MID-WILLAMETTE VALLEY

MOSQUITO BORNE DISEASE RESPONSE PLAN

(West Nile Virus)

The role of the County Health Department will include disease surveillance, communicating WNV disease risk to the public and medical community, providing information about WNV disease and actions people can take to limit their exposure to WNV, and coordinating prevention and control efforts with other local governments, allied agencies, and the medical community. The public will also have a role in the prevention and control of WNV disease.

The level of public health response will be based on the risk of WNV transmission to humans. If surveillance indicates an increased or increasing risk of WNV transmission to humans, then surveillance and control measures will be enhanced given the availability of local resources. In the event of a significantly increased risk of WNV transmission to humans, application of pesticides will be considered to control adult mosquito populations in specified high-risk areas. Standardized information, status updates, and pesticide application information including schedules, type of pesticides being used, and precautions to reduce public exposure to these pesticides will be conveyed to the public.

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STATUS – VERY LOW RISK OF HUMAN INFECTION: The current situation, i.e., no virus identified in state but adjoining states have had virus in animals at end of last mosquito season.

COMMUNICATION

Messages:

- Health information about West Nile Virus disease
- Disease surveillance and mosquito monitoring systems in place (State of Oregon network, vector control districts)
- Household prevention measures via phone, print, and web
  - Mosquito prevention at home
  - Personal protection
  - "How to Report Dead Birds" and "How to Report Standing Water"

Methods:

- Identify stakeholder groups including allied agencies.
- Prepare materials for dissemination to public via print, phone, and web.
- Develop materials to reach people with low reading levels and people whose primary language is Spanish.
- Public forums (trade shows, fairs, etc.) as staff time allows.
- Media outreach, one effort prior to mosquito season (May), another effort prior to peak disease risk season in (July).

- Communicate with doctors, clinics, hospitals, etc.
- Advise Emergency Management Agency of status/efforts.

MONITORING

Agents:

- Horses
- Dead corvids
- Sentinel chicken flocks (existing)
- Mosquito pools with WNV infection (Vector Control Districts)

Methods:

- Monitor Department of Agriculture and local veterinarian reports of WNV positive horses.
- Publish local Env. Health phone numbers and participate in submitting of dead birds to OSU Vet. Diagnostics as funds are available. Only one positive bird per zip code will be tested, but monitoring and mapping unusual dead bird information will continue.
- Monitor results of sentinal chicken flock testing through OHS/HS and vector districts with sentinel flocks.
- Monitor information from OHS/HS and vector control districts or others that may be sampling for positive pools of mosquitoes.

SOURCE CONTROL

Potential Sources:

- Storm sewer systems
- Nuisance sites
- Parks
- Public works facilities
- Mapping potential sites
- Ordinance adoption to provide abatement

Methods:

- Communicate with cities and drainage districts regarding their role in maintaining storm water systems to reduce potential breeding areas for Culex mosquitoes.
- Map possible nuisance sites via complaint or on own initiative as time allows. Recruit volunteers to assist in identifying possible sites and conducting dip sampling.
- Communicate with cities and county parks agencies to reduce potential breeding sites, provide information on Bti dunkettes and efficacy and efficiency.
- Communicate with city, county and utilities with facilities that may have containers, tires other breeding containers.
- Work with GIS departments to set up a mapping system to map potential sites, mosquito presence and numbers, pool testing results, treatment, etc.
- Communicate with elected officials regarding review of their nuisance ordinances to be able to better deal with mosquito nuisance sites.

MOSQUITO CONTROL

Action:

- Consider selective sites for larviciding in urban and suburban areas with medium to high risk based on population density.
- Plan for other expanded control measures
- Identify potential funding sources

Methods:

- Identify potential breeding areas near urban and suburban areas.
- Communicate with pesticide applicators regarding their interest and availability to provide this service.
- Monitor fate of federal legislation that would provide grants through states to local agencies.

STATUS – LOW RISK OF HUMAN INFECTION: An isolated incident of a positive bird or horse in Oregon or in adjoining counties in Washington, or a single positive test for arbovirus in a mosquito pool from state or vector control district surveillance in Oregon.
AND
In the area where a positive bird or mosquito pool was found, competent vector mosquito populations are low and no large die-off of birds (specifically corvids) has been reported.

