Online Survey Instrument – Opt in survey for Educators

Thank you again for your willingness and interest to participate in our research project: “Understanding Pet Owner Knowledge and Behaviors Regarding Pharmaceuticals and Personal Care Products (PPCPs) Use and Disposal into the Environment” We’re asking you to complete this voluntary survey to find out if you’re eligible to participate in our study. This survey will take about 5 minutes to complete. There are no foreseeable risks or benefits for completing this opt in survey. These questions are only for statistical purposes and to determine eligibility, and will remain completely confidential to the extent permitted by the technology. If you’re not eligible for this study, we will discard your response. If you have any questions about the research, please contact Jennifer Lam via email at lamj@onid.oregonstate.edu or Flaxen Conway via email at fconway@coas.oregonstate.edu, phone at (541) 737-1339. If you have questions about your rights or welfare as a participant, contact the Oregon State University Institutional Review Board (IRB) Office, at (541) 737-8008 or by email at IRB@oregonstate.edu.

Step 1 Complete this short opt-in survey. Once this is completed you will receive a special code and link to the survey within 72 hours. Navigate through the survey pages by clicking on the arrow key at the bottom of the screen.

Q1 Are you a pet owner?
Yes (1)
No (2)
If No Is Selected, Then Skip To End of Survey

Q2 Please enter the email address (where we will send the survey link/code to):

Q3 Please indicate THE STATE where you currently reside:
Washington (1)
Oregon (2)
California (3)
Other (please specify): (4) ________________

Q4 How would you describe the geographic setting/location of your residence?
Rural (1)
Suburban (2)
Urban (3)

Q5 Do you primarily teach in an informal setting (e.g. zoo, aquaria, science center, museum, park)?
Yes (1)
No (2)
If Yes Is Selected, Then Skip To If yes, what setting do you currently...If No Is Selected, Then Skip To Do you teach in a formal setting?

Q5a If yes, what setting do you currently teach?
museum (1)
aquaria (2)
zoo (3)
science center (4)
park (5)
other (please specify) (6) ____________________

**Q6 Do you teach in a formal setting?**
Yes (1)
No (2)
If Yes Is Selected, Then Skip To If yes, what grade or level do you cu...If No Is Selected, Then Skip To Which best describes the topic area

**Q6a If yes, what grade or level do you currently teach?**
Kindergarten (1)
Grades 1-5 (2)
Grades 6-8 (3)
Grades 9-12 (4)
Community College or University (5)
Other (please specify) (6) ____________________

**Q7 Which best describes the topic area that you currently teach? (Select one only)**
Science only (1)
Science combined with other subjects (2)
Non-Science only / other (please specify) (3) ____________________

**Q8 How many years of experience have you had in your profession?**
Less than 1 year (1)
1-3 years (2)
4-6 years (3)
More than 6 years (4)

**Q9 What is your age?**
18 – 24 (1)
25 – 34 (2)
35 – 44 (3)
45 – 54 (4)
55 – 64 (5)
65+ (6)

**Q10 What is your gender?**
Male (1)
Female (2)

You will receive an email with an online survey link and a unique ID code within 72 hours. Please select the advance arrow to submit your answers. Thank you for your participation.
Opt in survey for Veterinary Care Professionals

[Note: same introduction and consent information as opt-in survey for educators]

Q1 Are you a pet owner?
Yes (1)
No (2)
If No Is Selected, Then Skip To End of Survey

Q2 Please enter the email address (where we will send the survey link/code to):

Q3 Please indicate THE STATE where you currently reside:
Washington (1)
Oregon (2)
California (3)
Other (please specify): (4) ____________________

Q4 How would you describe the geographic setting/location of your residence?
Rural (1)
Suburban (2)
Urban (3)

Q5 Do you practice in the professional veterinary field (e.g. practice medicine and see
patients, interact with clinicians)?
Yes (1)
No (2)
If Yes Is Selected, Then Skip To If yes, what position do you hold? If No Is Selected, Then Skip
To If no, what best describes your field:

Q5a If yes, what position do you hold?
 veterinarian (DVM) (1)
 veterinary allied professional staff (i.e. technician, assistant) (2)
 animal health company position (3)
 other (please specify): (4) ____________________

Q6 Which area below best describes the veterinary care (or the area you most work in)?
Companion animal practice (1)
Food animal practice (2)
Exotic animal practice (3)
Government practice (4)
Research (5)
Academia (6)
If Companion animal practice Is Displayed, Then Skip To How many years of experience have
you...

