

COUNTY OF



ALLEGHENY

RICH FITZGERALD
COUNTY EXECUTIVE

September 20, 2016

VIA E-MAIL PDF

Dr. Karen Hacker, M.D., M.P.H., Director
Allegheny County Health Department
542 Fourth Avenue
Pittsburgh, PA 15219

Re: Progress St. Partners' September 14, 2016 Request for a Stay of the Allegheny County Health Department Housing and Community Environment Program's July 15, 2016 Determination that a Lifeguard is Required at the Heinz Lofts Apartments Pool.

Dear Dr. Hacker:

On September 14, 2016, appellant Progress St. Partners (hereinafter "Appellant") submitted via e-mail a Request for a Stay (hereinafter "Request for a Stay") of the Allegheny County Health Department (hereinafter "ACHD") Housing and Community Environment Program's (hereinafter "Housing Program") July 15, 2016 Determination that a Lifeguard is Required at the Heinz Lofts Apartments Pool. This letter is the Housing Program's response to Appellant's Request for a Stay.

Appellant alleges the following in support of its Request for a Stay: that the pool is shallow at less than 4 feet deep, that there are 342 residents at the Heinz Lofts, that access to the pool is restricted to residents with key access, that Heinz Lofts residents are over 14 years old and more than 4 feet in height, that there are signs posted stating "Shallow Water No Diving Allowed", that absent a stay they will not be able to operate the pool, and that the stay would not result in serious and immediate danger to public health and welfare.

For the following reasons, the Housing Program contends that the reasons Appellant puts forth in support of its Request for a Stay are either not relevant to the whether or not a lifeguard is required at the pool or are not sufficient to justify a stay.

First, many of the factual allegations made by Appellant are not relevant to whether or not a lifeguard is required at the pool. Section 912.A of Article IX of the ACHD's Rules and Regulations is the provision mandating lifeguards at public bathing places (including swimming pools), and that regulation states, "Lifeguard(s) shall be on duty at the waterside at all times when a bathing place or bathing beach is used by swimmer(s) or bather(s) and shall not be assigned other tasks that will divert their attention from the safety of the swimmer(s) or



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bather(s).” Section 912 makes no exception to the lifeguard requirement for the depth of the pool, for the number of residents, for whether access to the pool is restricted, for the age and height of residents, nor for signage prohibiting diving. Therefore, Appellant’s factual allegations should not be considered when deciding whether or not to issue a stay.

Second, Appellant’s allegation that they would not be able to operate the pool if a stay is not granted does not justify the stay because they have made no allegation that a lifeguard is unavailable. Nothing in the ACHD’s determination that a lifeguard is necessary at the Heinz Lofts Pool prevents operation of the pool, it only prevents operation of the pool without a lifeguard. Therefore, logic dictates that the Heinz Lofts Pool can indeed be operated if they simply retain a lifeguard.

Finally, Appellants’ allegation that a stay would not result in serious and immediate danger to the public health and welfare is unsupported by evidence and would not prevent a stay even if it were proven true. The only standard governing whether or not a stay of an ACHD order or determination should be granted is found in Article XI § 1111.2, which states, “The Director may, upon petition, or on his or her own motion, grant a stay of proceedings, except that a stay may not be granted where it may result in serious and immediate danger to the public health and welfare.” This provision, on its face, only prevents a stay if there would be a serious and immediate danger to public health and welfare. It does not mandate that in the absence of a “serious and immediate danger to public health” a stay must be granted.

Furthermore, as stated above, the allegation that the stay would not result in serious and immediate danger to the public health and welfare is unsupported by any evidence or affidavit. In fact, evidence to the contrary exists. The ACHD Housing Program authored a report on November 12, 2015 and revised on January 05, 2016, titled “*Lifeguard Efficacy in Public Bathing Places*” (hereinafter “Lifeguard Report”), and that report is attached hereto as Exhibit A. The Lifeguard Report shows that more drowning deaths occur at unguarded swimming pools. See Lifeguard Report at p. 3. Therefore, granting the Appellant’s Request for a Stay would increase the risk to the public health and welfare by increasing the risk of drowning from accidents at an unguarded Heinz Lofts Apartment pool.

Thus for the reasons stated above, the ACHD Housing Program urges you to deny Appellant’s Request for a Stay. Thank you for your consideration of this matter.

Sincerely,



Michael A. Parker, Esq.
ACHD Solicitor

MAP/

c: Shawn Gallagher, Counsel for Appellants (via e-mail PDF)

Exhibit "A"

Allegheny County Health Department

Lifeguard Efficacy in Public Bathing Places

Researched and Written by Lori Horowitz, Environmental Health Administrator

Researched by Amy Beck, Intern

Reviewed by Dave Namey, Program Chief

Housing and Community Environment Program

November 12, 2015

Revised: January 05, 2016



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Executive Summary

The Allegheny County Health Department (ACHD) regulation requiring the provision of lifeguards at apartment swimming pools is being called into question. This report includes an examination of ACHD pool injury reports, violations cited at hotel pools before and after they were no longer required to provide lifeguards, research into the regulations of other PA health departments, a search for news reports of drowning and near-drowning victims at apartment pools over 18 months from March 1, 2014 to August 31, 2015, as well as an exhaustive review of available literature. The ACHD injury reports showed that in Allegheny County over the last six years, there were more drownings when pools were unguarded. Violations cited at hotel pools increased threefold after the hotels were no longer required to provide lifeguards, showing evidence that lifeguards play a role in the overall healthiness and safety of an aquatic facility. When searching news reports, 51 reports of drowning or near-drowning involving 56 individuals were found relatively easily. In the reports found, 70% of the victims were age 14 or younger, and of the 50 reports where a lifeguard was not present at the time of the incident, 78% resulted in death. News reports like these continue to crop up with regular frequency, which is why a finite date range was chosen. These reports are illustrative; many of these tragedies could possibly have been avoided if lifeguards were employed at these apartment complexes.