COMMUNICATION

Messages: The County Health Department has a plan in place to reduce the threat of WNV which includes disease surveillance, identification and monitoring of mosquito breeding sites, mosquito control activities, and precautions the public can take to reduce their exposure to mosquitoes.

- Prevention activities will reduce mosquito populations and minimize the need for pesticide applications.
- State disease surveillance efforts help with early identification of WNV arrival in the area by testing larval and adult mosquitoes, sentinel chickens, and dead crows for WNV. Veterinarians are encouraged to report cases in horses.
- Mosquito management and control activities: public education on removing standing water and other breeding sites, proper use of larvicides and other control measures by individuals to reduce the number of mosquitoes.
- Personal protective measures such as clothing, repellents and repair of window & door screens.
- Public to report unusual numbers of dead birds (more than one) and large areas of standing water through telephone information line or online. Include info on proper handling and disposal of dead birds.

Methods:

- Disseminate fact sheets or Q/A sheets in multiple languages
- Update website links.
- Create a master database encompassing contacts in other jurisdictions, public health

officials, and the scientific community, as well as collaborators, associations, and community organizations.
- Communicate with contacts via mail, fax, and email.
- Brief elected officials including County Boards of Commissioners, City Councils, etc.
- Educate medical providers on encephalitis, meningitis, reporting requirements, and how to submit specimens for lab testing. Updates on WNV to reinforce reporting requirements. Utilize local and state Medical Society publications, website, fax, email groups, and Oregon Department of Human Services' Current Disease Summary.
- Distribute print material to community organizations, neighborhood associations, schools, senior centers and care facilities, libraries, recreation centers, etc.
- Brief media, provide periodic status reports as needed via media releases.
- Presentations to a variety of organizations at community fairs and other public gatherings as staff time allows.
- Collaborate with business and other jurisdictions to disseminate prevention messages.
- Communicate with County employees via the county intranet.
- Blanket distribution of brochures in schools while still in session.
- Contact with doctors, clinics, hospitals, infection control and labs with emphasis on WNV symptoms and immediate reporting
- Increase nuisance abatement efforts as staff resources allow
- Share monitoring data with cities.

MONITORING

Agents:
- Horses
- Dead corvids
- Sentinel chicken flocks (existing)
- Mosquito infection (Vector Control Districts)
- Local mosquito speciation and data gathering of breeding sites in suburban and urban areas

Methods:
- Actively conduct outreach efforts to local veterinarians to assure their reporting of WNV in horses in the county.
- Watch for possible candidate birds for testing, continue mapping reports of unusual die off.
- Consider an active effort to contact to vector control districts for them to let us know when they have a positive flock.
- Consider an active effort to contact vector control districts for them to let us know when they have a positive pool.
- Work with an entomologist for assistance in determining species present in those sites near urban and suburban areas.

SOURCE CONTROL

Potential sources:
- Storm sewer systems

- Nuisance sites
- Parks
- Public works facilities
- Mapping potential sites
- Ordinance adoption to provide abatement

Methods:
- Notify cities and drainage districts that there has been a positive animal and see if they have begun planning action.
- Consider sending letters to those sites previously identified suggesting abatement.
- Notify cities and county agencies that there has been a positive animal nearby and see if they have begun planning any action.
- Notify city, county and utilities with facilities that there has been a positive animal in an adjoining area.
- Continue mapping possible sites, mosquito numbers, and treatment if conducted.
- Contact cities to see if they are considering additional nuisance adoption to specifically address mosquito breeding areas in their codes.

MOSQUITO CONTROL

Action:
- Plan for initiating or expanding mosquito control measures.
- Plan for selected larviciding in suburban and urban areas.
- Draft agreements in place for larviciding.
- Prepare to monitor for effectiveness of larvicide.

Methods:
- Base decision to take action on data gathered regarding presence of culex mosquitoes, total mosquito count data from vector districts that have the ability to monitor and and if population numbers are higher than average in proximity to urban and suburban areas, identify potential treatment sites.
- Base decision to begin larviciding on data gathered regarding presence of culex mosquitoes, numbers from vector districts that have the ability to monitor and compare this years numbers to other years, proximity to urban and suburban areas, identify potential treatment sites, determine possible costs to treat identified areas.
- Enter into agreements with contractors for larviciding.
- Assign volunteers to be prepared to resample mosquitoes breeding areas if treated.

