

Evaluating the Impact of Increasing Longevity on Funding Continuing Care Contracts

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What Should You Expect to Learn?

1. Types of risks associated with longevity
2. Methods to quantify risks
3. Pros and cons of various contract terms
4. Decision tools for managing risks

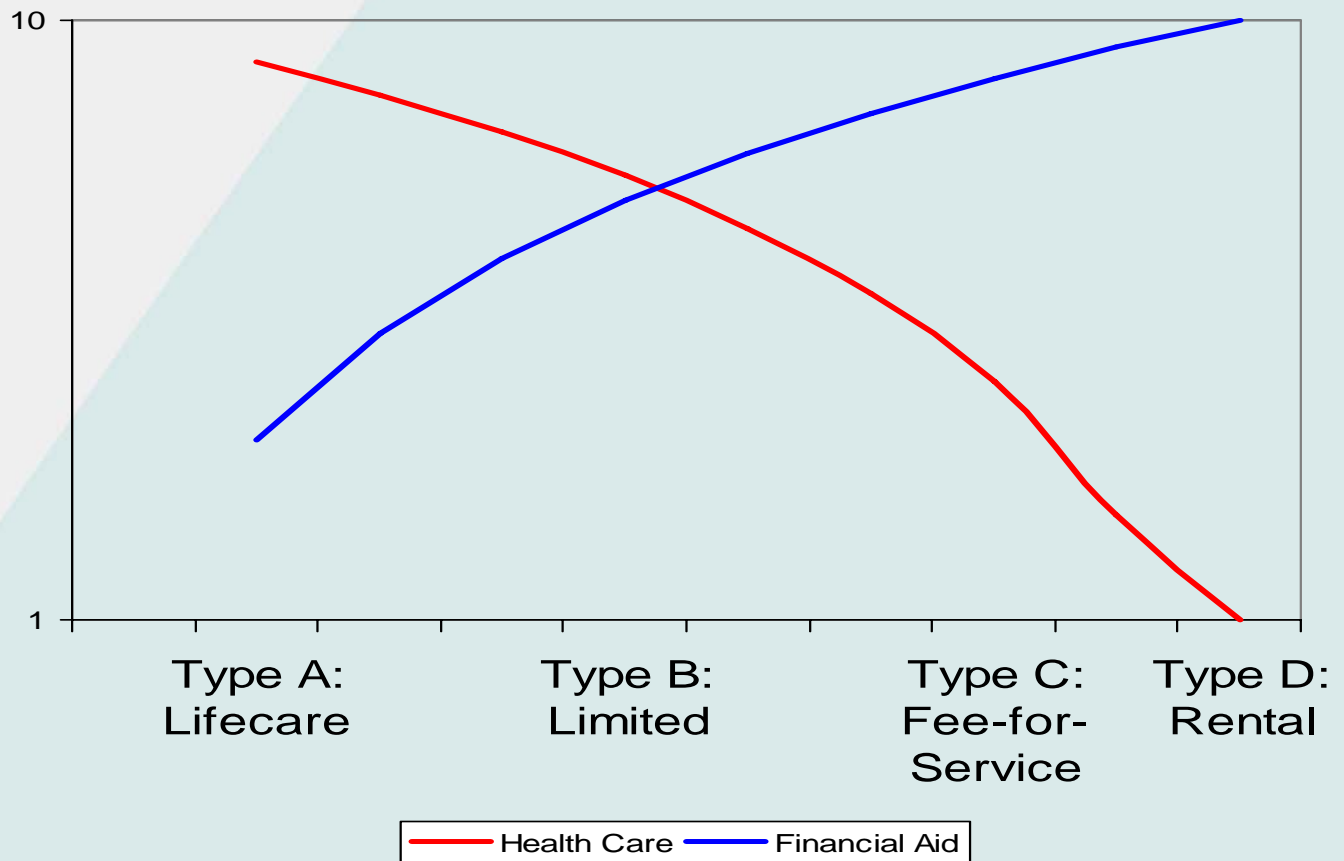


Why Should You be Concerned?

1. Commitment to care for resident for life
2. Healthier senior population
3. Changes in medical technologies
4. Volatility in investment market
5. Pressure from heirs to divest of assets



All Contracts Have Risk!



