



RESEARCH BRIEF # 33

September 22, 2020

Child Injuries and the Timing of SNAP Benefits Receipt

Colleen Heflin, Irma Arteaga, Jean Felix Ndashimye, Matthew P. Rabbitt

Injuries are the leading cause of mortality and morbidity for children in the United States. Each year, these injuries result in 9.2 million emergency department visits and cost \$17 billion.¹ Prior research shows that injuries are more likely among children in low-income households because poverty is a risk factor for experiencing childhood injuries.^{2,3,4} Childhood injuries are also associated with child behavior problems⁵ and changes in parenting behavior including reduced supervision, rule enforcement, and adherence to daily routines as well as increased maternal fatigue.⁶⁻¹¹ Food insecurity, or inconsistent access to food through socially acceptable ways, likely creates situations that increase the risk of childhood injuries.^{12,13}

The Supplemental Nutrition Assistance Program (SNAP) is a federal nutrition program that provides food assistance to low-income households through vouchers to purchase food products, seeds, and plants that grow food. In 2016, SNAP helped provide food to 18 million (1 in 4) American children.¹⁴ Nearly half of American children live in a household that receives SNAP at some point in their childhood.^{12,15} Although SNAP is a federal government program, state governments are given flexibility on when monthly benefits are provided to recipients. Currently, only one state issues SNAP benefits to all recipients on a single day. All other states issue benefits over multiple days. Most often, states issue SNAP benefits in 10 days or less, but 7 states have issuance periods longer than 10 days.

SNAP has been shown to improve childhood outcomes;¹⁶ however, SNAP benefits are often used up before the end of the month, making it difficult for families to consistently meet their everyday food needs.¹⁷⁻²⁰ A majority of households (60%) use all of their SNAP benefits within the first week of receipt, and nearly all households (91%) use them within the first 3 weeks following receipt. There is a link between the distribution timing of SNAP benefits and food insecurity. Households that receive SNAP benefits early in the month are more likely to decrease food spending at the end of the month, as compared to households that receive their benefits later in the month.²¹ Additionally, the timing of monthly SNAP benefit receipt has been linked to children's test scores and negative behavior.²²⁻²⁴

KEY FINDINGS

- Households that receive SNAP benefits later in the calendar month have a lower likelihood of going to the emergency room for a childhood injury at the end of the month.
- The week before households receive their SNAP benefits, when food stores at home may be low, is associated with a higher likelihood of going to the emergency room for childhood injuries.
- The timing of food assistance receipt may alter parenting and child behaviors associated with childhood injuries as anxiety about the availability of food changes over the month.

This brief summarizes the results of a recent study published in *BMC Pediatrics*.²⁵ The study examined the

connection between food insecurity and injury-related emergency room (ER) visits for children under 5 years old in Missouri. Missouri is one of the few states with a SNAP issuance period lasting longer than 10 days and is the only state that issues SNAP benefits between the 1st and the 22nd day of the month. Each household receives their benefits on the same day each month based on the individual case head’s birth month and the first letter of their last name. Therefore, Missouri is a perfect state to study the impacts of benefit timing within a calendar month.

SNAP Timing Matters

This study found that households which received their SNAP benefits in the third week of the calendar month were less likely to have childhood injury ER visits in the last week of the month (Figure 1). This finding suggests that issuing SNAP benefits later in the calendar month might protect children from injuries at the end of the month by reducing food insecurity and household stress.

This study considered the beginning of the SNAP benefit month as the first day of SNAP receipt regardless of whether that day falls on the 3rd or the 15th of the calendar month. Given this, the results of the study show that the week before SNAP benefits are received is the week with the greatest likelihood of ER claims for childhood injuries (Figure 2).

Together, these two findings suggest that receiving SNAP payments closer to the end of the calendar month decreases the likelihood of ER child-injury visits by reducing parental and child behavior changes and anxiety related to food insecurity. Because other resources like Temporary Assistance for Needy Families (TANF) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) are distributed on a single day early in the month, SNAP benefits received at the end of the month can be particularly helpful in putting food on the table at a time when income and additional resources have run out or run low.