STATUS – INCREASED RISK OF HUMAN INFECTION: Positive bird or horse in valley or positive human case in State or rural area of valley.

COMMUNICATION

Messages:
- Provide information to Veterinarians to monitor encephalitis and other mosquito-borne

disease among pets and horses.
- Publicize telephone hotline and/or website for information and to report standing water.
- Encourage protective measures such as clothing, repair of window & door screens, and use of insect repellent when outdoors.
- Educate medical providers on encephalitis, meningitis, reporting requirements, and how to submit specimens for lab testing. Provide monthly updates on WNV to reinforce reporting requirements.
- In the event that larvicide application becomes necessary; the Health Department will make every attempt to minimize adverse impacts to the environment and human health and provide current information on larviciding activities

Methods:
- Continue dissemination of radio and television Public Service Announcement scripts and frequent media releases.
- Provide frequent updates to Environmental Health website to reflect the most current information and include local maps to describe geographic areas in which WNV has been identified. Website should have the ability to receive email.
- Use State's telephone hotline with recorded messages.
- Utilize local and state Medical Society publications, websites, fax, email groups. Oregon Department of Human Services' Current Disease Summary. Email to Hospital infection control.
- Elicit assistance from educators and health outreach workers to provide grassroots community education.
- Communicate with County employees via county intranet.
- Collaboration with other jurisdictions to disseminate messages.

MONITORING

Agents:
- Horses
- Dead corvids (only one positive bird need be found for a zip code area)
- Human cases and location of exposure
- Increased monitoring of larva numbers in high risk areas

Methods:
- Continue monitoring and mapping illness sites.
- Continue to watch for opportunities to submit birds for testing in those zip code areas that have not had a positive bird, monitor and map unusual die off of corvids regardless of zip code.
- Monitor and map location(s) of human case(s), identify possible exposure location.
- Locate sites for additional monitoring of numbers and speciation of larvae in those areas.

SOURCE CONTROL

Potential sources:
- Storm sewer systems

- Increase nuisance site abatement Parks
- Public works facilities
- Mapping potential sites
- Increased identification of possible breeding areas in rural areas

Methods:

- Contact cities and drainage districts to determine what, if anything, (and when) they intend to do since there is a positive animal in the vicinity.
- Consider taking abatement action against those sites that have a significant human population and are near urban and suburban areas, particularly if there is dead birds, sick horses or human illness with probable local exposure history.
- Contact city and county parks agencies to determine what, if anything, they intend to do or have done since there is a positive animal in the vicinity.
- Monitor ongoing efforts to reduce breeding areas.
- Continue mapping activities, include breeding areas in rural areas, illness, dead corvids, horses, human cases, positive mosquito pools, etc.

MOSQUITO CONTROL

Actions:

- Consider preparation for selected larviciding in suburban and urban areas and consider expansion into rural areas where human cases are located
- Consider preparation for adulticiding
- Monitor effectiveness of larvicide and adulticiding if being done

Methods:

- Base decision to larvacide on data gathered regarding presence of culex mosquitoes, numbers from vector districts that have the ability to monitor and a comparison of this years numbers to other years, proximity to less urban and suburban areas with a human case, identify potential treatment sites (Use supplemental matrix to assist in scoring risks).
- Base decision to adulticide in localized suburban and urban areas and consider for rural areas based on positive human cases and numbers of adult mosquitoes present and time of year (Late June through August is most likely time for WNV in humans and use supplemental matrix to assist in scoring risks).
- Continue monitoring and re-sampling of treated sites, consult with entomologist or vector districts if applications have not reduced numbers.

STATUS – SIGNIFICANT RISK OF HUMAN INFECTION: Multiple positive birds and/or horses in valley and positive human case in urban/suburban areas in the valley.

COMMUNICATION

Messages: The county health department will provide further public education on the signs and symptoms of WNV, and specific information on pesticides used on adult mosquitoes.

- Public awareness of signs and symptoms of WNV.

- As needed, information on adulticides being used, including application schedules and locations, how to reduce human exposure, and what to do in the event of pesticide exposure.
- Alert medical providers and Poison Control Hotline of potential for reporting of pesticide exposures to them. Advise public to contact Poison Control Hotline and medical provider with any reported exposures.
- Specific product information on pesticides will be made available to the public.