It is the strong opinion of the ACHD that lifeguards should be maintained at apartment pools as has been the case for at least 20 years in Allegheny County. Lifeguards play an important role in the health and safety of the pool environment. The most obvious and important role is their quick reaction and lifesaving skills when incidents occur, but there are many instances where the value of a lifeguard comes into play:

- A lifeguard will be the first to observe cloudy water and ask patrons to exit the pool. Murky or cloudy water creates a much greater drowning hazard than clear water; it is more difficult to locate a victim once they go under the water.
- A lifeguard is the authority when it comes to keeping horseplay and risky behaviors to a minimum.
- A lifeguard knows to clear the pool at the first sign of thunder, lightning, or other inclement weather.
- A lifeguard is typically the first one aware of a fecal or vomitus incident that requires evacuation of the pool to deal with clean-up. In the absence of an on-site authority figure, the lifeguard, the incident may never be reported making the water quality unsafe and hazardous and putting more people at risk for recreational water illnesses.
- A lifeguard will notice any safety hazards that may crop up onsite throughout the day and address them in an expeditious fashion, shortening the length of time that a condition may remain a hazard.
- A lifeguard is often the individual who helps to maintain the quality of the water by checking disinfectant and pH levels. If this task is not properly performed in their absence, the risk of patrons contracting recreational water illnesses increases.
- If lifeguards are eliminated from the 83 apartment pools in Allegheny County, an increase in catastrophic injuries and drowning deaths can be expected.

The mission statement of the ACHD is to “protect, promote, and preserve the health and well-being of all Allegheny County residents, particularly the most vulnerable” (ACHD). When it comes to one of the most vulnerable populations, children from 1-14 years old, drowning is one of the top three causes of death. It is the ACHD’s responsibility to do everything in its power to

maintain a high standard of health and safety. Removing lifeguards from apartment pools would only serve to increase risk to that particularly vulnerable population. Therefore, we find no reason to alter the regulation.

Background

The ACHD is reviewing current lifeguard requirements at apartment complex pools, of which there are 83 in the county. The ACHD regulates permitted bathing places under Article IX, Bathing Places. The Housing and Community Environment Program (HCE) of the ACHD inspects permitted bathing places and enforces the regulations in Article IX. Article IX dictates the ACHD's direct responsibility to regulate lifeguards at "any controlled natural or artificial place for the purpose of admitting persons for amateur, professional, or recreational swimming or bathing" (ACHD, 2008, p. 1-2). Pools currently exempted from the Article IX requirement to maintain lifeguards include wading pools, spas, and swimming pools at hotels and condominium associations. Prior to 2007, hotels were not exempt from requiring lifeguards. It was in 2007 when Dr. Bruce Dixon, the director of the ACHD at that time, issued a waiver that exempted hotels from the lifeguard requirement. The exemption was not officially made into regulation and added to Article IX until late in the year in 2008, becoming effective in January of 2009. Senior program management staff of HCE did not agree with Dr. Dixon issuing this waiver. The only requirement in Article IX in lieu of providing lifeguards is that hotels must maintain liability insurance. Liability insurance does not correlate with health, safety, or prevention of injuries and drownings. Having this type of insurance is not effective in limiting injury, only liability. A report by the Centers for Disease Control and Prevention (CDC) states: "It is clear that lifeguards can significantly reduce the incidence of water-related injury and death. Therefore, laws which encourage placement of lifeguards, although more expensive, can logically be expected to enhance public safety" (Branche & Stewart, 2001, p. 23-24). Also issued by Dr. Dixon was a waiver of the lifeguard requirement for the swimming pool at the Cork Factory, an upscale apartment complex. The senior program management staff at HCE also did not agree with the

issuing of this waiver. Recently, when the Cork Factory's ownership changed, HCE did not renew the waiver. Article IX did not and does not provide a basis to grant waivers; Dr. Dixon did not have the authority to grant this waiver in the first place. The Cork Factory has appealed the decision not to renew the waiver. Now, the regulations requiring lifeguards at apartment pools are being scrutinized. This report will be looking into the efficacy of lifeguards at swimming pools on a local and national level. The lifeguard regulations of the Pennsylvania State Department of Health (PADOH) and other local health departments will be researched in order to compare them to ACHD's own regulations.

Literature Review

According to the CDC's leading cause of death reports from 1999-2013, drowning was the first leading cause of death for 1-4 year olds, the second leading cause of death in 5-14 year olds, and the third leading cause of death in 15-34 year olds (CDC, 2015). Also from the CDC, "Lifeguard Effectiveness: A Report of the Working Group" describes the important role that lifeguards play in risk management at swimming facilities: "Lifeguards are trained to monitor the aquatic environment, supervise patrons, inform patrons about the potential for injury, educate them about the consequences of injury-producing behavior, and enforce rules and regulations that prevent injuries" (Branche & Stewart, 2001, p. 17). Lifeguards not only perform lifesaving rescues, they provide surveillance and education, the benefits of which could be easily overlooked and are very difficult to quantify. Risky behaviors may be deterred with the presence of a lifeguard. In the same report, CDC points out that "Public safety education and onsite supervision by lifeguards have helped keep drowning rates low for 40 years, and have significantly reduced the number of drownings in the United States" (Branche & Stewart, 2001, p. 21).

In a study performed by W. Harrell, five lifeguards were observed as they systematically identified patron rule compliance and injury prevention at five different public pools. The use of lifeguards actively surveying the pool resulted in lower incidence of rule violations (Harrell, 2001). Avramidis & Butterly utilized a mixed method design study to identify individuals who were more likely to take part in risk-taking behaviors that could result in drowning or injury. They concluded that adolescents often overestimate their strength and abilities, and adults with a history of risk-taking behavior are more likely to engage in risky activities when spending time at recreational aquatic settings (Avramidis & Butterly, 2012).

