Expanding Swimming Pool
Educational Outreach

2015 APSP Dr. R. Neil Lowry Grant Award Winner

Adam Holbrook, RS, REHS, NSPFI
Columbus Public Health
Protecting health, improving lives

- Serve City of Columbus and Worthington
- Five-member Board of Health
- 500 staff approximately
- 40+ public health programs
- Main campus and satellites
Columbus, Ohio

- Capital & Largest City in Ohio
- 15th Largest City in the United States
- Population of 835,957
Worthington, Ohio

- Northern Suburb of Columbus
- Population of 13,575
Licenses & Inspections

- Environmental Health
  - Disease Prevention
  - Water & Land Protection
    - License & Inspect close to 800 Public Pools & Spas
Challenges

• Outdoor Pools
  – Seasonal

• Indoor Pool
  – Open Year Around

• Transient Operators
  – Various Levels of Education
  – Pool Not Only Duty (Facility Maintenance, etc.)
Swimming Pool Operator Education

- Pool & Spa Safety class
  - Free
  - Started around 2005
  - 103 Registrants in 2016
  - Includes 36 page Workbook & Supplemental Materials
    - Local Code
Swimming Pool Operator Education

- Certified Pool/Spa Operator® Certification (CPO®)
  - National Swimming Pool Foundation (NSPF®)
  - Started offering class at CPH in 2013
  - 236 Attendees
  - National / International Credential
Purpose of Pool and Spa Safety

- Protect the public from possible safety and health hazards
- Build a good relationship between pool operators and the health department
Violation Data

VIOLATION DATA FOR SWIMMING POOL INSPECTION 2014

- SAN A
- SAN B
- SAN C
- SAN D
- SAN E
- AVERAGE

AVG CRITICAL PER INSPECTION
AVG NON CRITICAL PER INSPECTION
• Help educate operators on issues to prevent violations
  – Cyanuric Acid Fact Sheet
Expanding Our Educational Outreach
APSP
Dr. R. Neil Lowry Grant Award

• $5,000 grant that honors a public health official or department who has made outstanding contributions to advance the public’s health and safe use of recreational water in pools, spas and waterparks through educational, safety, operational, and technical programs.
Named After…

- Given in the memory of Dr. Robert Neil Lowry, a long-time member of APSP and the Recreational Water Quality (RWQ) Committee, who influenced the pool and spa industry. For over 25 years, Dr. Lowry shared his industry expertise as a consultant to the government and private industry.
APSP

- The Association of Pool & Spa Professionals (APSP)
  - World’s oldest and largest association representing swimming pool, spa, and hot tub manufacturers, manufacturers’ agents, builders, designers, distributors, suppliers, installers, retailers, and service technicians

- Merger with NSPF
Brainstorming

• What could we do to improve?
  – Resulting in Less Violations & Less Pool Closures
Existing Pool & Spa Safety Class

• Adapt Course
  – Self Paced
  – Video vignettes integrated into existing, updated, PowerPoint
  – Include other materials
Flash Drive Cards

Funding provided by

APSP
The Association of Pool & Spa Professionals

Reflect Success

The City of Columbus
Columbus Public Health

Water & Land Protection Program
614-645-8191
www.publichealth.columbus.gov
### Application & Proposal

#### Dr. R. Neil Lowry Grant Nomination Form

**Part I. To be filled out by Nominator**

- **Check one of the following:**
  - Nominee is an individual or public health official who is a citizen of the United States or Canada.
  - Nominee is a public health department in the United States or Canada.

- **Name of Person Submitting this Form:** Keith L. Kninn, RS, MA, DAAS, CPHA
- **Department:** Columbus Public Health
- **Address:** 240 Parsons Ave
- **City, State/Province, Zip/Postal Code:** Columbus, Ohio 43215
- **Country:** United States
- **Phone:** 614-645-6181
- **Fax:** 614-645-7155
- **Email:** kninnk@columbus.gov
- **Signature:** Keith L. Kninn
- **Date:** 21 May 2015

**Part II. Complete Part II if Nominee is an Individual or Nominating Himself/Herself**

- **Same as Nominator Above:**
- **Name of Individual Being Nominated:**
- **Address:**
- **City, State/Province, Zip/Postal Code:**
- **Country:**
- **Phone:**
- **Fax:**
- **Email:**

**Part III. Complete Part III if Nominee is a Department**

- **Department Being Nominated:** Columbus Public Health
- **Address:** 240 Parsons Ave
- **City, State/Province, Zip/Postal Code:** Columbus, Ohio 43215
- **Country:** United States
- **Phone:** 614-645-6181
- **Fax:** 614-645-7133
- **Email:** kninnk@columbus.gov

### Dr. R. Neil Lowry Grant Nomination Form

**Part IV. Outstanding Contribution or Program to be Considered for the Dr. R. Neil Lowry Grant (Attach additional sheets if necessary)**