Methods:
- Communication with health care providers, hospitals, to announce spraying is to occur.
- Posting of spraying locations and schedules on website.
- Dissemination of radio and television Public Service Announcement scripts and frequent media releases.
- Encourage people to reduce or limit outdoor activities and use repellent safely (accordign to manufacturers label recommendations.
- Door hangars in high risk areas.

MONITORING

Agents:
- Human cases
- Mosquitoes

Methods:
- Map human cases and try to identify location of exposures.
- Continue monitoring so that "end of season" can be declared, return to lesser status of response

SOURCE CONTROL

Potential sources:
- Storm sewer systems
- Nuisance site abatement
- Parks
- Public works facilities
- Mapping potential sites
- Continue identification of possible breeding areas in rural areas

Methods:
- Encourage agencies to treat (larvacide) based on number of human cases.
- Take proactive effort to abate nuisance breeding sites in areas where there are multiple human cases and the vector is present.
- Encourage parks agencies to identify, reduce, and eliminate breeding areas for Culex mosquitoes.
- Encourage public works facilities to identify, reduce, and eliminate breeding areas for Culex mosquitoes.
- Continue mapping activities.

- Where there are multiple human cases in urban or suburban areas and isolated cases in rural areas, continue to identify breeding areas more distant than urban and suburban.

MOSQUITO CONTROL

Actions:

- Evaluate larviciding in suburban and urban areas and consider expansion into rural areas where human cases have occurred (use supplemental matrix to score risks).
- After consulting with participating counties, DHS/HS, CDC, etc. and elected officials to determine whether adulticiding should be started, decide whether to initiate adulticiding in localized suburban and urban areas based on positive mosquitoes in area and numbers of adult mosquitoes present and number of human cases in the specific areas. Consider options such as contracting for services or using certified/licensed city/county employees.
- Monitor effectiveness of larvicide and adulticiding if being done.
- Evaluate declaration of emergency after consulting with HS, CDC, cities and other counties in area in order to expand larviciding and adulticiding. Consider long term control options as necessary.

Methods:

- Consult with participating counties, DHS-HS, CDC, etc. elected officials to determine whether larvidicing and/or adulticiding should be started or expanded.
- Monitor effectiveness of treatment.
- If local resources are exhausted or if there are multiple deaths, and public is insistent of treatment, consider an emergency declaration by County Commissioner(s).
- Based on number of positive humans and deaths, as well as status of possible federal funding, begin discussion about a long term plan for mosquito control.

WEST NILE VIRUS TELEPHONE HOT LINE

LANGUAGE PROMPT SCRIPT

You have reached the ___ County West Nile Virus Information line. If you want to listen to this message in English press 1, Spanish press 2.

MESSAGE OPTIONS SCRIPT

Thank you for calling the ___ County West Nile Virus Information line***. West Nile Virus has not been detected in Oregon or ___ County?*** Please review the following topics for further information: for the number of the Oregon DHS WNV Information Line press1; To Report Dead Birds or Standing Water press 2; for Local Mosquito Control Measures in Progress press 3; To speak with a receptionist press 0. If you need to repeat the options again press *

After WNV detection in Oregon, all messages will need to be changed to:

Thank you for calling the ___ County West Nile Virus Information line. ***As of _____ (date) West Nile Virus has been detected in ___ County (ies) in Oregon.*** Please review the following topics for further information: Messages 1-4 above.

OREGON DHS WNV INFORMATION LINE SCRIPT

The Oregon Department of Human Services maintains a toll free West Nile Virus telephone information line. You may access that line by dialing 1-866-703-4636.

TO REPORT DEAD BIRDS OR STANDING WATER SCRIPT

Call County Health Department at xxx-xxx-xxxx and leave a message at the tone, or report via web at www.co.xxxx.or.us
or email at xxxx@co.xxxx.or.us. The County Health Department will coordinate follow-up with cities as appropriate.

LOCAL MOSQUITO CONTROL MEASURES IN PLACE SCRIPT

(Low Risk)

The risk of human disease from WNV in _____County is low. There are no local mosquito control measures in place.