Q5b If no, what best describes your field:
pet boarding kennel business owner/staff (1)
pet grooming business owner/staff (2)
other (please specify) (3) ____________________

Q7 How many years of experience have you had in your profession?
Less than 1 year (1)
1-3 years (2)
4-6 years (3)
More than 6 years (4)

Q8 What is your age?
18 – 24 (1)
25 – 34 (2)
35 – 44 (3)
45 – 54 (4)
55 – 64 (5)
65+ (6)

Q9 What is your gender?
Male (1)
Female (2)

You will receive an email with an online survey link and a unique ID code within 72 hours. Please select the advance arrow to submit your answers. Thank you for your participation.
General Survey Instrument

Q1 Thank you again for your willingness and interest to participate in our research project: “Understanding Pet Owner Knowledge and Behaviors Regarding Pharmaceuticals and Personal Care Products (PPCPs) Use and Disposal into the Environment” We truly appreciate your participation in this research. Your responses to this 15-30-minute online survey are extremely valuable in developing an understanding of pharmaceuticals and personal care products (PPCP) use and disposal, and will guide future educational outreach and engagement efforts to reduce impacts of PPCP on the environment. Navigate through the survey pages by clicking on the arrow key at the bottom of the screen.

Q2 Informed consent PLEASE READ: You are being invited to take part in a research study about the use and disposal of pet pharmaceuticals and personal care products (PPCPs) because you are at least 18 years old and a pet owner. You can provide valuable insights. The following survey should take about 15-30 minutes to complete. The purpose of this study is to learn how pet owners use and dispose of pet PPCPs. The findings from this research will guide future educational outreach and engagement efforts to reduce impacts of PPCPs on the environment. They will also be used for publications, presentations at conferences, and for graduate student Jennifer Lam’s master thesis. We truly appreciate your participation in this study. Your participation is voluntary and although we prefer you answer all questions, this is not required. All responses you provide will be kept confidential to the extent permitted by law and technology, secured in a password-protected computer data base. No person or identifying information will be associated with your responses, but there’s a chance that we could accidentally disclose information that identifies you. Please be assured that we take all precautions to keep all participants confidential. This study is not designed to benefit you directly but we believe that it will inform the science and use of pet PPCPs. If you do not want to participate and do not wish to be contacted further, please let us know. Should you agree to participate – and we hope you do – please indicate by selecting the “I agree” button, enter your code, and proceed with the survey. If you have any questions about the research, please contact Jennifer Lam via email at lamj@onid.oregonstate.edu or Flaxen Conway via email at fconway@coas.oregonstate.edu, phone at (541) 737-1339. If you have questions about your rights or welfare as a participant, contact the Oregon State University Institutional Review Board (IRB) Office, at (541) 737-8008 or by email at IRB@oregonstate.edu. You are welcome to print this disclosure statement for your records.

I Agree (1)
I Disagree (2)
If I Disagree Is Selected, Then Skip to End of Survey If I Agree Is Selected, Then Skip to Please enter your unique ID code below:

Q3 Please enter your unique ID code below from the email (code format is 3 letters followed by 4 numbers, no space in between: ex. ABC1234):

Q4 Below are definitions for some of the terms used in this survey. Pharmaceuticals and personal care products (PPCPs): Pharmaceuticals: Simply stated, pharmaceuticals are medicines or supplements/vitamins that promote health and well-being that either require a prescription to obtain or are available “over-the-counter” without a prescription. They can be in the solid, liquid
or aerosol form. Personal Care Products: These can include products used for personal hygiene or beauty such as soaps, facial/body cleansers, shampoos, conditioners, lotions, cosmetics, insect repellents, skin protectants, and fragrances. Pet personal care products can include flea shampoos and flea collars. Unused: This term includes partially or completely unused, unwanted, wasted, or expired substances that ultimately require disposal.

Q5 For the pet portion of the survey, please select one of your pets from the list below to base your responses on.
- dog (1)
- cat (2)
- fish (3)
- bird (4)
- small mammal (e.g. guinea pig, hamster) (5)
- reptile (6)
- horse (7)
- other (please specify): (8) ____________________

Q6 Please share up to 3 motivations for acquiring a pet:
- companionship (1)
- security (2)
- pre-cursor to children (3)
- save the pet's life (5)
- special needs (i.e. seeing eye dog, therapy animal) (6)
- work needs (7)
- enhance sense of responsibility (10)
- other (please specify): (11) ____________________
- Does not apply (12)