The CDC's lifeguard efficacy report briefly delves into the economic cost-benefit of maintaining lifeguards at beaches. They use two measures to describe the costs associated with catastrophic injuries or loss of life while using an aquatic facility. The first measure is the economic cost which accounts for the victim's productivity loss and quantifies other expenses directly related to the injury or death. The second measure is the comprehensive cost which is a combination of the economic cost in addition to the value of the victim's lost quality of life. CDC provides a summation on a national scale as well as on a smaller scale utilizing a pool attendance baseline of 10,000 patrons. The smaller scale estimation is more relatable to the bathing places operating in Allegheny County. For every 10,000 patrons, the total economic cost for not having a lifeguard could range from \$202,500 to \$4.6 million and the total comprehensive cost for not having a lifeguard could range from \$705,380 to \$16.1 million (Branche & Stewart, 2001). The National Safety Council (NSC) puts out information regarding the general cost to society of unintentional deaths. They estimate the average economic cost of a single public non-motor vehicle death at \$4.7 million (NSC, 2012, p. 2). The Foundation for Aquatic Injury Prevention (FAIP) quantifies the healthcare costs of near-drowning at \$75,000 for initial emergency room

care, \$180,000 a year for long term care, and \$4.5 million if brain damage is sustained (FAIP, 2013). Average lifeguard pay rate in PA is approximately \$10/hour (Indeed, 2015). At seasonal facilities which only require one lifeguard, open 12 hours a day, 7 days a week, for 4 months (approx. 18 weeks- from mid-May to mid-September), this reaches a total of \$15,120. For a year round facility following the same parameters, the cost of a lifeguard would be approximately \$43,680. The Cork Factory in the Strip District has close to 300 units and a seasonal pool. The complex is self-described as “Pittsburgh's most in-demand urban residence” (The Cork Factory). The monthly rent of apartments ranges from \$1350 to \$3560 (ForRent.com, 2015). The cost of maintaining a lifeguard at that facility breaks down to approximately \$4/month/unit. The Bakery Living apartment complex in East Liberty, described on the Walnut Capital website as “upscale urban rentals” has projected that they will have approximately 400 units by 2016 and a year-round pool. The monthly rent prices for the units that are currently being offered range from \$1875 to \$2590 (Walnut Capital). Once they have all projected units built, providing a lifeguard would cost them approximately \$9/month/unit. The cost of an amenity like a pool, which is clearly advertised as a selling point to prospective renters, should be built into the cost of the complex’s units. It seems like a minimal expense considering the alternative, which could potentially be the cost of a human life.

In 2008, the Department of Conservation of Natural Resources (DCNR) of Pennsylvania decided to remove lifeguards from lake beaches at all state parks except at Presque Isle. The rationale provided as justification of this decision included that the state would save approximately \$800,000. Jack Wagner, Auditor General of PA at the time, put out a special report in order to question that decision by the DCNR. He made several pertinent points. Parents are not necessarily suited to be the best guards for their children. Their swimming skills could be

questionable or nil, they may become distressed and panic in the case of an incident, and they may not know lifesaving procedures that a lifeguard could readily provide. Untrained observers also may not know the signs of drowning, which contrary to popular belief, is often not a loud flailing display, but can be silent and quick. In conclusion, Wagner points out that \$800,000 seems a disproportionate price when put next to the public safety risk created by removing lifeguards from PA state park beaches (Wagner, 2008).

The United States Lifesaving Association (USLA) provides statistics for drowning deaths on US beaches, providing numbers for both guarded and unguarded beaches. Between 2010 and 2014, there were a total of 659 drowning deaths recorded by the USLA. Of those drowning deaths, 84% (n=556) were at beaches that were unguarded, while the remaining 16% (n=103) were at beaches that were staffed with lifeguards (USLA, 2015). Lifeguards cannot save patrons from drowning 100% of the time, but these numbers imply that there is much less of a chance of drowning if you are at a guarded beach as opposed to an unguarded one.

In a technical report put out by the American Academy of Pediatrics, "Prevention of Drowning," it is pointed out that there has been no formal scientific study performed to quantify the value of lifeguards, but that anecdotal reports indicate that drowning rates are lower when lifeguards are present. It has been shown that immediate resuscitation performed upon a child with a submersion injury is associated with a significantly better outcome. They also describe the additional efforts made by lifeguards in keeping patrons safe which include monitoring the aquatic environment, enforcing rules and regulations, and providing education (Weiss, 2010). According to a literature review performed by Cortés, Hargarten, & Hennes on drowning prevention for travelers, "The presence of lifeguards increases favorable outcomes should a submersion occur" (2006, p. 25). Unless parents and bystanders have been CPR trained and

certified, victims may not receive the proper care soon enough to make a difference in the absence of a lifeguard. It is also stated in the Pool & Spa Operator Handbook by the National Swimming Pool Foundation that “The presence of trained lifeguards reduces the risk of drowning” (2009, p. 177).

Methods

Pool injury reports from Allegheny County were reviewed from January 1, 2003 – December 31, 2006 and from January 1, 2009 – July 30, 2015 with the goal of performing a comparison of drownings and near-drownings at pools with an attending lifeguard to those without. Pool injury reports are required to be submitted to ACHD when any injury requiring medical treatment is sustained at a facility. The reports are written by a responsible party at the facility. Once received at ACHD, they are entered into a computer database. The exclusion of the data from 2007 and 2008 in the reports examined is intentional. In 2007, the waiver releasing hotels from the responsibility of maintaining a lifeguard at their pools was issued, but it was not added to Article IX until late 2008, and did not become effective until January of 2009. It was only at that time that all hotels were made aware that they were no longer required to have lifeguards. In the interim, some hotels may have maintained lifeguards, and some may have not. For clarity, the period of time between 2007 and 2008 has been left out of the review. Also, prior to 2003 the availability of data is scant, which is why the examination of the reports only goes back as far as 2003. Reports summarizing violations of Article IX cited by ACHD inspectors at hotel pools were also compared from before the lifeguard waiver was granted and afterwards. This was in order to assess whether or not lifeguards may play a role in the general maintenance and overall healthiness of a pool environment. Lifeguard regulations and policies of the PADOH and a number of other PA health departments were reviewed to determine their positions on lifeguards

at apartment pools. A Google news search was performed in order to compile a list of drownings and near-drownings that have occurred at apartment pools in the United States in a recent 18 month period.