Part I: Financial Aid Risks

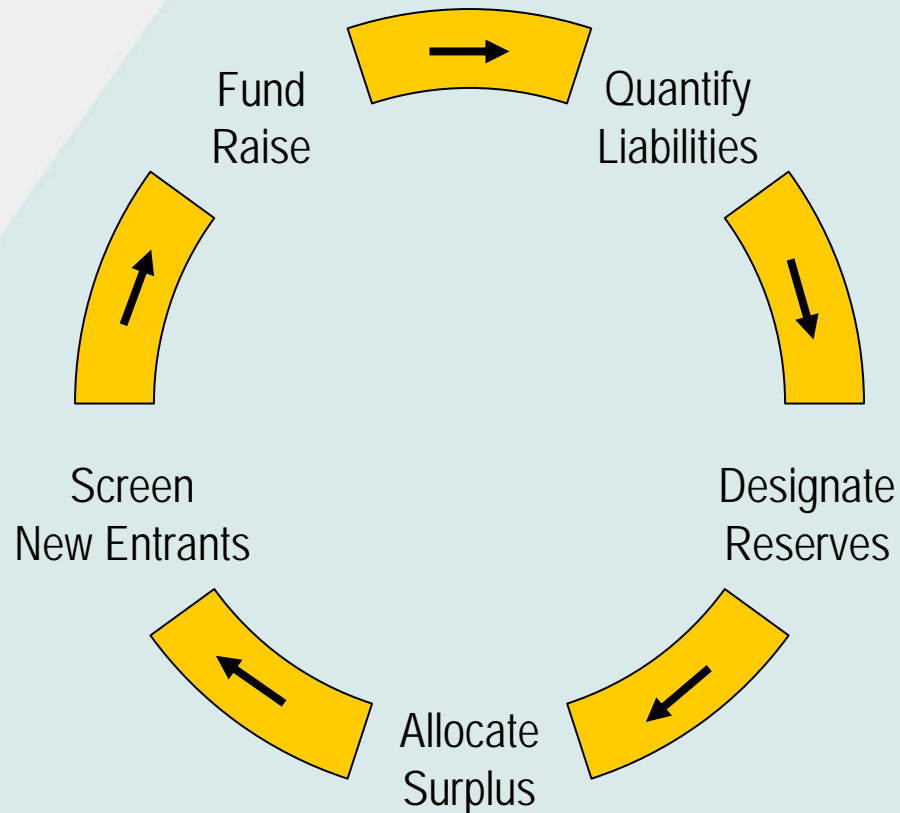
Contracts that Minimize Health Care Risks
Type B, C, and D

Manage Benevolence Liabilities

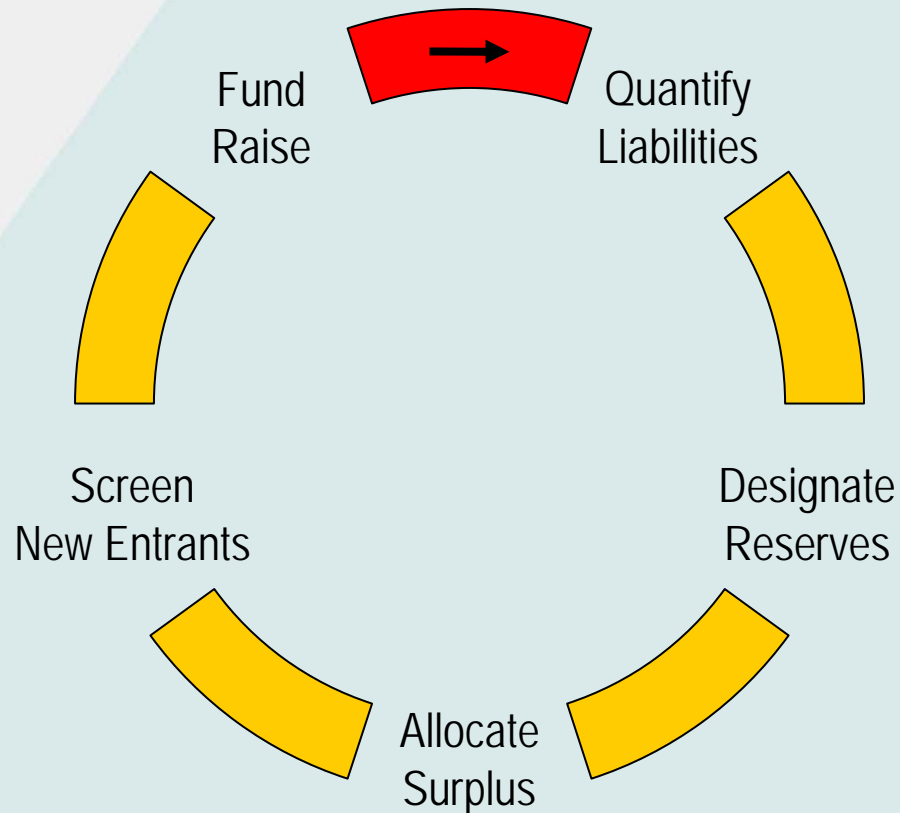
1. How much benevolence can you afford?
 - ✓ Liability for existing residents
 - ✓ Current size of restricted funds
 - ✓ Annual contributions
2. Manage liabilities, NOT cash flows