Policymakers Can Support Childhood Health by Supporting SNAP

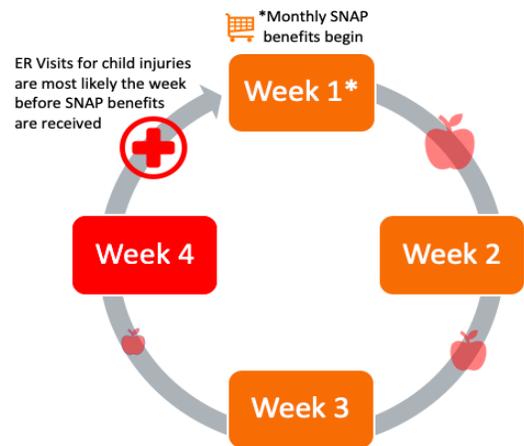
Food insecurity increases parental stress and makes positive parenting harder. Specifically, food insecurity has been linked to changes in parental behaviors such as lower levels of rule enforcement, increased maternal fatigue, and reduced supervision and adherence to daily routines.⁶⁻¹¹

These changes in parental behavior increase the likelihood of child injuries.^{6,23} Our findings document another potential benefit of participation in the SNAP program for families with young children as well as how SNAP can reduce public healthcare costs by contributing to child health.

Figure 1- Impact of SNAP Receipt in the 3rd Week of Calendar Month



Figure 2- Child Injuries at the End Monthly SNAP Cycle



Data and Methods

This study analyzed Missouri state administrative data from the Department of Social Services for SNAP program services linked to Medicaid claims data for children ages 0 to 5 from January 2010 to December 2013. This amounted to 1,288,552 emergency care Medicaid claims, of which 260,907 were injury-related conditions identified by International Classification of Disease, Ninth Revision (ICD-9) diagnosis codes 800-999. The relationship between SNAP issuance date and Medicaid ER claims for childhood injuries was examined by creating both a standardized 28-day calendar month, and a standardized 28-day SNAP benefit month with the SNAP benefit month beginning on the first day on SNAP receipt. For additional information on the methodology, please see the published study, [Childhood injuries and food stamp benefits: an examination of administrative data in one US state](#).

References

1. Borse, N., & Sleet, D. A. (2009). CDC childhood injury report: Patterns of unintentional injuries among 0- to 19-year olds in the united states, 2000-2006. *Family & Community Health: The Journal of Health Promotion & Maintenance*, 32(2), 189.
2. Birken, C. S., & Macarthur, C. (2004). Socioeconomic status and injury risk in children. *Paediatrics & Child Health*, 9(5), 323-325.
3. Peden, M., Oyegbite, K., Ozanne-Smith, J., Hyder, A. A., Branche, C., Rahman, A., Rivara, F., & Bartolomeos, K. (Eds.). (2008). *World Report on Child Injury Prevention*. World Health Organization.
4. Brownell, M. D., Derksen, S. A., Jutte, D. P., Roos, N. P., Ekuma, O., & Yallop, L. (2010). Socio-economic inequities in children's injury rates: has the gradient changed over time? *Canadian Journal of Public Health*, 101(Suppl 3), S28-S31.
5. Dal Santo, J. A., Goodman, R. M., Glik, D., & Jackson, K. (2004). Childhood unintentional injuries: factors predicting injury risk among preschoolers. *Journal of Pediatric Psychology*, 29(4), 273-283. <https://doi.org/10.1093/jpepsy/jsh029>
6. Garzon DL. (2005). Contributing factors to preschool unintentional injury. *J Pediatr Nurs.*, 20(6), 441-447.
7. Koulouglioti, C., Cole, R., & Kitzman, H. (2009). The role of children's routines of daily living, supervision, and maternal fatigue in preschool children's injury risk. *Research in Nursing & Health*, 32(5), 517-529.
8. Morrongiello, B. A., & Schell, S. L. (2010). Child injury: The role of supervision in prevention. *American Journal of Lifestyle Medicine*, 4(1), 65-74.
9. Mulvaney, C., & Kendrick, D. (2004). Engagement in safety practices to prevent home injuries in preschool children among white and non-white ethnic minority families. *Injury Prevention: Journal of the International Society for Child and Adolescent Injury Prevention*, 10(6), 375-378.
10. Nocera, M., Gjelsvik, A., Wing, R., & Amanullah, S. (2016). The association of parental coping and childhood injury. *Maternal and Child Health Journal*, 20(11), 2357-2366.
11. van Aken, C., Junger, M., Verhoeven, M., van Aken, M. A., & Dekovic, M. (2007). Externalizing behaviors and minor unintentional injuries in toddlers: Common risk factors?. *Journal of Pediatric Psychology*, 32(2), 230-244.
12. Bronte-Tinkew, J., Zaslow, M., Capps, R., Horowitz, A., & McNamara, M. (2007). Food insecurity works through depression, parenting, and infant feeding to influence overweight and health in toddlers. *The Journal of Nutrition*, 137(9), 2160-2165.
13. Walker, L. O., & Kirby, R. S. (2009). Conceptual and measurement issues in early parenting practices research: An epidemiologic perspective. *Maternal and Child Health Journal*, 14(6), 958-970.
14. Cunyngnam, K. (2018). *Trends in supplemental nutrition assistance program participation rates: Fiscal year 2010 to fiscal year 2016*. Princeton: Mathematica Policy Research.
15. Rank, M. R., & Hirschl, T. A. (2009). Estimating the risk of food stamp use and impoverishment during childhood. *Archives of Pediatrics & Adolescent Medicine*, 163(11), 994-999.
16. Hoynes, H., & Schanzenbach, D. W. (2015). *US food and nutrition programs. Economics of Means-tested Transfer Programs in the United States*, 1, 219-301, University of Chicago Press.
17. Castellari, E., Cotti, C., Gordanier, J., & Ozturk, O. (2017). Does the timing of food stamp distribution matter? A panel-data analysis of monthly purchasing patterns of US households. *Health Economics*, 26(11), 1380-1393. =
18. Castner, L., Henke, J. (2011). *Benefit redemption patterns in the supplemental nutrition assistance program*. Alexandria, VA: US Department of Agriculture.