Results

Allegheny County Health Department Injury Reports

From January 1, 2003 to December 31, 2006, before the lifeguard exemption was granted, there were 56 pool injury reports filed in Allegheny County. Of those reports, only one did not have a lifeguard present when the incident occurred in the water. There was only one drowning in that time span, for which a lifeguard was present. From January 1, 2009 to July 30, 2015, after the exemption was made into regulation, there have been a total of 122 injury reports from pools in Allegheny County. Of that 122, there were eight reports at which a lifeguard was not present at the time of the incident. There were a total of six drownings resulting in death in Allegheny County between 2009 and 2015. At four of those six incidents, a lifeguard was not present at the time of the drowning. Over all of the years considered, there have been a total of 74 near-drownings. Due to the strength of Article IX, most public bathing places in Allegheny County are required to provide lifeguards. As a result, lifeguards were present at all of the near-drownings except for three. See Appendix A for a chart showing the number of drownings and near-drownings over the years examined and which occurred at apartments, hotels, and condominiums. Examples of some of the descriptions of incidents from near-drowning injury reports are included in Appendix B. Appendix C shows the injury reports categorized into type of incident which include: lifeguard rescues (no injury sustained), injuries that occurred in the water, and injuries that occurred out of the water.

Violations Cited at Hotel Pools by Allegheny County Health Department

Violations of Article IX are cited by HCE inspectors when conditions found at an inspection do not meet the standards of the Article. In 2003-2006, when lifeguards were still required at hotel pools, there was an average of 32.3 violations cited per year collectively for all facilities. In 2009-2015, there was an average of 92.9 violations cited per year (see Figure 1). The citations included water clarity violations, pH and disinfectant level violations, and improper monitoring of water quality. In order to determine if this increase in average yearly violations was the result of an influx of new hotel pools, the number of new facilities that have opened since 2007 was compared to the number of facilities that have gone out of business since 2007. There have been 20 new hotel pool openings, and 10 hotel pools that have gone out of business. There are currently 65 hotel pools in Allegheny County. That is an 18% increase since 2007 in the number of hotel pools overall, while the number of violations has increased 288%. Before the exemption was granted, the average number of violations per facility was 0.59. After the exemption was granted, this number increased to 1.43.

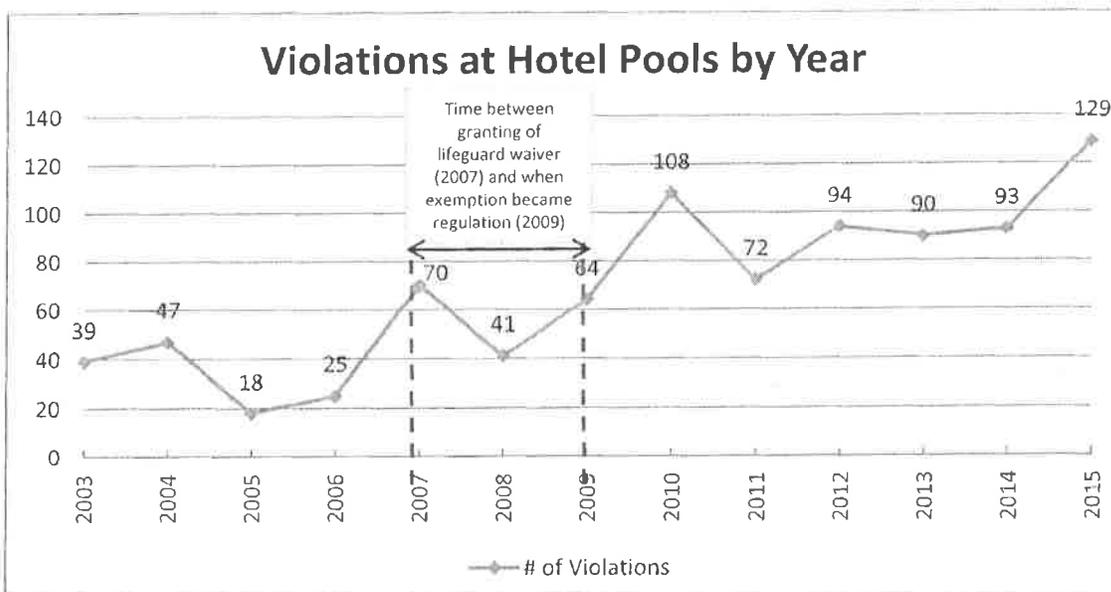


Figure 1 – Violations at hotel pools by year

Lifeguard Requirements of Pennsylvania Health Departments

The lifeguard regulations of the PADOH dictate that all recreational swimming establishments must have a lifeguard on duty during hours of operation. Hotels, apartments, and condominiums are not defined as recreational swimming establishments and are therefore exempt. There are no additional requirements when it comes to signage or safety equipment. The facilities must maintain the same safety equipment as a guarded facility (PADOH, 1971). Bucks County, which is about half the size of Allegheny County, requires community and apartment pools to have lifeguards, while hotels and condominiums are excluded (P. Smith, personal communication, June 19, 2015). Allentown adopted Pennsylvania's regulation to exempt apartments but have found that the majority voluntarily employ lifeguards (G. Ritter, personal communication, October 16, 2015). Montgomery County Code follows the PADOH's regulation; therefore lifeguards are not required at apartment pools (L. Posivak-Khouly, personal communication, June 15, 2015). Philadelphia also follows the PADOH's lifeguard regulation (J. Roper, personal communication, June 22, 2015). Chester County's policy also aligns with the state policy, but the facilities in Chester County that do not employ a lifeguard are required to post a sign at least four inches in height that says "WARNING- NO LIFEGUARD ON DUTY" (Chester County Health Department, 2010). County health departments that were contacted but did not respond include Erie, Bethlehem, and Wilkes-Barre. There was also no information located online regarding the lifeguard requirements of these counties.