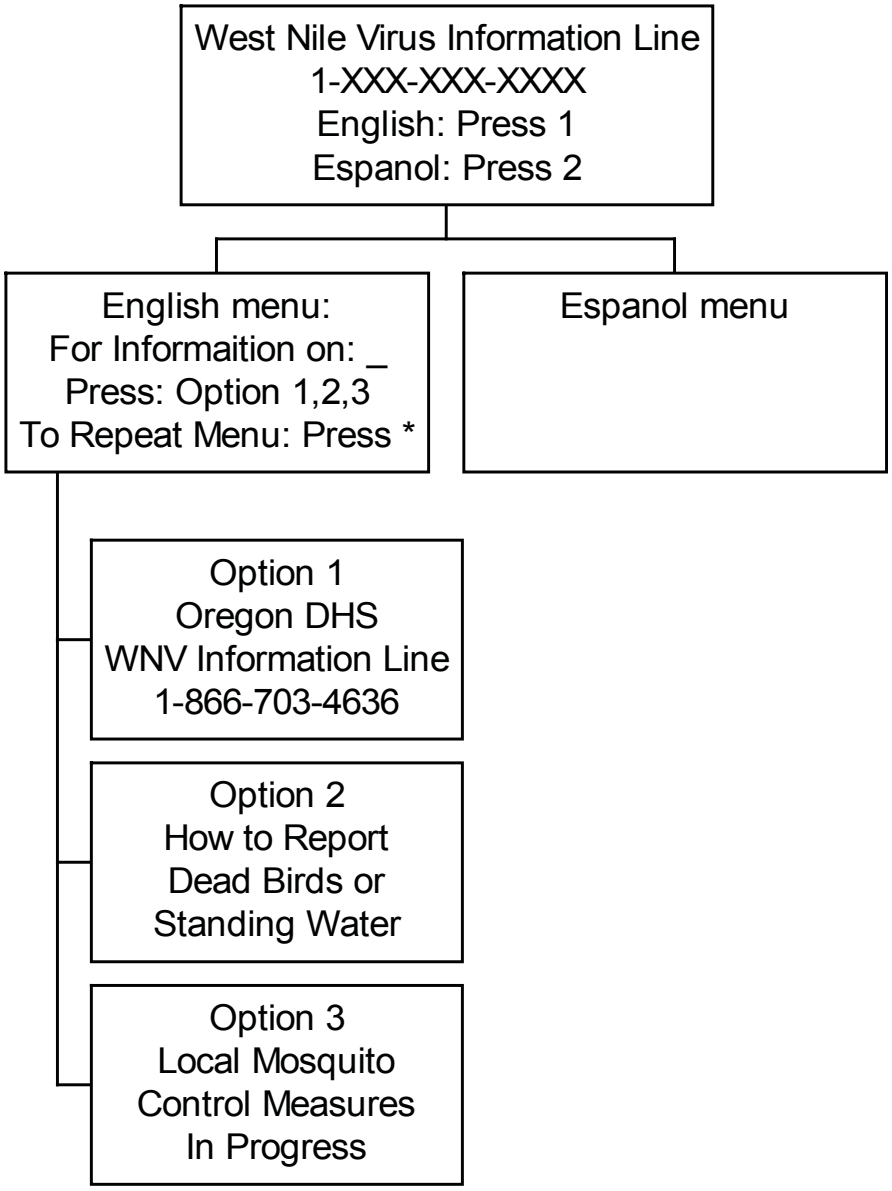
(Increased Risk-Larvicide)

At this time treatment for mosquitoes is limited to larvicide in specifically identified areas supporting large mosquito breeding populations. There is no pesticide exposure risk to humans.

(Significant Risk-Adulticide)

As of _____(current date), XXXX City/County has initiated adult mosquito control due to the presence of West Nile virus. For spray schedule information refer to the County website @ www.xxx.xxx

To leave a message or speak with a receptionist press “0”


West Nile Virus Information Line
1-XXX-XXX-XXXX
English: Press 1
Espanol: Press 2
English menu:
For Informaition on: _
Press: Option 1,2,3
To Repeat Menu: Press *
Espanol menu
Option 1
Oregon DHS
WNV Information Line
1-866-703-4636
Option 2
How to Report
Dead Birds or
Standing Water
Option 3
Local Mosquito
Control Measures
In Progress

