

# Diabetes Audit Results, Portland Area, 2004-2013

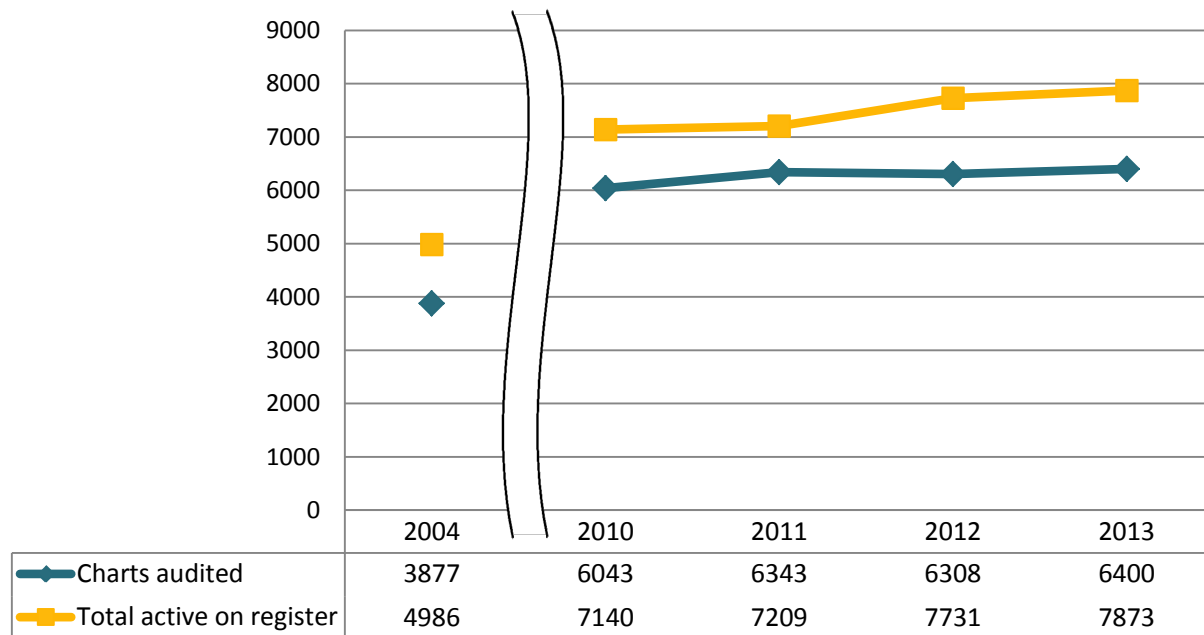
## Site-Specific Trends

The following report contains information from your program's annual diabetes audit submission to the Indian Health Service over the past few years. The report was prepared for your site by the Western Tribal Diabetes Project at the Northwest Portland Area Indian Health Board, which receives Special Diabetes Program for Indians (SDPI) funding to assist Northwest tribes in managing their diabetes information. If you have any questions about the report, or if you would like this report in Excel format, please contact the Western Tribal Diabetes Project at [wtdp@npaihb.org](mailto:wtdp@npaihb.org) or (800) 862-5497.

### Notes:

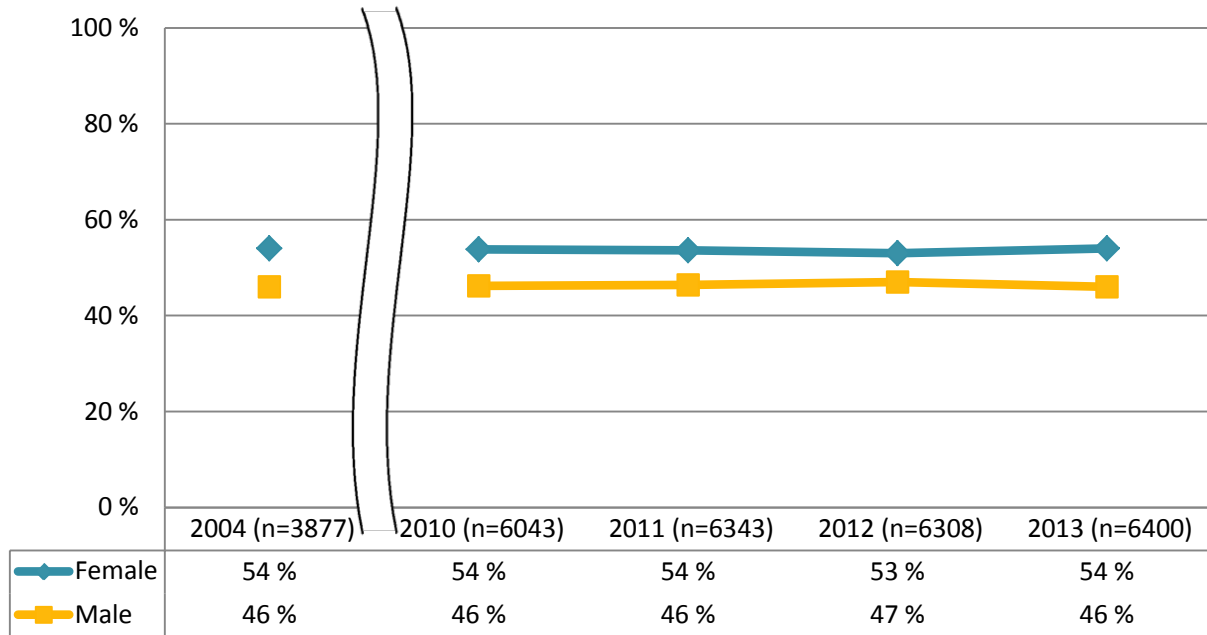
- Due to rounding, charts will occasionally not add up to 100%.
- Data are presented by the year in which the data were submitted. Most likely, the patient care reflected in the audit was delivered in the previous year. For example, the columns 2011 in these charts reflect care that was delivered in 2010.
- Blank spaces have been left for some indicators in years when information was not reported.

### Patients in the Diabetes Register

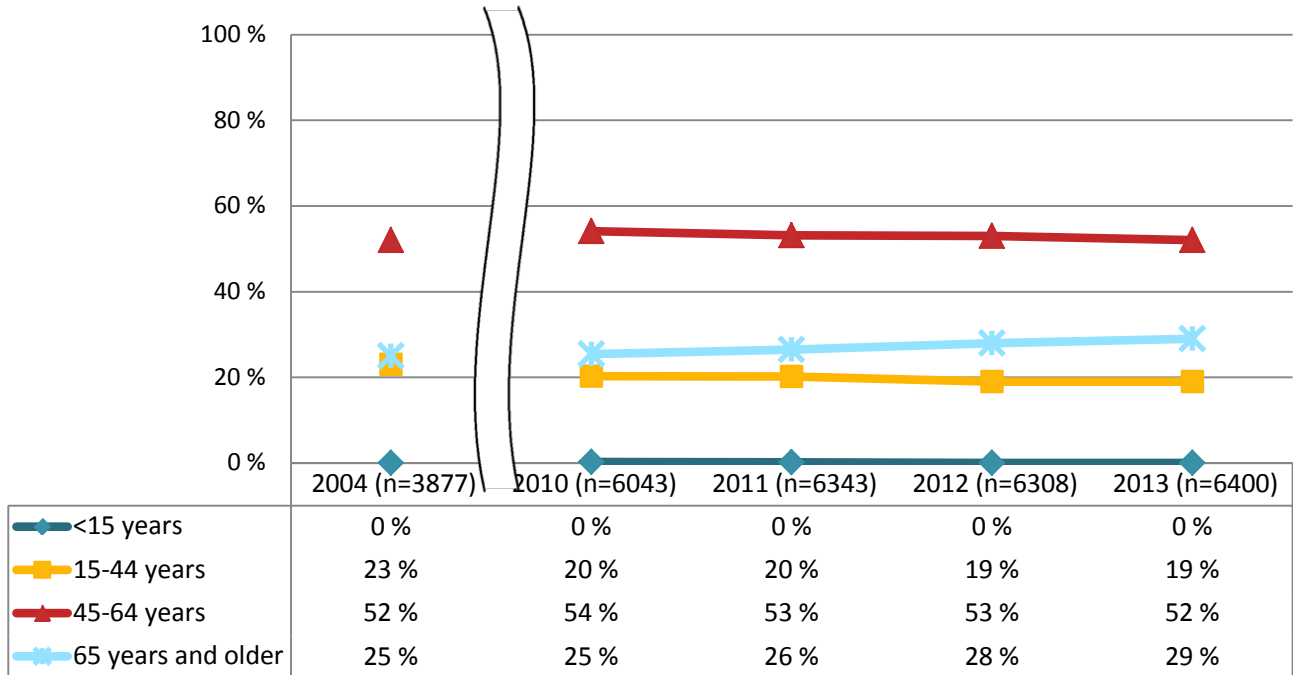


# Diabetes Audit Results, Portland Area, 2004-2013

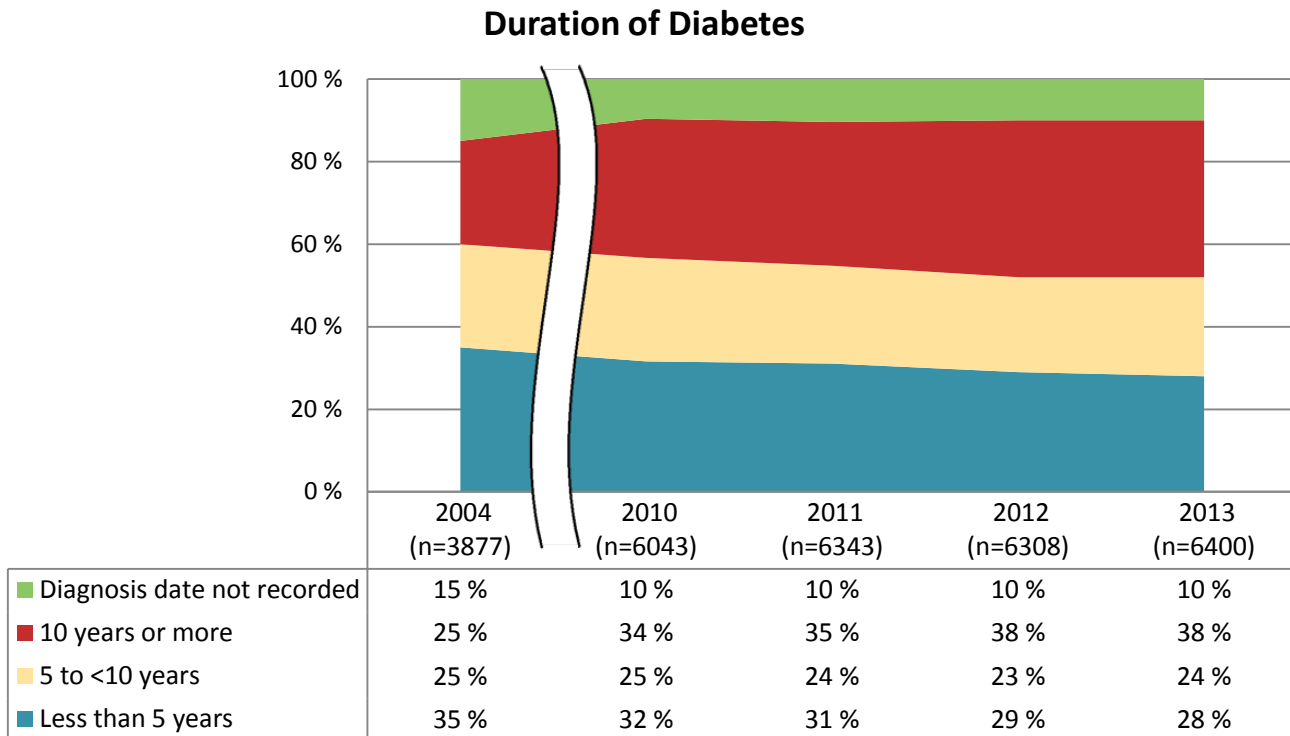
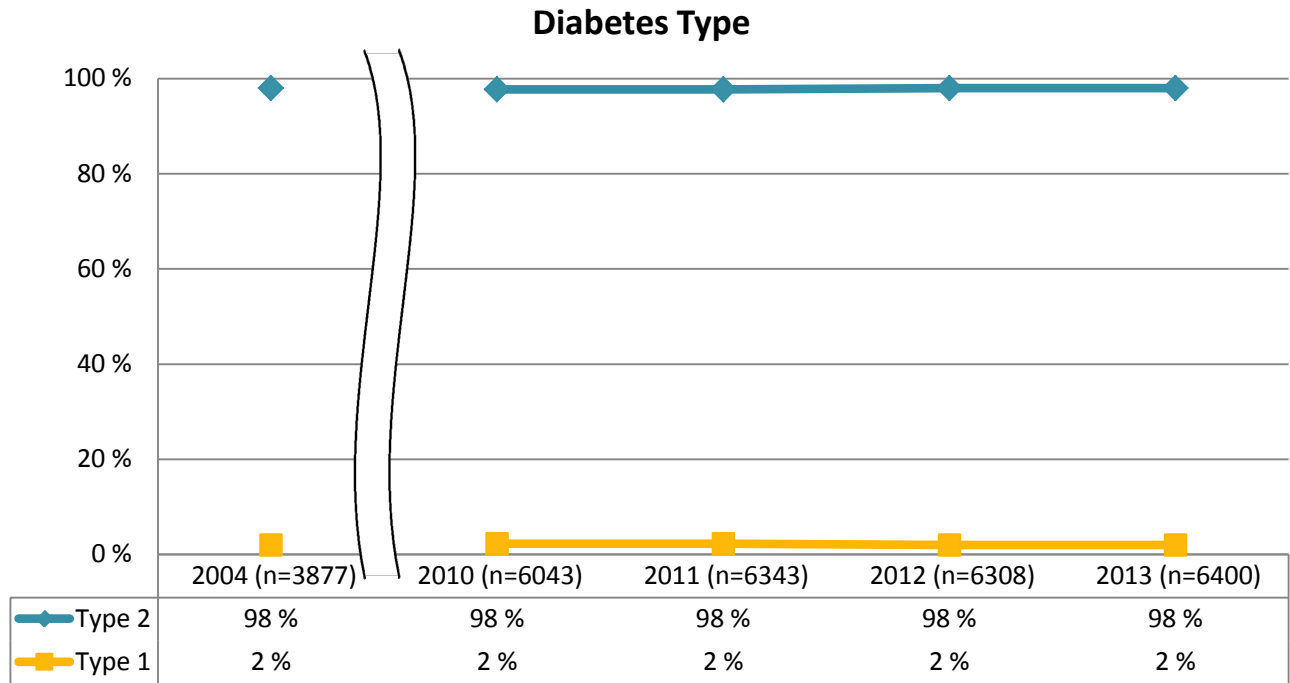
## Gender of Patients with Diabetes



## Age of Patients with Diabetes



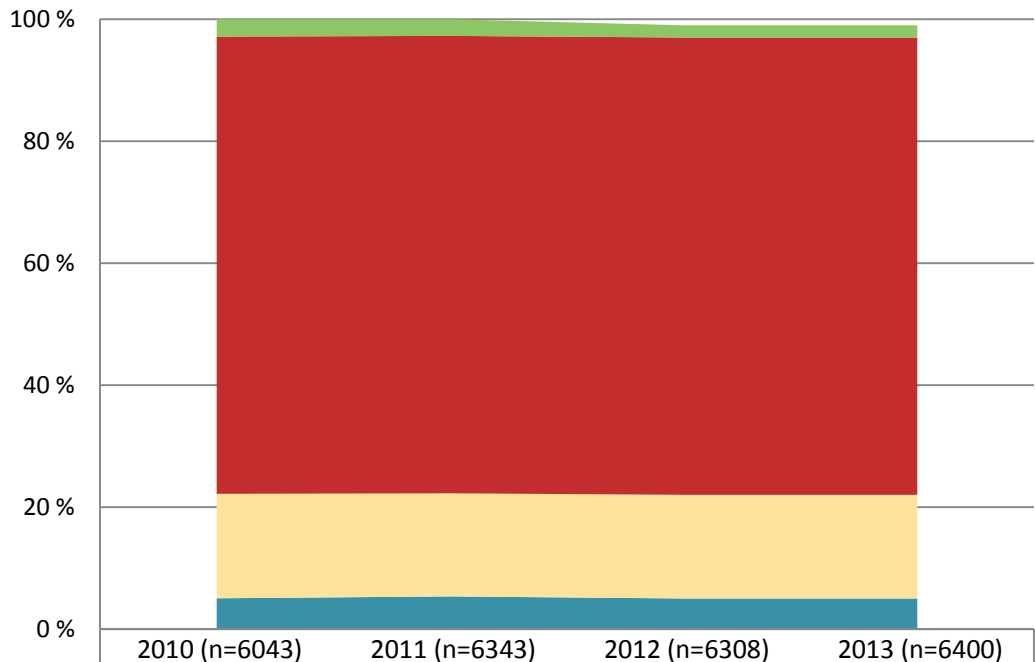
## Diabetes Audit Results, Portland Area, 2004-2013



A blank indicates a category not reported on in a given year; FY = Fiscal Year, the year in which data were submitted.

## Diabetes Audit Results, Portland Area, 2004-2013

### Weight Control



■ Height or weight missing	3 %	3 %	2 %	2 %
■ Obese (BMI 30.0 or above)	75 %	75 %	75 %	75 %
■ Overweight (BMI 25.0-25.9)	17 %	17 %	17 %	17 %
■ Normal (BMI < 25.0)	5 %	5 %	5 %	5 %
Overweight or obese (BMI 25 or above)	92 %	92 %		

#### Notes

Body Mass Index (BMI) is calculated using the last weight in the audit year recorded on a non-prenatal visit, along with the most recent height measured since the patient's 19th birthday. The formula is

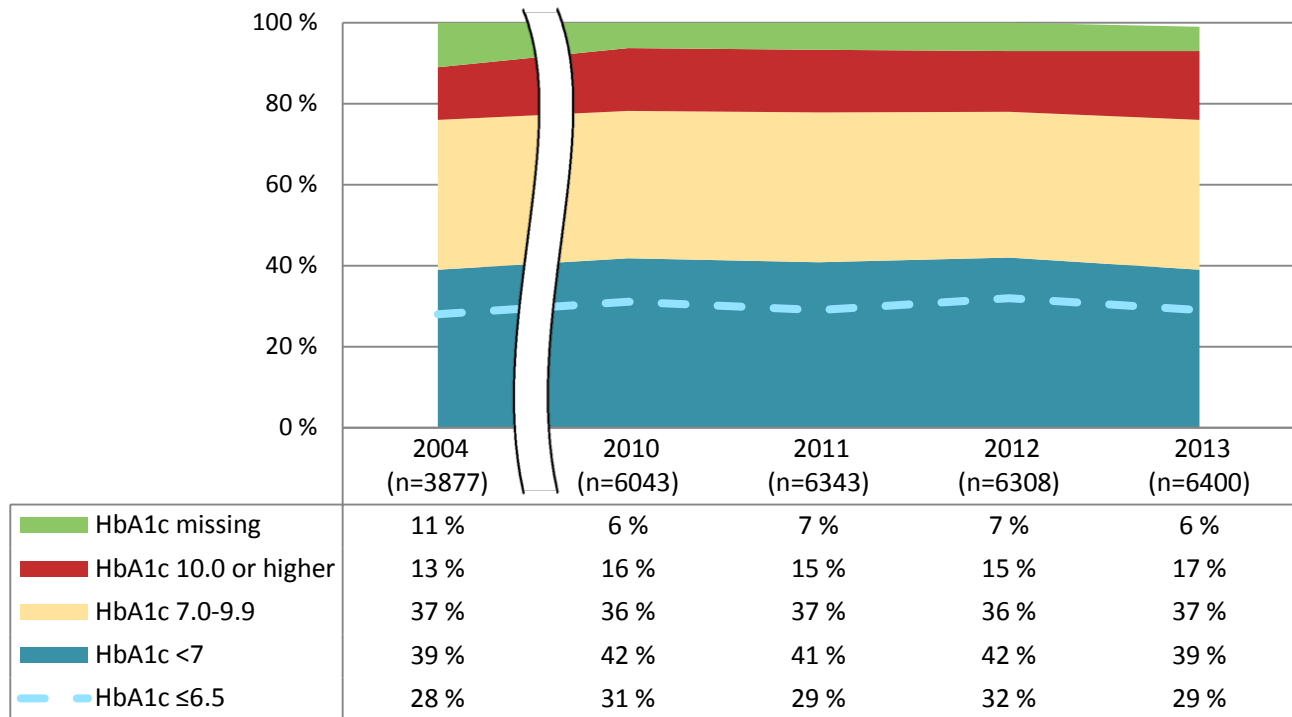
$$\text{BMI} = \text{weight (lbs)} \div \text{height (inches)} \div \text{height (inches)} \times 703$$

Before 2005, overweight and obesity were reported from the audit using cutoffs from the National Health and Nutrition Examination Survey (NHANES). Women were considered overweight with a BMI of 27.3 or higher and obese with BMI 32.3 or higher. Men were overweight at a BMI of 27.8 and obese at 31.1 or higher. These results are still calculated from audit data but are not presented here for the sake of clarity in the chart.