News Reports of Drownings and Near-Drownings at Apartment Pools

A Google search for "apartment pool drownings" in the date range from March 1, 2014 to August 31, 2015 (an 18 month period), showed at least 51 incidents of drowning or near-drowning in the United States involving a total of 56 victims. This is not a complete list of all

incidents that occurred in the last 18 months, just a representation of what was found relatively easily by performing a Google search. Out of the 56 individuals, 39 of the victims (70%) were age 14 or younger. There were lifeguards present for certain at only four of the incidents. The rest of the articles either explicitly stated that there was not a lifeguard present, or it could be surmised from the context of the article that it was highly likely that there was not a lifeguard present. Of the reports where a lifeguard was not present, 78% (n=39) resulted in death, 12% (n=6) of the victims survived, and 10% (n=5) of the outcomes were unknown. There were only 4 reports out of 56 at which a lifeguard was present at the pool at the time of the incident, 50% (n=2) of those resulted in death. See Appendix D for a chart listing details about the incidents and the 56 individuals who either drowned or nearly drowned in apartment pools in the last 18 months. See Appendix E for the links to the respective news articles for each incident.

Discussion and Recommendations

Allegheny County Health Department Injury Reports

The strongest evidence of the efficacy of lifeguards in the injury report dataset is the fact that four out of six drownings resulting in death between 2009 and 2015 in Allegheny County occurred when there was not a lifeguard present. In the three year span from 2003-2006, before any lifeguard waivers were granted, there was only one drowning. That is an average of 0.33 drownings a year compared to the timespan from 2009-2015 for which the average number of drownings is 0.85 per year, 67% (n=4) of which were at unguarded facilities. In all 178 injury reports examined, only 11 (6%) did not have a lifeguard present at the time of the incident. Of those 11 reports, four resulted in death. This evidence indicates that when a lifeguard is not present, and an incident does occur, it is much more likely to result in death; of all incidents reported in Allegheny County in the examined time, when unguarded 36% (four out of 11)

resulted in drowning death, when guarded less than 2% (three out of 167) resulted in drowning death. Due to the ACHD regulations that require lifeguards at the majority of public bathing places, there were lifeguards present at 96% (71 out of 74) of all of the near-drownings reported in Allegheny County between 2003 and 2006 and 2009 and 2015. It is highly likely that more of these incidents would have resulted in drowning deaths had there not been lifeguards present at the vast majority of these incidents. In almost all of the cases, the lifeguards made the rescue or performed some sort of first aid or CPR once the victim was removed from the water. The only cases where the lifeguard was not the one to make the save were those three cases where there was not a lifeguard present (at hotels or wading pools) or when a parent pulled the child from the water and there was no need for further assistance. See Appendix B for examples of accounts written in the Allegheny County Pool Injury Reports that describe near-drowning incidents. Some show how a lifeguard pulled a victim from the water before the situation has a chance to escalate to the point that CPR or first aid was needed, and some show lifeguard rescues where the speedy actions of the trained rescuer likely increased the chance of survival and full recovery for a victim who had lost consciousness. Lifeguards are not able to prevent every incident from occurring. What they can do is utilize their training and skills to mitigate the severity of a situation or injury in a way that would not otherwise be likely to happen at an unguarded pool.

Violations Cited at Hotel Pools by Allegheny County Health Department

Once lifeguards were no longer required at hotel pools, there was a marked increase in cited violations of Article IX (see Figure 3). The increase from 32.3 average violations per year for all hotel pools in Allegheny County to 92.9 average violations per year represents nearly a threefold increase.

Inspectors who were employed before, during, and after the granting of the lifeguard exemption have given anecdotal reports of their inspections of hotel pools. All inspectors interviewed have stated that the quality of upkeep at hotel pools went significantly downhill after lifeguards were no longer required. Lifeguards, when not performing their most important duty of surveilling patrons in the water, are the most aware of other health hazards that may occur at their pool. They are often tasked with taking chemical readings throughout the day, though water testing must only be performed when they are not actively guarding patrons. Once ACHD no longer required their vigilant eyes poolside, it seems that water quality issues became much more prevalent. Other minor safety hazards may more easily go unnoticed without a lifeguard present. For example, a loose tile that could cause a slip, trip, fall injury might be noticed more readily by a lifeguard who is patrolling the pool all day, but not noticed until an injury has occurred if the pool is only checked by a manager a few times a day.

Lifeguard Requirements of Pennsylvania Health Departments

The lifeguard requirement policies in Pennsylvania vary from county to county. Most follow the state regulations but, it is necessary for each county to implement the regulations it sees as the best fit for keeping its citizens healthy and safe. Allegheny County has historically, for at least the last 20 years, required lifeguards at apartment pools. It is the strong opinion of the senior program management staff of HCE that it is important to maintain that requirement.

News Reports of Drownings and Near-Drownings at Apartment Pools

The information gathered for Appendix D is not presented in order to prove anything scientifically; it is more intended to make a point. After reading through all of these horrifying accounts, it certainly seems that many of them could have been avoided or mitigated had a

lifeguard been present at the time of the incident. They serve as anecdotal evidence that having warning signs and rules posted will not stop these events from occurring. The best way to enforce rules and maintain a safe environment at an aquatic facility is to have someone there actively enforcing those rules, someone who is also trained in lifesaving and first aid procedures. A warning sign is no replacement for a lifeguard. News reports like these continue to crop up with regular frequency, which is why a finite date range was chosen. These reports are illustrative; many of these tragedies could possibly have been avoided if lifeguards were employed at these apartment complexes.

Further Discussion and Recommendations

Lifeguards play an important role in the health and safety of the pool environment. The most obvious and important role is their quick reaction and lifesaving skills when incidents occur, but there are many other instances where the value of a lifeguard comes into play:

- A lifeguard will be the first to observe cloudy water and ask patrons to exit the pool. Murky or cloudy water creates a much greater drowning hazard than clear water; it is more difficult to locate a victim once they go under the water.
- A lifeguard is the authority when it comes to keeping horseplay and risky behaviors to a minimum.
- A lifeguard knows to clear the pool at the first sign of thunder, lightning, or other inclement weather.
- A lifeguard is typically the first one aware of a fecal or vomitus incident that requires evacuation of the pool to deal with clean-up. People may be too embarrassed by an incident of that nature to call management and report it themselves. In the absence of an

on-site authority figure, the lifeguard, the incident may never be reported making the water quality unsafe and hazardous to unsuspecting patrons in the water at that time or even later in the day and putting more people at risk for recreational water illnesses.

