



Urgent and Emergency Care by Optometrists Significantly Reduces Risks, Workloads in Emergency Departments During COVID-19 Pandemic

Background and Methods:

The COVID-19 pandemic has brought an unprecedented risk to personal, population and economic health. In early March 2020, the Health Policy Institute (HPI) released a report “Doctors of optometry in COVID-19 preparedness, response and recovery” which highlighted the need for doctors of optometry to coordinate activities with outside federal, state and local entities and provide urgent and emergency care to divert individuals away from emergency departments.ⁱ Essential clinicians could take-up this call to action, follow U.S. Centers for Disease Control and Prevention (CDC) infection control measures and guidance, highlight their emergency credentials and well-equipped ambulatory facilities and remain available to the public for urgent and emergency care during the COVID-19 pandemic.

HPI hypothesized that this action, as part of the nation’s public health emergency response, would likely aid the decline of non-viral infectious emergency department visits during the COVID-19 pandemic. The CDC subsequently reported a decrease in number of emergency department visits whereby patients may have been managed elsewhere through primary or urgent care.ⁱⁱ HPI believed that some of that primary care may have been provided in optometry clinics disassociated from the hospital emergency department.

HPI launched a survey on the impact of the nationwide COVID-19 pandemic on optometry practices and their response to the public health emergency declaration. The internet-based survey was initiated on April 22, 2020 and closed on May 6, 2020 with a total of 1,034 responses from doctors of optometry in all 50 states and the District of Columbia.

Survey Findings:

HPI survey results affirm an optometry contribution to a desired drop in non-infectious emergency or urgent hospital department visits during the COVID-19 pandemic. Doctors of optometry reported that 60% of the patients they treated during the early stages of the pandemic would have otherwise sought care at an emergency department or urgent care center had the optometry practice not been providing essential, urgent or emergency care during the surveyed time period.

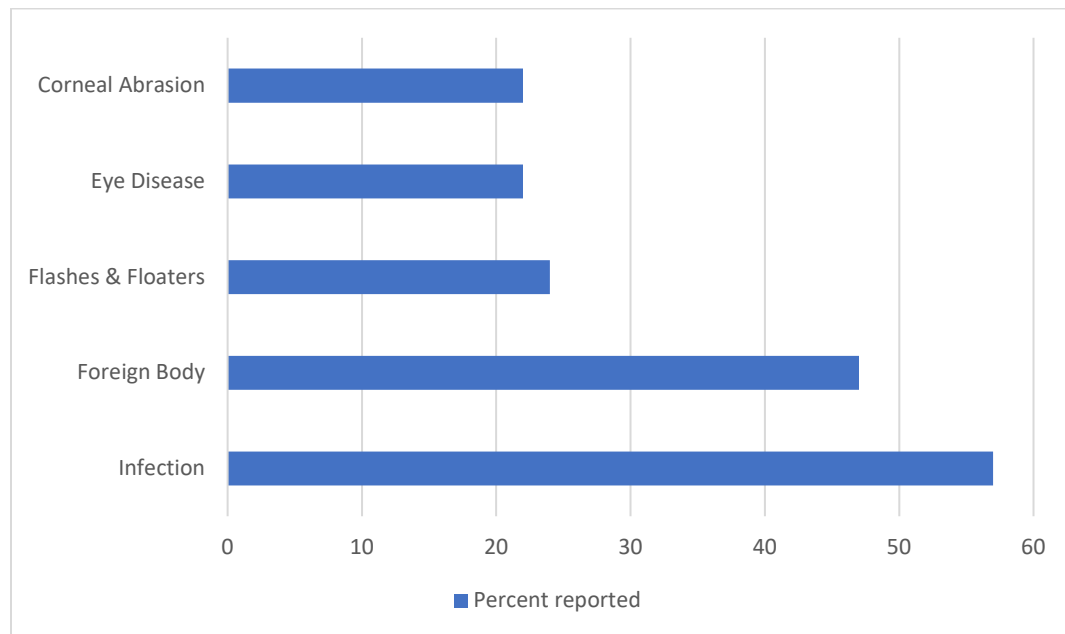
Nine out of ten practicing doctors of optometry (89%) reported providing emergency or urgent care (surgical and/or non-surgical) during the COVID-19 public health crisis. Of the doctors providing emergency or urgent care, 26% reported that care included surgical care, with 92% of these doctors

reporting foreign body removals. (Table 1.0) A follow-up HPI survey of similar design revealed that 13% of survey optometry respondents (n=883) were forced to refer patients away from their facility to emergency departments for care they were otherwise trained, able and ready to provide, all because of outdated scope of practice laws in their respective state disallowed them to perform the needed services.

Across the country, “stay at home orders” sent many people into their yards, attics and basements for chores and other activities that may have added to increased corneal abrasions and foreign bodies, especially if individuals were not wearing appropriate safety eyewear. Extra cleaning activities necessitated by the pandemic, without proper precautions, also caused chemical eye injuries that resulted in the need for urgent and emergency care. These injuries are best treated in an eye doctor’s office regardless of the pandemic because the optometry office is better equipped with diagnostic instrumentation specific to the eyes not typically found in the emergency departments.

This diversion is even more important during the COVID-19 pandemic since the eye is a route of SARS-CoV-2 exposure through tear drainage from the eye through the lacrimal system to the throat and respiratory system and the added presence of ACE2 receptors [Binding site for SARS-CoV-2] in the conjunctiva and cornea, whereby conjunctivitis or pink eye may be a prominent sign of COVID-19. Individuals treated off-site and away from the emergency department will experience lower risk of SARS-CoV-2 exposure. Finally, cost is lower in the primary care optometry setting by allowing the patient to avoid significant hospital usage fees. Additional ocular procedures reported among these survey respondents included epilation, debridement, incision and drainage of a lid or lacrimal cyst or other urgent cornea, lid and lacrimal service.

