

Washington Rotary Club



January 17, 2023

The Washington Rotary Club met on January 17 at The Center on Strawberry in downtown Washington.

The meeting began with an invocation by **Dave Hart** followed by the Pledge of Allegiance led by **President John Hopper**

Announcements:

- **Susan Price** spoke about the sneaker project. The district urges us all to collect used sneakers, no matter the condition. The object is to keep them out of landfills. Susan is collecting them in a white bag which she pointed out. (She confirmed that she was **not** pointing at Tom Drewitz, who was nearby.) Every pair sent in will earn \$7 to be used for youth programs in the district. Dave Hart urged people to tie the laces together so that there be no 'orphan' shoes.
- **Amy Podgurski-Gough** spoke about the need for baskets and sponsors for the upcoming Trivia Contest. She passed a sign-up for people to commit to a basket or a sponsorship. She also had sponsorship forms for members to take to potential sponsors, or for pointers from members about places to approach. **Susan Price** said that members could consider contributing gift cards to a mystery box. Last year the box had over \$500 in cards for the lucky winner. We also need teams, so members are urged to talk up the contest to encourage participation.
- As to the sneakers, President John mentioned the work of **Dave 'all you have to do is ask' Hart**, who shared the project with his fellow Methodists and has gotten quite a haul. Dave then took the opportunity to remind members that we need to step up our Foundation donations to meet this year's goal of an average

of \$100 per member. Some may give more and some less, but the total is inflexible. Susan Priest mentioned that some newer members may not know of the handy option of signing up to have an additional \$25 billed with our quarterly bills.

- **Susan Price** put in a plug for the District Membership Summit, which will be at The Loft conference center at Southpointe on Saturday, February 11.
- As to membership, **President John** reminded us of the upcoming Membership Social, which will be at Danny's in Meadowlands on Monday, February 13. I Love Rotary is the theme and members are urged to bring a friend or friends to join us in a chance to show how Rotary can be fun. **Jim Uram** spoke up to say that we can expect good food. The Knights of Columbus recently had an event there.
- **President John then** spoke about the upcoming meetings with will emphasize two of Rotary's focus areas. In February it will be on the rule of law as a way to resolve conflicts. Our own member, Rachel Lozosky will be the speaker on February 21. The other area is environmental action. There is now an environmental committee, composed of **Fern Sibert, Park Burroughs, and President John Hopper**. Other members are invited to be engaged with the committee.

Program: Susan Priest - The History of Vaccines

President John then introduced our Speaker, **Susan Priest**. Susan was raised in Williamsport

Pennsylvania, attended Chatham College in Pittsburgh, and received a masters degree in Library Science from Rutgers University in 1970. Following graduation she began her career as reference librarian at Citizens Library, rising through the ranks to become director in 1998. She retired at the end of 2005 and devotes her time to volunteer work at her church and the Washington Hospital, as well as to Rotary; she was club president during the first decade of this century. Her hobbies are genealogy and reading. Her topic: the history of vaccines. Here is her presentation:



Small Pox, the beginning

Small Pox has been around for at least 3000 years. It is estimated that 30% of those who contracted it died.

Survivors could be badly scarred.

In the far east the practice of inoculation, deliberately introducing material from the sores of small pox victims into uninfected persons had been practiced for some time before the practice was introduced to Europe in the 1720's. The danger was that some would develop the full disease and die of it, and that after inoculation the inoculated were contagious and could spread the disease for a time. Over all, before inoculation and later vaccination, it

was reported that 60% of the population contracted the disease.

In January 1777 George Washington ordered the inoculation of all Continental Army troops. They used threads contaminated with a version known as variole. Most of the British troops had developed immunity to this form, but in America it was rare. Due to the vaccinations not a single unit of the Continental army was decimated by smallpox.

The story of how Jenner discovered the connection between cow pox, which gives immunity to persons from the far more dangerous disease small pox, has been related as coming from his noticing that milk maids did not contract small pox. In fact when I set out to prepare this talk, I thought that was in fact the case.