- A lifeguard will notice any safety hazards that may crop up onsite throughout the day and address them in an expeditious fashion, shortening the length of time that a condition may remain a hazard.
- A lifeguard is often the individual who helps to maintain the quality of the water by checking disinfectant and pH levels. If this task is not properly performed in their absence, the risk of patrons contracting recreational water illnesses increases.

Most importantly, without lifeguards present, there is a high likelihood of an increase in catastrophic injuries and drowning deaths. Allegheny County seems to have a relatively low rate of drowning deaths. It is the opinion of the ACHD that apartment pools should be required to provide lifeguards for the health and safety of their patrons as has historically been the case in Allegheny County. Guarded pools are inherently safer than unguarded pools. The mission statement of ACHD is “to protect, promote, and preserve the health and well-being of all Allegheny County Residents, particularly the most vulnerable” (ACHD). When it comes to one of the most vulnerable populations, children from 1-14 years old, drowning is one of the top three causes of death. It is the ACHD’s responsibility to do everything in its power to maintain a high standard of health and safety. Removing lifeguards from apartment pools would only serve to increase risk to that particularly vulnerable population. Therefore, we find no reason to alter the regulation.

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Appendix A

Allegheny County Reports of Drownings and Near-Drownings:

Year	Near Drownings	Drownings
2003	1	0
2004	6 (1 @ hotel)	1
2005	4	0
2006	7	0
Total	18	1
2009	11	1
2010	20 (1 @ apartment)	0
2011	7	1
2012	6 (1 @ apartment)	1
2013	5	1
2014	4 (1 @ hotel)	1 (1 @ condo)
2015	3 (2 @ apartment)	1 (1 @ condo)
Total	56	6
Grand Total	74	7

Appendix B

Descriptions Taken from Allegheny County Injury Reports of Near-Drownings:

The descriptions section of the Allegheny County Injury Report is an account of what happened during the incident from the perspective of the responsible person at the facility. The following are examples from reports of near-drowning incidents that illustrate the importance of having lifeguards poolside. The first four descriptions given show seemingly minor incidents that were swiftly and easily handled by the lifeguard. These are incidents that could have turned deadly very quickly if not for the quick reaction time by the lifeguards. The last three descriptions are more serious incidents in which the training of the lifeguards likely mitigated any lasting injury that the victim may have suffered due to the rapid administration of CPR and/or first aid. Those cases very well may have ended up as drowning deaths had the lifeguards not been present. These accounts are taken directly from the reports and may have grammatical and/or spelling errors. Some information has been removed to protect the privacy of victims.

“Patron was standing on the stairs, went down to where it was over her head and was unable to make it back to the stairs. Lifeguards picked the patron up and placed her where she could touch bottom.” Victim, age 3, recovered.

“Victim looked like he was treading water but then went under. Lifeguard responded immediately. No apparent injuries.” Victim, age 6, recovered.

“Victim started bobbing in the deep end after getting deeper than he had anticipated. [The lifeguard] jumped in after the active drowning victim and pulled him to shallow water where he could stand.” Victim, age 25, recovered.

“Victim was hanging on wall in the 5.5 ft. area of the pool. Her niece was also swimming in that same location and using a noodle. Niece (victim #2) let go of the noodle and was bobbing in 5.5 ft. There was no screaming or flailing of hands. Victim #1 let go of wall and pushed off towards victim #2. Victim #2 pulled down victim #1 and lifeguard jumped in and made the save. Lifeguard was unaware that neither victim #1 or #2 did not know how to swim. They were aunt and niece, ages 27 and 17.” Victim, ages 27 and 17, recovered. Occurred at an apartment pool.

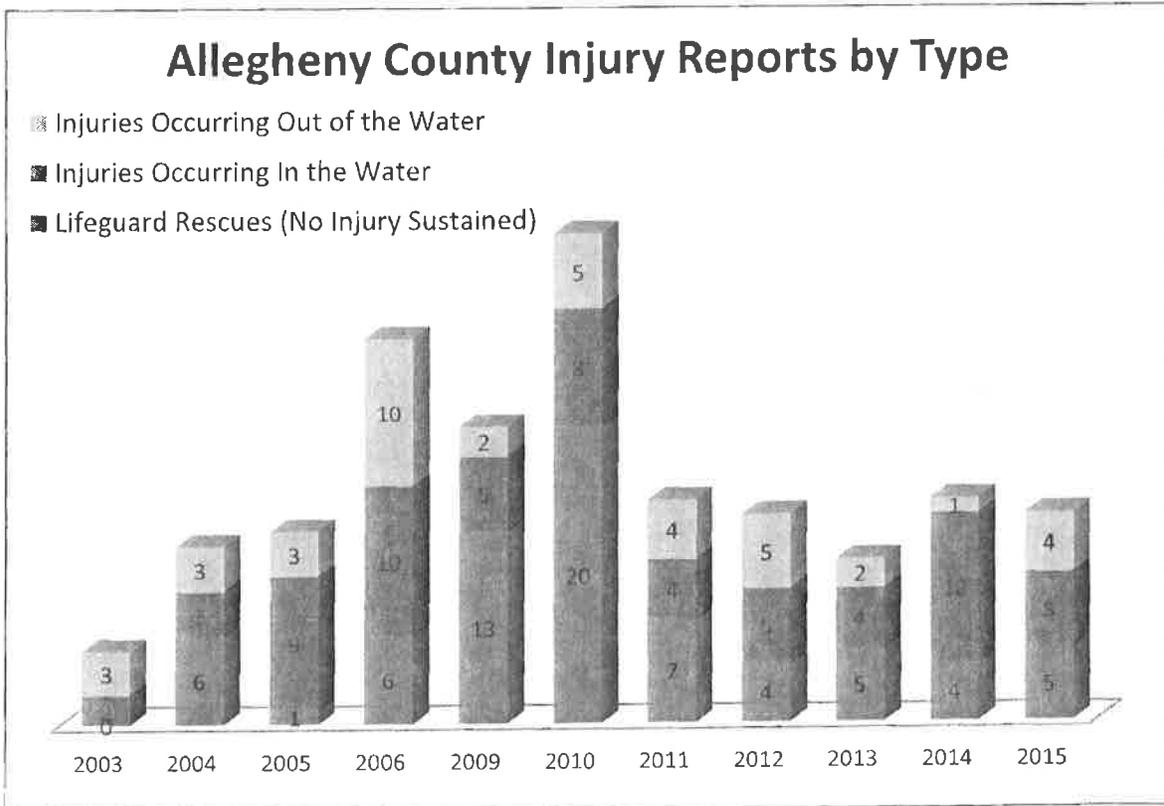
“On [date] at approx.. [time], victim was unconscious due to a drowning accident, and was promptly pulled from the 4 ft. section of the pool by lifeguard [name of lifeguard]. At the time, there was an estimated 125 persons swimming in the pool. All persons were instructed to evacuate the pool onto dry land areas away from the victim. Upon rescue, which took place at the far side of the pool, in the shallow end, [the lifeguard], who was the lifeguard stationed directly above and approx. 6 ft away from the victim, left his chair to rescue. [The lifeguard] quickly carried the unconscious victim to the side of the pool, checked for vital signs, and promptly began CPR. After a few cycles of CPR, administered by [the lifeguard], [the victim] began to breathe on his own. The police and ems personnel arrived on scene within minutes to assist the situation. [The victim] was later taken to Children’s Hospital for further evaluation and was later released.” Victim, age 8, recovered.