Animal Collection Contact			
County	Department	Staff Name	Telephone
Baker		Becky Sanders	541-523-8212
Benton	Corvallis Police		541-766-6924
Clackamas		Steve Dahl_	503-655-8386
Clatsop		Christie Larson	503-325-8500
Columbia		Mark Edington	503-397-4651
Coos		Lilo Kirn	541-756-2020, ext. 519
			pager 541-259-4727
Crook		Debbie George	541-447-5165
Curry		Steve Nagel	503-247-2514
Deschutes	EH	Eric Mone	541-388-6519
	Four Rivers VC	Bruce Landolt	503-593-1689
Douglas		Terry Westfall	541-440-3571
Gilliam		Cindy Hess	541-384-2061
Grant		Johnni Tutus	541-575-0429
Harney		Marilyn Scheen	541-573-2271
Hood River		Darryl Barton	541-387-6885
Jackson	Jackson Co. VC	Eugene Papineau	541-779-6460
Jefferson		Jerry Street	541-475-4456
Josephine		Sylvia Mireles	541 474-5334
Klamath		Delbert Bell	541-883-1122
Lake		Mary Wilkie	541-947-6045
Lane	phone nurse		541-682-4041
Lincoln		Gail Stater	541-265-4127
Linn		Anita King	541-967-3821 ex 237
Harney		Cheryl Keniston	541-573-2271
Malheur		Ray Huff	541-473-5186
Marion		Joe Fowler	503-361-2790 w
			503-932-7262 cell
		Rick Sherman	503-588-5387 w
			503-932-0341 cell
Morrow		Sheree Smith	541-676-5421
		Jennifer Jacca	541-676-5421
Multnomah	MCVNC		503-988-3464
Polk		Jim Solvedt	503-623-9237
Tillamook		Annette Pampush	503-815-4333
Umatilla		John Rodakowski	541-278-5432
Union		Charles Gillis	541-962-8865
Wallowa		Renita DeVore	541-426-4848
Wasco Sherman		Glenn Pierce	541-296-4636
		John Zalaznik	541-296-4636
		Karel Smit	541-296-4636
Washington		Toby Harris	503-846-4792
Wheeler		Karen Kiskela	541-763-2725
Yamhill		Jan Paine	503-434-7483

Human Disease Contact			
County	Department	Staff Name	Telephone
Baker		Becky Sanders	541-523-8212
Benton		Charlie Fautin	541-766-6840
Clackamas		Joan Derry	503-650-3505
Clatsop		Christie Larson	503-325-8500
Columbia		Karen Ladd	503-397-4651
Coos		Donna Johnson	541-756-2020, ext. 526
			pager 541-269-4836
Crook	Health	Wendy Perrin	541-447-5165
Curry		Georgianne Greene	541-247-3268
Deschutes		Mari DeReus	541-322-7418
Douglas		Eugene Regan	541-440-3571
		Karen Vian	541-440-3571
Gilliam		Cindy Hess	541-384-2061
Grant	Health	David Cary	541-575-2623
Harney		Marilyn Scheen	541-573-2271
Hood River		Allyson Smith	541-386-1115
			541-386-2711 (after hrs)
Jackson		Yvonne Chilcoat	541-774-8209
Jefferson		Diane Seyl	541-475-4456
Josephine		Pam Dykes	541 474-5335
		Cat Metz	541 474-5325 x2225
		Jeanne Zoppo	541-474-5325 x 2223
Klamath		Amy Markum	541-882-8846
Lake		Mary Wilkie	541-947-6045
Lane		phone nurse	541-682-4041
Lincoln	CD	CD RN	541-265-4112
Linn		Debbie Wallace	1-800-304-7468
			541-967-3888
Harney		Marilynn Scheen	541-573-2271
Malheur		Dr. Morris Smith	541-889-7279
Marion		Laynie Smith	503-588-5403
			503-932-7258 cell
		Pamela Heilman	503-588-5612 w
			503-932-6631 cell
		Carol Ann Honeywell	503-588-5621
		Nancy Beachy RN	503-588-5621
Morrow	Health	Sheree Smith	541-676-5421
Multnomah	CD		503-988-3406
Polk		Connie Montague	503-623-8175
Tillamook		Laurie Ammerman	503-815-4028
Umatilla		John Rodakowski	541-278-5432
Union		Charles Gillis	541-962-8865
Wallowa		Dr. Rusty Woods	541-426-0505
Wasco Sherman		Heather Smead	541-296-4636
Washington		Roberta Hellman	503-846-4745
Wheeler	Health	Karen Koskela	541-763-2725
Yamhill	CD	Jan Paine	503-434-7483