Q7 Please share up to 3 concerns you have for your pet’s wellbeing:
- health/life expectancy (1)
- energy level (2)
- weight/physical activity (3)
- happiness/demeanor (4)
- cleanliness/hygiene (5)
- behavioral issues (6)
- comfort level with other people and animals (7)
- ability to entertain themselves (8)
- safety (9)
- other (please specify): (10) ____________________
- Does not apply (11)

Q8 Please choose up to 3 environments where you prefer your pets to recreate:
- free-range, clean and open outdoor spaces (1)
- formal dog park (2)
- access to water for play (3)
- access to outdoors for cats (4)
access to indoors only (5)
places with similar animals (6)
natural spaces and waterways (7)
other (please specify): (9) ________________
Does not apply (8)

Q9 When thinking about these environments, what aspects make them healthy for your pets? Choose up to 3
  clean water and air (1)
trees and shade (2)
vast expanse of open fields (3)
inside with play structures (4)
diversity from home environment (5)
friendly people and other pets to socialize (6)
free from extreme weather (7)
safety from predators (8)
other (please specify): (9) ________________
Does not apply (10)

Q10 Now consider all pets in your household. Do you ever use pharmaceutical and personal care products (PPCPs) on pets in your household?
Yes (1)
No (2)
If Yes Is Selected, Then Skip to If yes, how many different types or b...If No Is Selected, Then Skip to End of Block

Q11 If you do use PPCPs on your pet, how many different types or brands of PPCPs do you have available to use on your pets?
  0 (5)
  1-3 (1)
  4-6 (2)
  7-10 (3)
  10 or more (4)

Q12 How many PPCPs do you usually use on your pet during one occasion? Pharmaceuticals: Simply stated, pharmaceuticals are medicines or supplements/vitamins that promote health and well-being that either require a prescription to obtain or are available “over-the-counter” without a prescription. They can be in the solid, liquid or aerosol form. Personal Care Products: These can include products used for personal hygiene or beauty such as soaps, facial/body cleansers, shampoos, conditioners, lotions, cosmetics, insect repellents, skin protectants, and fragrances. Pet personal care products can include flea shampoos, flea collars, etc.
  pet usually uses 3 or less different types at one time (1)
  pet usually uses 4-6 different types at one time (2)
  pet usually uses more than 7 different types at one time (3)
Q13 Which of the following most often applies to your pet’s pharmaceuticals?
finish completely; none to dispose (1)
keep unused medicines until expires, then dispose (2)
dispose when treatment is completed (3)
store them in the house indefinitely (4)

Q14 Approximately, what proportion of the pet pharmaceuticals goes unused in your household?  
[Note: “Proportion” relates to the volume that go unused, compared to the total. We understand that you may not keep records of this. If it would help, please consider the amount of all pet pharmaceuticals that go unused in your household]
No pet pharmaceuticals in this household ever go unused (1)
1-25% of pet pharmaceuticals in this household usually go unused (2)
26-50% of pet pharmaceuticals in this household usually go unused (3)
>50% of pet pharmaceuticals in this household usually go unused (4)

Q15 Which of the following most often applies to your pet’s personal care products?
finish completely; none to dispose (1)
keep unused personal care products until expires, then dispose (2)
store them in the house indefinitely (3)

Q16 Approximately, what proportion of the pet personal care products go unused in your household?  
[Note: “Proportion” relates to the volume that was ultimately not used, compared to the total. We understand that you may not keep records of this. If it would help, please consider the amount of pet personal care products that go unused in your household]
No pet personal care products in this household ever go unused (1)
1-25% of pet personal care products in this household usually go unused (2)
26-50% of pet personal care products in this household usually go unused (3)
>50% of pet personal care products in this household usually go unused (4)
I don’t know (5)

Q17 Have you purposely bought or considered buying pet personal care products which are designed to be environmentally friendly (e.g. products that have reduced, minimal, or no harm at all upon the environment)
Yes (1)
No (2)
If No Is Selected, Then Skip To If no, please specify why: If Yes Is Selected, Then Skip To End of Block

Q18 If you do not purposely buy or consider buying environmentally friendly pet personal care products, please specify why:
reduced performance (1)
product appearance (2)
too expensive (3)
not aware of any such products (4)
other (please specify): (5) ____________________
Q19 Please share how likely the following factors influence your decision on how to dispose of pet PPCPs in your household.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very Unlikely (1)</th>
<th>Unlikely (2)</th>
<th>Neutral (3)</th>
<th>Likely (4)</th>
<th>Very Likely (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience/ease of disposal (1)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Heard that it’s better to flush pet PPCPs (2)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Do what’s most acceptable to my friends, family (3)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Go with the flow. Do what the majority regard as acceptable (4)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Do what is financially affordable (5)</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<td>•</td>
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<tr>
<td>Desire to avoid risk of accidental poisoning (6)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Desire to avoid risk of misuse/abuse (7)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Desire to minimize pet PPCPs in water (8)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Desire to minimize pet PPCPs in landfills (9)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Follow what’s legally required (10)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Purchase only minimum amount of PPCPs for what my pet might need (11)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Q20 How would you rate the influence of these activities on your decisions to take positive actions for protecting the environment? For each activity, please select if it has a major influence, a minor influence, or no influence at all.

