KEPRO
INTELLIGENT VALUE

REDUCING UNNECESSARY UTILIZATION AND COSTS IN A MEDICAID HEALTH PLAN USING ONCOLOGY CASE MANAGEMENT

BACKGROUND

KEPRO provides medical management services to a large health plan that provides comprehensive benefits to millions of members in multiple states. KEPRO Oncology Management targeted the 200,000 members enrolled in the Plan's Medicare Managed Care program in calendar year 2012.

OBJECTIVES

KEPRO Oncology Case Management applies theory-driven research and evidence-based tools and interventions to decrease treatment costs, improve health outcomes, and preserve each member's dignity during this difficult time. We:

1. Analyzed claims data within the eligible population to identify individuals over age 18 who had two or more claims for cancer treatment or diagnosis
2. Included daily referrals from the utilization management precertification department
3. Excluded individuals:
   - With diagnoses of mild skin cancer
   - Permanently residing in a long-term care facility
   - Under hospice care
   - Who have no complex needs
4. Enrolled members only if they were in active treatment
5. Assigned highest priority to members who were hospitalized.

POPULATION

The breakdown of the enrolled population is shown in Figures 1 and 2.

Figure 1. Age and Gender of Enrolled Population

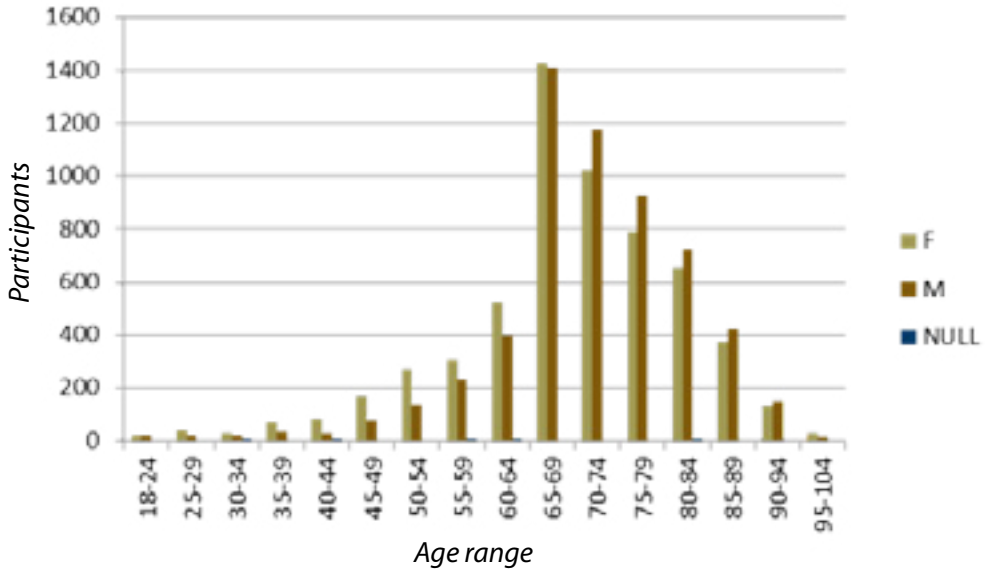


Figure 2. Enrolled Population Demographics

Age	Female	Male	NULL	Grand Total
18-24	20	20		40
25-29	38	22		60
30-34	30	20	1	51
35-39	70	34		104
40-44	83	30	1	114
45-49	168	80		248
50-54	271	138		409
55-59	304	234	4	542
60-64	525	396	2	923
65-69	1426	1412		2838
70-74	1021	1177		2198
75-79	791	925		1716
80-84	652	722	1	1375
85-89	374	422		796
90-94	133	151		284
95-104	28	16		44
Grand Total	**5934**	**5799**	**9**	**11742**

TYPES OF CANCER

The 10 most prevalent types of cancer in the enrolled population are shown in Figure 3.

Figure 3. Ten Most Prevalent Types of Cancer

TYPES OF CANCER	# OF MEMBERS
185 Malignant Neoplasm of the Prostate	2308
174.9 Malignant Neoplasm of the (Female) Unspecified Site	1508
162.9 Malignant Neoplasm of the Bronchus and Lung Unspecified	454
195.2 Malignant Neoplasm of the Abdomen	420
188.9 Malignant Neoplasm of the Bladder Part Unspecified	406
174.8 Malignant Neoplasm of the Other Specified Sites of Female Breast	354
202.80 Other Malignant Lymphomas Unspecified Site	295
189.0 Malignant Neoplasm of the Kidney Except Pelvis	240
153.9 Malignant Neoplasm of the Colon Unspecified Site	209
197.0 Secondary Malignant Neoplasm of the Lung	186

TARGETING MEMBERS AT HIGHEST RISK

We work with all members, but more aggressively targeted those at highest risk (see Figure 5).