Not so. For some time doctors in England had noticed the phenomenon; persons who worked

intimately with cattle did not contract smallpox. What Jenner did was to actually prove the case. He introduced cow pox to an 8-year-old boy, and after the boy had recovered, Jenner inoculated him with smallpox. The boy displayed no symptoms, proving to Jenner that the cow pox virus did provide immunity from smallpox. By the way, the cow who provided the material used was named Blossom and her hide hangs on the wall of St. George's Medical School in Tooting, England.

Progress in vaccination had to wait for Louis Pasteur in the mid-19th century. He noticed that



cultures of bacteria became weakened over time, called attenuation. He experimented with a bacterial disease called chicken cholera. In 1879 he demonstrated that giving a weakened form of the disease to chickens made them immune to the virulent form of the disease. Later that year he and another researcher, German Robert Koch began working independently on developing a vaccine for anthrax, which was in epidemic form in Europe at that time. The secret was to identify the bacteria causing the disease, and then developing an attenuated form. The first successful vaccinations for anthrax were done in 1881.

Richard Koch was also the discoverer of the tuberculosis bacteria.

Then Pasteur turned to rabies. He could not isolate the agent of infection, because rabies is not caused by a bacteria, which could be seen through a microscope, but was caused by a virus, a non-living organism which develops in the host. Without being able to see it, he had to work through a trial-and-error system. He introduced rabies to rabbits, and tried to attenuate it through injecting the infectious material from one rabbit to another. In the end, he discovered that he did not produce an attenuated version, but a neutralized one, which prevented the virus from developing in a person. In 1885 he injected the vaccine into an 8-year-old boy, Joseph Meister, who had been bitten by a rabid dog. Joseph became the first person in history who survived rabies. What Pasteur had discovered was a second class of vaccines, inactivated vaccines.

What followed is a long history of research which led to the drastic diminution of the diseases which ravaged our ancestors.

1893 Diphtheria The death rate for diphtheria was between 5 and 10 percent, but for young children it was 20%. In 1921 a diphtheria epidemic in the US killed over 200,000.

1896 Cholera and Typhoid. Cholera killed between 25 and 50 percent of those who contracted it. Typhoid killed between 10 and 20 percent. These are diseases which spread through poor sanitation, so that in developed countries the vaccines are not common. Persons travelling to areas where they are endemic need to get them, however.

1896 Plague. It killed over 12 million in the 19th century. Vermin control and quarantine of vessels coming from infected areas were used to mitigate the spread.

1914 Tetanus. The death rate from tetanus is about 30%, higher for those over 60 years. This rate is for unvaccinated persons, which is why we are urged to get a tetanus booster when we have an injury. In 1947, tetanus killed 91% of the unvaccinated.

1914 Pertussis (Whooping Cough) death rates could reach 31% from pertussis.

1920 Tuberculosis. TB was a disease of cities. In the 19th century it is estimated that up to 25% of all deaths in Europe and America were from TB. (Consumption, Phthisis, etc.) It was spread by droplets, but in children, especially, it came from drinking contaminated milk. In 1890 Robert Koch developed a test to be used in cattle to identify infected animals, and farmers were required to euthanize them. Pasteurization, developed by Louis Pasteur, provided a safer supply.

In 1930 the development of cell cultures which could grow viruses opened more ways to work on vaccines for viral diseases.

The march continued:

1942 Flu

1949 The development of the combined DPT vaccine for children aged from one to one and a half years old.

1955 Jonas Salk and the inactive vaccine for Polio

1961 The Sabin oral vaccine for Polio

1966 Rubella

1967 Mumps

1977 The development of the combined MMR (Measles, Mumps, and Rubella) vaccine was introduced for young children.

1978 Yellow Fever

1981 Hepatitis A and B

1983 Pneumonia

1995 Chicken Pox

1996 Shingles

2006 HPV, the only cure for any type of cancer

Childhood vaccinations and Autism

In 1998 a study covering a small number of children purported to show a connection between the MMR vaccine and autism. It has been discovered and proved that the author of this study falsified his data. Since then a large number of studies have shown no relationship. For example, in 2015 a study of over 95,000 children could find no correlation.