5 Step Process



Step 1. Quantify Liabilities



Estimate Existing Liabilities

1. Collect resident net worth data
2. Select appropriate assumptions
3. Project financial subsidies for survivors
4. Test alternative assumption sensitivity



Data Refinement Affects Estimate

1. Limited data input
 - ✓ One value for total assets
 - ✓ One value for total income
2. Projection credibility improves with refinements
3. Okay to combine limited and refined data



\$15K Liability for Limited Data

Financial Data [Close]

Edit Help

General Information		Record Information		
Information Date	10/27/2004		Person 1	Person 2
Sufficient Resources	<input type="checkbox"/>	ID	3	18
Apply LTC Insurance	<input type="checkbox"/>	Last Name	CALLAHAN	CALLAHAN
Apply Entry Fee Refund	<input type="checkbox"/>	First Name	ADRIANA	CLINTON

Monthly Expenses (Excluding Monthly Fees)

Description	ILU Single	ILU Add'l Per	ALU Single	ALU Add'l Per	NCU Single	NCU Add'l Per
Personal expenses	400	300	100	50	100	50

Assets and Income

Type	Description	Own	Balance	APR %	Freq	Income	Begin	Dur	Inf Adj	Tax	Surv %
Other	Assets	Joint	70,000	0.9	A	630	1	L	<input type="checkbox"/>	Y	100
Other (income only)	Income excl/invest	Joint	NA	NA	M	2,500	1	L	<input checked="" type="checkbox"/>	Y	100

OK
Cancel



Liability for Refined Data more than Doubles to \$37K

Financial Data [X]

Edit Help

General Information

Information Date	10/27/2004
Sufficient Resources	<input type="checkbox"/>
Apply LTC Insurance	<input checked="" type="checkbox"/>
Apply Entry Fee Refund	<input type="checkbox"/>

Record Information

	Person 1	Person 2
ID	3	18
Last Name	CALLAHAN	CALLAHAN
First Name	ADRIANA	CLINTON

Monthly Expenses (Excluding Monthly Fees)

Description	ILU		ALU		NCU	
	Single	Add'l Per	Single	Add'l Per	Single	Add'l Per
Personal expenses	400	300	100	50	100	50

Long Term Care Insurance

	Person 1	Person 2
Benefit Period (Years)	2	2
Elimination Period (Days)	120	120
ALU Daily Benefit	30.00	30.00
NCU Daily Benefit	60.00	60.00
Inflation Adjusted	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annual Premium	1,000	1,000
Premium Inflation (%)	2.0	2.0

Assets and Income

Type	Description	Own	Balance	APR %	Freq	Income	Begin	Dur	Inf Adj	Tax	Surv %
Stocks/Equity FL		Joint	20,000	3.0	M	50	NA	NA	<input checked="" type="checkbox"/>	Y	100
Social Security	Adriana	1	NA	NA	M	450	1	L	<input checked="" type="checkbox"/>	SS	SS
Social Security	Clinton	2	NA	NA	M	750	1	L	<input checked="" type="checkbox"/>	SS	SS
Pension	Adriana	1	NA	NA	M	300	1	L	<input type="checkbox"/>	Y	0
Pension	Clinton	2	NA	NA	M	1,000	1	L	<input type="checkbox"/>	Y	60
Real Estate		1	50,000	NA	NA	NA	NA	NA	<input type="checkbox"/>	N	100

