One of the big questions in recent years about prenatal DES exposure is whether it might have had an effect on people’s sexual orientation or gender identity.

Our society has increasingly accepted the medical fact that neither sexual orientation (being attracted to the opposite sex and/or the same sex as you or no attraction to either) nor gender identity (which gender, neither, or both, that you identify yourself as) are choices. However, a lot of uncertainty remains about the chemical processes in our bodies that determine them.

There is research to suggest that genetics, our ancestors’ past exposures and prenatal exposure to certain hormones—primarily testosterone—might play a role in determining sexual orientation or gender identity.

The DES community has long discussed the possible role that prenatal exposure to a synthetic hormone could have played in gender and sex identity. The DES community seems to have a significantly higher percent of LGBTQ+ members than the general population.

Until now, there have been no credible studies attempting to quantify the DES LGBTQ+ community in comparison to those unexposed. A group of researchers who have studied DES for decades at the National Institutes of Health have conducted their own study. It was published in January in the Archives of Sexual Behavior (DOI: 10.1007/s10508-020-01637-7).

Some of the researchers’ names will be familiar: Rebecca Troisi, Linda Tittus, Robert Hoover, and Julie Palmer are among the team of researchers who conducted the study using the National Cancer Institute DES Follow-up Study.

The participants come from five smaller DES studies and are surveyed by questionnaire every five years, most recently in 2016. This most recent analysis included 3,306 women and 1,848 men.

Among the women, 2,220 were DES Daughters and 1,086 were unexposed. Among the men, 933 were DES Sons and 915 were unexposed. The average age among the participants was 63 years old.

The first quantitative study on DES, gender and sexual orientation investigates possible links

Q&A with Karen Calechman, Retiring DES Action Community Manager

DES Daughter Karen Calechman began volunteering with DES Action USA in Fall 2015. Her versatility, empathy and dedication to the organization

Q: Why did you decide to join the DES Action USA team as community manager?

I began volunteering when I created and implemented the symposia at Boston University and Mount Holyoke College, “DES: A Population Health

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The CCA Registry

The Clear Cell Adenocarcinoma Registry has a new website. You can find it here: https://voices.uchicago.edu/ccaregistry/

In case you haven’t heard of it, here is the definition of the Registry, via their website:

“The Registry for Research on Hormonal Transplacental Carcinogenesis (the Registry) is an international research registry of cancer patients with clear cell adenocarcinoma (CCA) of the vagina and/or cervix or other specific gynecologic cancers who may or may not have been exposed to diethylstilbestrol (DES) or other synthetic hormones in utero (while still in their mother’s womb). The Registry was established in 1971 at Massachusetts General Hospital by Dr. Arthur L. Herbst and colleagues to investigate the development of CCA of the vagina and/or cervix in young women born since 1940 and in 1976 it was moved with Dr. Herbst to the University of Chicago. The development of most of the vaginal tumors has been linked to the ingestion of DES during pregnancy. Because these tumors are rare in young women, the Registry was established to centralize data collection on this rare carcinoma. Varying amounts of information on the epidemiology, clinical aspects and pathology of these tumors has been obtained.”

The Gynecologist Guide

In 2019, we updated the important guide to take to your gynecologist visits. It’s especially important to take this along to a gynecologist you haven’t seen before to ensure that the doctor is familiar with DES and its side effects for DES Daughters and Granddaughters.

The new version has more information related to Granddaughters, and we will continue to update it as more studies are published.

You can find the guide on desaction.org, listed under Resources as: Print & Take to Your Gynecologist. The direct link is: https://www.desaction.org/wp-content/uploads/Gynecologist-Guide.pdf

Renew Your Membership

It’s easier than ever to renew your membership. Just log into the site using the email you registered with and your password. If you don’t remember your password, you can reset it.

If you no longer use the email you signed up with, send your new address to Karen Calechman at karen@desaction.org. She will set a temporary password for you.

Thank you for supporting DES Action USA with your membership.
Q&A: Minji Kang, MPH, Study Director of DES Program at University of Chicago

Beginning in the 1970s, after first discovering the increased risk of clear cell adenocarcinoma in DES Daughters, Dr. Arthur Herbst has continued long-term research into the health effects of prenatal DES exposure.

Last year, the previous study director, Diane Anderson, retired, and Minji Kang, MPH, previously a research assistant at the University of Michigan Medical School, took over as study director of the DES Program at the University of Chicago’s Department of Obstetrics and Gynecology, where she also manages the Clear Cell Adenocarcinoma Registry.