<table>
<thead>
<tr>
<th>Activity</th>
<th>No influence (1)</th>
<th>Minor influence (2)</th>
<th>Major influence (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial incentive/reward (1)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Financial penalty (2)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>See people I know and trust taking action (3)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>People I know encourage me to take action (4)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Hear people talking to others about the dangers of not taking action (5)</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
Learn about scientific studies on the consequences of a certain activity and positive actions I can take (6)  
See news media coverage encouraging me to take action (7)  
See ads or public notices encouraging me to take action (8)  
Government agencies encourage me to take action (9)  
My professional organization encourages me to take action (e.g. AVMA, NSTA, NAME) (10)

| Q21 Please indicate if you agree, disagree, or are neutral with the following statements: |
|-----------------------------------------------|-----------------|-----------------|-----------------|
| Improper disposal of unused pet PPCPs can threaten the health of our water and the environment (1) | Disagree (1) | Neutral (2) | Agree (3) |
| Improper disposal of unused human PPCPs can threaten the health of our water and the environment. (2) | • | • | • |
| PPCPs in air, water, and soil can be a problem for me and my family. (3) | • | • | • |
| PPCPs in air, water, and soil can be a problem for other species of plants and animals (4) | • | • | • |
| "I feel a personal obligation to take action to prevent PPCPs in the environment." (5) | • | • | • |
| "Pet waste is a source of pollution in lakes, rivers, and streams." (6) | • | • | • |
| “I take positive steps to live an environmentally friendly life." (7) | • | • | • |
| “If others don’t take steps to live an environmentally friendly life then my actions won’t matter." (8) | • | • | • |
| "Evidence of native fish being impacted by low levels of PPCPs detected in our watersheds would be a concern to me" (9) | • | • | • |

Q22 Do your decisions and actions regarding the purchase, use, and disposal of pet PPCPs extend to human PPCPs?  Pharmaceuticals: Simply stated, pharmaceuticals are medicines or supplements/vitamins that promote health and well-being that either require a prescription to obtain or are available “over-the-counter” without a prescription. They can be in the solid, liquid or aerosol form.  Personal Care Products: These can include products used for personal hygiene or beauty such as soaps, facial/body cleansers, shampoos, conditioners, lotions, cosmetics, insect repellents, skin protectants, and fragrances. Pet personal care products can include flea shampoos and flea collars.
Yes (1)
No (2)
Sometimes (3)

Q23 I purchase human PPCPs which are designed to be environmental friendly (e.g., products that have reduced, minimal, or no harm at all upon the environment).
Yes (1)
No (2)
Sometimes (3)

Q24 Now consider your own use and disposal of PPCPs. How do you usually dispose of your unused pharmaceuticals? (Choose up to 3)
Dispose down sink/toilet (1)
Dispose in garbage (2)
Mix with kitty litter or coffee grounds and then dispose in garbage (3)
Return to drop off boxes at law enforcement offices (4)
Give them to others (5)
Dispose them at regular community medicine collection event (6)
Return to health care provider (e.g., physician, pharmacist) (7)
I never have unused pharmaceuticals (8)
I keep them indefinitely (10)
Other (please specify): (9) ____________________

Q25 How do you believe the majority of others dispose their unused pharmaceuticals? (Choose up to 3)
Dispose down sink/toilet (1)
Dispose in garbage (2)
Mix with kitty litter or coffee grounds and then dispose in garbage (3)
Return to drop off boxes at law enforcement offices (4)
Give them to others (5)
Dispose them at regular community medicine collection event (6)
Return to health care provider (e.g., physician, pharmacist) (7)
I have no idea what other people do (8)
Keep them indefinitely (10)
Other (please specify): (9) ____________________