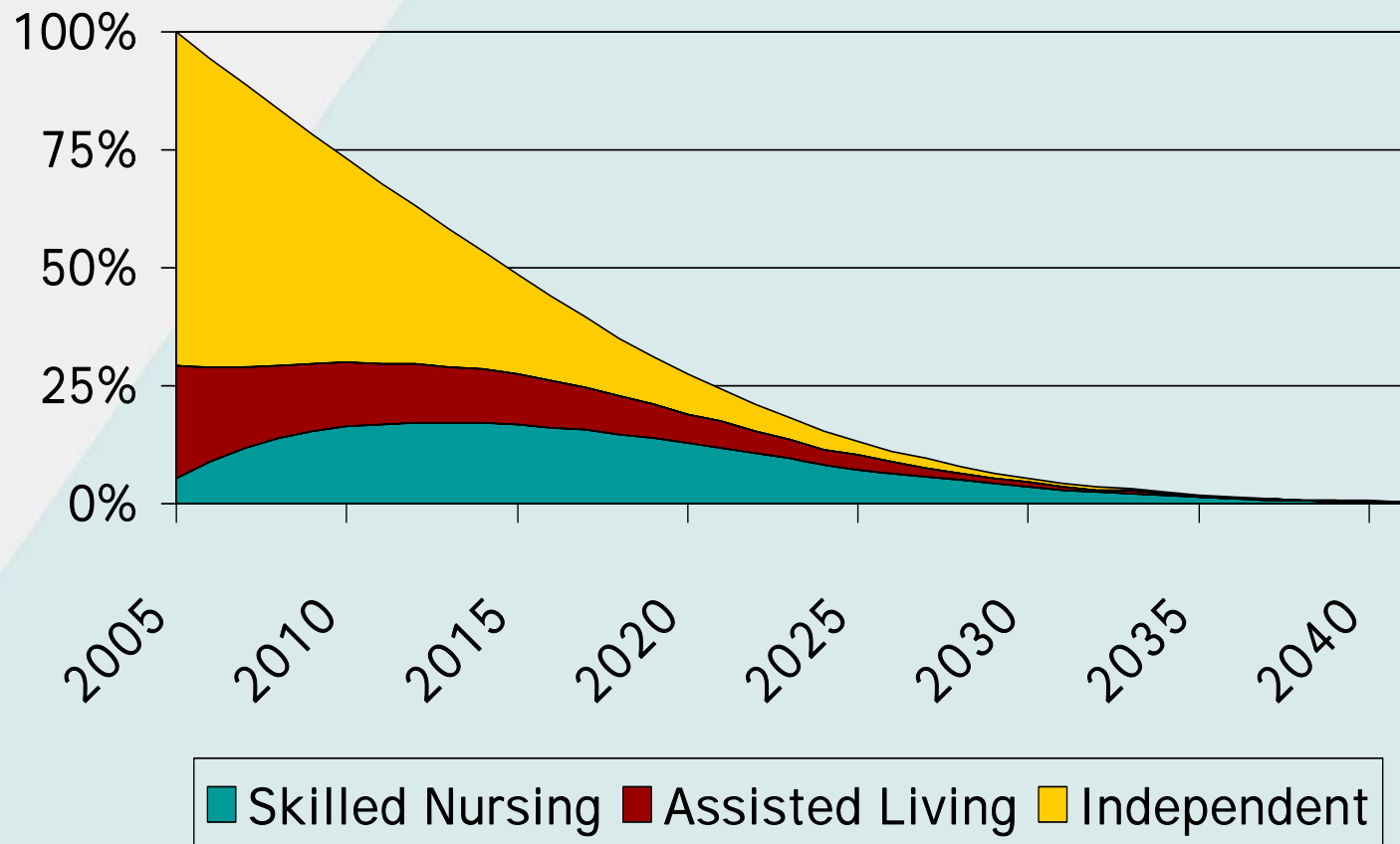
OK
Cancel

Assumptions that Impact Estimate

1. Economic and contract provisions
2. Actuarial decrements (life expectancies)
3. Personal spending money thresholds
4. Disposable income
5. Your spend-down policies
6. Taxes



