

Buprenorphine:
Balancing Access with Quality of Care
— 2008

Rural Women: Prescription Overdose
Deaths

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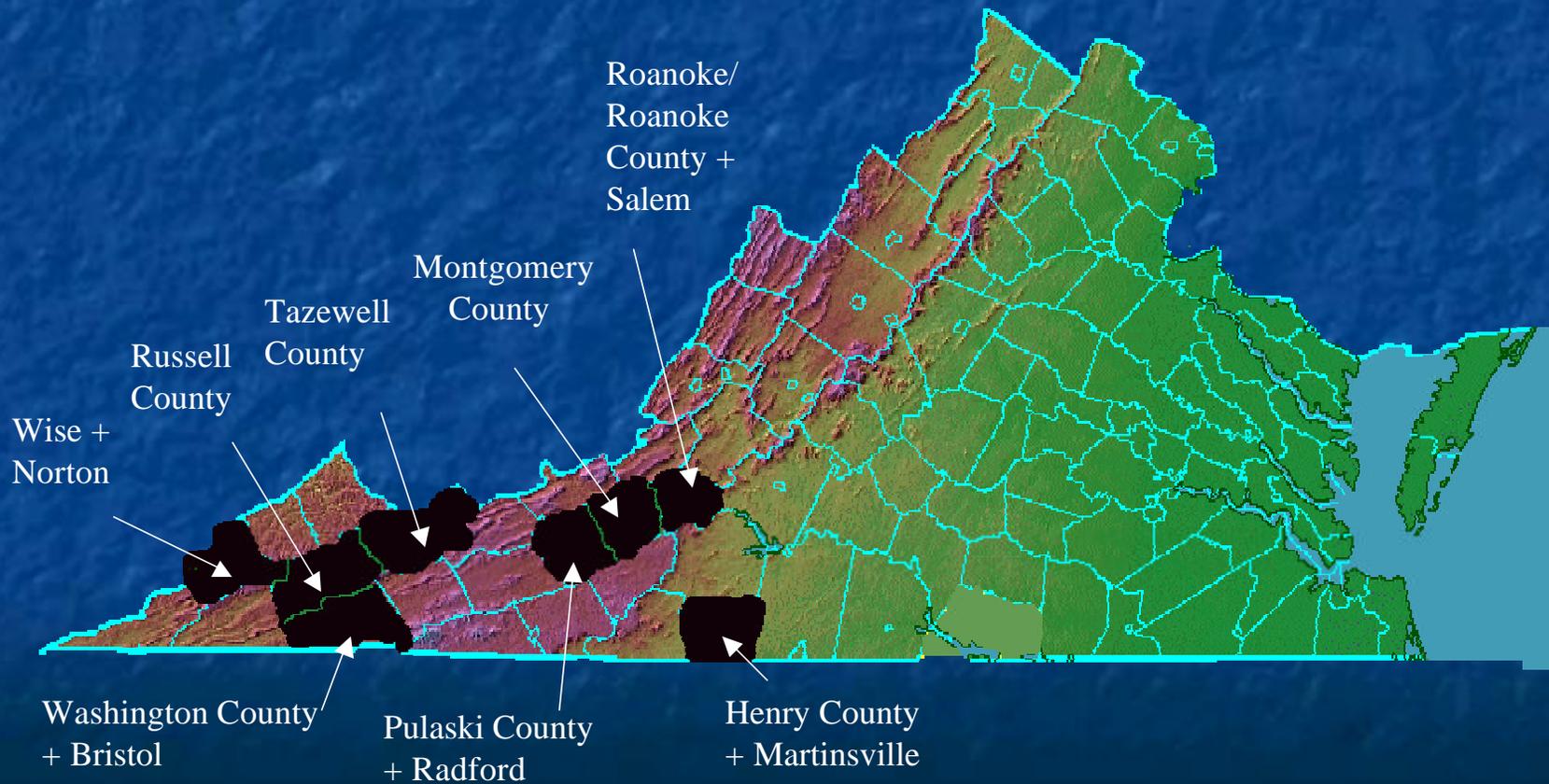


"Opioid Mortality in Southwestern Virginia"

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*National Institute of Drug Abuse RO3 DA019047-01A1