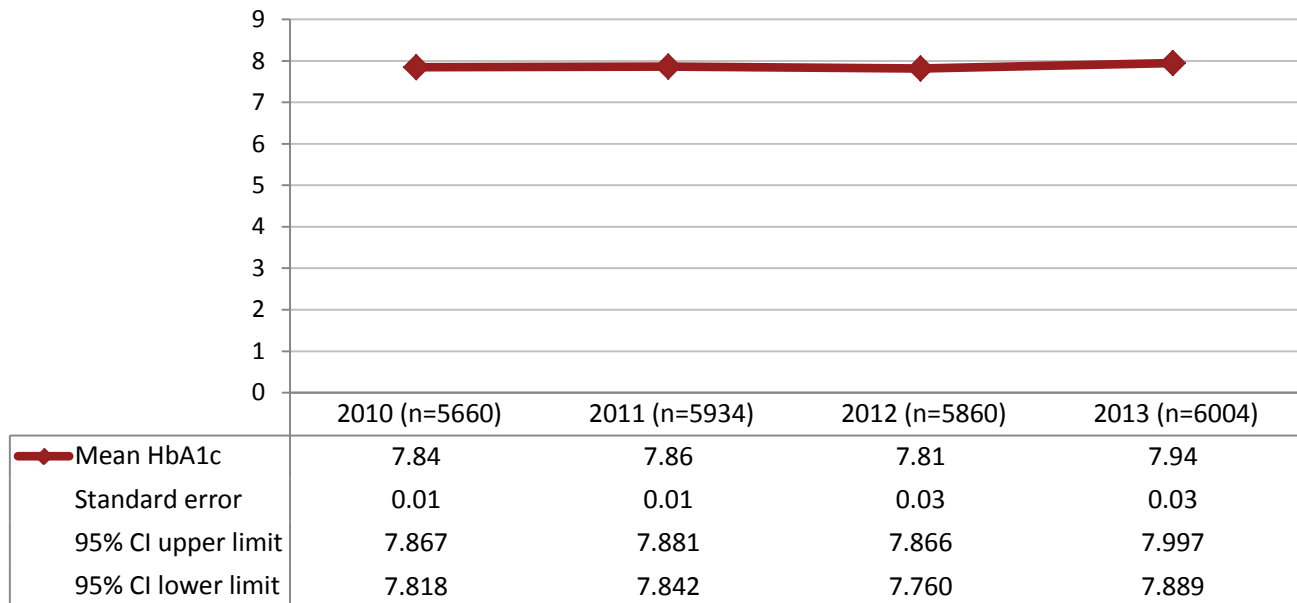
The bars in the graph reflect current cutoffs, which are the same for men and women. Overweight is defined as a BMI of 25 or higher and obesity is 30 or higher. Using these standards, more patients are considered overweight than with the older standards.

## Diabetes Audit Results, Portland Area, 2004-2013

### Hemoglobin A1c



### Average Hemoglobin A1C



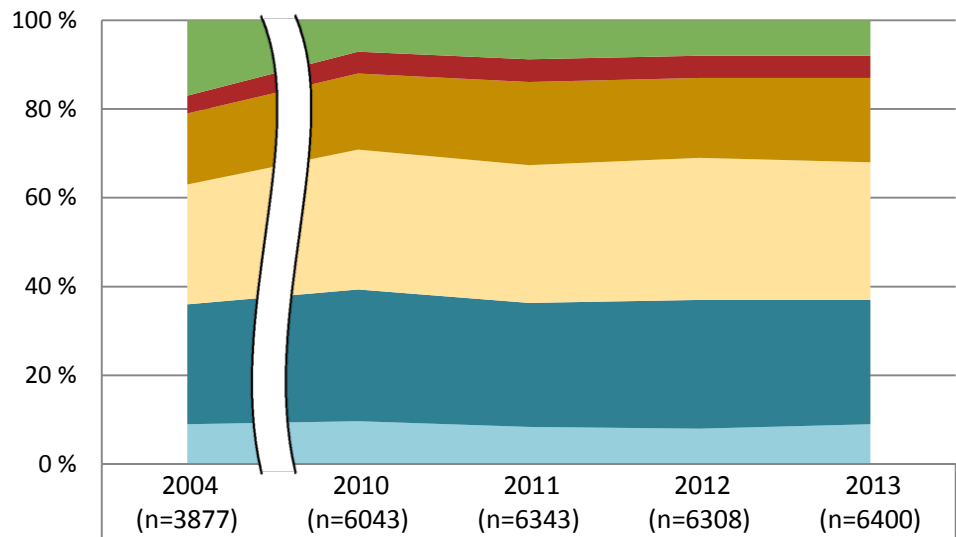
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## Diabetes Audit Results, Portland Area, 2004-2013

**Before 2010:** Based on the average of the last 3 blood pressure measurements taken within the audit year. If <3 measurements were taken, blood pressure control is undetermined.

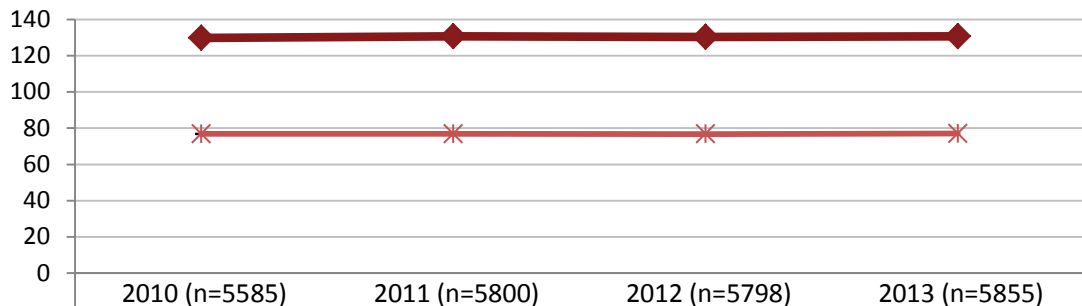
**In 2010:** Based on the average of the last 2 or 3 blood pressure measurements taken within the audit year. If <2 measurements were taken, blood pressure control is undetermined.

### Blood Pressure



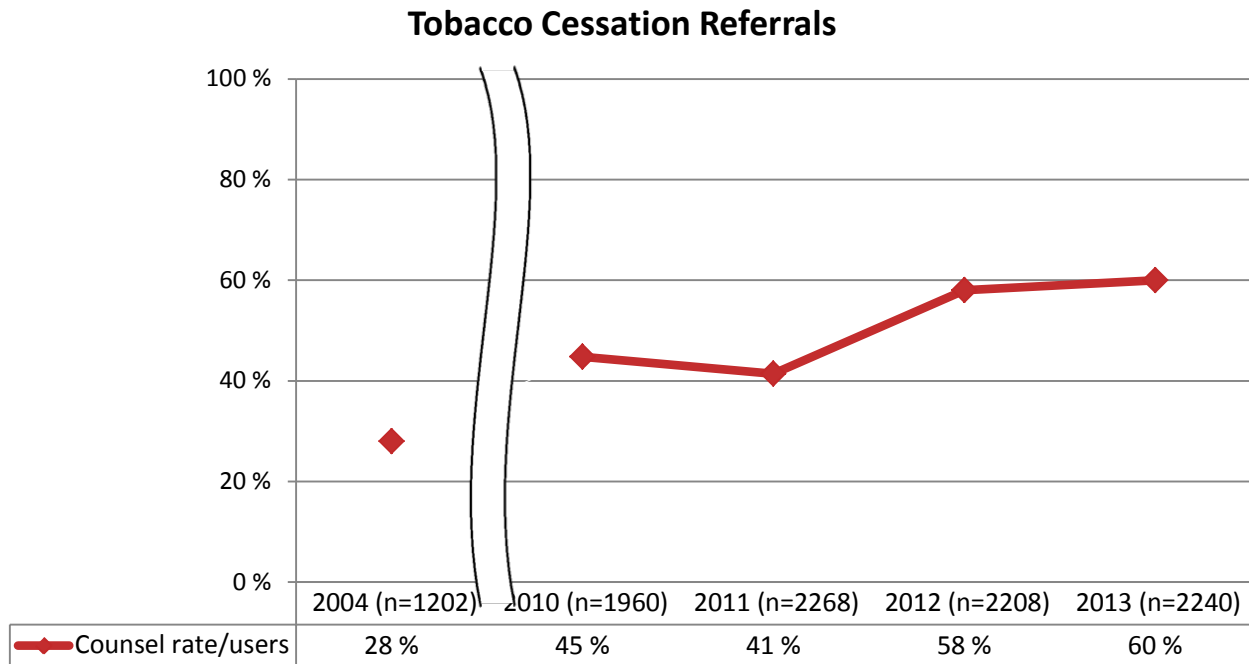
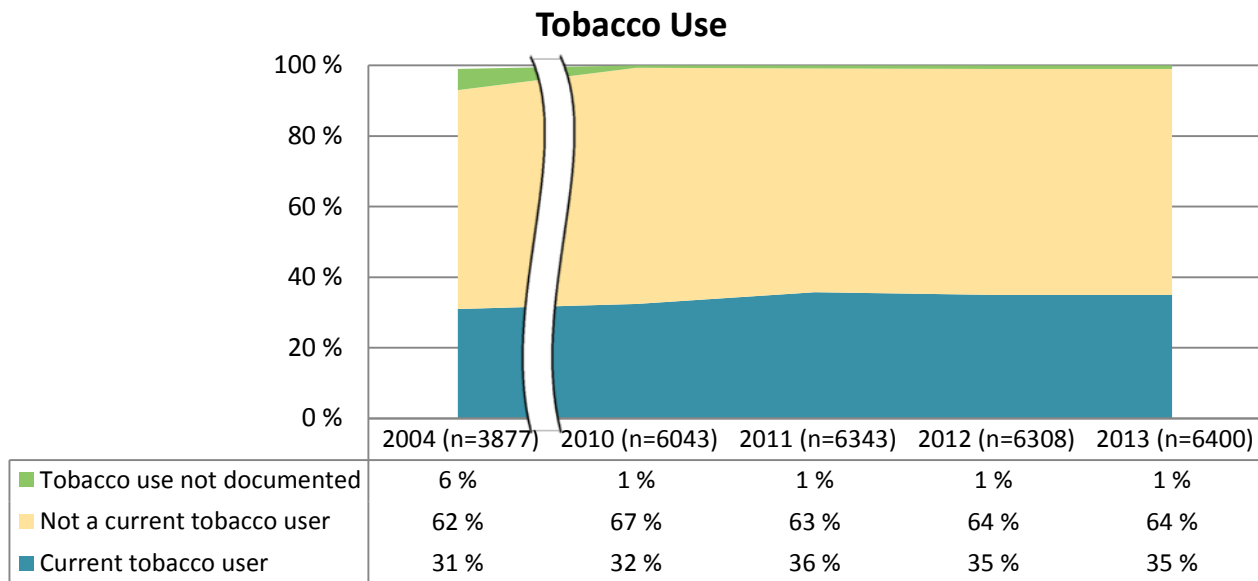
	2004 (n=3877)	2010 (n=6043)	2011 (n=6343)	2012 (n=6308)	2013 (n=6400)
BP control undetermined	17 %	7 %	9 %	8 %	9 %
Markedly poor (160/95 or higher)	4 %	5 %	5 %	5 %	5 %
Inadequate (140/90 - <160/<95)	16 %	17 %	19 %	18 %	19 %
Adequate (130/80 - <140/<90)	27 %	32 %	31 %	32 %	31 %
Target (120/70 - <130/<80)	27 %	30 %	28 %	29 %	28 %
Ideal control (<120/<70)	9 %	10 %	8 %	8 %	9 %

### Average Blood Pressure



	2010 (n=5585)	2011 (n=5800)	2012 (n=5798)	2013 (n=5855)
◆ Mean systolic BP	129.80	130.78	130.35	130.65
Standard error	0.08	0.07	0.18	0.18
95% CI upper limit	129.952	130.922	130.701	131.004
95% CI lower limit	129.644	130.646	130.003	130.294
* Mean diastolic BP	76.87	76.87	76.79	76.99
Standard error	0.05	0.05	0.12	0.12
95% CI upper limit	76.975	76.960	77.031	77.230
95% CI lower limit	76.761	76.782	76.559	76.755

## Diabetes Audit Results, Portland Area, 2004-2013

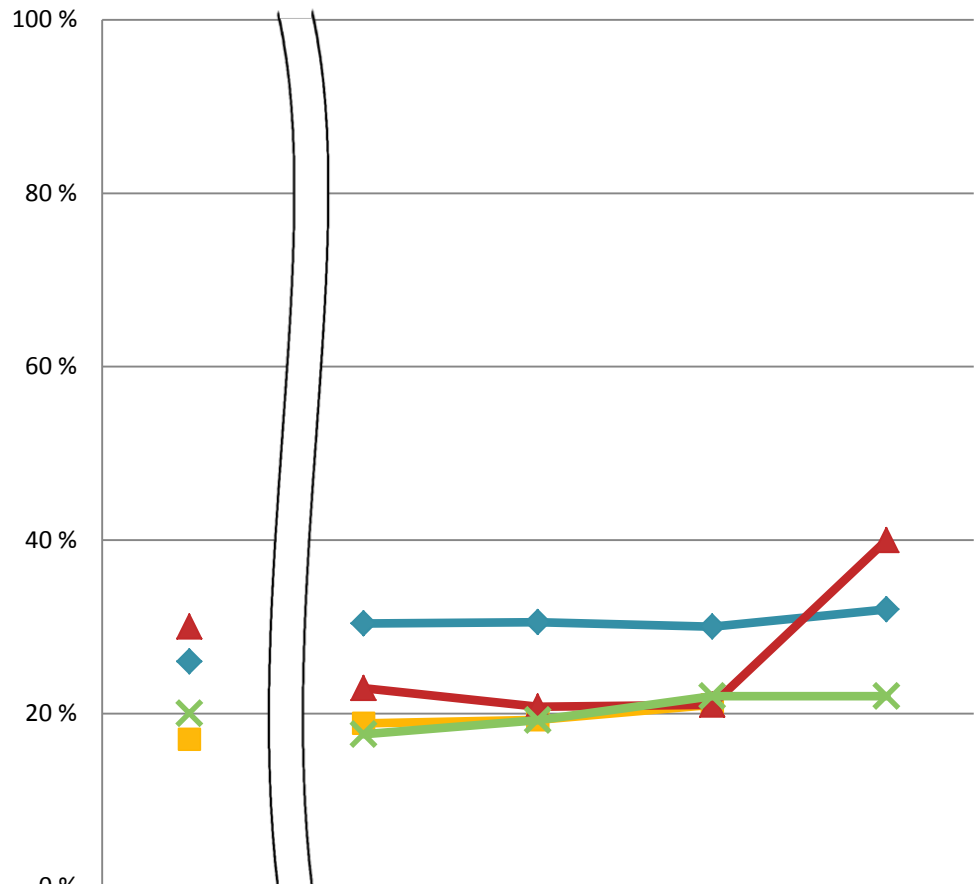


Note: The 'n' in this graph refers to the total number of tobacco users included in the audit.

A blank indicates a category not reported on in a given year; FY = Fiscal Year, the year in which data were submitted.

# Diabetes Audit Results, Portland Area, 2004-2013

## Diabetes Medications



	2004 (n=3877)	2010 (n=6043)	2011 (n=6343)	2012 (n=6308)	2013 (n=6400)
Insulin alone or in combination	26 %	30 %	31 %	30 %	32 %
Insulin with oral medications	17 %	19 %	19 %	21 %	
2 or more oral medications	30 %	23 %	21 %	21 %	40 %
Diet alone/Missing	20 %	18 %	19 %	22 %	22 %

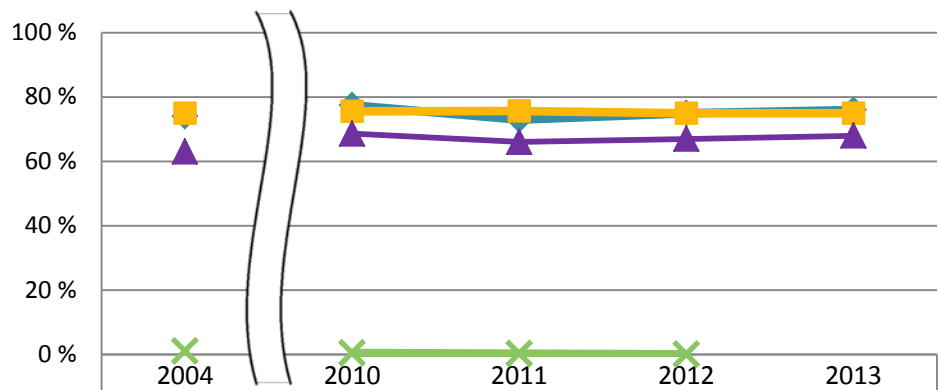
### Notes

"Diet and exercise alone" is the default selection in RPMS. If no records are found in the patient's chart of medications prescribed or dispensed in the last six months of the audit year, the patient is classified as being treated with "diet and exercise alone." The percentages for this category may be inflated if patients did not refill their prescriptions at the clinic in the last six months of the audit year. You can enter medication reviews as historical RXs so that the audit report will reflect those prescriptions.