\$12M Liability for Survivors

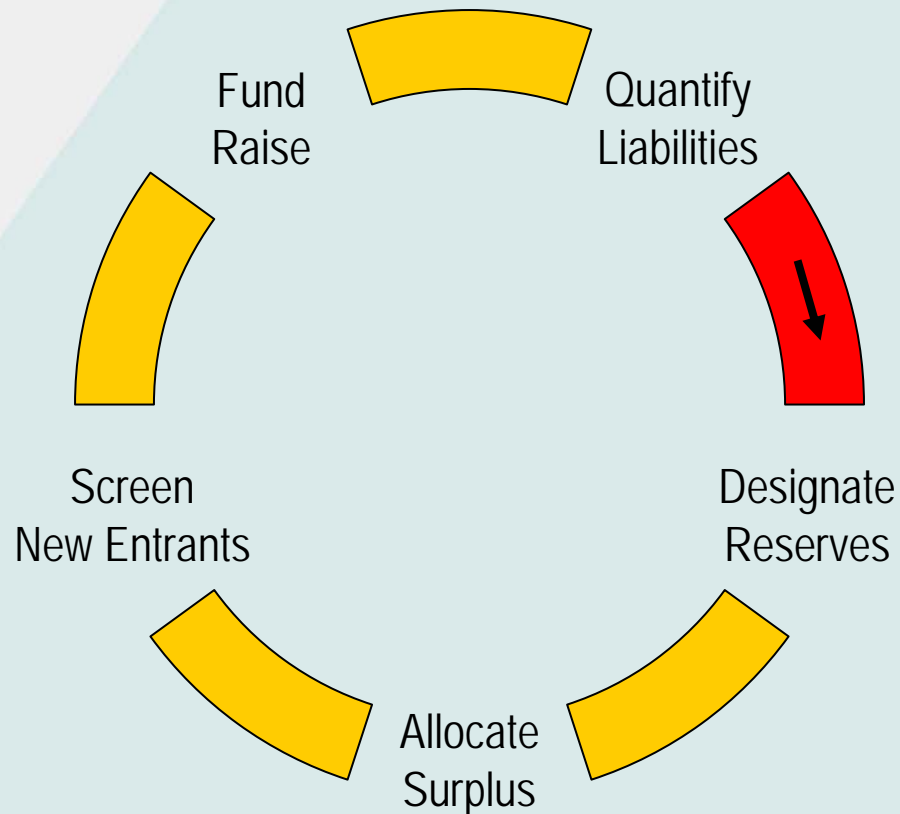


Statistical Variations in Liability

Mean Present Value of Subsidy	25% Prob{Ruin} Present Value of Subsidy	5% Prob{Ruin} Present Value of Subsidy
\$ 11,639,863	\$ 12,384,508	\$ 13,620,366