- Please be sure to address the following information in the section below:
  - **Describe your planned/proposed program**
  - **Describe the need or problem addressed, service provided, and benefit to public health and safety**
  - **Describe the impact of the proposed program**
  - **Attach supporting documentation**

**Minimum:** 250 words; **Maximum:** 1,000 words

**Description:**

The Environmental Health Division of Columbus Public Health (EHD) has been chosen to be the leader in both the national and international health emergency and the Ohio Division of the Commission on Public Health. EHD plays a crucial role in ensuring the health and safety of the community. By identifying and managing potential health hazards, EHD strives to prevent the spread of disease and promote public health and safety. The division is responsible for inspecting and regulating various aspects of the environment, including food establishments, water systems, and waste disposal facilities. EHD's work is critical in ensuring that all residents have access to safe and healthy living conditions.

City of Columbus • Columbus Public Health

**Part V. If awarded, please describe how the Dr. R. Neil Lowry Grant money will be spent.**

**Spending Plan:**

EHD plans to utilize the Dr. R. Neil Lowry Grant to support various initiatives aimed at enhancing public health and safety in the community. The grant will be used to fund the following projects:

1. **Funding for Outreach and Education:**
   - The grant will be used to support outreach initiatives aimed at reducing the incidence of foodborne illnesses. This includes developing and implementing targeted education campaigns designed to raise awareness among the public about proper food handling and preparation practices.
   - Funding will be allocated for the creation of educational materials, such as brochures and posters, to be distributed to schools, community centers, and other public venues.

2. **Enhancing Water Quality Monitoring:**
   - The grant will support the purchase of advanced water testing equipment to improve the accuracy and efficiency of water quality monitoring programs. This will help ensure that drinking water remains safe and free from contaminants.
   - Funds will be used to upgrade existing water treatment facilities and implement new technologies to enhance water purification processes.

3. **Supporting Professional Development:**
   - The grant will provide support for staff members to attend professional development workshops and conferences. This will help EHD stay informed about the latest public health trends and best practices.
   - Funding will be allocated to cover travel expenses and registration fees for these professional development opportunities.

The Dr. R. Neil Lowry Grant will be used to fund these initiatives, which will result in improved public health outcomes and a safer community for all residents.
WE Won!
2015 APSP Dr. R. Neil Lowry Grant Award Winner
Created rough thoughts of topics to cover in videos

**Topics for Vignettes**

A. *Water Chemistry Testing*
   1. Disinfectant
   2. pH
   3. Alkalinity
   4. Cyanuric Acid
   5. Temperature

B. *Filters/Pump Rooms*
   1. Sand, D.E., Cartridge
      a. Backwash
      b. Pressure gauges
      c. Required minimum/maximum flow

C. *Safety and Deck*
   1. Signage
      a. No diving, depth markers, safety signage
      b. Lifeguards, special features, diving boards
      c. Safety equipment & emergency phone
      d. Slip & trip hazards

D. *Virginia Graeme Baker*
   1. Suction outlet compliance
   2. Safety Vacuum Release Systems

E. *Spray Ground*
   1. Special requirements
      a. Signage
      b. Turnover

F. *Spa*
   1. Temperature
   2. Signage
   3. Disinfectant
   4. Auto shut off
   5. Timer
Who Can Help Us With Videos?

• Original Thought = Individual in our office with experience
  – Left & took another job
Who Can Help Us With Videos?

- CTV
  - Columbus Government Television
  - Government Meetings, Events, Documentaries, Talk Shows, & Call-in Programs
Need a Script

- Writing it
  - Rough Draft (Data)
  - Final Version (Sounds Good)
  - 9 Total
- Disinfectants
- Filters & Flow
- Water Chemistry
- Suction Outlet Compliance
- Record Keeping
- Contamination
- Safety & Decks
- Spas
- Spray Grounds
Facilities to Visit

• Narrow down 800 licensed pools & spas
  – Classified by
    • Filter Type
    • Type of Disinfectant Used
    • Type of SVRS
    • Nice Pump Room
      – Clean
      – Large Enough
      – Nice looking overall pool

• 5 Field Sanitarians
Check Points for Videos

- Checklist
  - What Needs Filmed
    - Went along with the scripts
    - Facility Visited
    - Date

1) Filters and Flow
   - Show Sand Filter
   - Show filter being backwashed
   - Show pressure gauge(s)
   - Zoom in on filter manufacturer's label on filter
   - Show DE Pit
   - Show filter being backwashed
   - Show DE Drum
   - Show DE pt
   - Show DE Grid
   - Show manufacturer's label on filter/manufacturer's manual
   - Show cartridge filter
   - Show cartridge filter in drum.
   - Show filter being pulled from drum and (if possible) cleaning
   - Show extra filter(s)
   - Show manufacturer's label on filter
   - Show flow meter, pump curve, and calculation formula

