Cruz	14.0	28.4†	22.0
Yavapai	1.1†	18.2†	11.2
Yuma	3.1†	9.8	7.5

* Children living in a high-risk ZIP code were recommended a blood lead test at both 1 & 2 years of age. Screening rates for 1 & 2 year and 2 years only indicators were calculated for children who were 2 years old in 2022. Screening rates for the 1 year only indicator was calculated for children who were 1 year old in 2022.

† Significantly different from 2021 rate (p <0.05)

APPENDIX K: SCREENING RATES OF CHILDREN <6 YEARS OLD IN NON-HIGH-RISK ZIP CODES (%), 2022

County	At both 1 & 2 years*	At 1 year only*	At 2 years only*
Arizona	**2.7**	**13.7**	**6.7**
Apache	1.1	6.4	2.1
Cochise	0.5	16.1	3.0
Coconino	17.5	30.1	22.2
Gila	5.2	30.5	11.5
Graham	0.4	6.9	1.5
Greenlee	1.2	12.7	2.4
La Paz	2.6	5.3	5.2
Maricopa	1.6	9.8	5.0
Mohave	7.7	30.3	18.4
Navajo	4.5	19.3	8.5
Pima	3.7	19.1	7.6
Pinal	3.1	25.8	13.2
Santa Cruz	0.0	7.1	11.1
Yavapai	1.4	15.5	8.7
Yuma	0.0	0.0	0.0

* Children living in a high-risk ZIP code were recommended a blood lead test at both 1 & 2 years of age. Screening rates for 1 & 2 year and 2 years only indicators were calculated for children who were 2 years old in 2022. Screening rates for the 1 year only indicator was calculated for children who were 1 year old in 2022.

APPENDIX L: SCREENING RATES OF CHILDREN <6 YEARS OLD IN ALL ZIP CODES (%), 2022

County	At both 1 & 2 years*	At 1 year only*	At 2 years only*
Arizona	**5.5**	**18.2**	**11.0**
Apache	1.1	3.4	2.0
Cochise	8.9	16.6	12.2
Coconino	8.5	17.1	12.2
Gila	6.4	28.9	10.8
Graham	2.1	10.3	4.6
Greenlee	1.4	14.1	3.5
La Paz	2.6	5.8	4.7
Maricopa	5.2	17.1	10.5
Mohave	8.4	25.7	15.8
Navajo	3.1	12.6	6.3
Pima	8.2	26.5	14.5
Pinal	4.4	18.7	11.2
Santa Cruz	13.6	27.9	21.7
Yavapai	1.2	17.8	10.8
Yuma	3.1	9.7	7.4

* Children living in a high-risk ZIP code were recommended a blood lead test at both 1 & 2 years of age. Screening rates for 1 & 2 year and 2 years only indicators were calculated for children who were 2 years old in 2022. Screening rates for the 1 year only indicator was calculated for children who were 1 year old in 2022.

APPENDIX M: INCIDENT CASES AND RATES OF CHILDREN <6 YEARS OLD IDENTIFIED WITH AN BLL ≥3.5 µg/dL, 2022

County	Newly identified cases	Case rates per 10,000
Arizona	**390**	**7.6†**
Apache	2	3.6
Cochise	7	8.4
Coconino	2	2.4
Gila	11	35.0
Graham	3	8.9
Greenlee	1	12.0
La Paz	0	0.0†
Maricopa	246	7.5†
Mohave	19	17.5†
Navajo	11	12.3
Pima	63	9.5†
Pinal	10	3.3
Santa Cruz	3	8.0
Yavapai	3	2.6
Yuma	9	5.1

† Significantly different from 2021 rate (p <0.05)

APPENDIX M: INCIDENT CASES AND RATES OF CHILDREN <6 YEARS OLD IDENTIFIED WITH AN BLL 3.5-9.9 µg/dL, 2022

County	Newly identified cases	Case rates per 10,000
Arizona	**345**	**6.8†**
Apache	2	3.6
Cochise	7	8.4
Coconino	2	2.4
Gila	10	31.8
Graham	3	8.9
Greenlee	1	12.0
La Paz	0	0.0
Maricopa	216	6.6†
Mohave	17	15.6†
Navajo	8	8.9
Pima	60	9.1†
Pinal	8	2.6
Santa Cruz	1	2.7
Yavapai	3	2.6†
Yuma	7	4.0

† Significantly different from 2021 rate (p <0.05)

APPENDIX M: INCIDENT CASES AND RATES OF CHILDREN <6 YEARS OLD IDENTIFIED WITH A BLL ≥10 µg/dL, 2022

County	Newly identified cases	Case rates per 10,000
Arizona	**45**	**0.9**
Apache	0	0.0†
Cochise	0	0.0†
Coconino	0	0.0
Gila	1	3.2
Graham	0	0.0
Greenlee	0	0.0†
La Paz	0	0.0†
Maricopa	30	0.9
Mohave	2	1.8†
Navajo	3	3.3
Pima	3	0.5
Pinal	2	0.7
Santa Cruz	2	5.3
Yavapai	0	0.0†
Yuma	2	1.1

† Significantly different from 2021 rate (p <0.05)

APPENDIX N: DEMOGRAPHICS OF CASES, 2022

Race/Ethnicity	Count	Percent
American Indian or Alaska Native	25	5.4
Asian	81	17.6
Black	26	5.6
Hispanic	161	34.9
Multi-Racial	16	3.5
Native Hawaiian or Pacific Islander	2	0.4
Other	12	2.6
White, non-Hispanic	82	17.8
Unknown	56	12.2

Age (in Years)	Male		Female	
	Count	Percent	Count	Percent
0 - <1	9	2.0	8	1.7
1	77	16.7	61	13.2
2	51	11.1	59	12.8
3	35	7.6	39	8.5
4	38	8.2	32	6.9
5	28	6.1	24	5.2