“The parents were in the water with [the victim]. As the mother was walking out of the pool, she noticed that her daughter was not with her any more. The father saw her under the water and picked her up and brought her to the lifeguard at the side of the pool. The lifeguard assessed [the

victim]. She was unconscious and not breathing. The lifeguard began CPR. The other two guards closed the pool and began crowd-control. After 10 chest compressions, [the victim] coughed up water and regained consciousness. [The victim] was put on a non-rebreather at 15 [imp] as our in house first-aid arrived on scene (UPMC paramedics). [The victim] was transported to the hospital via paramedics.” Victim, age 3, recovered.

“Two guards were on deck at the time of incident. Victim was in shallow end of pool diving to bottom of shallow end and pushing himself up repeatedly. Mother came to poolside to ask him to leave pool. Guard and mother could see him go limp at the bottom. Victim removed from pool and CPR started. AED was retrieved and 911 called. As CPR was being performed victim regained consciousness and began to cry. Paramedics transported victim to Children’s Hospital and was kept over night for observation. Full recovery expected.” Victim, age 8, recovered.

Appendix C



Year	Lifeguard Rescues (No Injury Sustained)	Injuries Occurring In the Water	Injuries Occurring Out of the Water	Totals
2003	0	2	3	5
2004	6	3	3	12
2005	1	9	3	13
2006	6	10	10	26
Total	13	24	19	56
2009	13	5	2	20
2010	20 (1 @ apartment)	8 (2 @ apartment)	5 (1 @ hotel)	33
2011	7	4 (1 @ apartment)	4	15
2012	4 (1 @ apartment)	5	5 (1 @ apartment)	14
2013	5	4	2	11
2014	4 (1 @ condo)	10 (1 @ condo, 1 @ hotel)	1	15
2015	5 (2 @ apartment)	5	4	14
Total	58	41	23	122
			TOTAL REPORTS:	178

Appendix D

Chart: News Reports of Drownings and Near-Drownings in the United States in the Past 18 Months (March 1, 2014 – August 31, 2015)

Ref. #	Date	State	Age	Lifeguard?	Outcome	Incident Summary
49	3/6/2014	FL	2	No	Death	Twins pulled children from pool, first responders performed CPR. Last report, one died, one in critical condition.
49	3/6/2014	FL	2	No	Unknown	Twins pulled children from pool, first responders performed CPR. Last report, one died, one in critical condition.
43	4/6/2014	AZ	24	No	Death	Man found at bottom of pool by passerby. First responders attempted CPR. Unable to be resuscitated.
46	4/6/2014	FL	4	No	Death	Boy found in pool, witness performed CPR. Unable to resuscitate.
36	4/8/2014	FL	2	No	Death	Twin sisters found in pool. Unknown how long they had been there or how they got in. Unable to be resuscitated.
36	4/8/2014	FL	2	No	Death	Twin sisters found in pool. Unknown how long they had been there or how they got in. Unable to be resuscitated.
47	5/4/2014	MS	7	Unknown	Death	Story vague. Boy in pool with family and friends.
41	5/24/2014	NC	13	No	Death	Boy found at bottom of pool. Unable to be resuscitated.
28	5/26/2014	PA	14	Yes	Alive	Lifeguard pulled girl out of pool, successfully performed CPR.
45	6/7/2014	MD	40	No	Death	Man was a lifeguard at the pool, found in pool by another lifeguard sent to check on him. Unable to be resuscitated.
14	6/15/2014	MD	14	Yes	Death	Victim didn't know how to swim, pulled out from bottom of deep end by lifeguard. Unable to be resuscitated.
5	6/17/2014	CA	4	No	Alive	Neighbor saw boy at bottom of pool, pulled him out, and resuscitated him.
20	6/20/2014	SC	21	No	Death	Woman swimming alone was found submerged at pool. Unable to be resuscitated.
8	6/22/2014	MO	7	No	Death	Mother looked away for a minute, boy pulled from bottom by mother. Unable to be resuscitated.

Appendix D (Cont.)