It’s been incredibly busy over the two years as Minji has gotten settled in her new position. But she found the time to answer questions for the DES VOICE to give us some insight into what brought her to the role and where she hopes it will head.

Q: Tell us how you came into your new role.

After graduating from the University of Michigan School of Public Health, I sought opportunities to work in public health research that were involved in women’s health, reproductive health, and epidemiology. At the same time, Diane was preparing for retirement. It was quite a lucky coincidence that a position that covered every topic I was interested in was opening.

In 2018, I assumed the role of Study Director, which Diane had amazingly filled for several decades. I work with Dr. Herbst and the other co-primary investigators to continue the work that’s been done over the years. [Editor note: A primary investigator is the leader of a large study or set of studies.]

Q: What has been the most enjoyable or fulfilling aspects of your new job?

I’d say the most enjoyable aspect of the job is directly interacting with participants who have been a part of this program for decades. Everyone is so enthusiastic about research and it is such a pleasure to work with motivated individuals who want to contribute to science and medicine. It makes coming to work such a fun and fulfilling experience. Together, we can do some great work.

We’re currently in a new questionnaire cycle, so I am very busy collecting data and keeping up to date with our participants. It’s been such a fun experience to participate so actively with everyone and really get to know the population.

Q: What have been the most difficult or challenging aspects of your new position?

Luckily, there haven’t been too many obstacles while I’ve settled in. I’d say, if I were to choose anything, the most difficult aspect of this position is really getting acquainted with such a large database that spans over so many years. It has been a lot to keep track of, but I’ve definitely gotten the hang of it!

Q: What are some hopes or plans that you are working to carry out in your new role?

I hope to update the operations of the study. A lot of information and data remains in paper form or in older computer programs or databases. My plan is to digitize and reorganize the program’s information so that it is at its most efficient state.

Q: What do you want DES Daughters, Sons, Mothers, and Grandchildren to know about the research being done related to DES?

Firstly, that it’s still going on! We are diligently working to keep the conversation about DES current and ongoing. Secondly, we are looking forward to the new advances of genetic studies and what that could mean for DES research. We hope that our participants stay with us as we adventure into new research and that the DES community remains active!
Q&A with Karen Calechman  
continued from page 1

Tragedy.” The symposia were in response to the DES Action Archives being accepted into the Sophia Smith Collection of Women’s History at Smith College. I wanted to draw attention to the DES Action Archives so that the thousands of students in that 5 College area, some of whom would become researchers, doctors, medical professionals, attorneys and advocates, would be aware of and utilize the Collection.

Suzanne Robotti and I, both DES Daughters, enjoyed collaborating, and I loved helping the population of DES-exposed individuals who I so passionately cared about. I wanted to be a positive force for good to help identify, educate, advocate and empower members of our Community. If education could help to ease some suffering, and early screenings for medical conditions would help keep us healthy, then I wanted to be a catalyst for that.

Q: What did your duties as community manager primarily involve?

I was a part of everything involving membership and member support: receiving phone calls, listening to members’ needs, answering their questions via phone, email or through our website, technology and login assistance, working on monthly email alerts and helping people find resources they need—doctors, attorneys, medical screenings and hospitals.

I needed to know the facts, figures and history of DES. I read studies as they were released in preparation to help edit the VOICE newsletter, and I suggested people for Q&As and the “Did DES Cause This?” column based on the questions I received and the people I spoke with.

We also funded and helped develop the project “Embodying Transgenerational Exposure: Gender, Sex, Sexuality and the Experiences of Being DES-Exposed.” This project, led by respected and published gender studies professor Jacquelyne Luce, PhD, arose from the 2017 Symposia and gave a previously underserved part of our membership, the LGTBQ+ population, a voice.

I also wrote special appeals letters, renewal letters, weekly reports on contributions and thank-you notes to big donors; and I moderated both the DES Daughters Support Group and the new DES Men’s Group while also answering questions and comments on our DES Action Facebook page.

I worked on Special Projects, such as our 40th Anniversary Facebook Live Interviews, and developed relationships with national organizations friendly to our goals, and with our DES organization counterparts in other countries. Finally, I maintained the member database with correct information and provided updated content to our website.

Q: What was the most rewarding part of the work you did for DES Action?

The best part has been speaking with people who had been diagnosed with a DES-linked medical condition, were preparing to get treatment and survived it all. By advocating for them and raising awareness of DES exposure in the medical community and within the general public, it felt gratifying to know that I may have helped someone to feel less alone, more supported and understood.