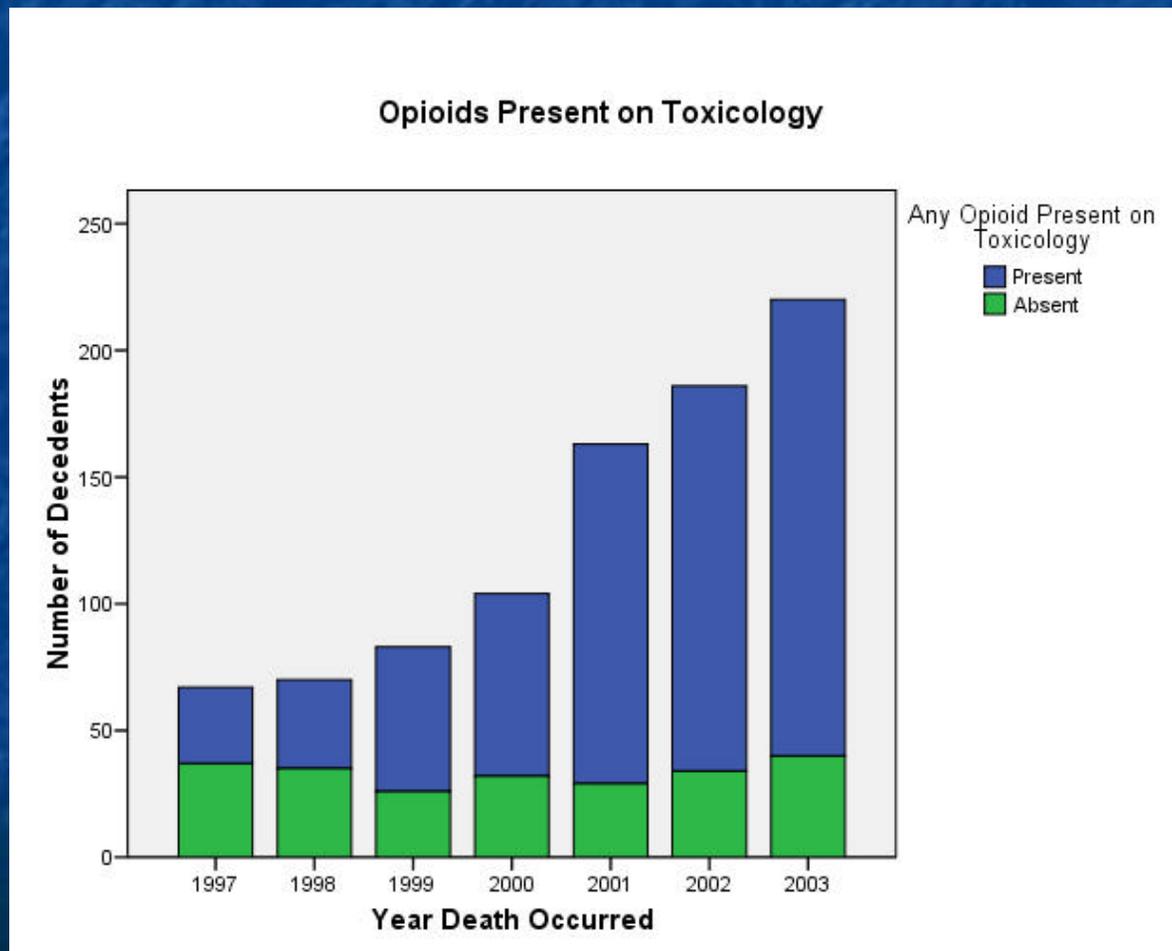
Geographic Area Opioid Deaths in Rural Virginia