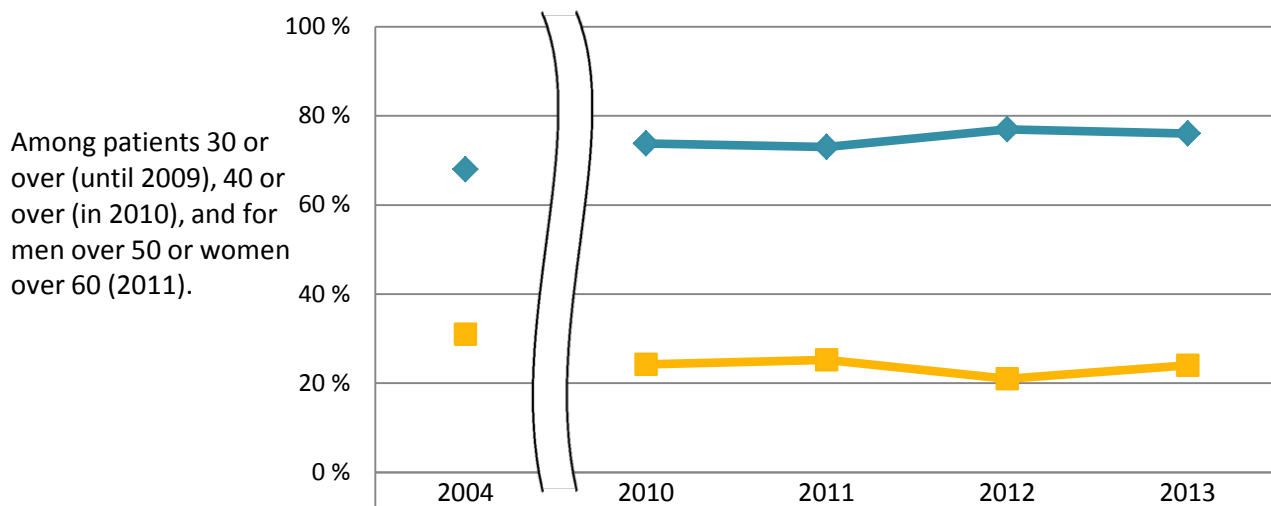
## Diabetes Audit Results, Portland Area, 2004-2013

### ACE Inhibitor or ARB Prescriptions



◆ Use in patients with overt proteinuria	74 %	77 %	73 %	75 %	76 %
■ Use in patients with known hypertension	75 %	76 %	76 %	75 %	75 %
▲ Use in overall patient population	63 %	69 %	66 %	67 %	68 %
✕ ACE or ARB use unknown	1 %	0 %	0 %	0 %	0 %

### Antiplatelet Therapy



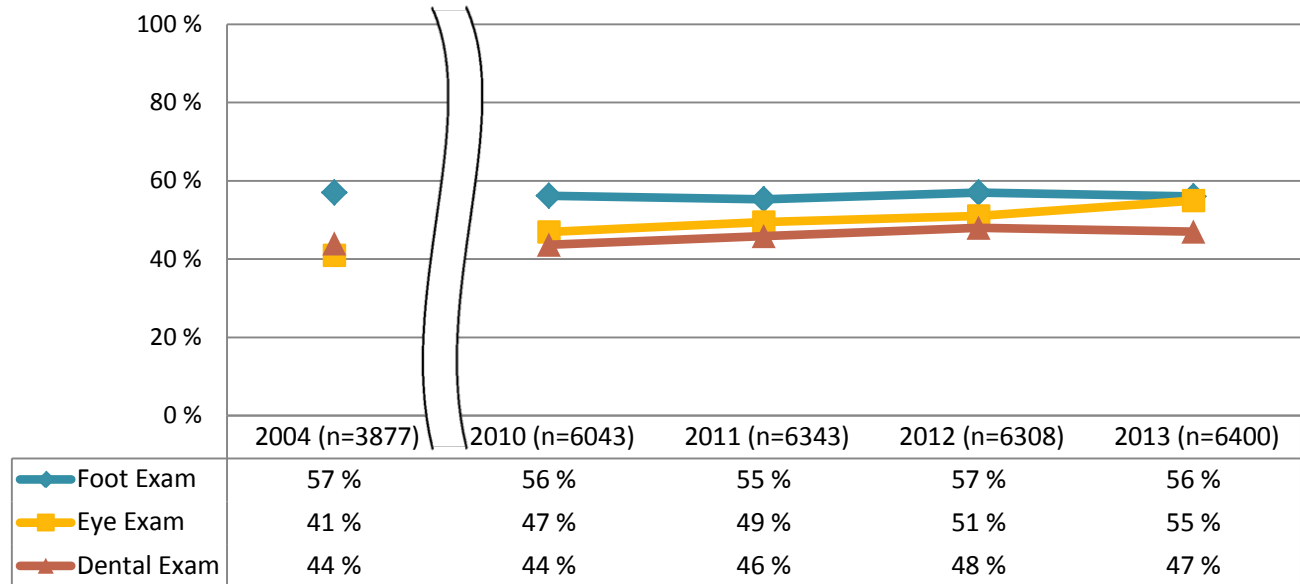
◆ Aspirin or antiplatelet prescription	68 %	74 %	73 %	77 %	76 %
■ No antiplatelet prescription	31 %	24 %	25 %	21 %	24 %

Denominators (n=) are not displayed on this page. These charts represent various subsets of patients, and not the entire population included in the audit.

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## Diabetes Audit Results, Portland Area, 2004-2013

### Annual Examinations

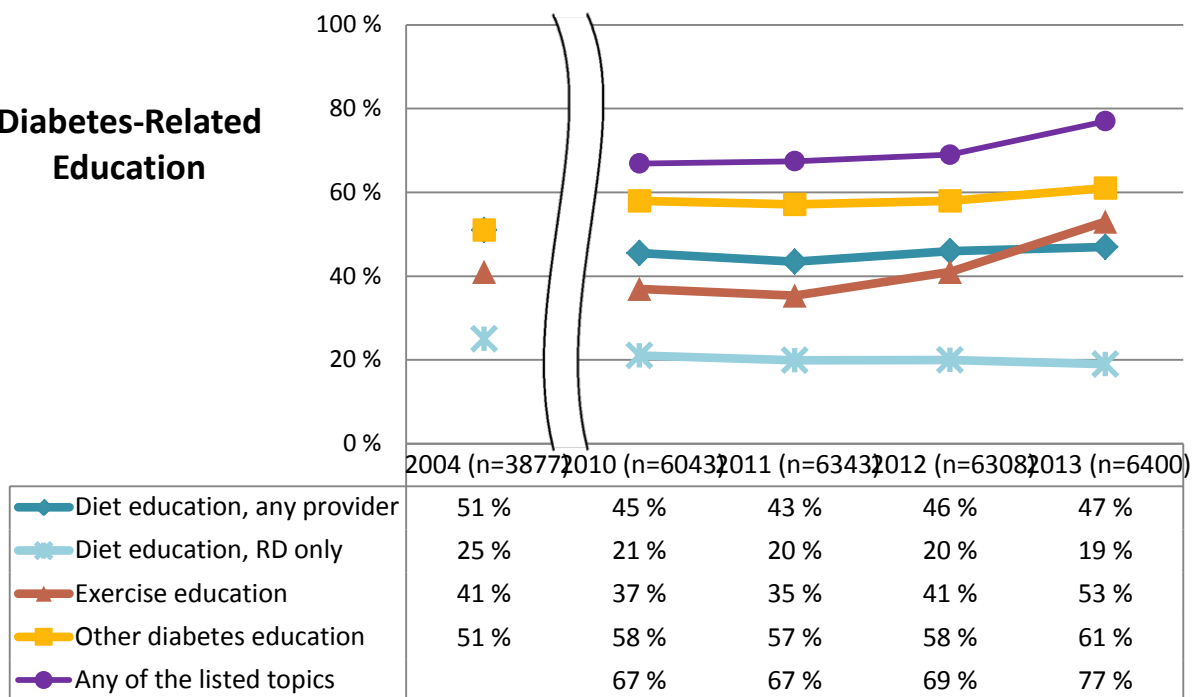


**Eye Exam:** A dilated fundoscopic exam conducted by a primary care provider, optometrist or ophthalmologist, or fundoscopic photographs reviewed by an ophthalmologist.

**Foot Exam:** An examination of the feet that includes neurologic and vascular evaluation as well as visual inspection for deformities or lesions.

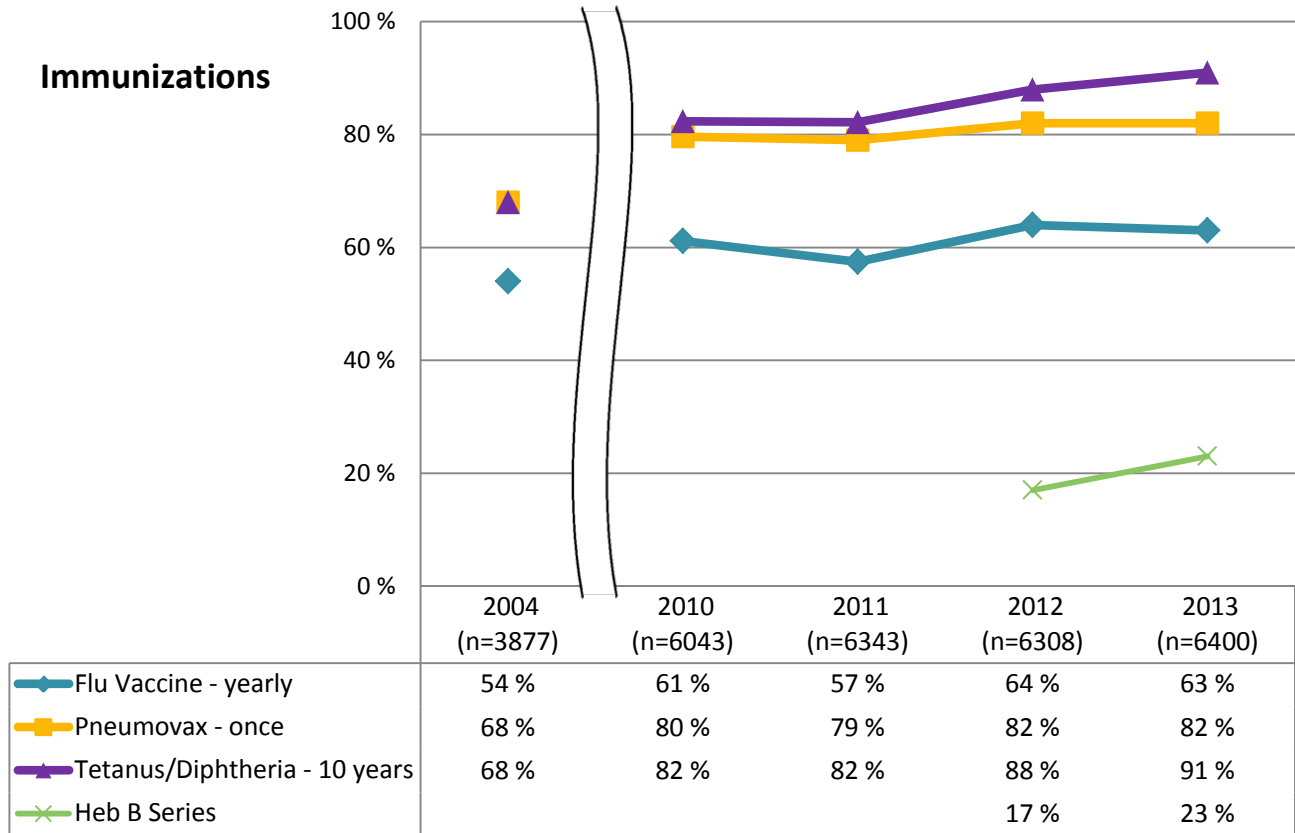
**Dental Exam:** The dental examination is one that includes evaluation of the teeth (if present), gingiva and mucosal surfaces.

### Diabetes-Related Education

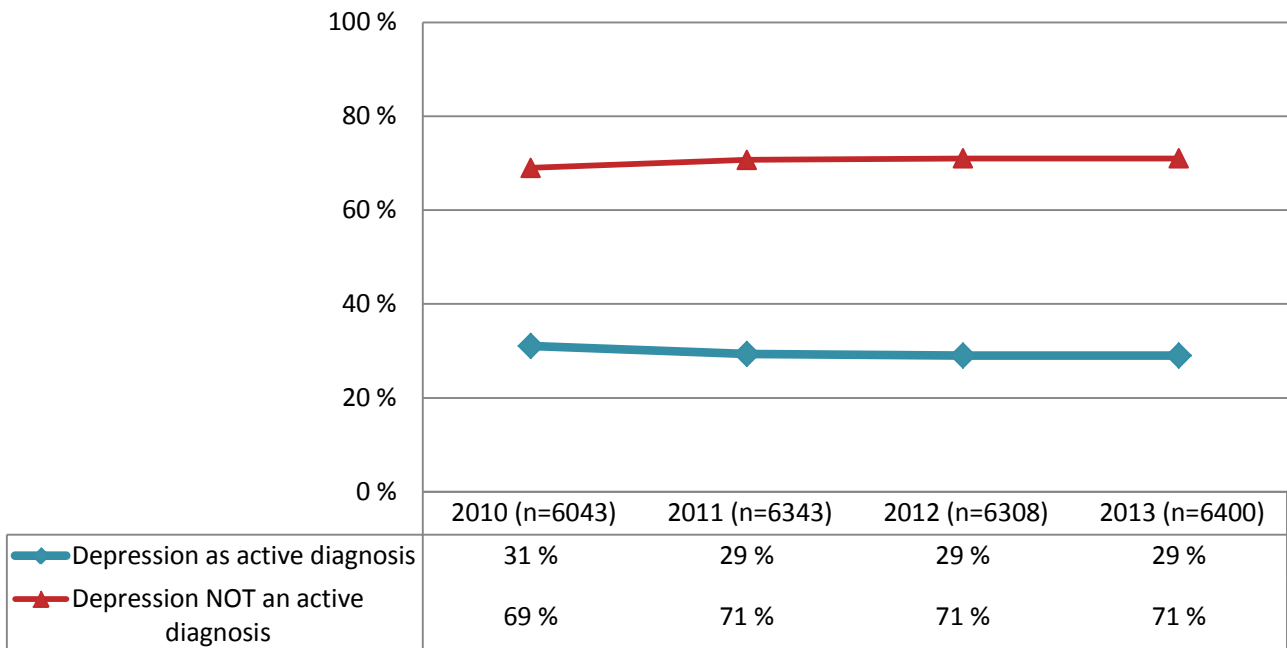


## Diabetes Audit Results, Portland Area, 2004-2013

### Immunizations



### Diagnosed Depression

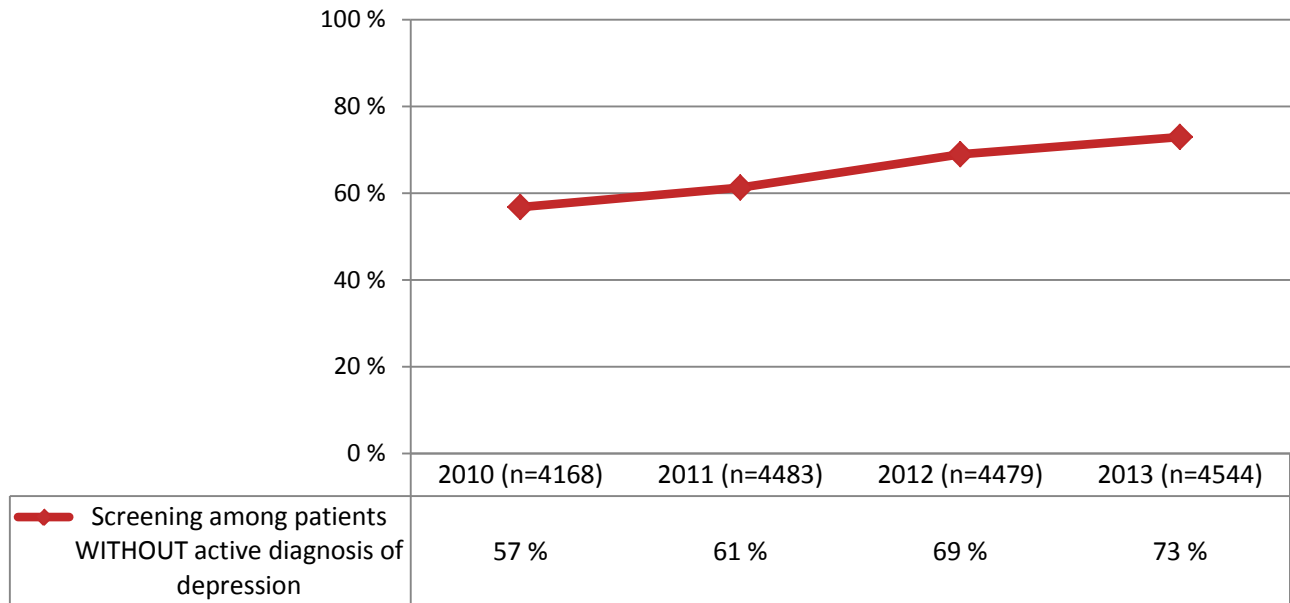


**Note:** Depression and depression screening were added to the audit in 2005.

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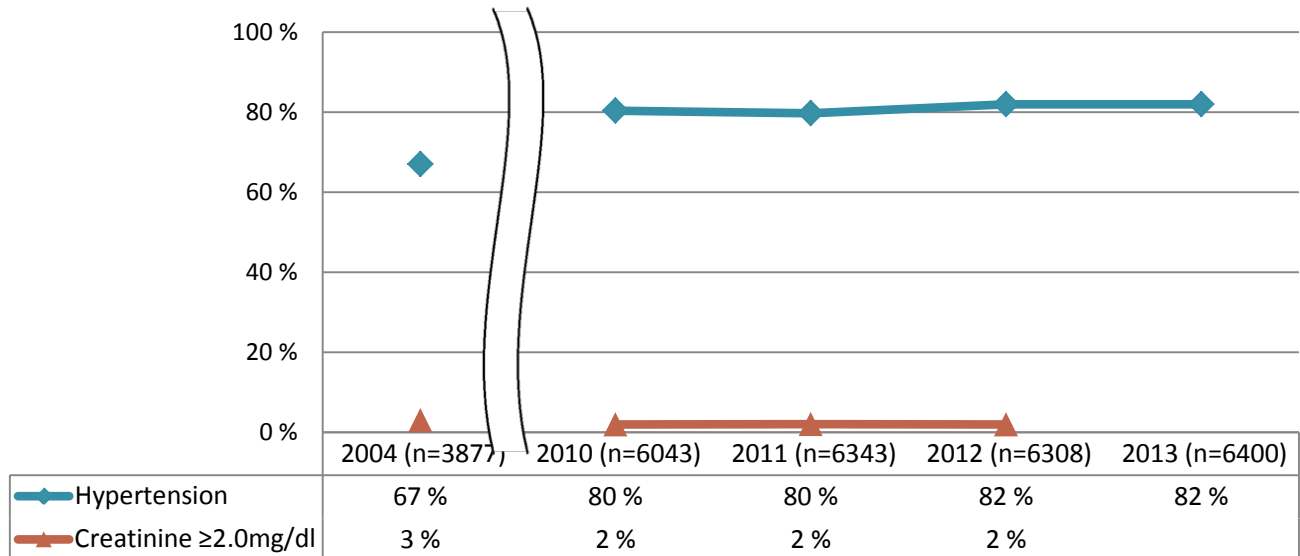
## Diabetes Audit Results, Portland Area, 2004-2013

### Depression Screening among Patients without Active Depression Diagnoses



**Note:** Depression and depression screening were added to the audit in FY2005.

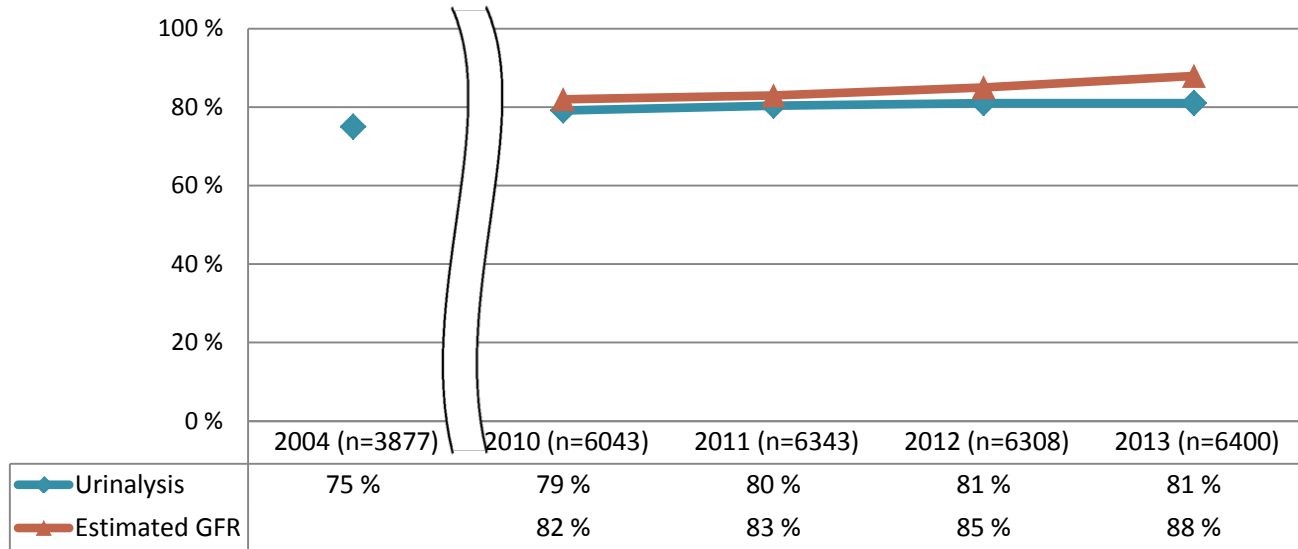
### Patients with Hypertension or Elevated Blood Creatinine



Patient has "known hypertension" if hypertension is on the problem list or the patient has had at least 3 visits with a diagnosis of hypertension.

