

Patient Preference of Metal or Plastic Speculums for Pelvic Exam

Background:

- Pelvic exams screen for STI's, structural abnormalities, and cancer
- Lack of adherence to cervical screening due to emotional and physical discomfort, especially in various minority groups₁
- Increased carbon footprint to produce plastic speculums₂
- Study in the Netherland found patients prefer plastic speculums over metal but are willing to compromise

SMARTER OBJECTIVE:

- 1.S** – The goal is to determine speculum preference (metal, plastic, or no preference) and the factors that contribute to this preference (temperature, sense of sanitary level, etc.) among this population
- 2.M** – The outcomes are measured through survey responses among patients attending WVU's OB/GYN clinic
- 3.A** – The goal is to reach 200 patient responses or more to provide enough power for statistical significance
- 4.R** – Reaching this goal is a proportional representation of the patient population the providers see at WVU Medicine department of OB/GYN and indicate whether a larger study is necessary
- 5.T** - By continuing to gather patient survey responses, completion of the data gathering stage is expected by June of 2025
- 6.E** – The goal is periodically reviewed as barriers to completion arise
- 7.R** – The goal is flexible enough to allow modifications as barriers to completion arise

Results: Plastic > Speculum

- 82 Survey Responses currently
 - Age Range: 18 to >65 years with the majority being aged 18-35 years old
 - Identifying Sex: 95.1% Females, 3.7% Male, 1.2% non-binary
- Plastic speculums were chosen as more comfortable during a pelvic exam 58.5% of the time while 13.4% of the patients chose metallic speculums to be more comfortable and 28.0% felt it did not matter between the two – chart 1
- The most uncomfortable part of pelvic exam was the speculum itself in 37.0% of the responses.
 - The other options all ranged from 8.6% to 14.8% and included position of the exam, unable to see what is happening during exam, lack of adequate lubrication, temperature of speculum, and pelvic exams are not unpleasant to me
 - Lack of adequate lubrication was only chosen by 7/82 patients (8.6%)
- Perception of sanitation
 - Despite proper sterilization of metal speculums, 58.0% patients felt plastic speculums were more sanitary while 17.3% felt metallic speculums were and 24.7% felt “either plastic or metallic both are sanitary”
- In response to “considering plastic speculums are not reusable, do you have any concerns about the carbon footprint and waste that it generates?” 55.0% of the patients responded no and 45.0% responded yes

SCALE UP PLAN:

Informing providers performing speculum exams that the majority of patients prefer plastic should improve adherence. Encouraging providers to ask the patient if they have a preference and defaulting to metal when they do not have a preference would help decrease carbon footprint while prioritizing patients' comfort. Encouraging nursing staff to ask and advocate for their patients would help prioritize comfort while maintaining efficiency.

SUSTAINABILITY PLAN: How would you assure this work continues following the same standards?

By increasing the population, more representation will be obtained for minority groups undergoing pelvic exams such as transgender males and non-binary individuals. Ensuring patients respond with how many speculum exams they have had in the past will maintain legitimacy of the responses.