It was also rewarding to have helped their/our cause by raising awareness and helping them get the proper care and treatment. Many times I learned more from our community because of their experiences with the care and the treatment they received, and then I could pass the knowledge on.

Q: What was the most challenging part of the work you did?

Isn’t it often true that the most rewarding part of one’s work is also the most challenging? These conversations with my DES Sisters, DES Brothers and DES Grandchildren were usually emotional conversations. I would listen carefully. I would feel their emotional pain and be empathetic, yet they were counting on me to remain composed and to offer them resources and support.

Q: What did you learn while doing your work that perhaps surprised you?

What I learned that surprised, startled and upset me is a lot about the science of epigenetics and how DES effects may be seen through three generations. The mechanisms of how DES has affected three generations with each medical condition hasn’t been figured out entirely yet, and it’s challenging to learn them because you cannot do experiments on cohorts of DES-exposed people.

Science can be an art and not exact. We want definitive answers when, many times, there are none. So we take the statistical information based on observing cohorts, and it becomes the best “answers” we have until it is proven wrong—or right—in future research.

Studies in mice are good indications of what may occur in humans, but again, mice are not human. If you notice, many of our articles in the VOICE end with “more research needs to be done.” Some answers are clearer, such as the link between DES exposure and higher risk of CCA (clear cell adenocarcinoma of the cervix/ vagina), but almost nothing has an absolute definitive answer.

The pleasant surprise is that the people in our population whom
I have spoken with have amazing fortitude and are an inspiration! We are survivors! It’s also exciting that science is getting better and faster at exploring epigenetics and learning the whys and hows of DES exposure.

We are getting closer to figuring out how DES did what it did to us, and how it may impact our future generations. Then we can create a screening, a test, a therapy or a medicine that may help identify, alleviate or prevent the condition. As long as it does not lead to another DES situation, this research can be very exciting.

Q: What’s next for you?
I want to spend more time traveling with family, and hopefully I will have grandchildren soon. I will volunteer for my house of worship and the local hospital, and I will read more books for pleasure. Plus there’s yoga, gym workouts, kayaking, biking, hiking, swing dancing and movie- and theatre-going! Never a lack of things to do!

Q: What do you hope for the future when it comes to the DES community?
I hope that our DES community thrives, advocates for the third generation (DES Grandchildren) and for their children, and that DES Action is sustained so we can continue to be informed by the VOICE newsletter, the website and the support of our community of our peers. I will not feel informed or protected without this. I hope some of the DES Grandchildren get involved, as it is their future and their children’s future!

I also want to thank the DES-Exposed Community and the DES Action Staff and Board of Directors for their knowledge, support, warmth, understanding, perseverance, collegiality, compassion and expertise. May you all be healthy and happy!

Research at the Intersection of DES and LGBTQ+ Experiences
and the vast majority of the participants (well over 90%) were white.

Study Findings
More than 96% of the respondents said they were heterosexual. As a comparison, approximately 4.5% of the US population identify as lesbian, gay, bisexual or transgender.

DES Daughters were about half as likely to identify as lesbian compared to women who were not prenatally exposed to DES. But DES was not independently linked to a higher or lower risk of being bisexual among women.

“The association with gay/lesbian orientation was strongest for exposure to a low cumulative dose of DES” in women, the authors found. But they did not find any increased or decreased likelihood of different sexual orientation based on the trimester of exposure.

Opposite results were seen in men. DES Sons were 1.4 times more likely to be gay or bisexual. This finding was statistically significant, which means it’s less likely to be due to chance. The authors also found that the likelihood of being gay was even higher—about 1.8 times greater—for men who were exposed to a high dose of DES. That said, there were fewer men than women in the study, and the fewer people involved in a study, the less certain the results.

In the whole group studied, only five people were transgender. With so few participants who had a different gender than the one they were given at birth, it was not possible for the researchers to calculate the likelihood that being transgender was linked to DES exposure.

Was DES Involved?
A study like this is observational, where the researchers can only compare an exposure (DES) and an outcome (sexual orientation). But this type of study cannot show that the exposure caused the outcome.

That said, there’s a stronger likelihood of one causing the other if a “dose-response” exists, where the likelihood of the outcome increases as the dose increases. In the case of DES Sons, since the likelihood of being gay increased with a higher dose, it’s reasonably possible that DES exposure might have been involved in sexual orientation. It cannot be proven in this study, but the authors discuss how it might biologically occur.