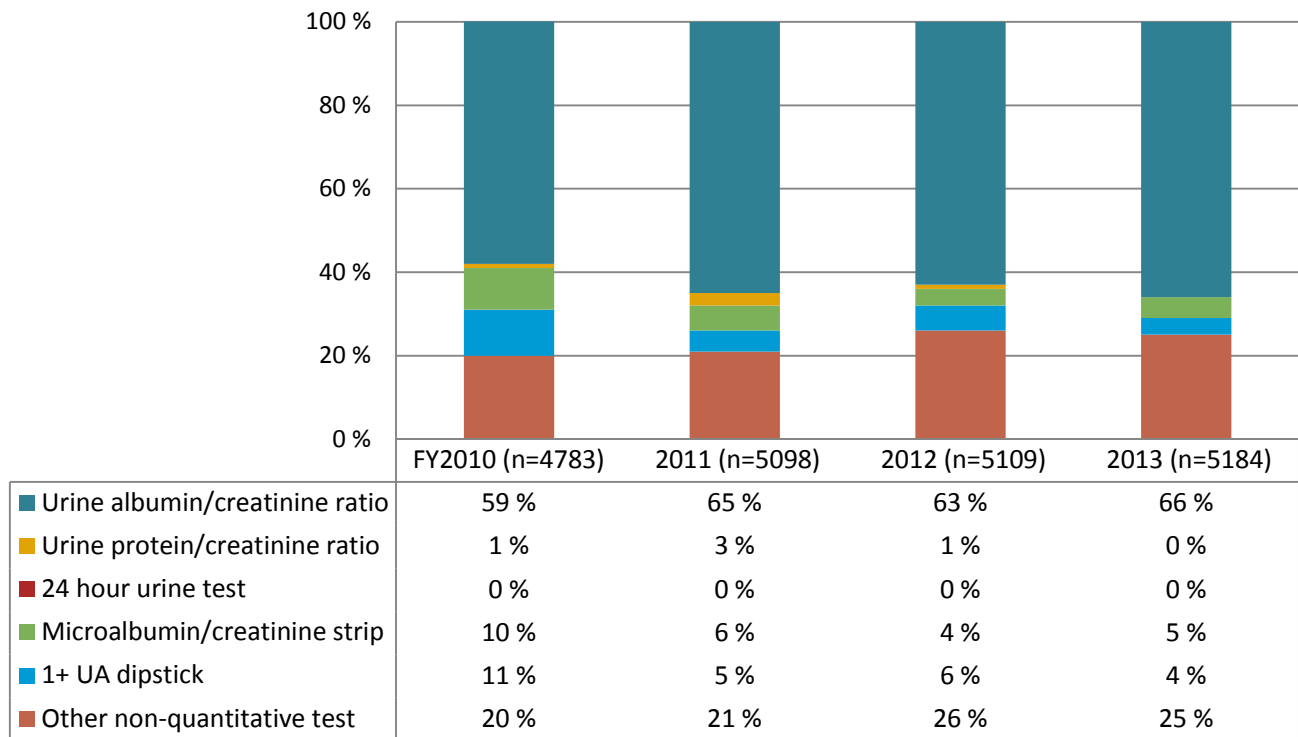
## Diabetes Audit Results, Portland Area, 2004-2013

### Renal Function Testing



Urinalysis results for 2008 exclude non-quantitative tests (e.g., dipstick) so cannot be compared to other years' data. 2009 data were also collected using different definitions than before. Estimated GFR was added in 2008.

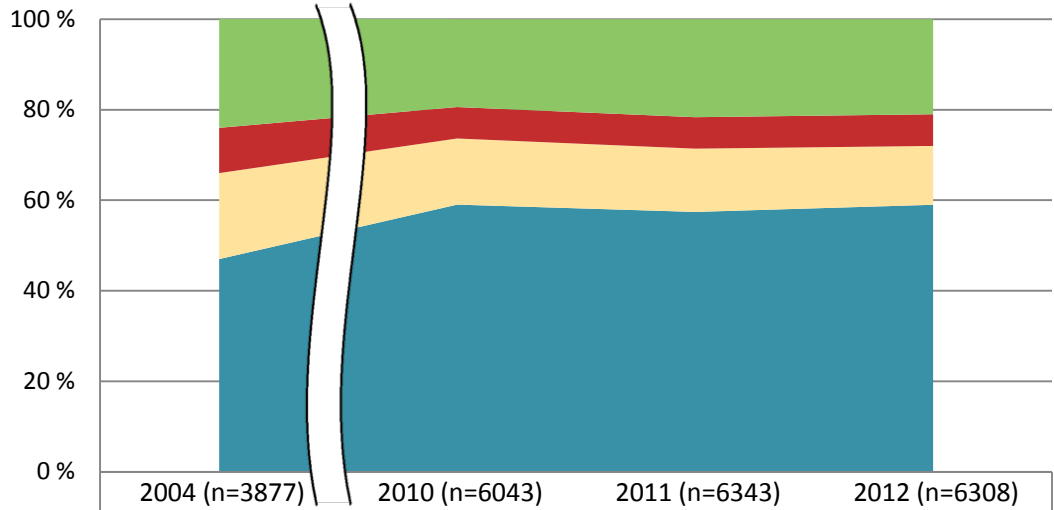
### Type of Urine Protein Testing



A blank indicates a category not reported on in a given year; FY = Fiscal Year, the year in which data were submitted.

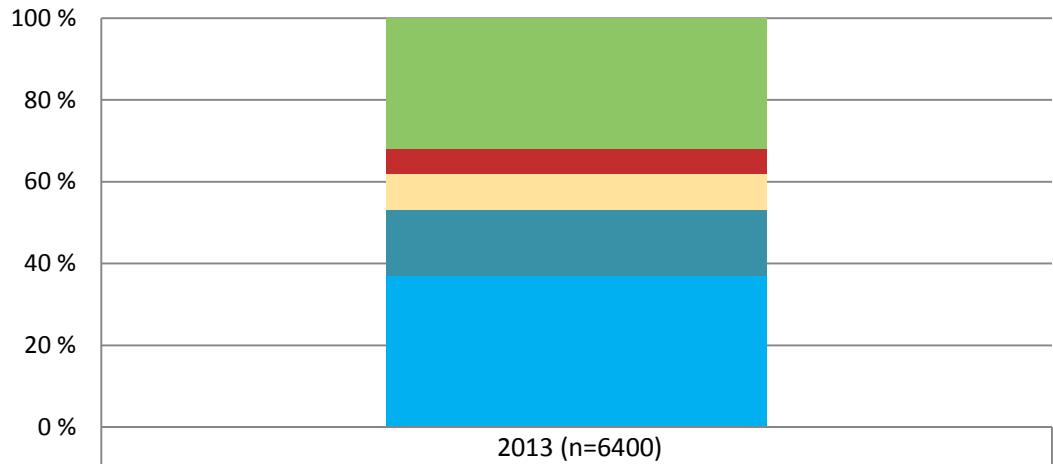
## Diabetes Audit Results, Portland Area, 2004-2013

### Cholesterol



<span style="color: green;">■</span> Not tested	25 %	19 %	22 %	21 %
<span style="color: red;">■</span> High (240 mg/dl or more)	10 %	7 %	7 %	7 %
<span style="color: yellow;">■</span> Borderline (200-239 g/dl)	19 %	15 %	14 %	13 %
<span style="color: blue;">■</span> Desirable (<200 mg/dl)	47 %	59 %	57 %	59 %

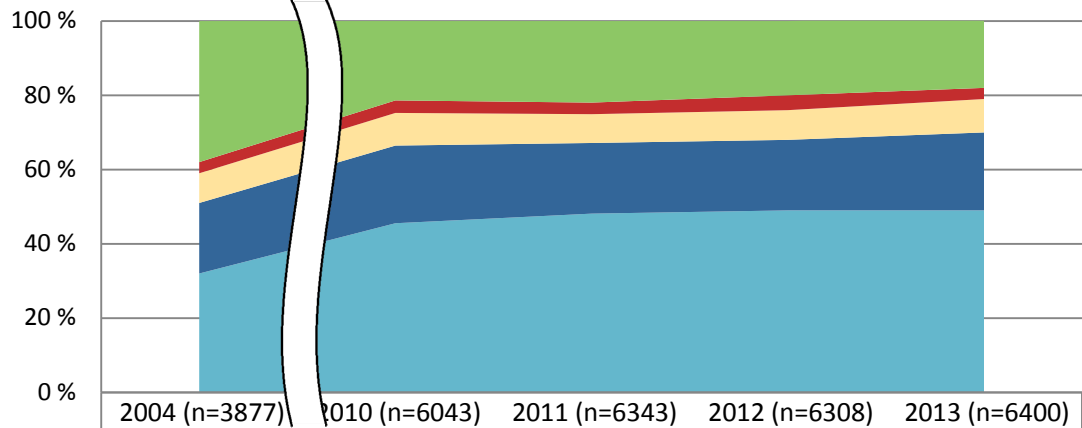
### non-HDL Cholesterol



<span style="color: green;">■</span> Non-HDL no test or result	32 %
<span style="color: red;">■</span> Non-HDL >190	6 %
<span style="color: yellow;">■</span> Non-HDL 160-190	9 %
<span style="color: teal;">■</span> Non-HDL 130-159	16 %
<span style="color: blue;">■</span> Non-HDL <130	37 %

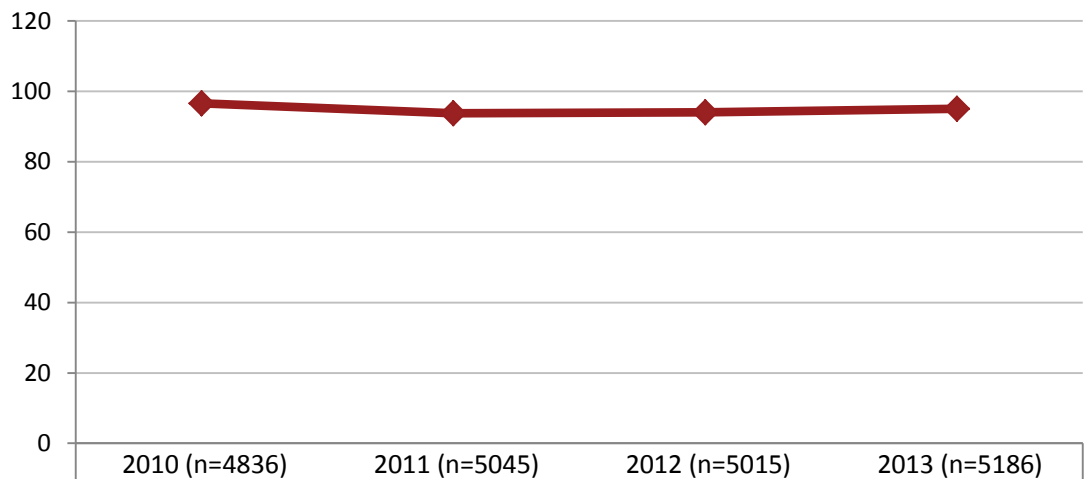
## Diabetes Audit Results, Portland Area, 2004-2013

### Low-Density Lipoprotein (LDL) Cholesterol



	2004 (n=3877)	2010 (n=6043)	2011 (n=6343)	2012 (n=6308)	2013 (n=6400)
Not tested	38 %	21 %	22 %	20 %	19 %
LDL >160	3 %	3 %	3 %	4 %	3 %
LDL 130-160 mg/dl	8 %	9 %	8 %	8 %	9 %
LDL 100-129 mg/dl	19 %	21 %	19 %	19 %	21 %
Desirable (<100 mg/dl)	32 %	46 %	48 %	49 %	49 %

### Average LDL Cholesterol

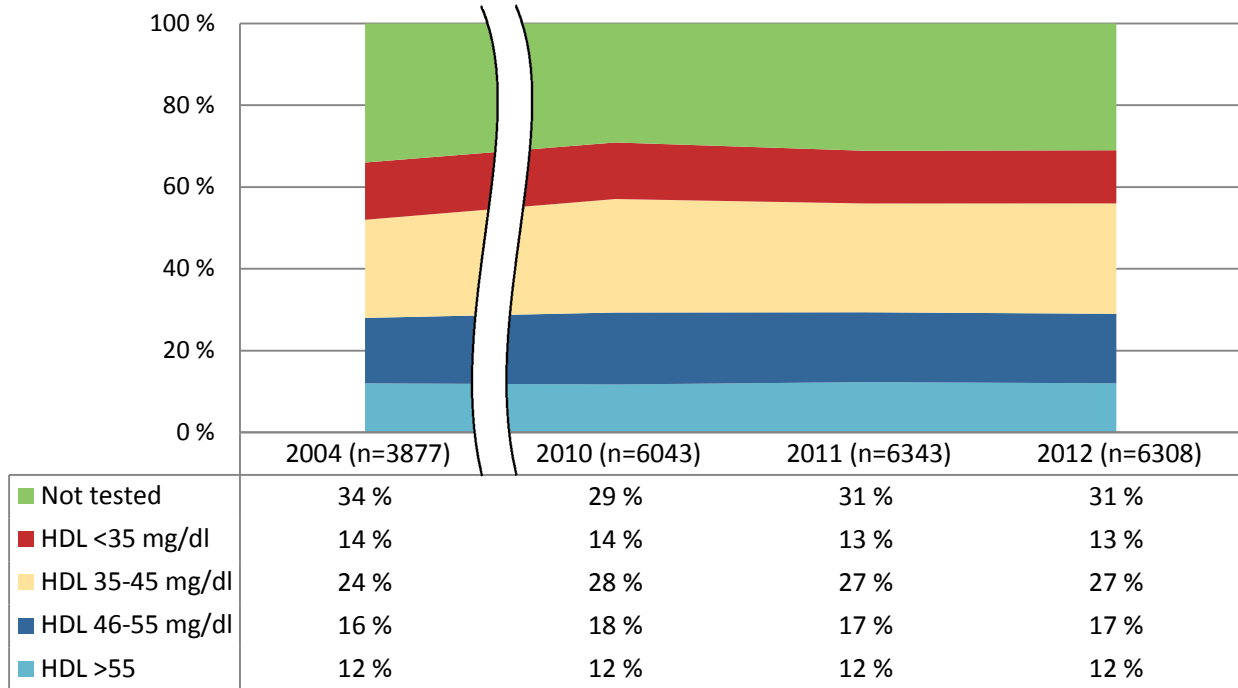


	2010 (n=4836)	2011 (n=5045)	2012 (n=5015)	2013 (n=5186)
Mean LDL	96.64	93.78	94.05	95.04
Standard error	0.21	0.17	0.49	0.47
95% CI upper limit	97.053	94.112	95.004	95.955
95% CI lower limit	96.227	93.441	93.100	94.126

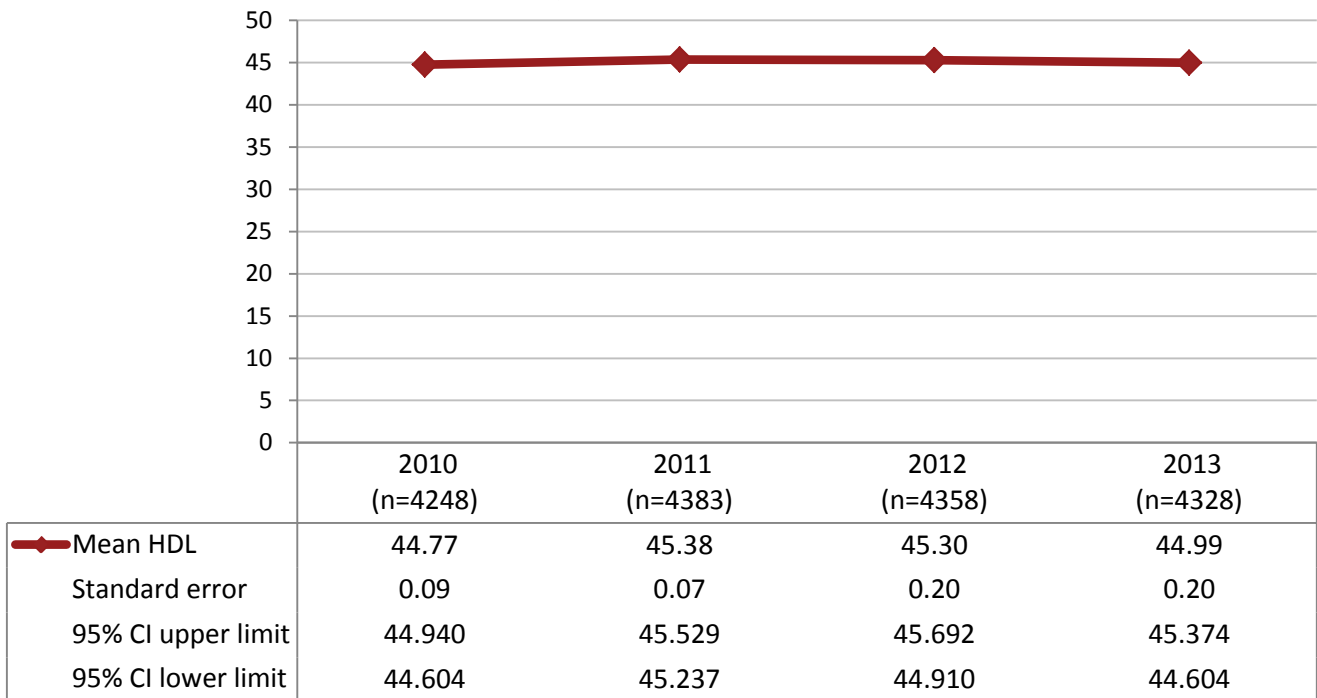
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## Diabetes Audit Results, Portland Area, 2004-2013