Ref. #	Date	State	Age	Lifeguard?	Outcome	Incident Summary
2	6/26/2014	MO	2	No	Alive	Child sitting on edge of pool, mother looked away, bystander pulls child from water.
12	7/11/2014	NC	9	No	Death	Child found at bottom of pool, neighbor performed CPR, child was on life support but later died at hospital.
34	7/14/2014	AZ	16	No	Death	Boy found at bottom of pool, friend performed CPR. Unable to resuscitate.
44	7/15/2014	CA	9	No	Death	Child playing by side of pool, fell in. Unknown if there were any adults nearby. CPR performed. Unable to resuscitate.
37	8/17/2014	NC	8	No	Death	Boy climbed fence into pool with friends. Struggled in deep end. Unable to be resuscitated.
39	8/18/2014	IL	12	No	Death	Girl swimming with friends, began struggling. Apartment employee pulled her out. CPR performed. Unable to resuscitate.
50	8/29/2014	CA	60's	No	Death	Woman found submerged in pool. Unable to be resuscitated.
19	9/20/2014	FL	21	No	Death	Mother found son unconscious in pool. She performed CPR but was unable to resuscitate.
38	10/24/2014	AZ	4	No	Death	Boy found in pool and pulled out by passerby. CPR performed. Unable to be resuscitated.
3	1/19/2015	FL	3	No	Alive	Child wandered to pool by himself, found by mother, resuscitated by maintenance worker.
18	1/30/2015	IN	19	No	Death	Pulled from pool by neighbor after already unconscious for unknown period of time. Unable to be resuscitated.
18	1/30/2015	IN	18	No	Death	Jumped in to try and save boyfriend. Pulled from pool after unknown period of time. Unable to be resuscitated.
17	2/25/2015	MA	17	No	Death	Victim swimming with cousin, went to bottom, did not come back up. Bystander pulled him out, performed CPR. Unable to be resuscitated.
7	4/18/2015	FL	5	No	Death	Pool party, 20-25 children. Boy pulled from water, CPR performed by other pool patrons, died at hospital.

Appendix D (Cont.)

Ref. #	Date	State	Age	Lifeguard?	Outcome	Incident Summary
21	4/19/2015	MN	30's	No	Death	Man pulled out of pool by residents, unable to be resuscitated, pronounced dead at scene.
31	5/5/2015	AZ	13	No	Death	Boy climbed fence to access pool. Found at bottom of pool. Unable to be resuscitated.
1	5/23/2015	CA	2	No	Alive	Toddler found at pool, transported by firefighters to hospital.
10	5/25/2015	MD	7	Yes	Alive	Child hit head and fell into pool. Bystander pulled boy out and performed CPR while lifeguards called for help.
13	5/26/2015	IN	12	No	Death	Boy wandered into open pool area alone, did not know how to swim. Pulled out by emergency responders. Unable to be resuscitated.
6	6/6/2015	WA	4	No	Unknown	Boy pulled out by a passerby after being underwater for 5 minutes. Current condition unknown.
4	6/8/2015	NC	4	No	Death	Boy found in pool, rushed to hospital in critical condition, later succumbed.
9	6/8/2015	WA	7	No	Unknown	Found at bottom of pool, resident performed CPR until paramedics arrived. Current condition unknown.
11	6/9/2015	AR	8	No	Death	Child found at bottom of pool, emergency responders performed CPR, child later dies at hospital.
35	6/15/2015	MN	3	No	Death	Girl found under murky water in pool. Unable to be resuscitated.
16	6/17/2015	PA	14	Yes	Death	Victim found at the bottom of the pool in deep end. Lifeguards pulled him out and performed CPR. Unable to be resuscitated.
24	6/20/2015	KS	42	No	Death	Man swimming alone, pulled unconscious out of pool by witnesses, unable to be resuscitated.
29	6/20/2015	FL	38	No	Death	Man in shallow end, did not know how to swim, slipped into deep end. First responders pulled him out. Unable to be resuscitated.
23	6/24/2015	TX	9	No	Death	Mother only supervising adult of 5 children, pool water cloudy. Children pulled from water by maintenance man, never recovered.

Appendix D (Cont.)

Ref. #	Date	State	Age	Lifeguard?	Outcome	Incident Summary
23	6/24/2015	TX	10	No	Death	Mother only supervising adult of 5 children, pool water cloudy. Children pulled from water by maintenance man, never recovered.
23	6/24/2015	TX	11	No	Death	Mother only supervising adult of 5 children, pool water cloudy. Children pulled from water by maintenance man, never recovered.
15	6/28/2015	MI	14	No	Alive	Victim found at bottom of pool, pulled out, neighbor performed CPR successfully.
27	7/1/2015	TX	6	No	Death	Pool water cloudy. Girl pulled from pool, unable to be resuscitated.
48	7/7/2015	NV	16	No	Unknown	Victim swimming with family and friends who noticed him floating. CPR administered. Last report was critical, but stable condition.
51	7/11/2015	NV	5	Unknown	Alive	Boy pulled from pool. Last report from hospital was that he was in critical, but stable, condition.
25	7/12/2015	TN	5	No	Death	Boy pulled out of pool by older sister. He dies later at the hospital.
26	7/15/2015	GA	9	No	Death	Boy pulled from water. Unable to be resuscitated.
32	7/20/2015	MI	16	No	Death	Victim found at bottom of crowded pool, pulled out, staff performed CPR. Was able to be resuscitated, but later died at the hospital.
33	8/3/2015	VA	54	No	Death	Man found at bottom of pool by residents who pulled him out and attempted CPR. Unable to be resuscitated.
30	8/6/2015	TX	3	No	Alive	Boy fell into pool. Neighbor pulled him out and successfully performed CPR.
40	8/30/2015	OH	11	No	Unknown	Pulled from bottom of pool. CPR performed. Last news was that she was in critical condition at the hospital.
42	8/31/2015	TX	55	No	Death	Man swimming alone, pulled out of pool by witnesses. Unable to be resuscitated.
22	8/31/2015	TX	55	No	Death	Man swimming alone, pulled unconscious out of pool by witnesses, unable to be resuscitated.

Bold "No" indicates that the article did not specify if there was a lifeguard or not at the time of the incident, but context strongly suggests that there was not.

Appendix E

Reference List: News Reports of Drownings and Near-Drownings at Apartment Pools in the United States in the Past 18 Months (March 1, 2014 – August 31, 2015)

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