“Brain organization that occurs in the prenatal period may influence an individual’s sexual and gender identities,” the authors wrote. It’s possible that sex hormones, such as testosterone or estrogen, might interact with genetics and characteristics in the mother’s body to play a role in eventual sexual orientation. The characteristics in the mother might include something such as having an infection during pregnancy, for example.

This study provides some evidence that prenatal exposure to DES may increase the likelihood of being gay among DES Sons, but DES Daughters seem less likely to be lesbians than unexposed women.

But one study cannot prove a trend overall, and this study could not address the question of gender identity at all because so few people were transgender. This study is one puzzle piece in a larger picture that is impossible to imagine right now.

Researchers will need to continue to investigate sexual orientation and gender identity as they relate to prenatal DES exposure. Hopefully, with enough studies looking at these questions, the big picture will begin to emerge, and we will have enough pieces to better understand if—and how—gender identity, sexual orientation, and exposure to hormones before birth all interact.
DES Action funded a special research project with Jacquelyne Luce, PhD, of Mount Holyoke College. The project, “Embodying Transgenerational Exposure: Gender/Sex/Sexuality and Experiences of Being DES-Exposed,” gave voice to the previously underrepresented segment of LGBTQ+ people in the DES-exposed population. Aspects of the research have appeared in Facebook live events, seminars, classes and professional conferences, and the complete study is now available on the DESAction.org website. Here is an excerpt from Dr. Luce’s letter to readers.

As a lecturer in Gender Studies at Mount Holyoke College, I teach interdisciplinary courses in feminist health and science studies. In Fall 2016, I answered a request from DES Action to help support a symposium they were planning regarding the transfer of the DES Action USA archive to the Sophia Smith Collection at Smith College.

Several of my students who attended the symposium noted the “binary” framework in which DES scientific research is presented—particularly gendered terms such as DES Daughter or DES Son—and the ways in which DES-related research findings are organized around the “sex” categories of DES-exposed males or females.

Those experiences and a subsequent dinner conversation about the vaginal differences among many DES-exposed people contributed to the project I ultimately carried out to explore the associations that people make between DES exposure and understandings or experiences of gender, sex and sexuality.

Supported by funding from DES Action and Mount Holyoke College, from September 2017-2018, several undergraduate research assistants and I undertook research in the Smith College DES Action USA archive, and I conducted 25 interviews (1-2 hours each) with self-identified DES-exposed people, ages 57-70, and one person who was prescribed DES, age 85.

A conscious effort was made to reach out to communities whose experiences are not very visible or known in the history of the DES health movement. Among the interviewees, 19 are cisgender—identifying with the sex and gender they were assigned at birth (such as being declared a boy or a girl when they were newborns).

Six transgender interviewees included one transman (assigned female at birth) and five transwomen (assigned male at birth). Interviewees’ sexual orientation was also diverse: 10 identified as heterosexual, two as bisexual, five as lesbian and eight did not specify a sexual orientation.

It is important to note that a number of interviewees spoke about experiences across a number of categories. Some interviewees self-identified as “heterosexual,” but their interview narrative focused primarily on stories of same-sex behavior or desire. Other interviewees did not specify a sexual orientation.

When we first began talking about this project, I don’t think any of us—myself, Karen Calechman (a Mount Holyoke alum) or Su Robotti (DES Action Executive Director)—could have imagined where it would lead.

Each time I re-listen to an interview or re-read an interview transcript, I am warmed by the willingness of the interviewees in this project to share their experiences, many of which are extremely personal, troubling, sad and also clear demonstrations of profound resilience. One interviewee noted:

“I learned through my life that things don’t just... happen [laughs]. They journey. [Pause. Crying] It’s good to have companions on the journey. And I wish I had known [pause] other companions on this journey, besides my sister, 40 years ago. [Crying] I really do. I don’t know if it would have made a difference in terms of the... sadness, but it, um... but I believe that we are created to be in community... that would have been one that would have made a difference...”

Putting voices onto paper, creating conversations between people who will most likely never meet, cannot make up for the experience of isolation that several interviewees voiced. It is not the same as creating a community space for people to engage with each other directly. Several interviewees cited their involvement with DES Action as influential in understanding how their DES-exposure is embedded in their life narratives.

By working with stories about how DES has intensely permeated the everydayness of life at various points over the course of people’s lives, I hope I can stimulate conversations. I expect the conversations that arise might, just as our project has, push against and transcend the borders of what might be thought about as DES-specific topics.