### High-Density Lipoprotein (HDL) Cholesterol



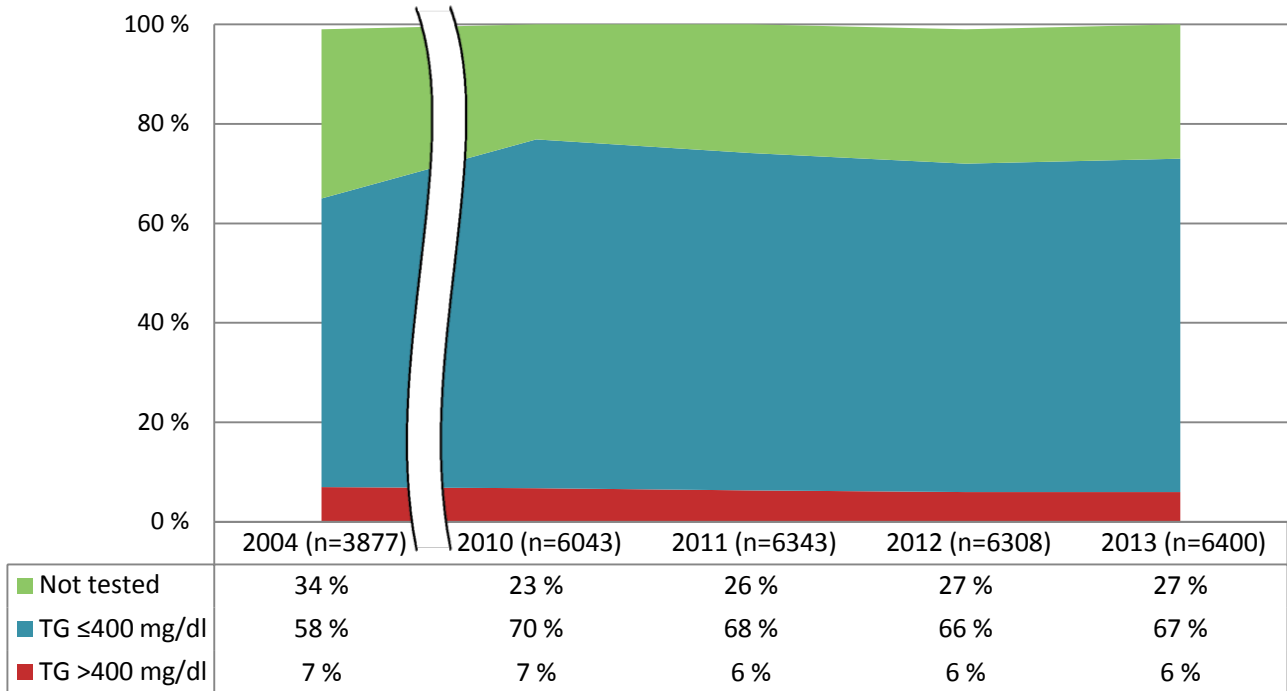
### Average HDL Cholesterol



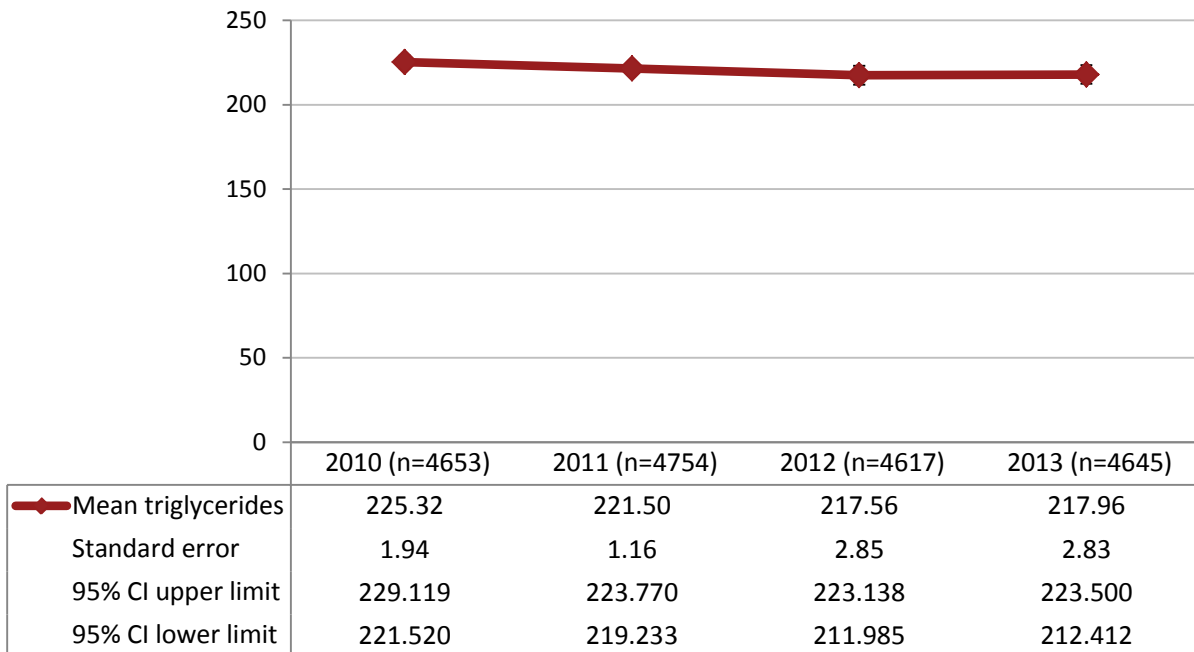


## Diabetes Audit Results, Portland Area, 2004-2013

### Triglycerides



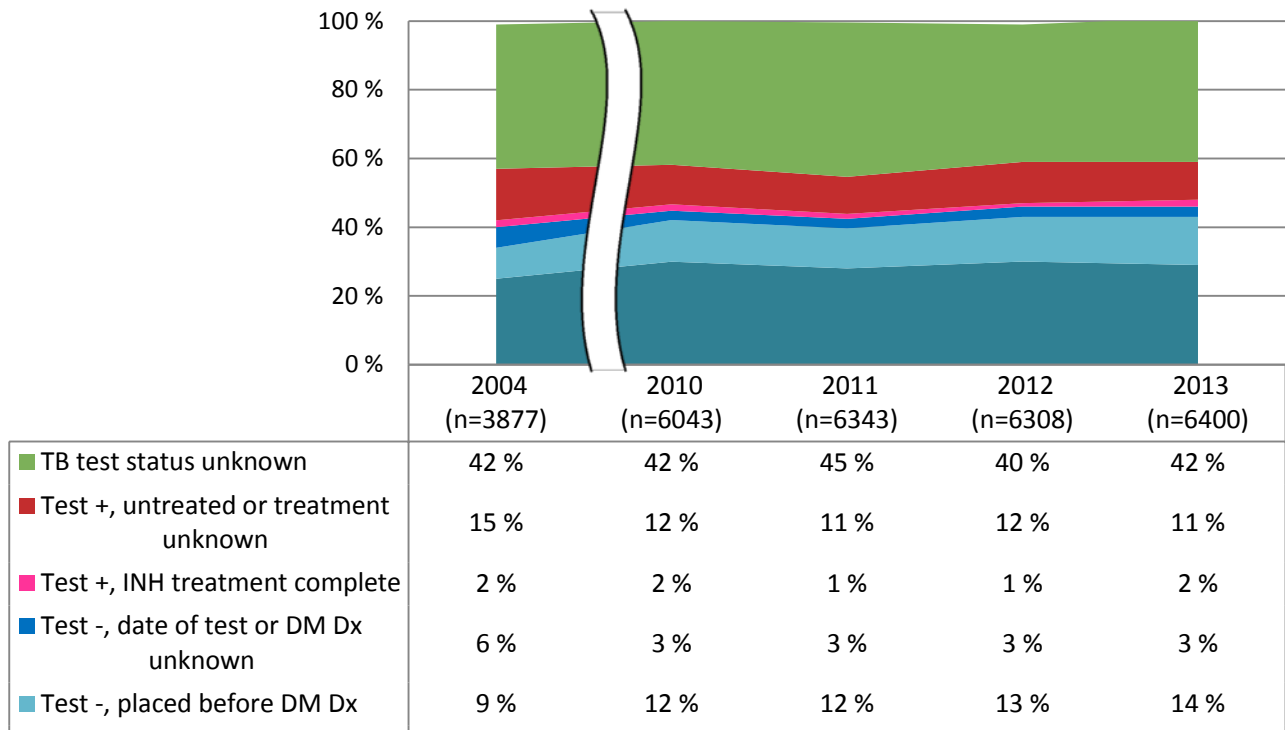
### Average Triglyceride Levels



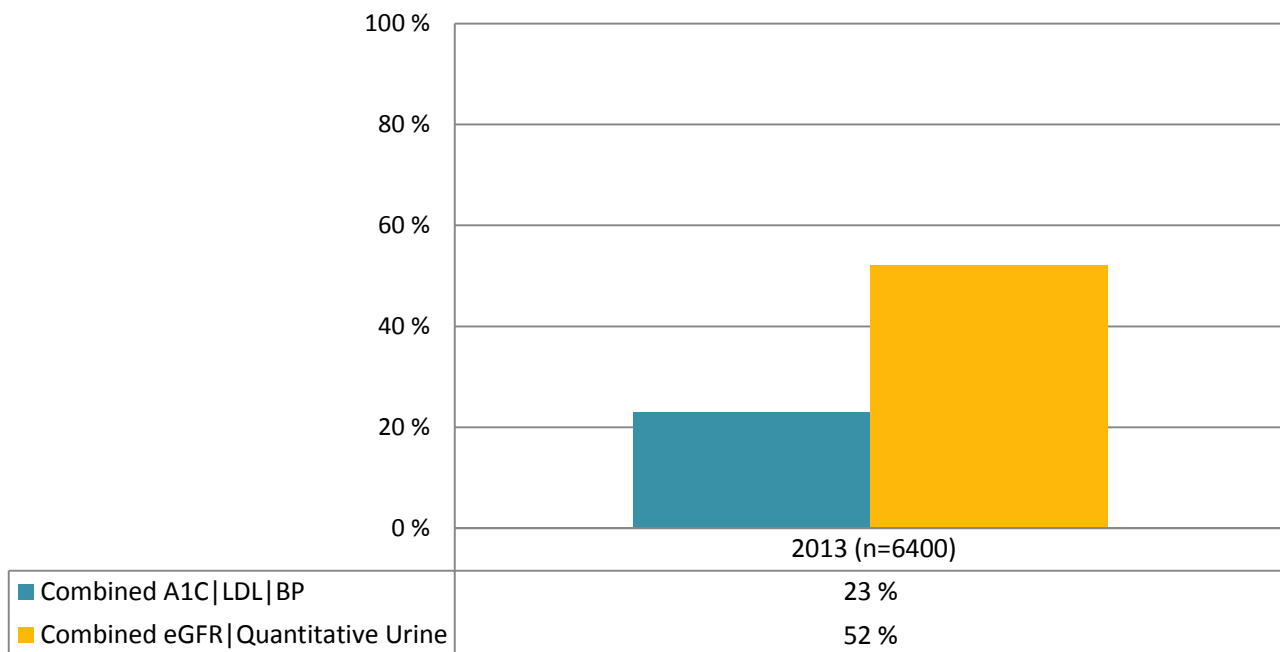
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## Diabetes Audit Results, Portland Area, 2004-2013

### Tuberculosis or PPD History



### Pilot Elements: Combined Outcome Measures



For the first measure, the following criteria have been met: Hemoglobin A1c < 8.0, LDL < 100, BP <140/<90.  
 For the second measure, these are records with both an eGFR and a quantitative urine protein test.

## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

This information is for the following groups:

**Portland Area (n=6400 patients)**

**All IHS (n=105626 patients)**

6400 sampled from 7873 active patients with diabetes (81%)

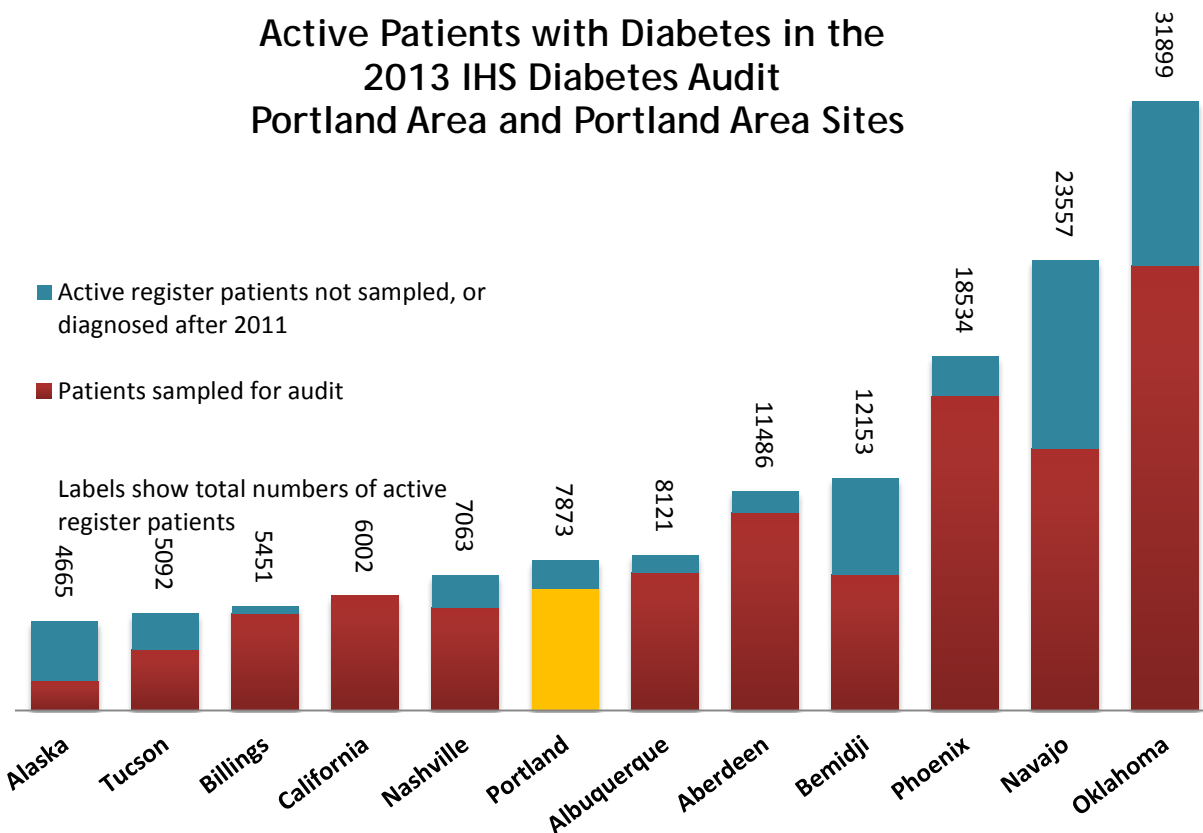
105626 sampled from 141896 active patients with diabetes (74%)

The following report contains information from your clinic's Annual IHS Diabetes Audit submission. It also includes summary data from all reporting tribal, IHS and urban facilities in the Portland Area. The audit information is displayed side by side so that you can see how your site compares to the overall Portland Area. If you have any questions about the report, please contact the Western Tribal Diabetes Project at (800) 862-5497.

### Who is this report about?

Patients identified by local Diabetes Program staff as having **type 1** or **type 2** diabetes and part of the active patient load, with at least one **primary care** visit in the calendar year. Only **American Indian and Alaska Native** patients are included in the audit.

### Active Patients with Diabetes in the 2013 IHS Diabetes Audit Portland Area and Portland Area Sites



\*The chart audit performed in 2013 covers services delivered in 2012

## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

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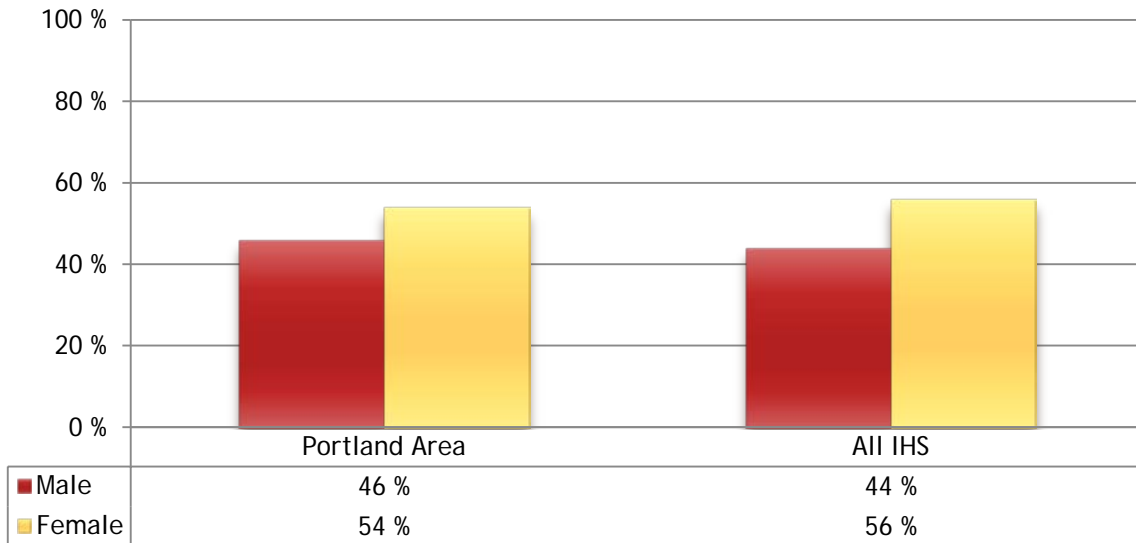
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

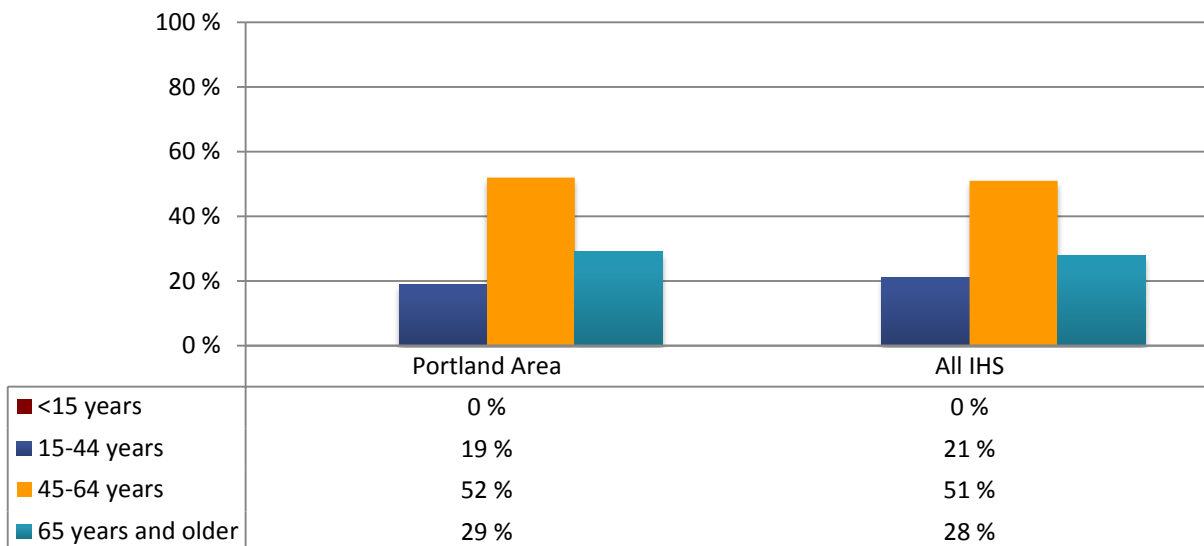
6400 sampled from 7873 active patients with diabetes (81%)

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### Gender of Patients with Diabetes