Q26 How do you usually dispose of your unused personal care products? (Choose up to 3)
Dispose down sink/toilet (1)
Dispose in garbage (2)
Give them to others (3)
Return to health care provider (e.g., physician, pharmacist) (4)
I never have unused personal care products (5)
I keep them indefinitely (7)
Other (please specify): (6) ____________________
Q27 What would help you to best choose, use, and dispose of PPCPs in a more environmentally responsible way? (Choose up to 3)
More environmentally friendly, but effective alternatives (1)
Outreach and education on best practices for PPCPs stewardship from trusted sources (2)
Take back collection events (3)
Unused PPCPs return envelopes by mail (4)
Retailer/manufacturer management collection program (5)
Drop-off collection boxes (6)
Regulations that would make it simpler for me to safely dispose of or return PPCPs (7)
Please share/explain any other potential options: ____________________

Q28 Where might be the first three places you look for information on pet PPCPs disposal?
Advice from friends, neighbors, relatives (1)
Recommendation from veterinarian (2)
Read the product information on package (3)
Advice from pet store (4)
Internet (5)
Government agency (6)
Public utility (e.g. water provider, disposal company, public health) (7)
I don't look for this information (8)

Q29 How would you prefer to learn more information on how to dispose of pet PPCPs? (Choose up to 5)
Internet (1)
Email (2)
TV (3)
Radio (4)
Physical Magazine/Newspaper (5)
Poster/Informational brochure (6)
Health care provider (e.g., pharmacist, veterinarian or other veterinary staff) (7)
Organization aligned with my profession (e.g. American veterinary association, teachers associations) (8)
Pet insurance company (9)
Law enforcement (10)
Pet PPCPs product label (11)
Garbage/disposal company (12)
Pet store (13)
Universities/extension (14)
Educators at public schools (15)
Informal learning centers (e.g. science museums, zoos, aquaria) (16)
Trade shows (17)
I'm not interested in learning more information on pet PPCPs disposal (18)

Q30 How do you usually dispose of your pet’s unused pharmaceuticals? (Choose up to 3)
Dispose down sink/toilet (1)
Dispose in garbage (2)
Mix with kitty litter or coffee grounds and then dispose in garbage (3)
Return to drop off boxes at law enforcement offices (4)
Give them to other pet owners (5)
Dispose them at regular community medicine collection event (6)
Return to pet health care provider (e.g., pharmacist, veterinarian) (7)
I never have unused pet pharmaceuticals (8)
I keep them indefinitely (10)
Other (please specify): (9) ____________________

Q31 How do you believe the majority of other pet owners dispose their pet’s unused pharmaceuticals? (Choose up to 3)
Dispose down sink/toilet (1)
Dispose in garbage (2)
Mix with kitty litter or coffee grounds and then dispose in garbage (3)
Return to drop off boxes at law enforcement offices (4)
Give them to other pet owners (5)
Dispose them at regular community medicine collection event (6)
Return to pet health care provider (e.g., pharmacist, veterinarian) (7)
I have no idea what other people do (8)
Keep them indefinitely (10)
Other (please specify): (9) ____________________

Q32 How do you usually dispose of your pet’s unused personal care products? (Choose up to 3)
Dispose down sink/toilet (1)
Dispose in garbage (2)
Give them to other pet owners (3)
Return to pet health care provider (e.g., pharmacist, veterinarian) (4)
I never have unused pet personal care products (5)
I keep them indefinitely (7)
Other (please specify): (6) ____________________

Q33 Now consider your feelings about the environment in general. How well informed would you consider yourself to be concerning environmental issues in your state?
not informed (1)
somewhat informed (2)
informed (3)
very well informed (4)

Q34 Please share any additional comments, questions, or ideas on the topics addressed in this survey:
NOTE: The following are additional questions asked only to the veterinary care professional respondents

Q35 Now looking at your profession: The American Veterinary Medical Association (AVMA) has practices for pharmaceutical disposal: https://www.avma.org/KB/Policies/Pages/Best-Management-Practices-for-Pharmaceutical-Disposal.aspx. **What percent of your appointments do you discuss with your clients (pet owners) on pharmaceutical disposal methods?** (Click on the sliding tab below to select what you estimate to be the percentage of appointments where you share and/or discuss pharmaceutical disposal)

______ Appointments where pharmaceutical disposal methods are discussed (1)

Q36 **What percent of your appointments do you educate your clients (pet owners) on personal care product choice and disposal methods?** (Click on the sliding tab below to select what you estimate to be the percentage of appointments where you share and/or discuss personal care product choice and disposal methods).

______ Appointments where personal care product choice and disposal methods are discussed (1)

Q37 **What barriers (if any) do you encounter in conveying and discussing pharmaceutical disposal and personal care product choice and disposal information with your clients?**

Q38 **What solutions or actions can assist you in better conveying and discussing pharmaceutical disposal and personal care product choice and disposal information with your clients?**