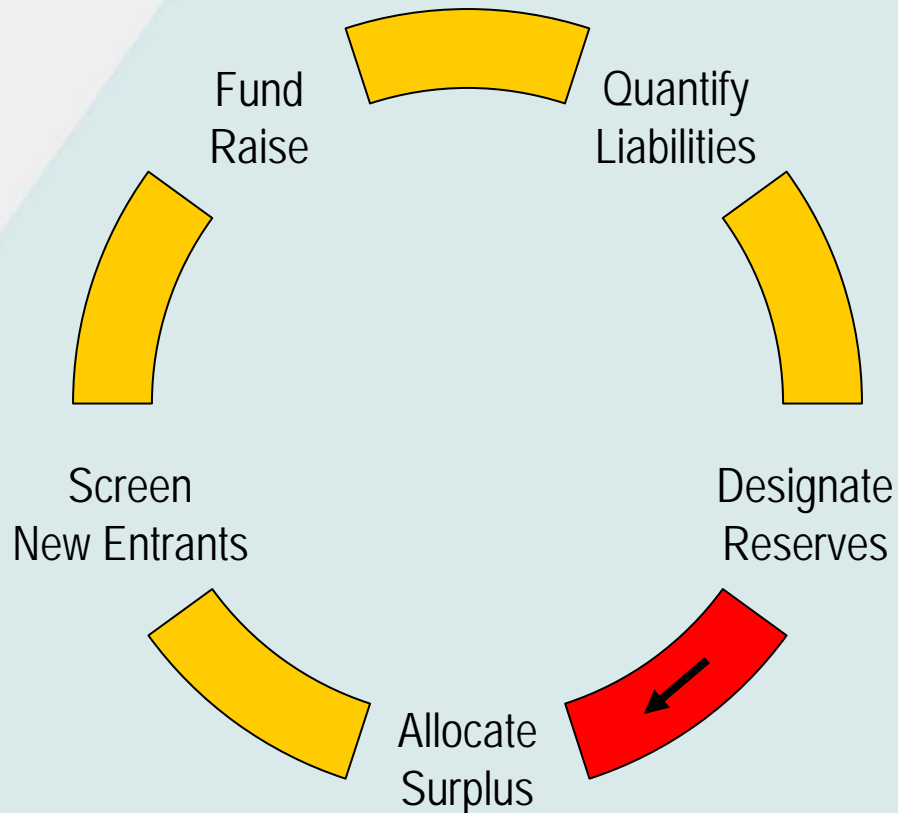
Step 2. Designate Reserves



You May Have a Funding Surplus 😊 or Deficit 😞

	PV of Subsidy
PV of Subsidy @ 25% Ruin Probability	\$ 12,384,508
Designated Reserves	<u>\$15,000,000</u>
Funding Surplus (Deficit)	\$ 2,615,492

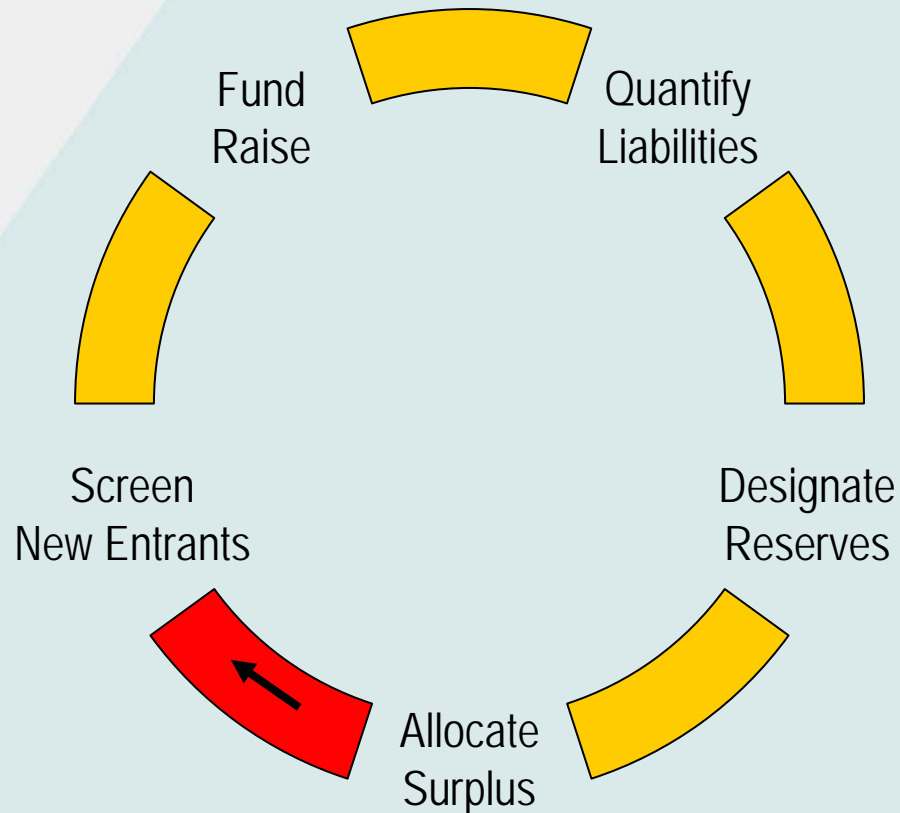
Step 3. Allocate Surplus



How Much Support for New Entrants?