### Age Distribution of Patients with Diabetes



## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

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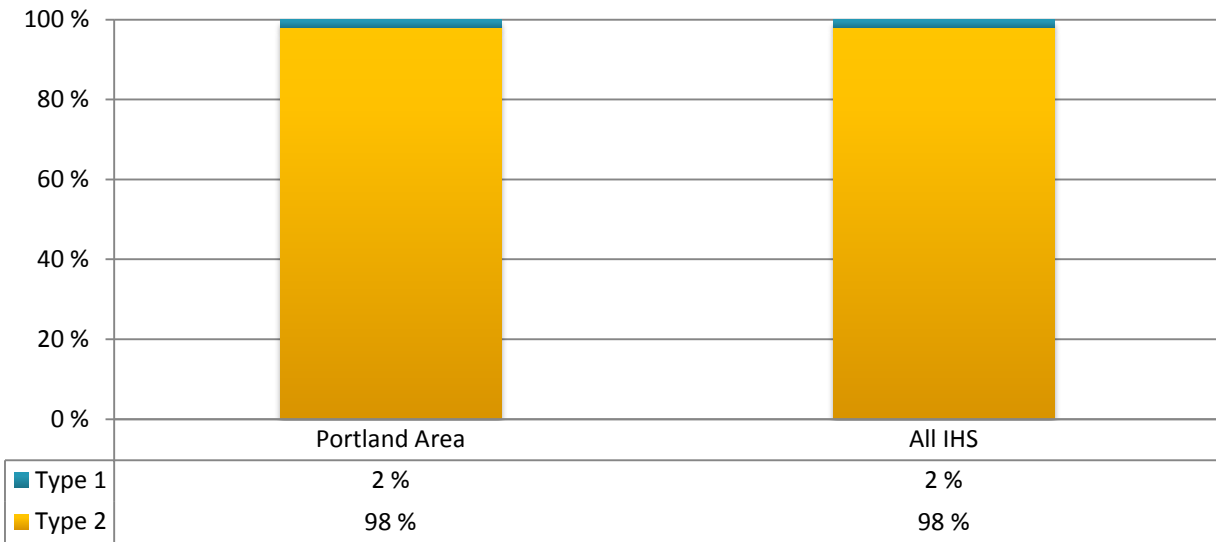
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

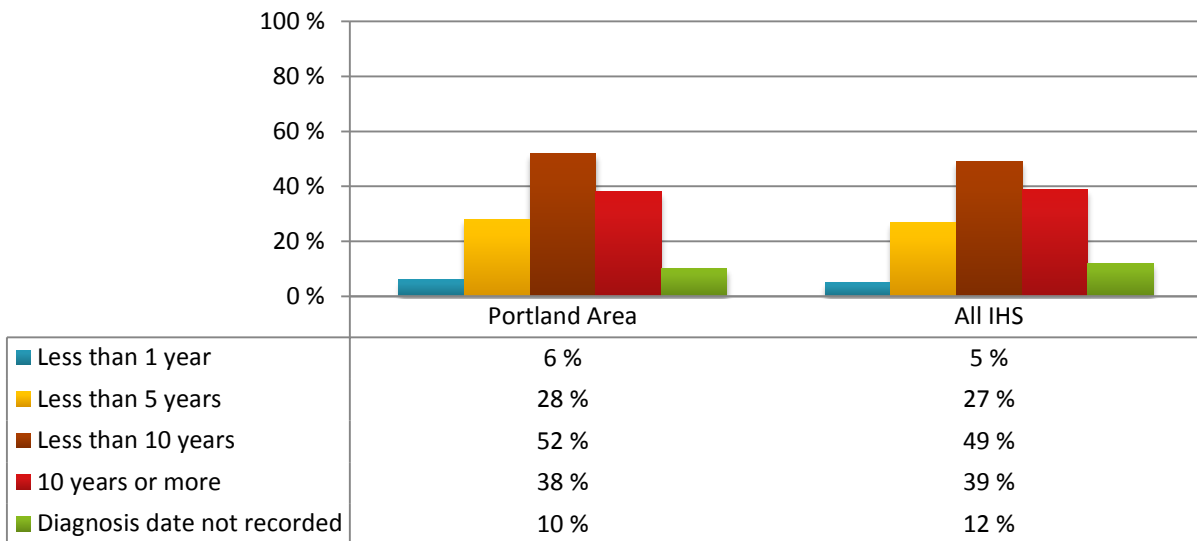
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### Type of Diabetes Diagnosed



### Duration of Diabetes



## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

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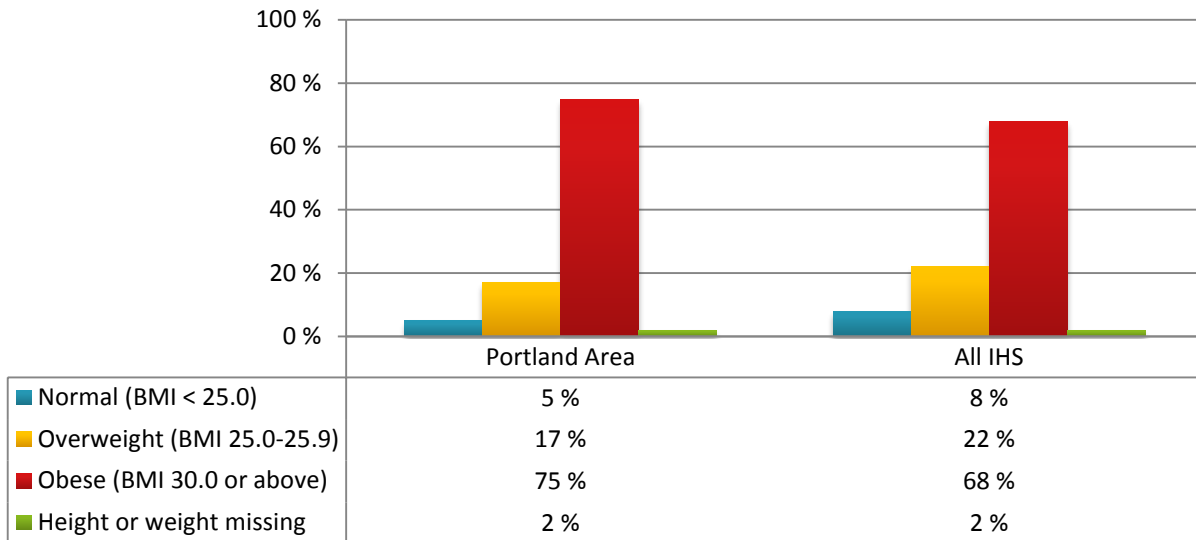
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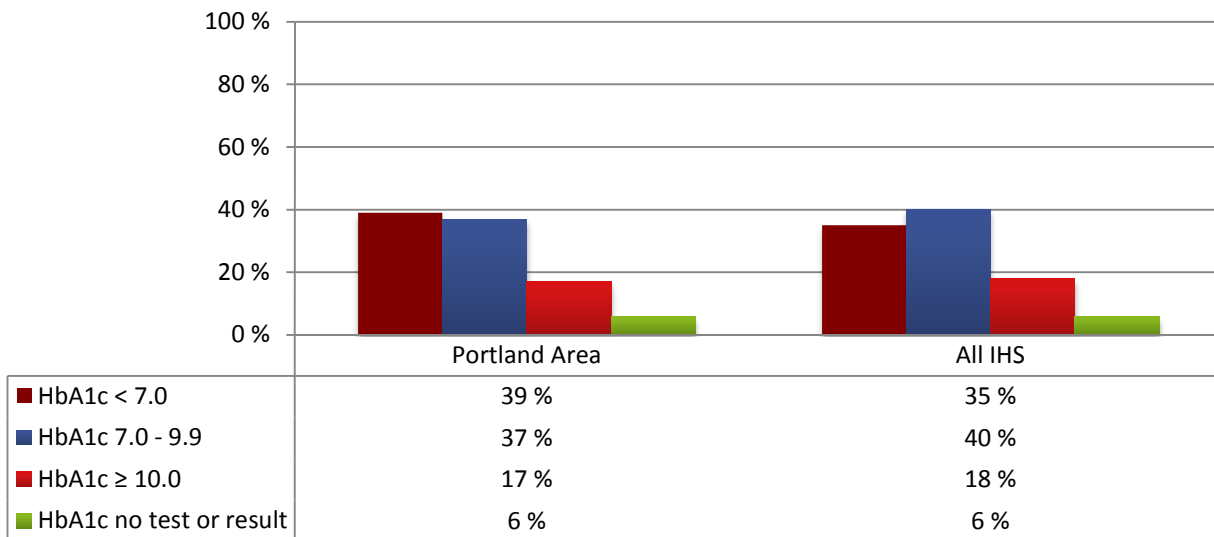
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### Weight (Body Mass Index)



### Hemoglobin A1C



## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

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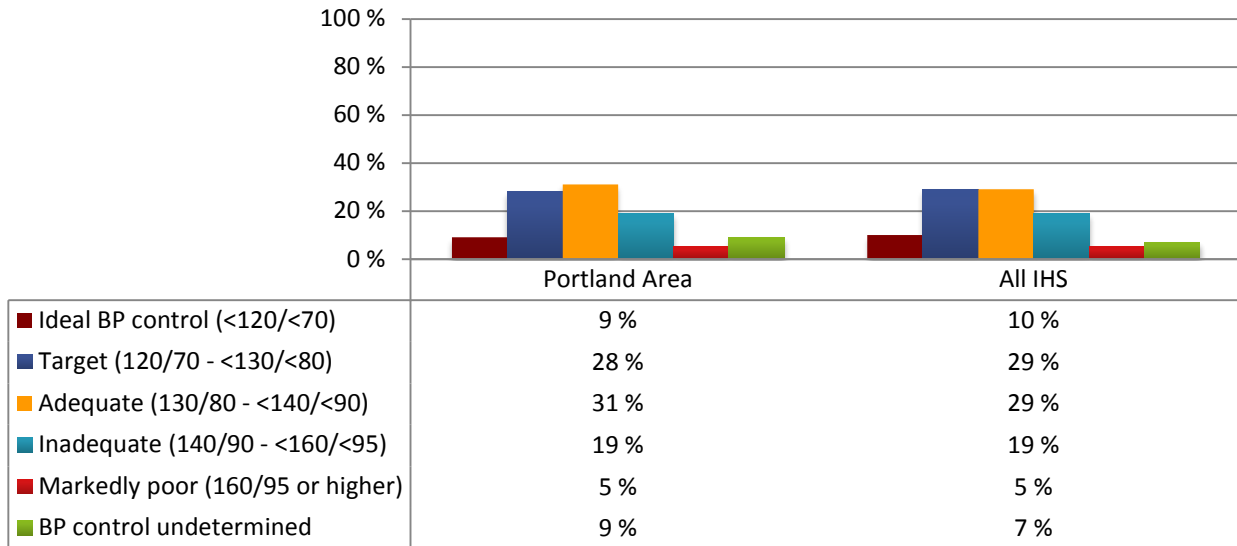
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

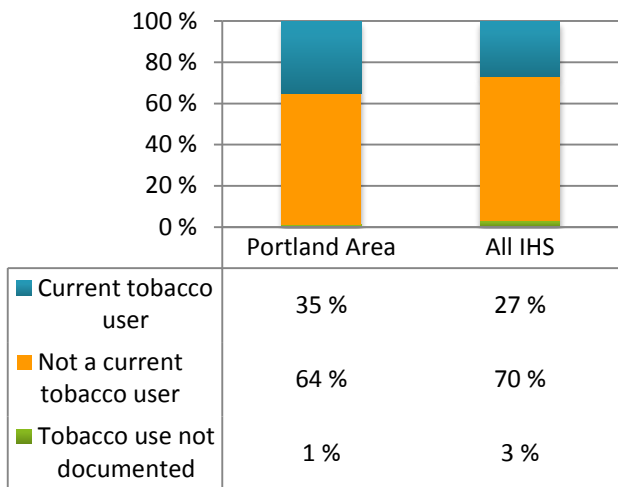
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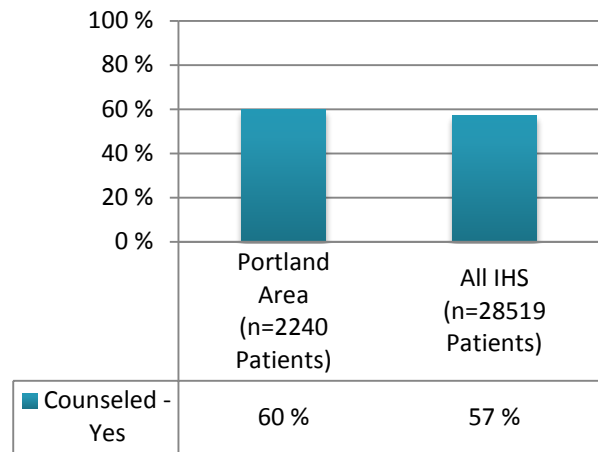
### Blood Pressure



### Tobacco Use



### Tobacco Cessation Counseling for Current Tobacco Users



## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

This information is for the following groups:

Portland Area (n=6400 patients)

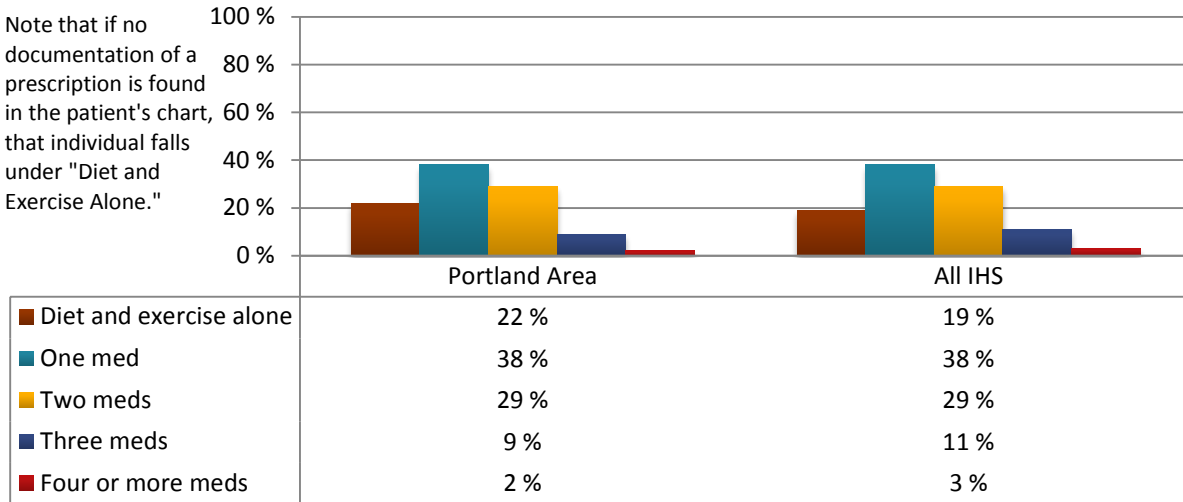
All IHS (n=105626 patients)

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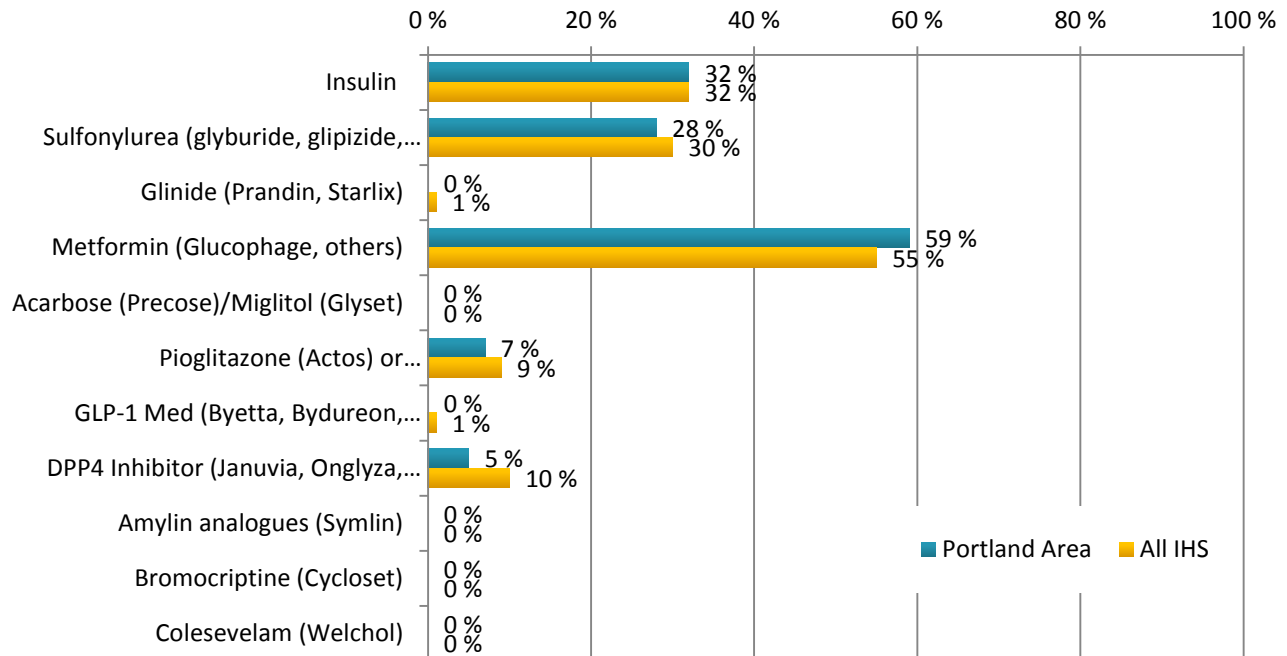
105626 sampled from 141896 active patients with diabetes (74%)

### Patients with Diabetes-Related Prescriptions

Note that if no documentation of a prescription is found in the patient's chart, that individual falls under "Diet and Exercise Alone."