The report related to this letter (available on the DES Action web-
Treatment for T-Shaped Uterus May Improve Pregnancy

One of the most recognized physical characteristics associated with prenatal DES exposure is the T-shaped uterus. Instead of a uterus shaped like a long, upside-down triangle, the uterus is shaped like two slender, perpendicular lines in the shape of a T. The womb is essentially divided in half by a wall of tissue, called a septum.

This deformation can increase the risk of infertility, miscarriage and preterm birth. Although pregnancy rates were similar between DES Daughters (72%) and unexposed women (79%) in a 1999 meta-analysis, DES Daughters had nine times as many ectopic pregnancies, twice as many miscarriages and twice as many preterm births as unexposed women.

The T-shaped uterus is most associated with DES exposure but can occur in rare cases without DES exposure. No research has found an increased risk in DES Granddaughters. A new research paper in the Oct-Dec 2019 issue of the Journal of Human Reproductive Sciences discusses how much more we need to know about the condition (DOI: 10.4103/jhrs.JHRS_101_19: 10.4103/jhrs. JHRS_101_19).

A Potential Treatment

The researchers primarily explore whether the condition can be treated through a new procedure called hysteroscopic metroplasty, which wasn’t available to DES Daughters.

This procedure involves inserting a thin, flexible tube with a camera on one end into the vagina, up through the cervix and into the uterus. This tube, a hysteroscope, is then used to bring surgical instruments into the uterus to remove the septum in the middle.

Past surgical treatments usually involved laparotomy, an incision into the abdomen, which did not often improve fertility and birth outcomes. But hysteroscopic metroplasty has less risk of complications.

In this study, the authors analyzed existing studies to see if outcomes were better. They found 15 articles with 790 women, aged 20–45 and born after DES was no longer prescribed, who underwent a hysteroscopic metroplasty.

Overall complication rates were low (specific numbers weren’t provided). The most commonly reported ones included ectopic pregnancy, preterm birth, retained placenta or needing a second procedure.

Improvement in Pregnancy Rates

Research did suggest the procedure improved pregnancy rates and live birth rates while reducing miscarriage rates, but the studies were too different to get precise numbers. But none of the studies were randomized controlled trials, the gold standard for evaluating interventions. The studies also did not clearly define the time passed between the surgery and pregnancy.

The authors concluded that a centralized database of women with T-shaped uterus is needed to collect adequate data. Although such research would not be able to benefit DES Daughters, nearly all of whom are post-menopausal, it would provide answers for women in the future who have a T-shaped uterus.

Nothing can take away the pain of infertility, miscarriages and other pregnancy problems so many DES Daughters suffered. Hopefully, though, the research that went into understanding the T-shaped uterus as a result of studying DES Daughters can help women avoid similar heartache in the future.
‘Tall Girls’ Get Their Close-Up

Andrea Tabor learned when she was 16 that her mother had been given DES while pregnant with her. But many years later, she discovered she herself had been prescribed DES—when she was just 12 and 14 years old. Andrea, who was prescribed DES to slow her height growth, was therefore exposed three times to DES.

Andrea previously shared her story in the Spring 2018 VOICE. Here, she has reviewed the Netflix film “Tall Girls,” a romantic comedy aimed at teens.

Despite its playful, youthful tone, the film mentions DES early on.

It was quite an interesting film, and one I could identify with. The main character, Jodi, was 6’ 1.5” at 16 years old. At 16, I was 6’0” tall and got teased profusely by others with taunts like “How’s the weather up there?” and “Look, it’s the Jolly Green Giant.” Similar teasing was portrayed in the film. Like Jodi, I was always in the back row in photos. Jodi wore size 13 Nike men’s shoes, however, and I wear an 8.5-size women’s shoe to this day.

Jodi’s parents took her to a doctor at age 3, when she was already 4 feet tall, to stop her growth. The doctor in the film mentioned DES and refused to give her that drug. When my mother took me to an endocrinologist when I was 12 and already 5’7”, the doctor gave me shots of DES. At 14, a study at UCLA led my mother to take me in again, and I received more shots of DES. I stopped growing at age 15 at 6’0”.

There was one detail the movie got wrong. In the film, the Tip Toppers Tall Club (TCI) made Jodi a member at 15, but you must be 21. I didn’t find the California Tip Toppers Club until I was divorced and 40 years old. But then, I had finally found my people. The height requirement was 6’0” for women and 6’4” for men.

My teen years were a very challenging time for me, and I was depressed a lot. This film was a Cinderella movie, and I definitely feel that anyone who is affected by DES would appreciate seeing this film.