

# Return on Investment Calculator to Assess Cancer Screening Measures of a Border Health Initiative

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## INTRO:

A retrospective analysis using a return on investment calculator tool integrates itemized costs of implementing a breast cancer awareness and coordinated care intervention. The analysis calculates the net financial gains or losses of a strategy by taking into account all the resources invested and all the financial amounts gained through increased revenue and reduced costs.

# Health department's coordinated care and patient navigation services for mammography is cost-effective as well as creates a positive influence on patient experience, improves access and quality of care for the El Paso Border Region.



**\* Vaccination Services**  
Children 0-18 years who are uninsured or Medicaid recipients  
Adults 19 years and older who are uninsured or Medicaid recipients

**\* Cancer Screening Services**  
Mammogram  
Women 50-74 years old  
Pap Smear  
Women 21-64 years old  
Colorectal Cancer Screening  
Men and women 50-75 years old

**\* Servicios de Vacunación**  
Vacunas para niños de 0-18 años con Medicaid o sin seguro  
Adultos mayores de 19 años con Medicaid o sin seguro

**\* Servicios para Detección de Cáncer**  
Mamografía  
Mujeres de 50-74 años  
Papanicolaou  
Mujeres de 21-64 años  
Prueba de Cáncer de Colon  
Hombres y Mujeres de 50-75 años

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Para más información llame al (915) 212-6606



Take a picture to download the tool

## METHODS:

- The timeline for retrospective costs and savings analysis begins with baseline year from October to September 2016 and intervention years from 2017-2018.
- Costs include the following:
  - associated overhead needs
  - staff/labor
  - supplies and equipment
  - mammography services
- Savings/benefits of the intervention include:
  - reduced utilization of healthcare services and improved health outcome
- Total participants reached 602
  - ages 50-74
  - predominantly Hispanic (88%)
  - low-income uninsured (70%)
  - Medicaid/Medicare (30%)

## RESULTS:

Positive ROI results for each intervention :  
Year 1 = .11, Year 2 = .38, Year 3 = 1.50  
Internal Rate of Return 44% = NPV \$470,772  
Total savings \$1.4M

**Optimistically, this will strengthen advocacy for local health departments as an integral healthcare provider for managed care organizations.**

Acknowledgement: The Texas Health and Human Services Commission supports this initiative through the 1115 Healthcare Transformation Waiver. Special recognition to the Border Public Health Interest Group, Medicaid Waiver staff, department directors/administration and participants for making it possible to improve access to quality care in the El Paso, TX border region.

Business Case for Quality in Healthcare					
Return on Investment Analysis					
Medicaid Waiver					
City of El Paso Department of Public Health					
5115 El Paso Dr., El Paso, TX 79905					
		Discount Rate			13%
	Pre-implementation	Intervention Year		Total	
		1	2	3	(All Years)
<b>Investment in QEI</b>					
Initial Investment Costs	\$ 375,767.97				
Operating Costs		230,867.87	246,558.24	251,298.19	
Total Annual Investment Costs	375,767.97	230,867.87	246,558.24	251,298.19	
x Present Value Factors	1.00	0.88	0.78	0.69	
Total Discounted Annual Investment Costs	\$ 375,767.97	\$ 204,307.85	\$ 193,091.27	\$ 174,162.25	\$ 947,329.34
<b>Incremental Savings (Increases) from QEI</b>					
Estimated Incremental Utilization Savings		72,834.24	288,256.80	1,627,442.64	
Total Annual Incremental Savings (Increases)		72,834.24	288,256.80	1,627,442.64	
x Present Value Factors		0.88	0.78	0.69	
Total Discounted Annual Incremental Savings (Increases)		\$ 64,455.08	\$ 225,747.36	\$ 1,127,899.39	\$ 1,418,101.82
<b>Incremental Return on Investment Summary</b>					
Undiscounted Annual Net Cash Flows	\$ (375,768)	\$ (158,034)	\$ 41,699	\$ 1,376,144	\$ 884,041
Cumulative ROI		0.11	0.38	1.50	1.50
Net Present Value					470,772.49
Internal Rate of Return					44%