### Diabetes Medications, Alone or in Combination





## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

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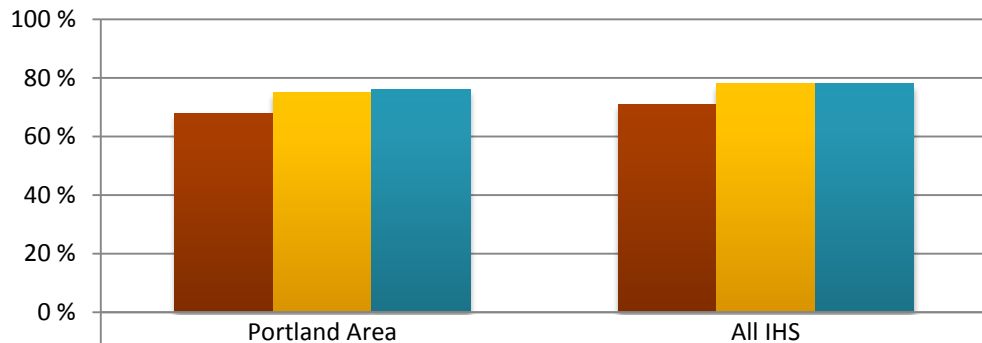
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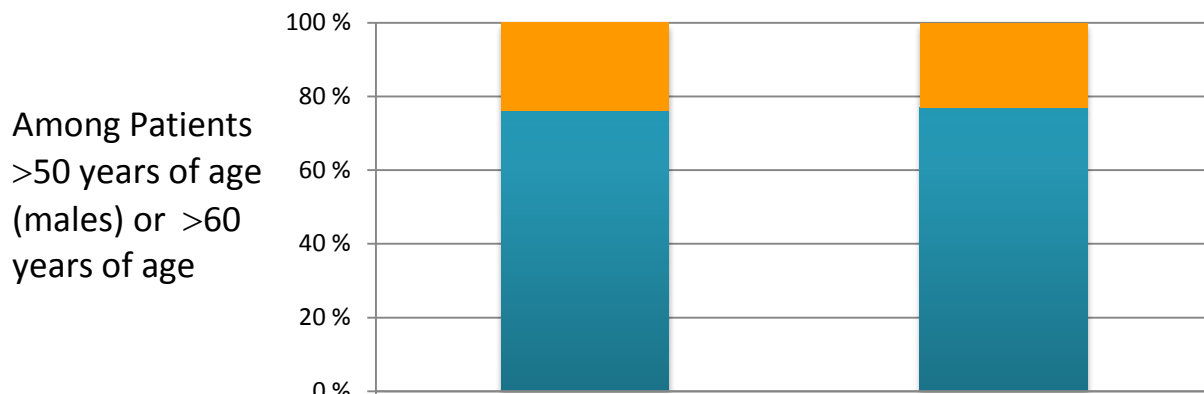
105626 sampled from 141896 active patients with diabetes (74%)

### Ace Inhibitor (or ARB) Prescriptions



<p>■ ACE or ARB Rx [overall]</p> <p>■ As a % of pts with known hypertension</p> <p>■ As a % of pts with elevated albuminuria</p>	68 %	71 %
	75 %	78 %
	76 %	78 %

### Anti-Platelet Therapy



<p>■ ASA None (CVD dx)</p> <p>■ Aspirin/Antiplatelet Prescription (CVD dx)</p>	24 %	23 %
	76 %	77 %

## 2013 Diabetes Audit: Dates of Service Jan 1 - Dec 31, 2012

This information is for the following groups:

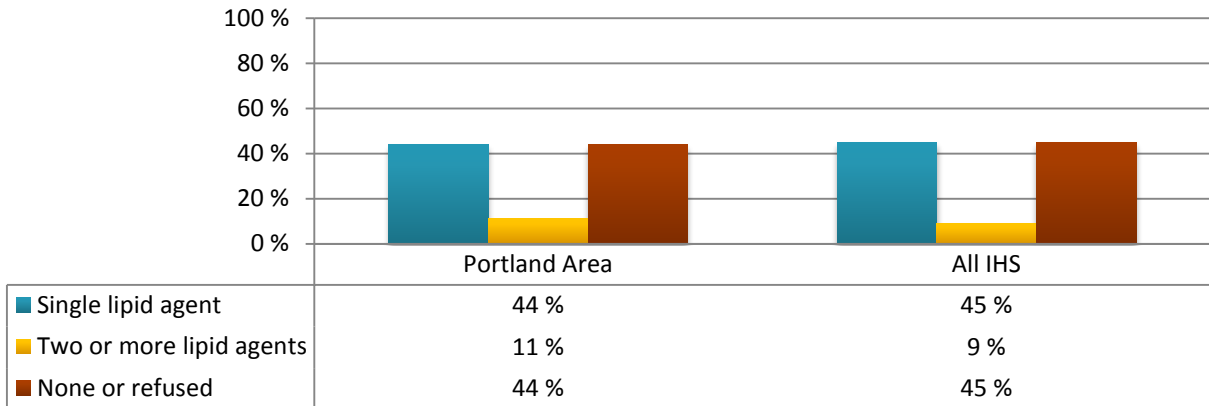
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

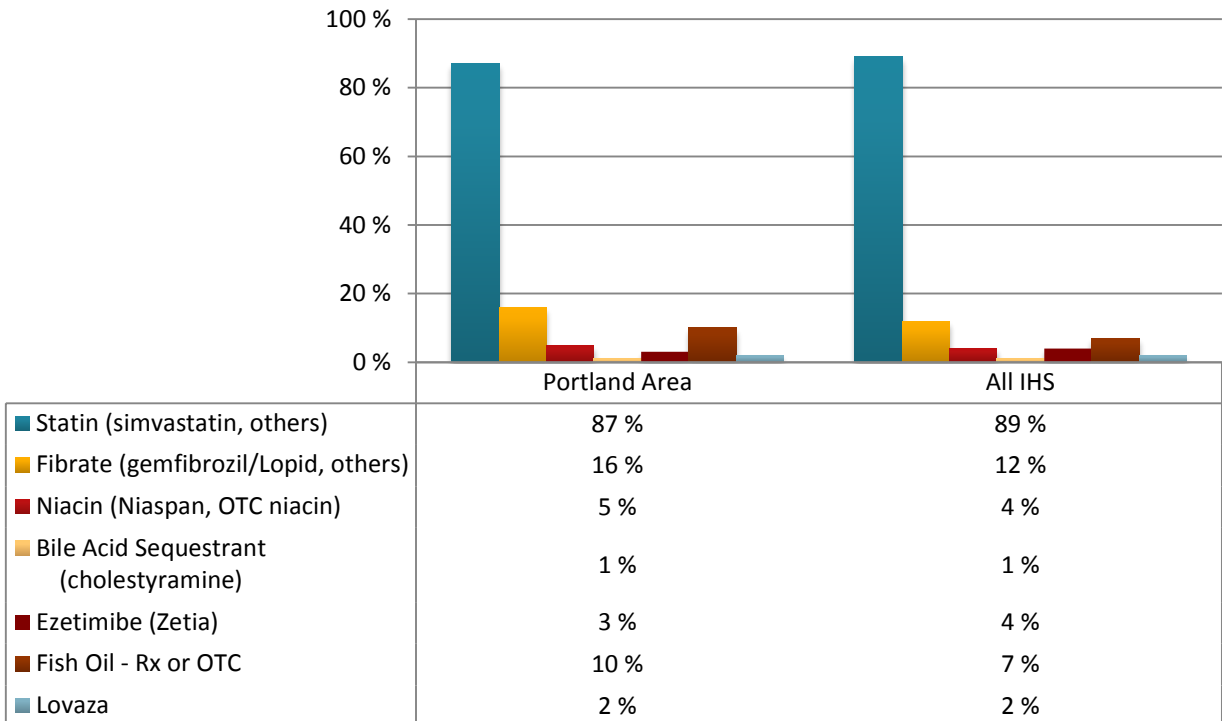
6400 sampled from 7873 active patients with diabetes (81%)

105626 sampled from 141896 active patients with diabetes (74%)

### Lipid Lowering Agent Prescribed



### Type of Lipid-Lowering Agent Prescribed



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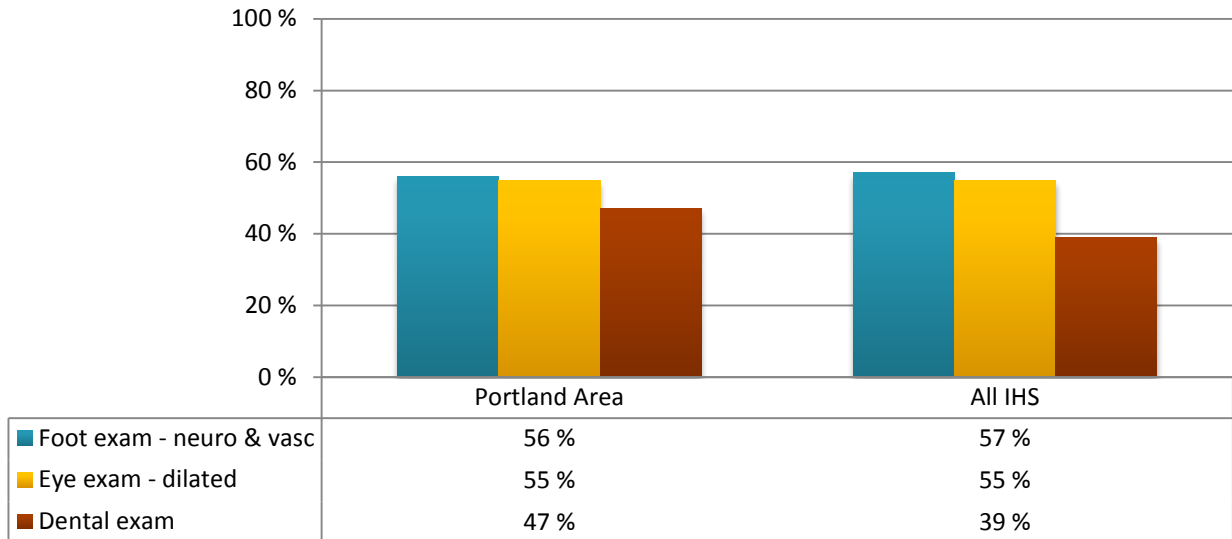
Portland Area (n=6400 patients)

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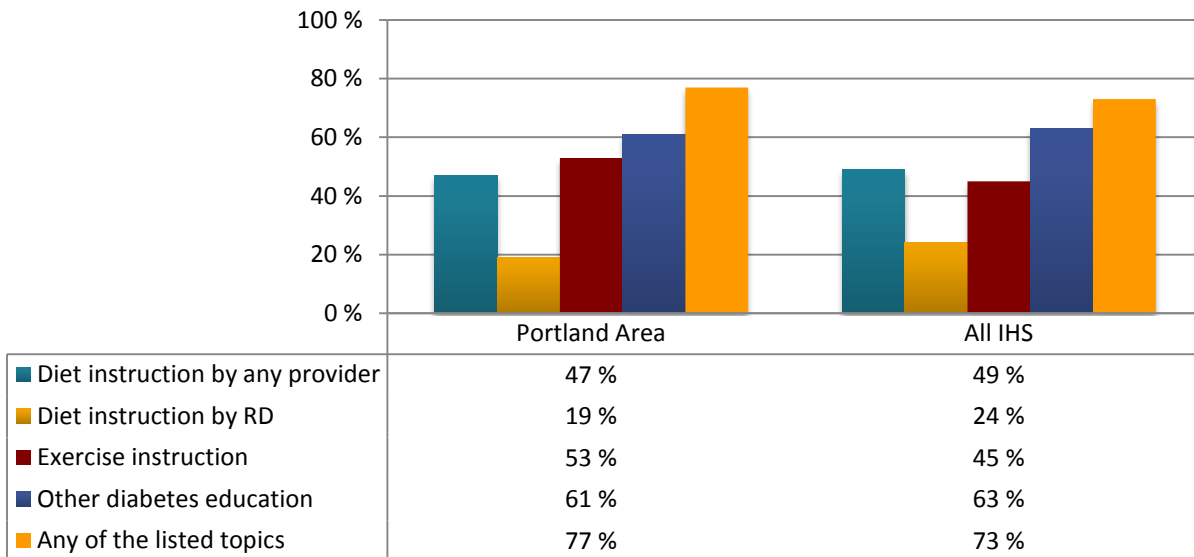
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### Yearly Exams



### Yearly Diabetes Education



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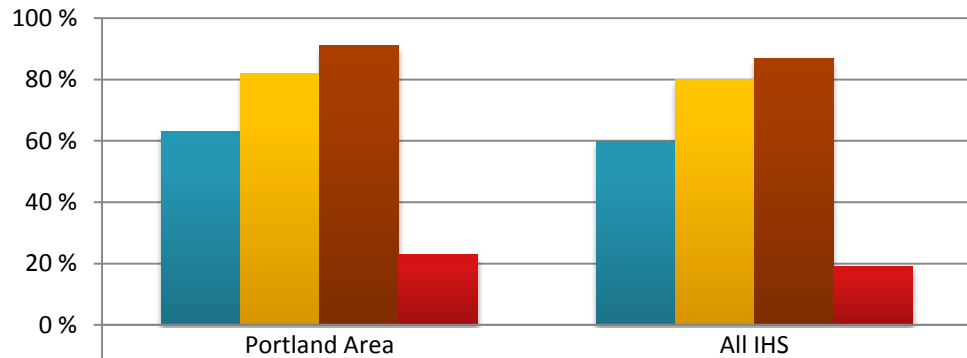
**Portland Area (n=6400 patients)**

**All IHS (n=105626 patients)**

6400 sampled from 7873 active patients with diabetes (81%)

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### Immunizations



■	Flu Vaccine - yearly	63 %	60 %
■	Pneumovax - once	82 %	80 %
■	Tetanus/Diphtheria (q 10 yrs)	91 %	87 %
■	Hepatitis B series ever	23 %	19 %

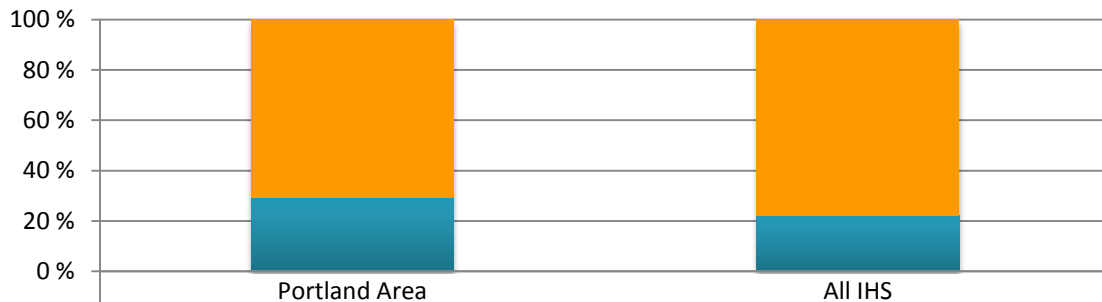
#### Portland Area

Flu Vaccine refused: 10%  
 Pneumovax refused: 4%  
 Tetanus/Diphtheria refused: 3%  
 Hepatitis B series refused: 23%

#### All IHS

Flu Vaccine refused: 8%  
 Pneumovax refused: 3%  
 Tetanus/Diphtheria refused: 2%  
 Hepatitis B series refused: 19%

### Depression Identified as Active Diagnosis



■	Depression No	71 %	78 %
■	Depression Yes	29 %	22 %

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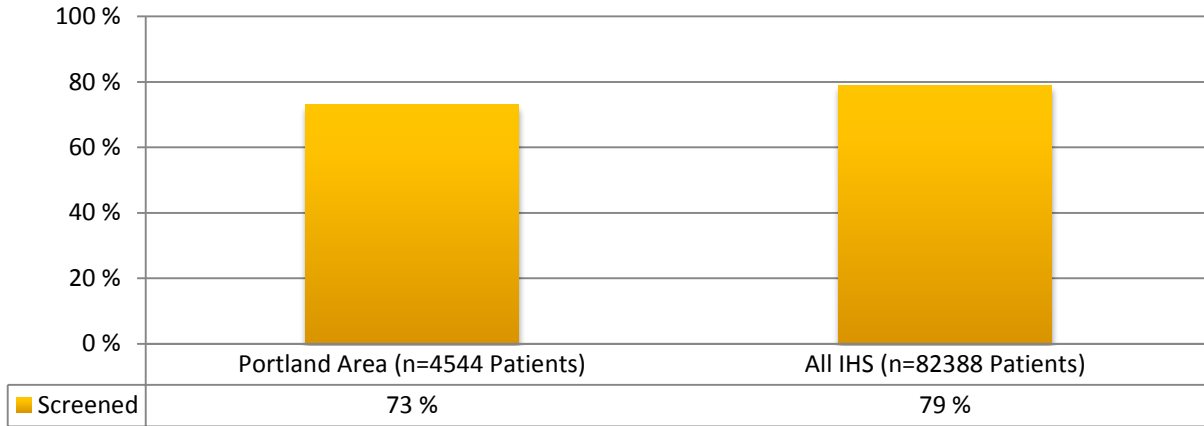
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

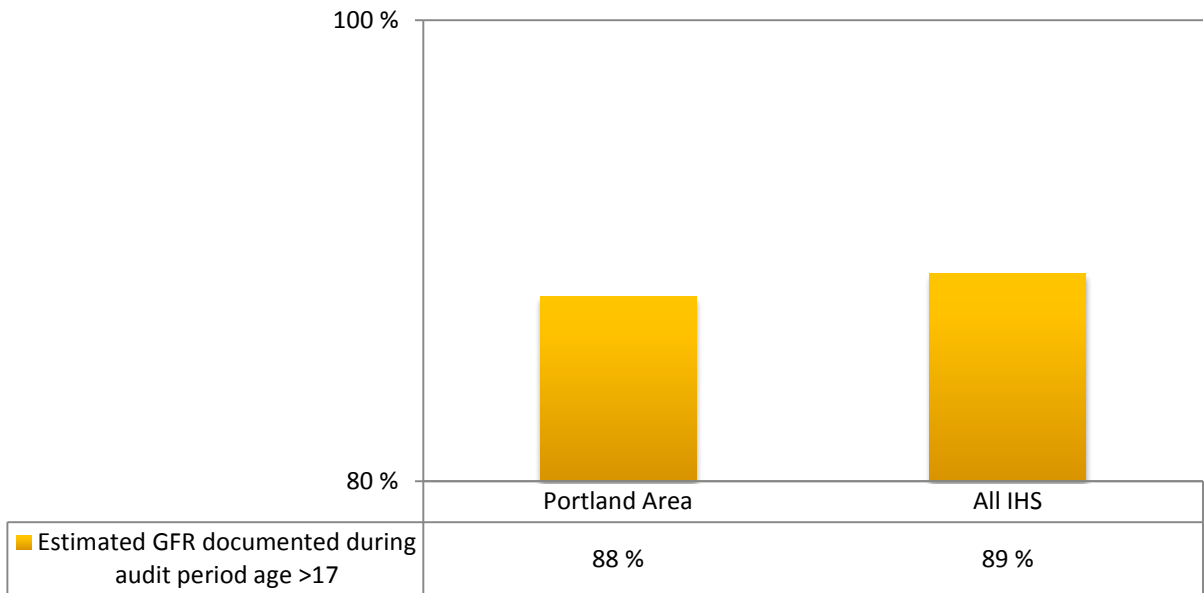
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### Of Patients Without Active Depression Diagnosis, Proportion Screened for Depression in Past Year



### Estimated GFR Testing



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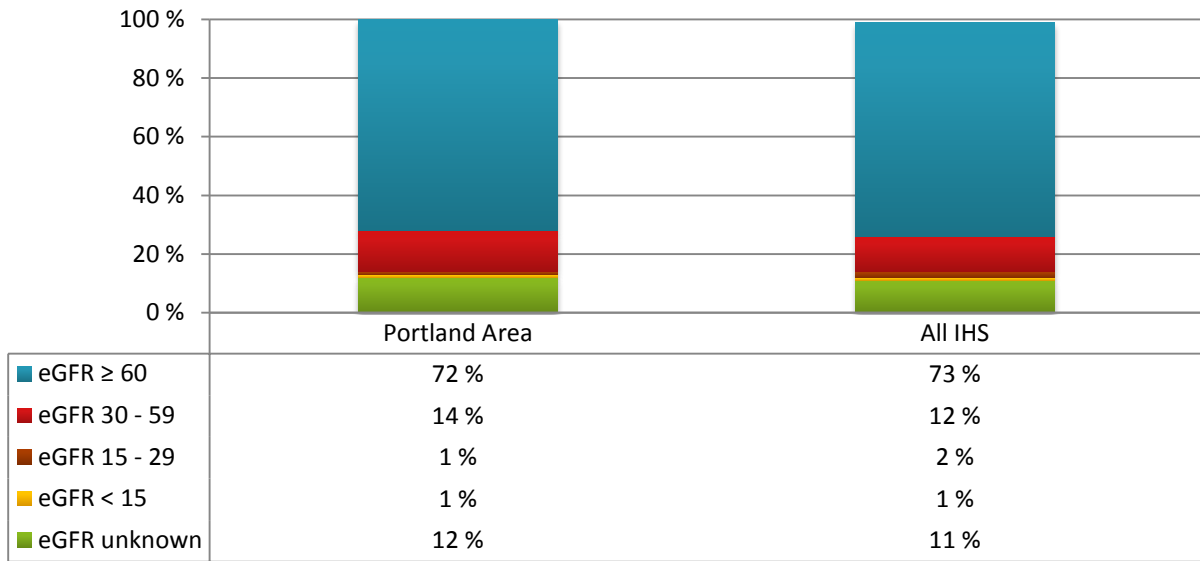
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