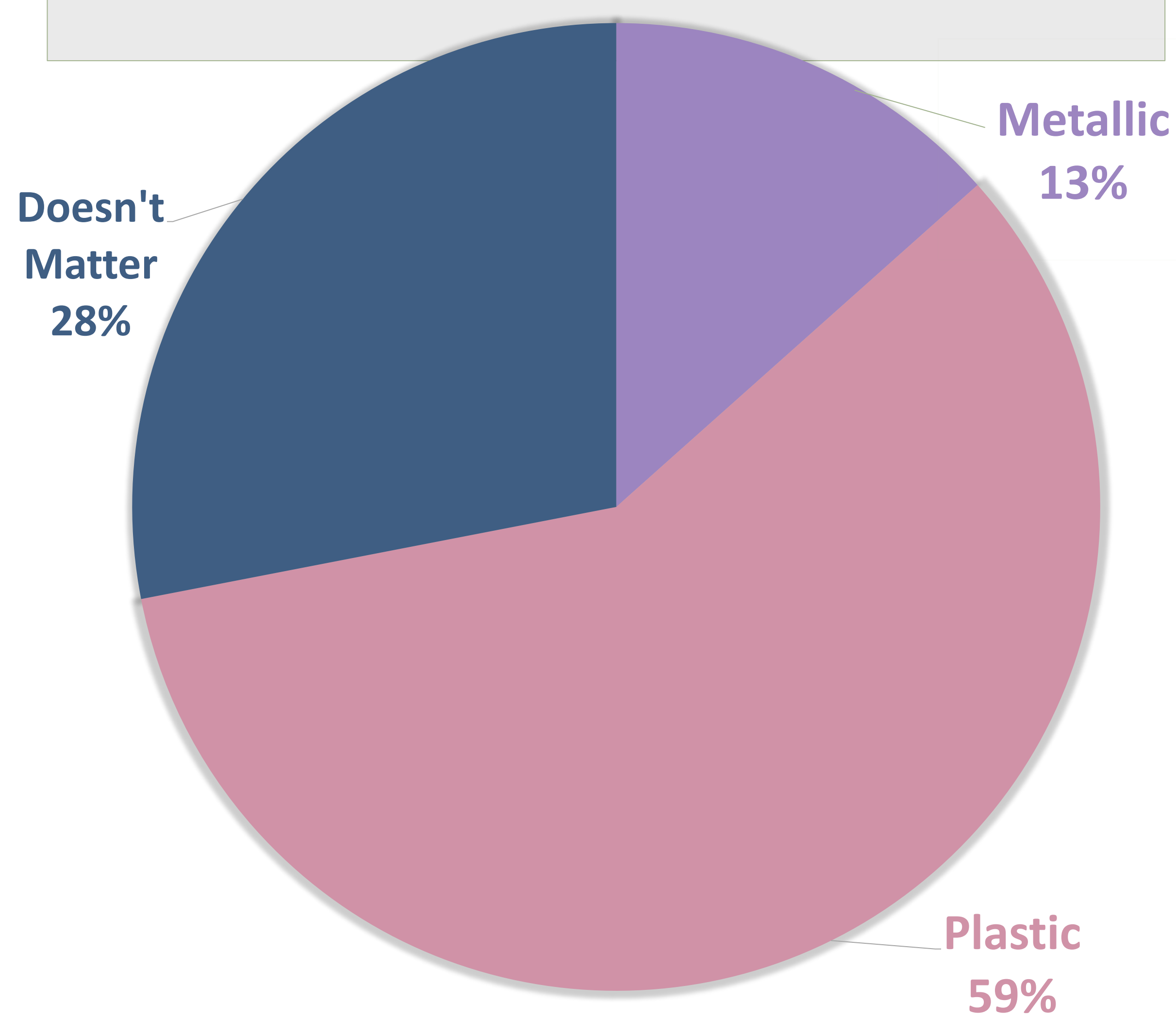
The goal for the future studies:

- Patient preference of speculum type across multiple cultural settings within the US with more non-binary and older age representation
- Determine other factors that are pertinent to this decision such as infection rates, physician and nursing preference, and cost-benefit analysis of metal vs. plastic speculum use.
- Determine ways to decrease plastic speculum associated carbon footprint
- Determine what modifiable factors contribute to discomfort in either type of pelvic exam and how to decrease or eliminate those factors
- Create a standard protocol for which speculum to use that maximizes patient comfort and decreases carbon footprint