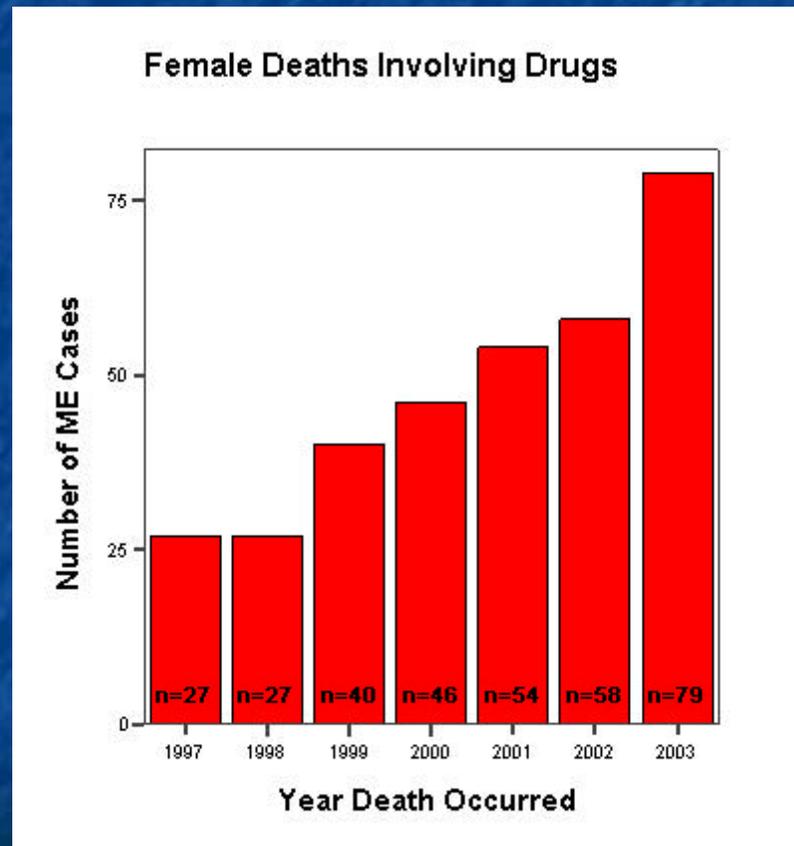
Methods

- 893 "Drug Death" OCME Files 1997-2003
 - Autopsy Results
 - Death Certificates
 - Death Scene Investigations
 - Police Reports
 - Toxicology Reports
 - Physician Notes
 - Hospital Records (ER, Inpatient, Psych)

Increase in Deaths Linked to Opioids



Drug Deaths: Growing Problem Among Women



Manner of Death: Majority Accidental

Manner of Death	
Accident	58.3%
Suicide	37.6%
Undetermined	3.8%
Natural	0.4%

Increasing Opioids among Women Decedents

Female Decedents with Opioids Found on Toxicology

Year	Opioids Absent	Opioids Present	% Opioids Present
1997	16	11	40.7
1998	13	14	51.9
1999	14	26	65.0
2000	16	30	65.2
2001	12	42	77.8
2002	16	42	72.4
2003	16	63	79.7

$\chi^2=20.88, p<.01$

Prescriptions in Decedent Name

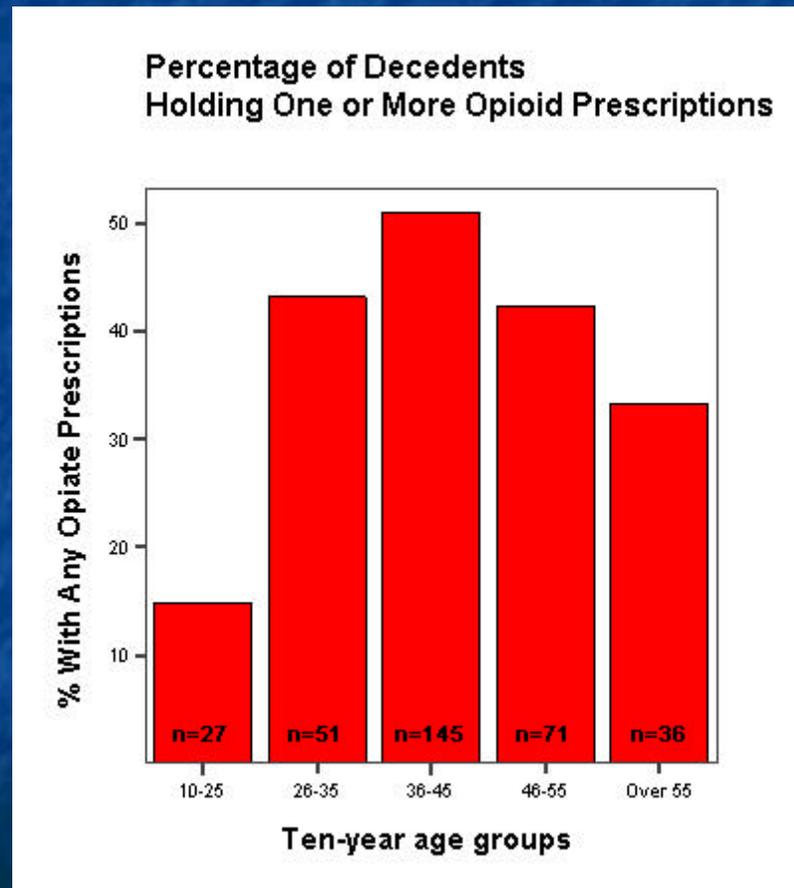
A decedent was noted to have a prescription for a medication if a bottle in their name was found at death scene, noted as prescribed in a medical record, or listed in death scene pharmacy log

What Prescriptions were found?