19. Goldin, J., Homonoff, T., & Meckel, K. (2016). *Is there an nth of the month effect? The timing of SNAP issuance, food expenditures, and grocery prices* [seminar]. Duke Public and IO Seminar Series, March, Vol. 29.
20. Todd, J. E. (2015). Revisiting the supplemental nutrition assistance program cycle of food intake: Investigating heterogeneity, diet quality, and a large boost in benefit amounts. *Applied Economic Perspectives and Policy*, 37(3), 437-458. =
21. Damon, A. L., King, R. P., & Leibtag, E. (2013). First of the month effect: Does it apply across food retail channels? *Food Policy*, 41, 18-27.
22. Gassman-Pines, A., & Bellows, L. (2015). *SNAP recency and educational outcomes* [Unpublished manuscript]. Sanford School of Public Policy, Duke University.
23. Gassman-Pines, A., & Bellows, L. (2016) *The timing of SNAP benefit receipt and school disciplinary incidents* [conference session]. Association for Education Finance and Policy Annual Conference. Denver, CO.
24. Gennetian, L. A., Seshadri, R., Hess, N. D., Winn, A. N., & Goerge, R. M. (2016). Supplemental nutrition assistance program (SNAP) benefit cycles and student disciplinary infractions. *Social Service Review*, 90(3), 403-433.
25. Heflin, C. M., Arteaga, I., Ndashimye, J. F., & Rabbitt, M. P. (2020). Childhood injuries and food stamp benefits: An examination of administrative data in one US state. *BMC Pediatrics*, 20(1), 1-297.

Acknowledgements

Special thanks to Katie Green who wrote this brief. Colleen Heflin is an affiliate of the Center for Aging and Policy Studies, which receives funding from the National Institute on Aging (grant # 1P30AG066583). Financial support for this study was received by the U.S. Department of Agriculture through Cooperative Agreement 58-4000-6-0055-R. This research was also supported in part by the intramural research program of the U. S. Department of Agriculture, Economic Research Service. The findings and conclusions in this publication are those of the authors and should not be construed to represent any official USDA or U.S. government determination or policy. The funder played no role in the study design and interpretation of the analysis. The authors also thank Shannon Monnat and Megan Ray for edits on an earlier version of this brief.

About the Author

Colleen Heflin is a Professor of Public Administration and International Affairs, Faculty Affiliate at the Aging Studies Institute, and Senior Research Associate, Center for Policy Research, in the Maxwell School of Citizenship and Public Affairs at Syracuse University (cmheflin@syr.edu). Irma Arteaga is an Associate Professor at the Truman School of Public Affairs, University of Missouri (arteagai@missouri.edu). Jean Felix Ndashimye is a Postdoctoral Researcher at Vanderbilt University. Matthew P. Rabbitt is an economist with the Food Assistance Branch in the Food Economics Division, USDA (matthew.rabbitt@usda.gov).

Lerner Center for Public Health and Promotion
426 Eggers Hall
Syracuse, New York 13244
syracuse.edu | lernercenter.syr.edu

Center for Aging and Policy Studies
314 Lyman Hall
Syracuse, New York 13244
syracuse.edu | asi.syr.edu/caps