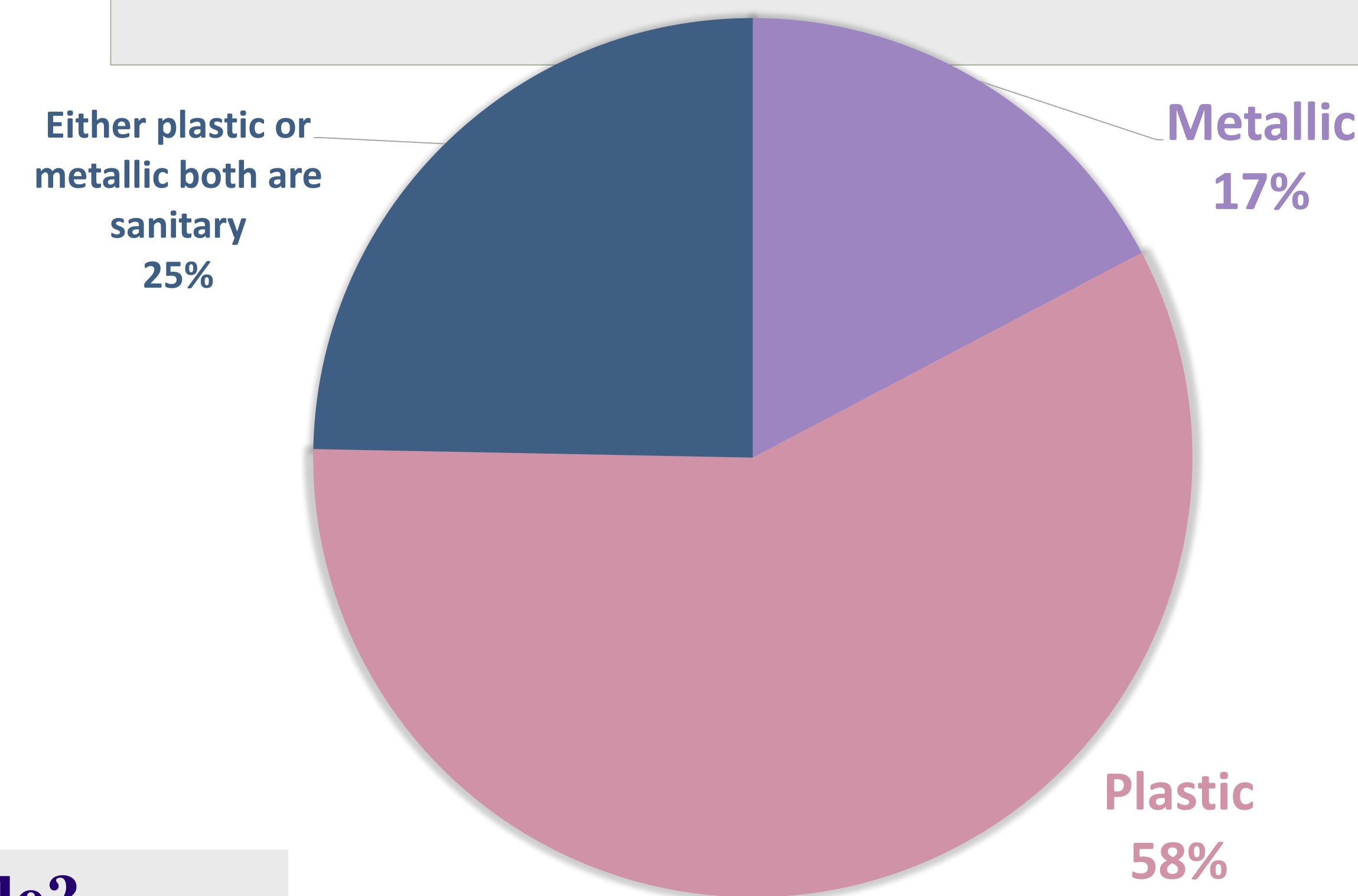
LESSONS LEARNT:

- Plastic speculums are preferred for pelvic exams by the majority of patients. Seeing as plastic speculums were perceived to be more sanitary by the patients than metal speculums, this is likely the strongest contributing factor in deciding between metallic, plastic, or either.
- The most uncomfortable part of pelvic exams for the majority of patients is the speculum itself. Other factors may still play a role in discomfort.
- This patient population had mixed responses in whether the concern of the increased carbon footprint producing plastic speculums concerned them. This could be explained by feeling such discomfort during pelvic exams they feel the plastic reward outweighs the risks, or it could be a cultural opinion.

Are metal or plastic speculums more comfortable?



Do metal or plastic speculums seem more sanitary?



Are metal or plastic speculums more comfortable?

Q32: ...exam?	Count	Percent
Plastic	48	58.5%
Metallic	11	13.4%
Doesn't matter	23	28.0%
Total	82	100.0%

What do you think is the most uncomfortable part of a pelvic exam?

Q19: What do you...of the following	Count	Percent
The position of the exam	12	14.8%
Unable to see what is happening	11	13.6%
Lack of adequate lubrication	7	8.6%
The speculum	30	37.0%
The temperature of the speculum	11	13.6%
Pelvic exams are not unpleasant to me	10	12.3%
Total	81	100.0%