Figure 5. Population Profile

Medicare Advantage	Engaged	Not Engaged	P Value
N	606	10,447	
Median Age	74	75	
% Female	51.49%	47.325	0.0457
Priority			
% High	10.56%	2.56%	
% Direct Referrals	29.47%	4.25%	
% Mild	32.03%	32.95%	
% Low	37.95%	60.24%	
Top 5 Types of Cancer (from referral file)			<.0001
Prostate	18.48%	23.33%	
Breast	16.01%	17.72%	
Lung	10.56%	7.07%	
Lymphoid	4.62%	4.14%	
Colon	4.46%	3.77%	
Severity Measures			
% Died	13.70%	7.36%	<.0001
% on Chemotherapy	34.65%	13.60%	<.0001
% Metastatic Cancer	28.22%	11.02%	<.0001

METHODOLOGY

We designed our program to deliver the most cost effective interventions that significantly improve member health outcomes. The top five program goals included:

- Decreasing hospital admissions
- Decreasing risk of infection
- Increasing healthy lifestyles
- Increasing medication adherence
- Increasing treatment compliance.

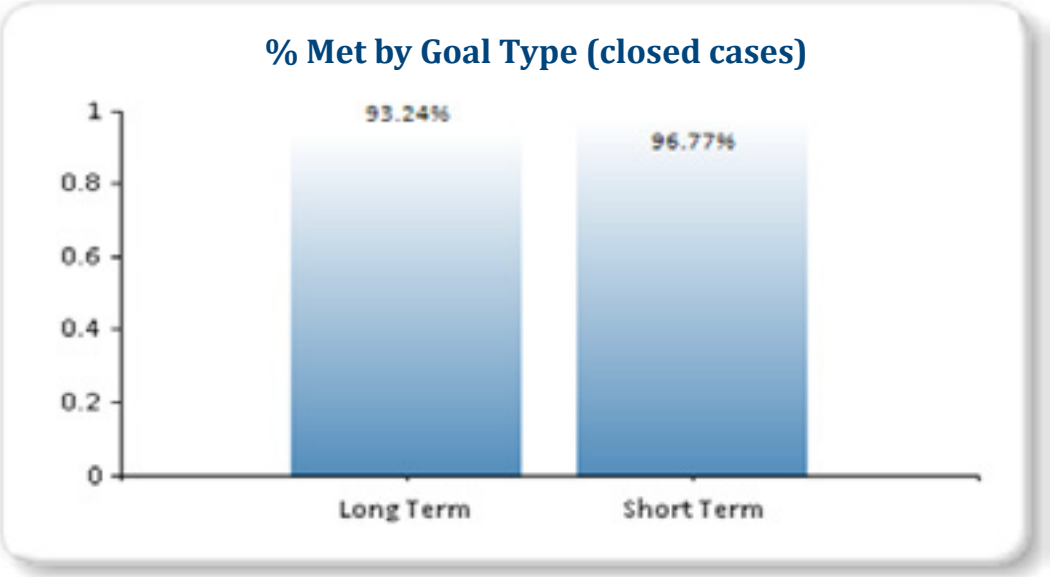
ENGAGEMENT AND SATISFACTION RESULTS

KEPRO's aggressive engagement strategy delivered the following:

- **We reached 71 percent of eligible members identified for oncology management.**
- **We successfully enrolled 51.5 percent in our oncology management program.**

Of those enrolled, 95 percent successfully achieved their program goals (see Figure 4). More than 97 percent of the members were satisfied or very satisfied with KEPRO Oncology Management.

Figure 4. Goal Achievement



PROGRAM RESULTS – DECREASING HOSPITAL ADMISSIONS

Both the engaged and not engaged populations showed a reduction in admissions from Quarter 1 2012 to Quarter 4 2012. The reduction was significantly higher for the engaged population compared to the not engaged population. **A total of 25 admissions per 1000 cancer members were avoided.**

COST AVOIDANCE SAVINGS

In addition to decreasing hospital admissions, we impacted overall member health and achieved significant savings, as shown in Figure 6.

Figure 6. KEPRO Oncology Management Program Savings

Category	Goal Type	# Goals Met	Average Cost	Savings
Healthy Lifestyle	Long Term	23	$3,762.50	$86,537.50
	Short Term	26	$3,762.50	$97,825.00
		49		$184,362.50
Medication Compliance	Long Term	2	$2,000.00	$4,000.00
	Short Term	3	$2,000.00	$6,000.00
		5		$10,000.00
Risk For Infection	Long Term	32	$8,832.00	$282,624.00
	Short Term	88	$8,832.00	$777,216.00
		120		$1,059,840.00
Treatment Compliance	Long Term	2	$2,000.00	$4,000.00
	Short Term	1	$2,000.00	$2,000.00
		3		$6,000.00
Totals		**177**		**$1,260,202.50**

CONCLUSION

KEPRO Oncology Management targets and engages the most severe oncology patients as evidenced by differences in cost, use, and morbidity between the engaged and not engaged populations. The program yields a statistically significant net reduction in inpatient admissions four quarters post referral date. KEPRO Oncology Management delivered a 3.1:1 ROI for this health plan in 2012.