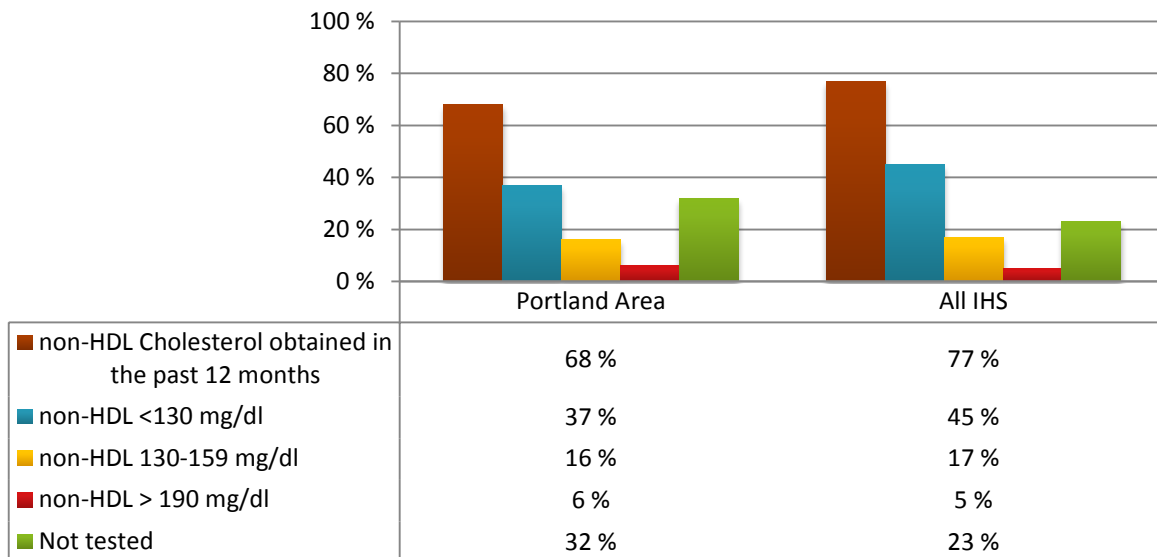
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### Estimated GFR results



### Non-HDL Cholesterol



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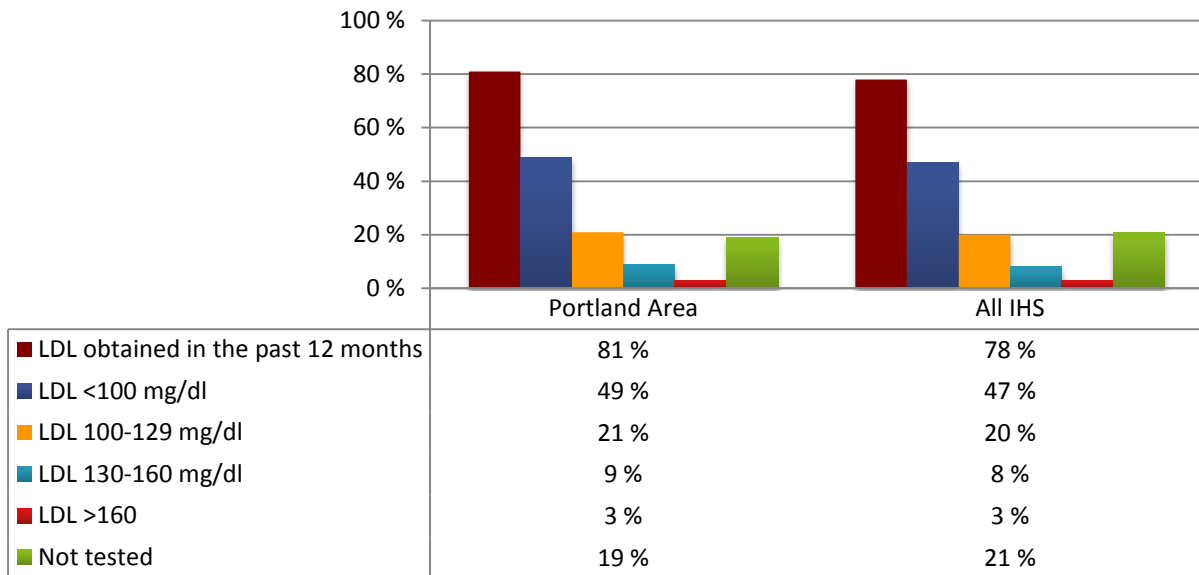
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

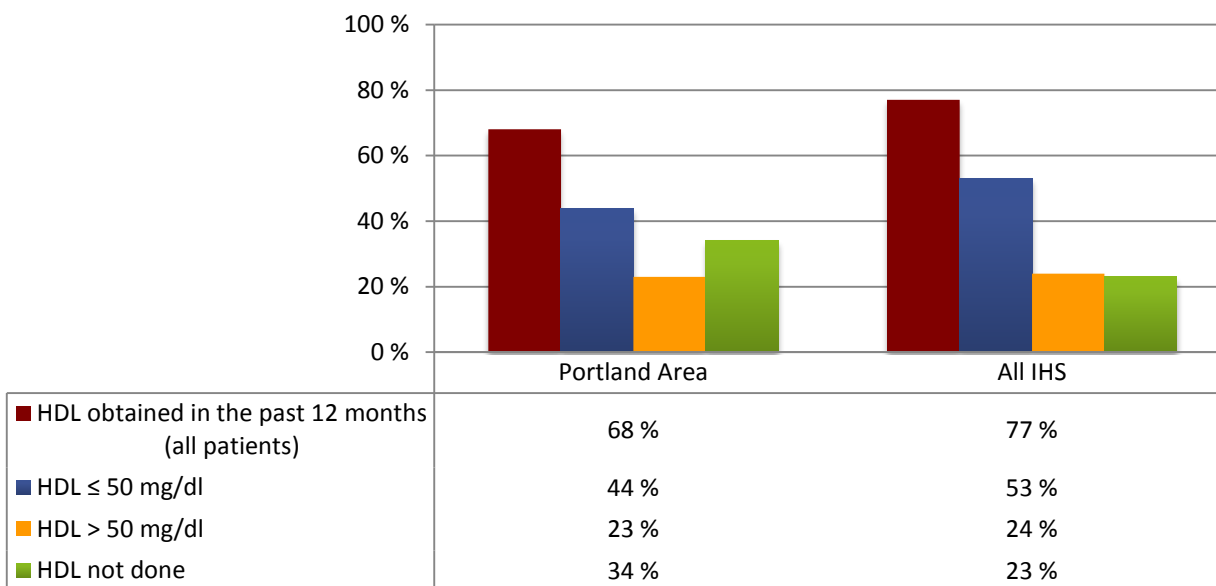
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### LDL Cholesterol



### HDL Cholesterol Females



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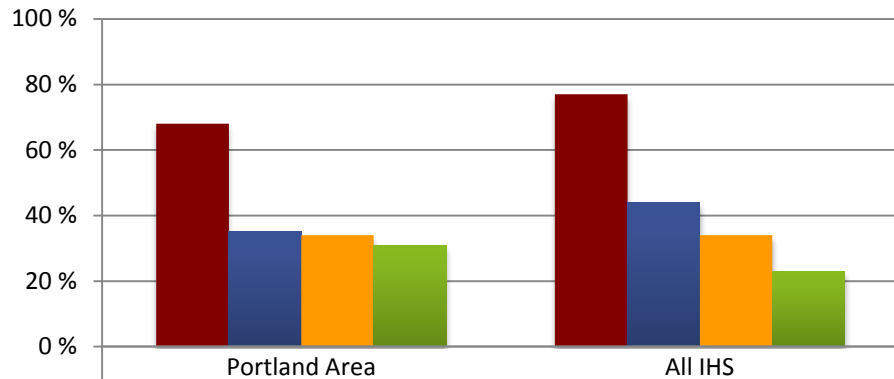
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All IHS (n=105626 patients)

6400 sampled from 7873 active patients with diabetes (81%)

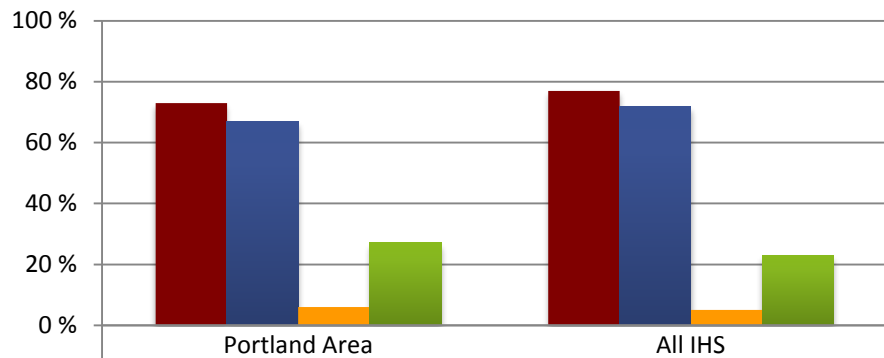
105626 sampled from 141896 active patients with diabetes (74%)

### HDL Cholesterol Males



<div style="display: flex; flex-direction: column; gap: 5px;"> <div><span style="color: #800000;">■</span> HDL obtained in the past 12 months (all patients)</div> <div><span style="color: #000080;">■</span> HDL ≤ 40 mg/dl</div> <div><span style="color: #FF8C00;">■</span> HDL &gt; 40 mg/dl</div> <div><span style="color: #70AD47;">■</span> HDL not done</div> </div>	Portland Area	All IHS
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### Triglyceride Distribution



<div style="display: flex; flex-direction: column; gap: 5px;"> <div><span style="color: #800000;">■</span> Triglycerides obtained in the past 12 months</div> <div><span style="color: #000080;">■</span> TG ≤ 400 mg/dl</div> <div><span style="color: #FF8C00;">■</span> TG &gt; 400 mg/dl</div> <div><span style="color: #70AD47;">■</span> TG not tested</div> </div>	Portland Area	All IHS
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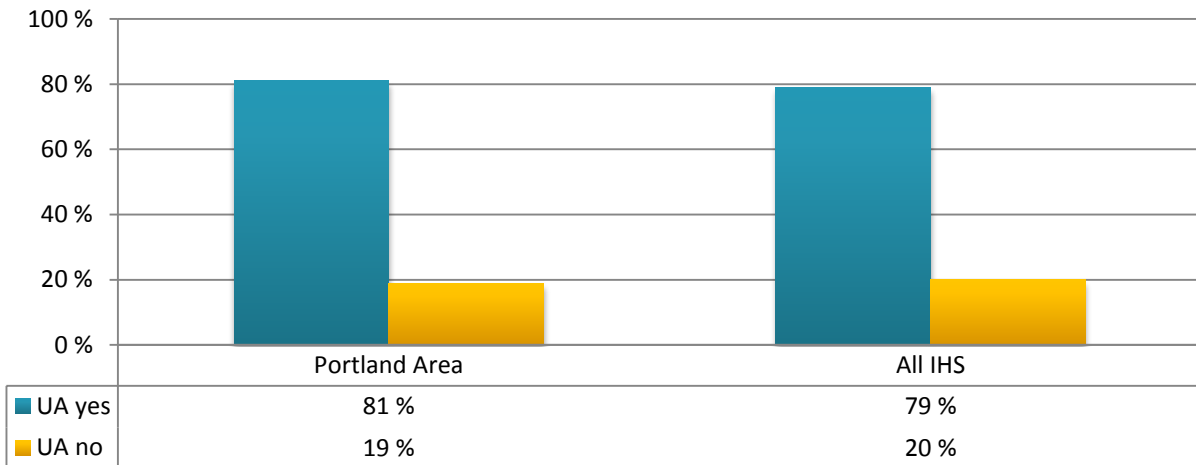
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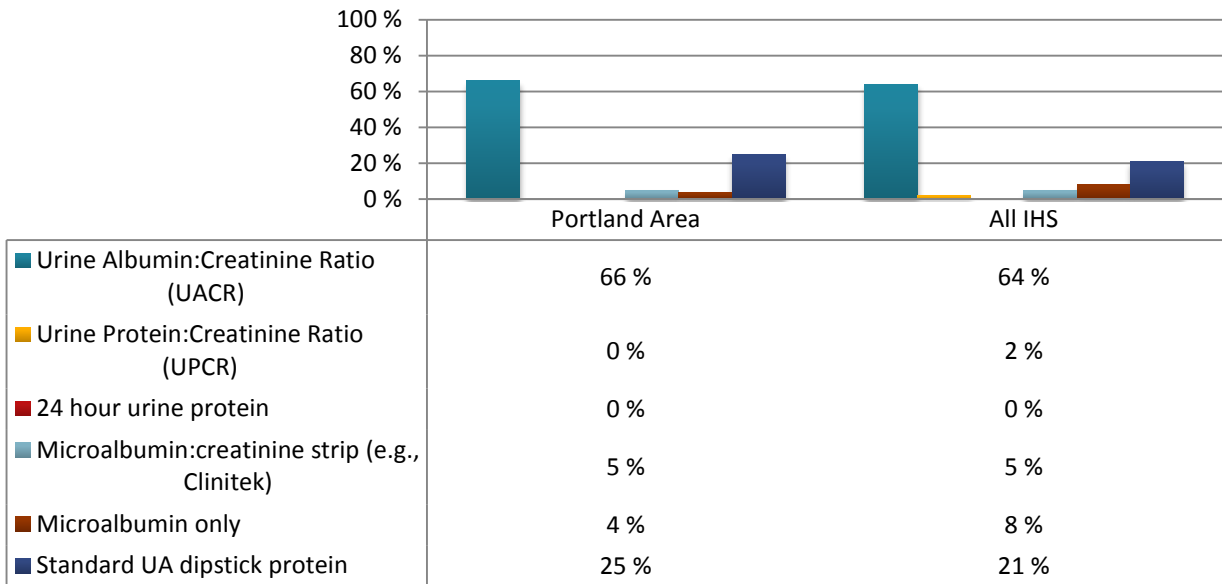
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### Urinalysis Performed



### Type of Urine Protein Testing



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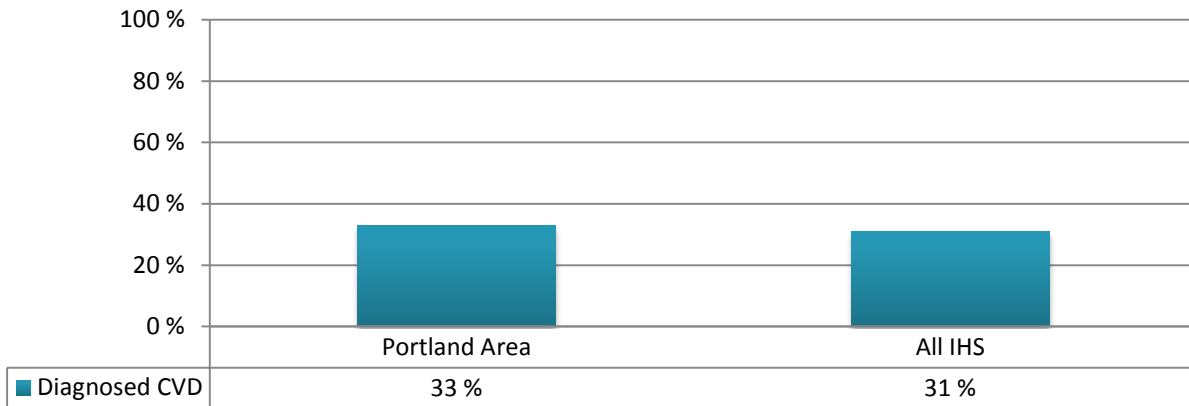
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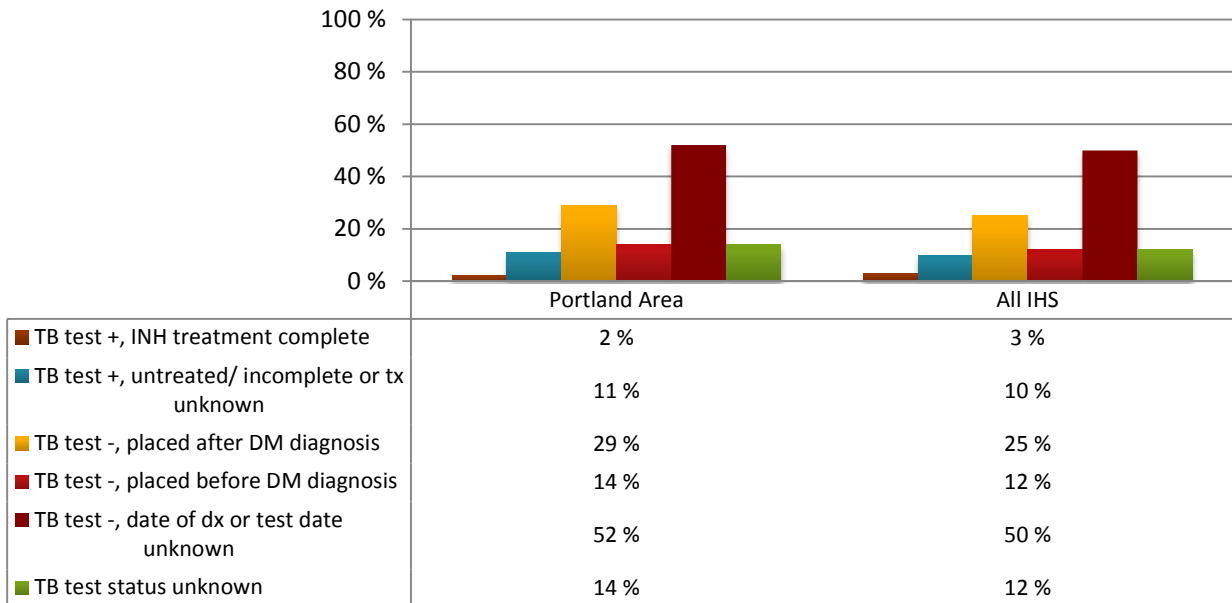
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### Patients diagnosed with CVD



### Tuberculosis Status



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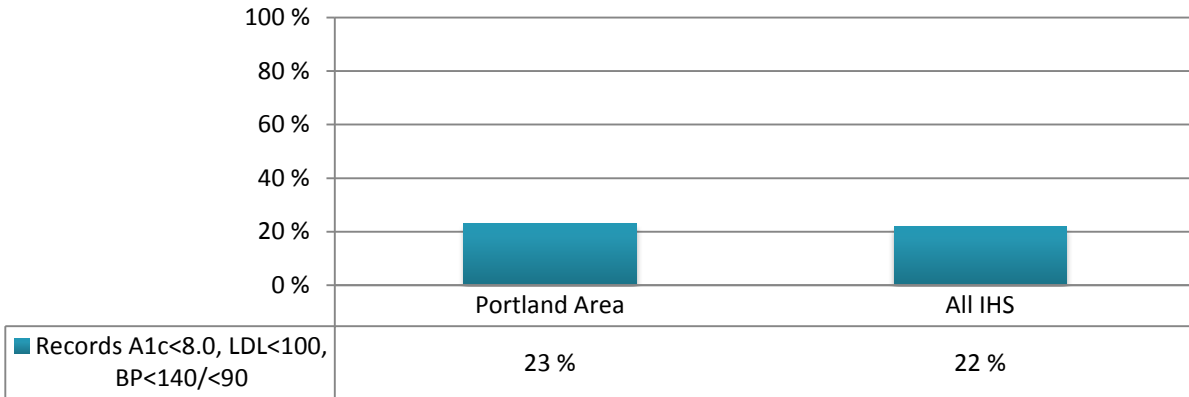
Portland Area (n=6400 patients)

All IHS (n=105626 patients)

6400 sampled from 7873 active patients with diabetes (81%)

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### Records meeting ALL of the criteria: A1c < 8.0, LDL < 100, and mean BP <140/<90



### Records with eGFR and quantitative protein test