Table 1.0: Top reported emergency or urgent care services provided by doctors of optometry during COVID-19 pandemic

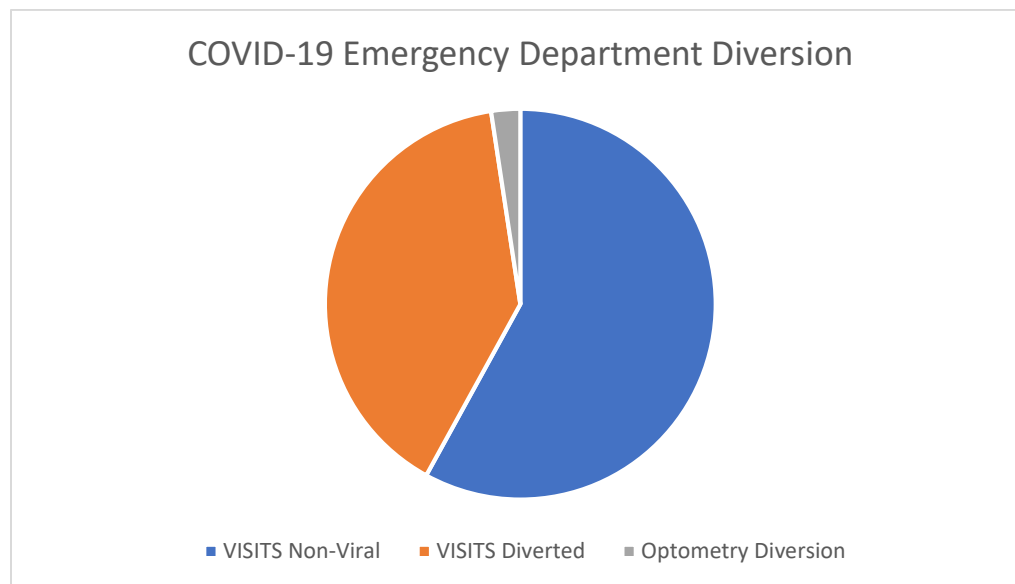


Corroborating Findings:

The CDC National Syndromic Surveillance Program (NSSP)ⁱⁱⁱ, reports that emergency department visits declined 42% during the early COVID-19 pandemic, from a mean of 2.1 million per week (March 31–April 27, 2019) to 1.2 million (March 29–April 25, 2020). During this same time the proportion of viral infectious disease–related visits to emergency departments were reported as being four times higher.^{iv}

HPI analysis of Healthcare Cost and Utilization Project (HCUP) data previously demonstrated that 1 % of all U.S. visits to emergency departments were for eye-related encounters and that 98.9 % could be taken care of by doctors of optometry in their offices.^v With a reported 900,000 visit drop per week in emergency department visits during the one-month NSSP COVID-19 surveillance period and a reported 89% of doctors of optometry remaining available for emergency and urgent eye visits, approximately 85,700 individuals in the NSSP diverted subset may have been diverted to optometry offices. Furthermore, an additional 120,927 individuals, based on monthly projection of past HCUP annual emergency department diversion of 1.45 million visits, were likely seen by optometry and not included in the subset of diverted individuals because they were not counted by the NSSP national surveillance methods. This being the case, a significant percent of the reduction in observed emergency department visits described by the NSSP data during the early stages of the COVID-19 pandemic may likely have been accommodated outside the emergency department by optometry. (Table 2.0)

TABLE 2.0 COVID-19 Emergency Department Diversion during COVID-19 Pandemic



Conclusion:

These HPI data demonstrate that doctors of optometry collaborated and coordinated their activities with outside federal, state and local entities and provided urgent and emergency care to approximately 206,627 individuals during the one month measurement period. This combined effort by doctors of optometry diverted a significant percentage of patients away from emergency departments. This was important to the public health response because optometry’s vulnerable patient population is disproportionately affected by diabetes, hypertension and cardiovascular disease, all known to be significant risk factors for COVID-19 complications. These actions minimized SARS-CoV-2 transmission risk

among the population and defended the capacity of our nations emergency departments to remain able to provide necessary emergency services to those ill from SARS-CoV-19.

Next Steps:

As health systems nationwide prepare for potential resurgence of COVID-19 infection and state and local public health efforts are expanded to accommodate new COVID-19 data, doctors of optometry should be considered part of the essential emergency workforce and integrated into a planned response to this protracted COVID-19 public health emergency. Based on the combined HPI surveys we estimate that an additional 26,861 individuals could have been diverted from emergency departments during the one-month NSSP COVID-19 measurement period if scope of practice laws for optometry had been consistent to those in the highest state scope of practice.

The COVID-19 public health emergency therefore highlights the necessity of updating optometry scope of practice laws consistent with National Board Testing, professional training and expertise, to even better respond to this COVID-19 public health emergency, as well as any future emergencies.

ⁱ https://www.aoa.org/documents/HPI/Disaster%20Draft%20Brief%20HPI%20FINAL%2010.04.17_lg.pdf

ⁱⁱ https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm?s_cid=mm6923e1_e&deliveryName=USCDC_921-DM30285

ⁱⁱⁱ <https://www.cdc.gov/nssp/index.html>

^{iv} https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm?s_cid=mm6923e1_e&deliveryName=USCDC_921-DM30285

^v https://www.aoa.org/documents/HPI/HCUP%20HPI%20December_2019.pdf