The elimination of smallpox, a history

In 1966 a global initiative began to eradicate small pox. The last know case of small pox occurred in 1977, and the world was declared small pox free in 1980.

Small pox vaccination needed to be renewed over time, as it lost effectiveness. For example, I have had the vaccine twice, once as an infant, and again when our family travelled to England in 1962.

In 1947 a man travelled by bus from Mexico to New York. He became ill and was hospitalized, and died from small pox. Suddenly the city of New York became a potential disaster area. Most residents had not been vaccinated since childhood, and small pox is very virulent. More cases began to appear.

The public health establishment went into action. Vaccination is effective even after exposure, and there were vaccination stations set up on street corners all over the city. 3.6 million doses were administered. The man had stayed in a hotel before becoming too ill, and the need for contact tracing meant that the health department needed to reach all who had stayed there and might have returned to their own communities. At first the hotel refused, but when informed that the name of the hotel would need to be published, they quickly provided the information so that persons could be contacted and advised to see their physicians for the vaccine. The news simply stated that the man had been in a mid-town hotel.

Polio:

I cannot talk about vaccines without talking about Polio. The push to eliminate this disease has proved daunting, but it is close. In the 35 years this initiative has been active, cases have dropped by 99.9%. Polio remains endemic in only two countries: Afghanistan and Pakistan. The total number of cases in 2020 was 120, in 2021, 5 cases of wild polio. Some vaccinated children may pass on the virus, but this is very rare. We are so close.

If the initiative were to be halted, then within 10 years it is estimated that over 200,000 children could be paralyzed.

Discussion

- **Susan Price** mentioned Stacey Smith, the newscaster. He spent two years in an iron lung and still has to wear a special shoe since his legs are not the same length. She also remembered Rotarian Ted Shaffer, whose reminiscence about getting the shot in school ended up revealing that he had been their paperboy, whose name they had not known.
- **Susan Priest** remembered that her parents told her and her siblings that they were going out for ice cream. Only there was a stop first to get the polio shot at the doctor's office.
- **Bill Price** remembered being lined up in school and receiving the injection.
- **Tom Drewitz** remembered a bizarre Public Service Announcement in movie theaters which he remembers seeing. It featured Vaughn Monroe walking through a large ward of polio victims in iron lungs and singing 'You'll never walk alone'.
- **Dave Hart** spoke of being a part of a march from church one Sunday to get the

vaccine on a sugar cube, only to later be taken to get the injection. Later on he learned that the sugar cube version was only 85% effective, and his mother wanted to guarantee success. He also mentioned that one way to see if you might have been infected was to place your chin on your chest. An early sign was a stiff neck which would prevent this action. Every time he did it he knew he was safe. He also spoke about how getting money for the Rotary fight against polio was 'the easiest money to raise'.

- There was discussion about the 1988 RI convention in Philadelphia where Chuck Keller presided over the announcement of donations from around the world. Check out the video on YouTube as the numbers kept soaring beyond the goal.
<https://www.facebook.com/rotary/videos/687551594948873/>

Gratitude Greenbacks

- **Susan Priest** was grateful that for a change she didn't have to take copious notes of the speaker's presentation, that she was finally over her cold and leg slice and back at the Wellness Center, and that it was great to see Susan Price again.
- **Joe Piszczor** was happy to let us know that the new banners are coming soon, and that he has updated the gallery on the club website, (rotarywashpa.org). If you have any old pictures of Rotary functions or activities you would like to add, he can digitize them.
- **Susan Price** was happy to be out of the house. She has been confined since the second week of December dealing with her leg slice and also a case of Covid.
- **Lisa Hannum** was happy for the great work done by Susan Price for Domestic Violence during her years on the board.
- **Bill Price** was happy to update us on Irv Leppert, former member now in North Carolina. He had spinal surgery which lasted 7 hours and was home the next day.
- **Fern Sibert** was happy that she had been asked to join the club. She did warn us that she will be a no-show until mid-April. She works at the Senior Center as a volunteer to help with seniors' taxes every Tuesday and Thursday until then.

In closing, President John led us all Four Way Test.

Speakers