

COVID-19 Financial Risk Analysis

Date Prepared: March 23, 2020

Listed below are projected financial risks of plans based on percentage of infection

AGE	Mortality Rate (Source: WHO)
80+ years old	14.80%
70-79 years old	8.00%
60-69 years old	3.60%
50-59 years old	1.30%
40-49 years old	0.40%
30-39 years old	0.20%
20-29 years old	0.20%
10-19 years old	0.20%
0-9 years old	0.00%

Gender	Mortality Rate (Source: WHO)
Male	2.80%
Female	1.70%

Hospitalization Rate (Source: STAT)	ICU Rate (Source: STAT)
10.00%	5.00%

ICD-10 Descriptors, Codes, and Average Cost per Claimant

(Source: APBA Claims Analysis)

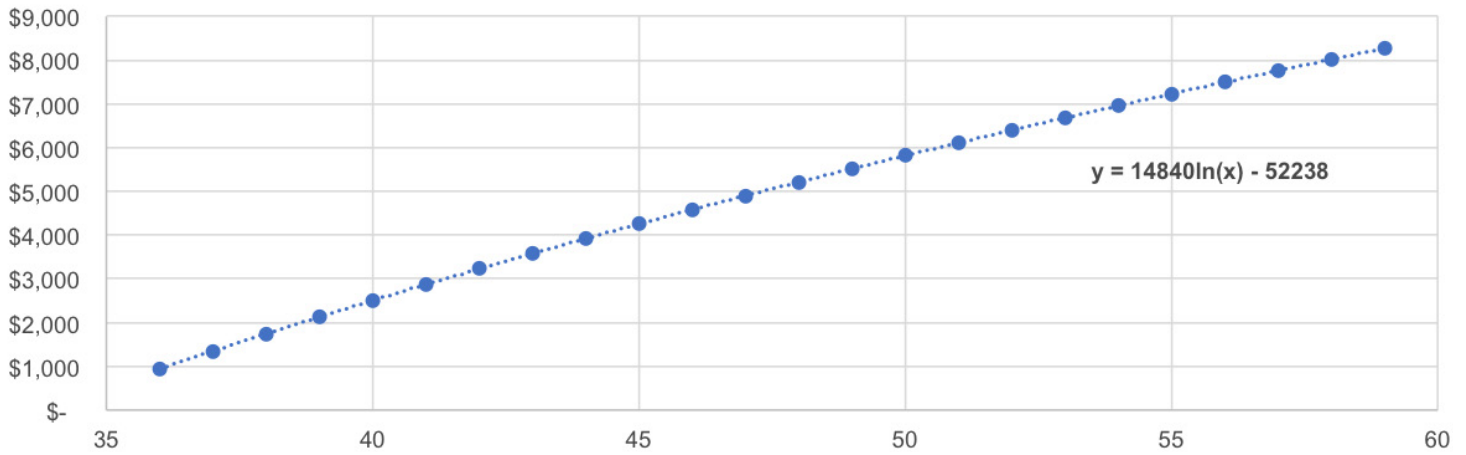
MILD ICD-10 Codes	
Cough	R05
Shortness of Breath	R06.02
Fever, unspecified	R50.9
Avg Cost/Claimant:	\$1,400

MODERATE ICD-10 Codes	
Pneumonia	J12.89
Bronchitis	J20.8
Lower Respiratory Infection	J22
Avg Cost/Claimant:	\$21,650

SEVERE ICD-10 Codes	
ARDS	J80
Avg Cost/Claimant:	\$92,150

Cost Per Infection Based on Average Group Age

(Source: APBA Claims Analysis)



Low (0.1% Infected)	$[14,840 \times \text{LN}(\text{Avg Employee Age}) - 52,238] \times \text{Total Members} \times .001$	<i>For every 5 percentage points your population is above 50% male, add 2 percent.</i>
Mild (1% Infected)	$[14,840 \times \text{LN}(\text{Avg Employee Age}) - 52,238] \times \text{Total Members} \times .01$	
Moderate (5% Infected)	$[14,840 \times \text{LN}(\text{Avg Employee Age}) - 52,238] \times \text{Total Members} \times .05$	<i>For every 5 percentage points your population is below 50% male, remove 2 percent.</i>
Severe (25% Infected)	$[14,840 \times \text{LN}(\text{Avg Employee Age}) - 52,238] \times \text{Total Members} \times .25$	

Elective Claims Offset:	\$59.90	PMPM
	$0.6049 \times \text{LN}(\text{Infection Rate}) + 6.6036$	Months
	Offset	Per Total Members

Example:	1000 Members, Average Employee Age 45, 60% Male, 1% Infection Rate	
	$14,840 \times \text{LN}(45) - 52,238 = 4252.9$	
	$4252.9 \times 1000 \text{ mbrs} \times .01 \times 1.04 = \$44,230$	minus $\$59.90 \times (.6049 \times \text{LN}(.01) + 6.6036) =$
	Expected Plan Cost = -\$181,913	1% Infection Rate
	-\$53,102	5% Infection Rate
	\$824,214	25% Infection Rate



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