Medication	Percent Holding Prescription
Any Opioid	47.2%
Hydrocodone	21.7%
Methadone	7.1%
Oxycodone	12.0%
Any Benzodiazepine	47.2%
Any Anti-depressant	42.3%

Of those with any opioid present, 42.7% held an opioid prescription.

Women with 1 or more Opioid Prescription



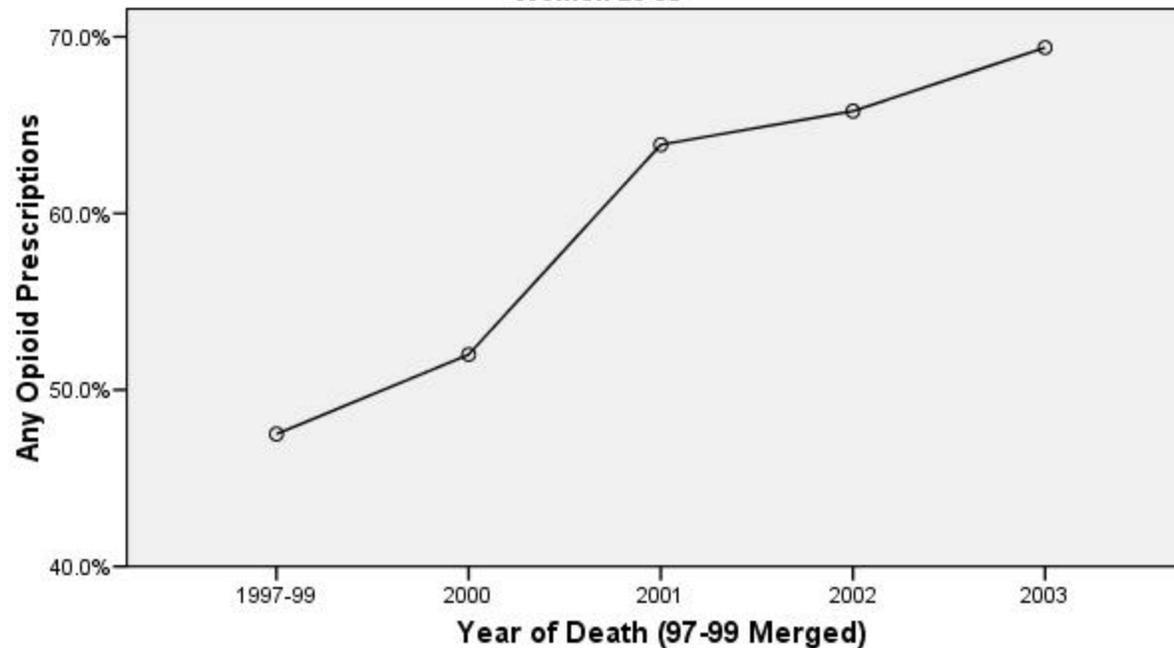
What Opioids are found on Toxicology?

Opioid	Percent of Positive Cases
Methadone	19.9%
Oxycodone	16.1%
Hydrocodone	22.8%
Fentanyl	5.6%
Morphine	10.5%
Propoxyphene	9.7%
Tramadol	5.6%
Heroin	0.7%

Positive Opioid Toxicology with a Prescription?