2) Safety and Deck
   - Pan pool safety equipment
   - Pan safety equipment for multiple pools
   - Show spine board with head immobilizer
   - Show reach pole with sheep's crook
   - Snow ring buoy with 30 foot line
   - Show first aid kit with disposable glove and gauge
   - Show first aid kit sign
   - Show emergency phone
     - Show emergency numbers sign
     - Show emergency phone sign
   - Pan deck area
     - Show deck drain grate
     - Pan deck with furniture or planters
     - Show lifeguard guarding a diving area
     - Show diving board fulcrum in forward position
     - Show inaccessible diving blocks
     - Pan recreational slide or water slide
     - Show water slide signage
     - Show lifeguard scanning bottom of slide
     - Show dispatcher at top of slide.
     - Show lifeguard and then go into bullet points with requirements
What Needs Filmed?

- **Red** = Needs Filmed
- **Yellow** = Good to Get

![Excel Sheet](image.png)
• Who is going to read it?

• Out of our approx. 500 CPH employees
  – Found someone with radio and voiceover experience
    • Equipment at home
9 Video Vignettes Segments

- Disinfectants.................. 3:06mins
- Filters & Flow.................. 4:47mins
- Water Chemistry............... 3:02mins
- Suction Outlet Compliance.... 3:12mins
- Record Keeping............... 1:26mins
- Safety & Decks............... 8:50mins
- Spas............................. 1:59mins
- Spray Grounds.................. 1:56mins

Total minutes = 28:18 mins
Video Footage

- 3-4 hours of video footage taken
- 18 Locations
Putting Things Together

• Videos
  – Met with CTV
  – Created & Finalized

• PowerPoint
  – Integrated Videos
  – Updated
  – PowerPoint Show Format
  – Password Protected

• Workbook
  – Updated
Web Based Questionnaire / Quiz

• 20 Questions
  – General Questions from Course
  – Demographic Questions
  – 1 Question for General Comments / Feedback
Certificate of Completion

- Awarded with 70% on Questionnaire/Quiz
- Automatically Generated
On Flash Drive

- Uploaded 600 Flash Drives

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Columbus Public Health’s Water and Land Protection Program was awarded the 2015 Dr. R. Neil Lowery Memorial Grant from The Association of Pool and Spa Professionals. Columbus Public Health is using this grant to provide pool operators with a recreational water safety course. This course can be found on the included portable flash drive. The course includes:

- A comprehensive pool and spa safety handbook
- Video vignettes, highlighting complex pool and spa topics
- Content quiz
- Pool and Spa Training Certificate upon course completion

Training course materials developed and distributed by:
Columbus Public Health
Water & Land Protection Program
240 Parsons Ave
Columbus, OH 43215
www.publichealth.columbus.gov

**Pool & Spa Safety**
A Training Course for Pool & Spa Operators

**Topics covered in this training course:**

- Pool and spa chemistry
- Water testing procedures
- Water treatment
- Pool and spa equipment
- Pool and spa maintenance
- Record keeping
- Facility safety
- Chemical safety

**Benefits of this training course:**

- Customer satisfaction and safety
- Better regulatory compliance
- Higher efficacy of pool operations
- Operate with less liability when your pool is maintained by someone with the proper knowledge, techniques, and skills of pool and spa operations

**Questions?**
Contact Columbus Public Health’s Water and Land Protection Program at 614-645-xxxx.
Tri-Fold Brochure
Handing Out to Operators
Spray Ground Video
On YouTube

- City of Columbus
  - Public Health

- https://www.youtube.com/playlist?list=PL13B0336F43E6F8C2
Outcome So Far & Plans for Future

- Lower count than hoped fully take course with test thus far
  - Time materials were distributed
  - Can’t make operators do it

- Send out information in offseason
- Market full online course
- Promote healthy swimming pool operation through the videos
- Promote with new rules
Plan for Future

- Web Based Course

http://cphsystems.org/learn/
2016 Crypto Outbreak

Cryptosporidiosis Cases
Columbus, Delaware County, and Franklin County, 1997-2016
Confirmed and probable cases
Data as of 11/17/16

Year
Cases
0 100 200 300 400 500 600 700 800 900 1000

Data from ODRS as of 11/17/16 9:00am
NACCHO Model Practice

• Applied for 2017 NACCHO Model Practice Award
Credits

Course Content and Development
Adam Holbrook, RS, REHS, NSPFI

Videography
Alex Brown, CTV Columbus

Course Editing and Content
Meredith Lawler, RS, REHS, CPO
Elizabeth Ousky, RS, CPO
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Funding
Association of Pool and Spa Professionals (APSP)

Web Design
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Thank You!

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