Decedents Positive for Opioids on Toxicology Holding Opioid Prescriptions

Women 26-55



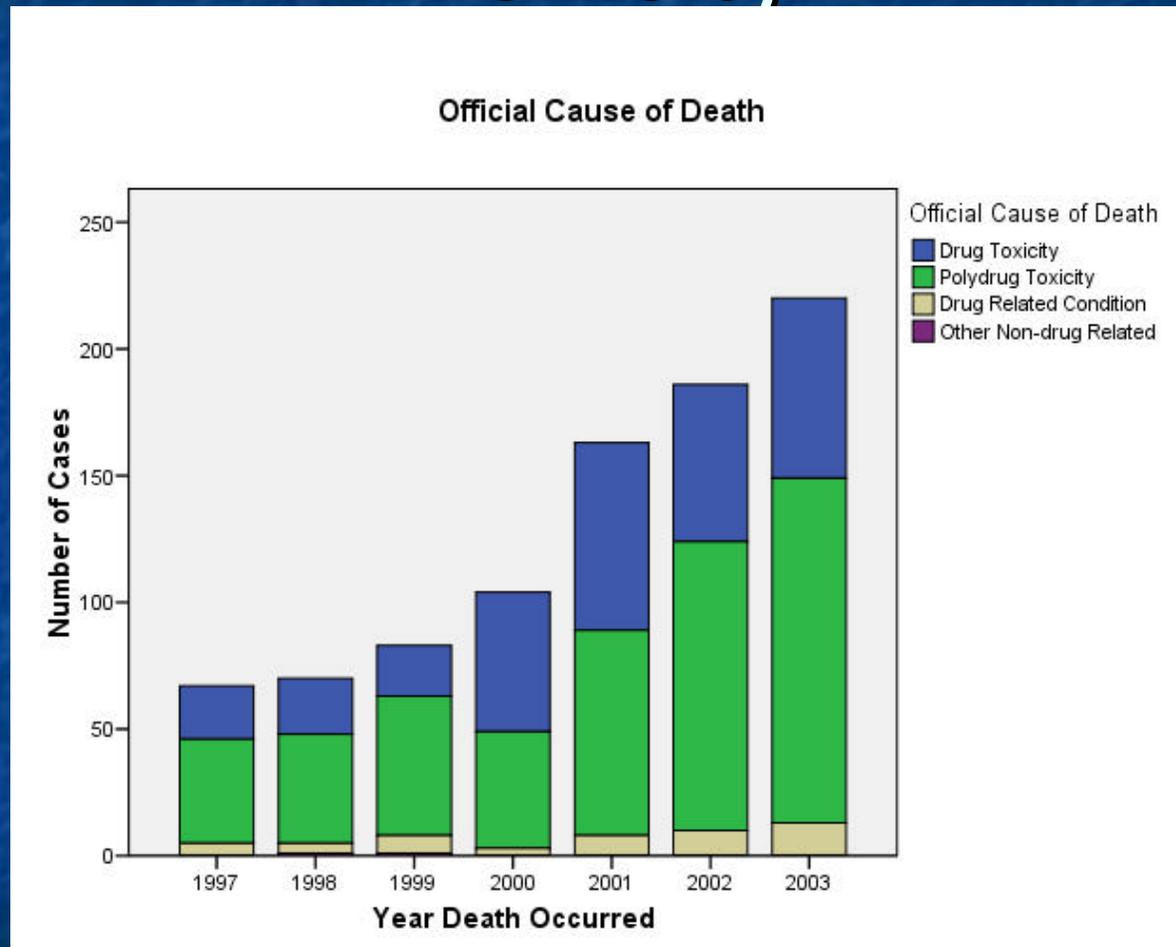
Opioid Positive Cases Holding Prescription

	Medication (% holding Rx)			
	Fentanyl	Hydrocodone	Methadone	Oxycodone
1997-99	0.0	17.5	5.0	7.5
2000	0.0	16.0	0.0	16.0
2001	2.8	33.3	8.3	19.4
2002	10.5	31.6	21.1	13.2
2003	14.3	32.7	12.2	18.4

Note: dramatic increase from 2000-2001; no single drug responsible

Note: shift away from Oxycodone in 2002 with coincident increase in Methadone

Most cases were Poly-drug Toxicity



Note: Proportion of poly-drug cases not significantly different over time, $p > .20$

What medications were identified in those cases?

Classes Present	Percent Positive Cases
Opioids & Benzodiazepines	33.3%
Opioids & Anti-depressants	47.2%
Opioids, Benzodiazepines, & Anti-depressants	23.2%

Health Problems: Physician Dx

Condition	Percent
Chronic Pain	38.6%
Depression	53.2%
Anxiety	22.1%
Psychotic Disorder	12.0%
Bi-polar Disorder	7.9%
Personality Disorder	5.2%
Previous Suicide Attempts	24.7%
BMI 30 or Above (calculated at autopsy)	40.9%
Disabled (unable to work from Death Certificate)	24.6%

Summary

- Dramatic Increase in Drug Deaths in rural SW Virginia with prescription Rx
- Notable increase among women
 - Women age 35-54 years old predominated
- Prescription medications identified on toxicology
- By 2003, 70% of women positive toxicology had a prescription..for an opioid