1. _____ interest on funding surplus
2. _____ draws from surplus
3. _____ annual contributions

Step 4. Screen New Entrants



How Many New Entrants Can Receive Aid?

1. Depends on:
 - ✓ Amount of support available
 - ✓ Subsidy needs for specific new entrants
2. ~~Specific number~~
3. ~~Specific amount~~ per entrant
4. Most aid will be in later years after admission

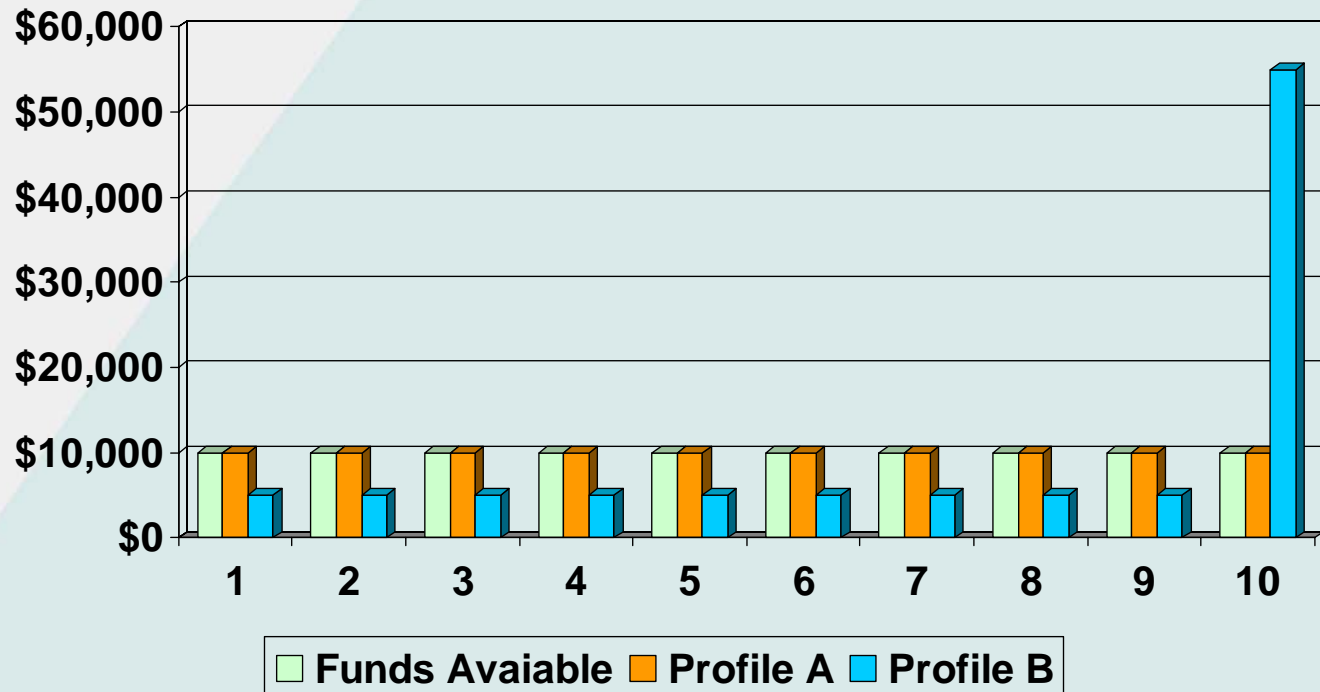


Can Financial Screening Policies Ignore Liabilities?

1. Hold \$100,000 reserves
2. Policy of \$10,000 maximum annual aid
3. Aid needs for prospective residents
 - ✓ Profile A—\$10,000 for 10 years
 - ✓ Profile B—\$5,000 for 9 years, \$55,000 in 10th



\$100,000 Reserves = Subsidy Cash Flows for Either Profile



Wrong Decisions Based Solely on Cash Flow for Subsidy

1. Using cash flows, accept 2 profile B residents
2. But additional \$100,000 subsidy in year 10
3. If liabilities considered, accept 1 profile B resident



One “Best” Method to Calculate New Resident Subsidy

1. Rules-of-thumb
2. Spreadsheet using life expectancy
3. Actuarial projection

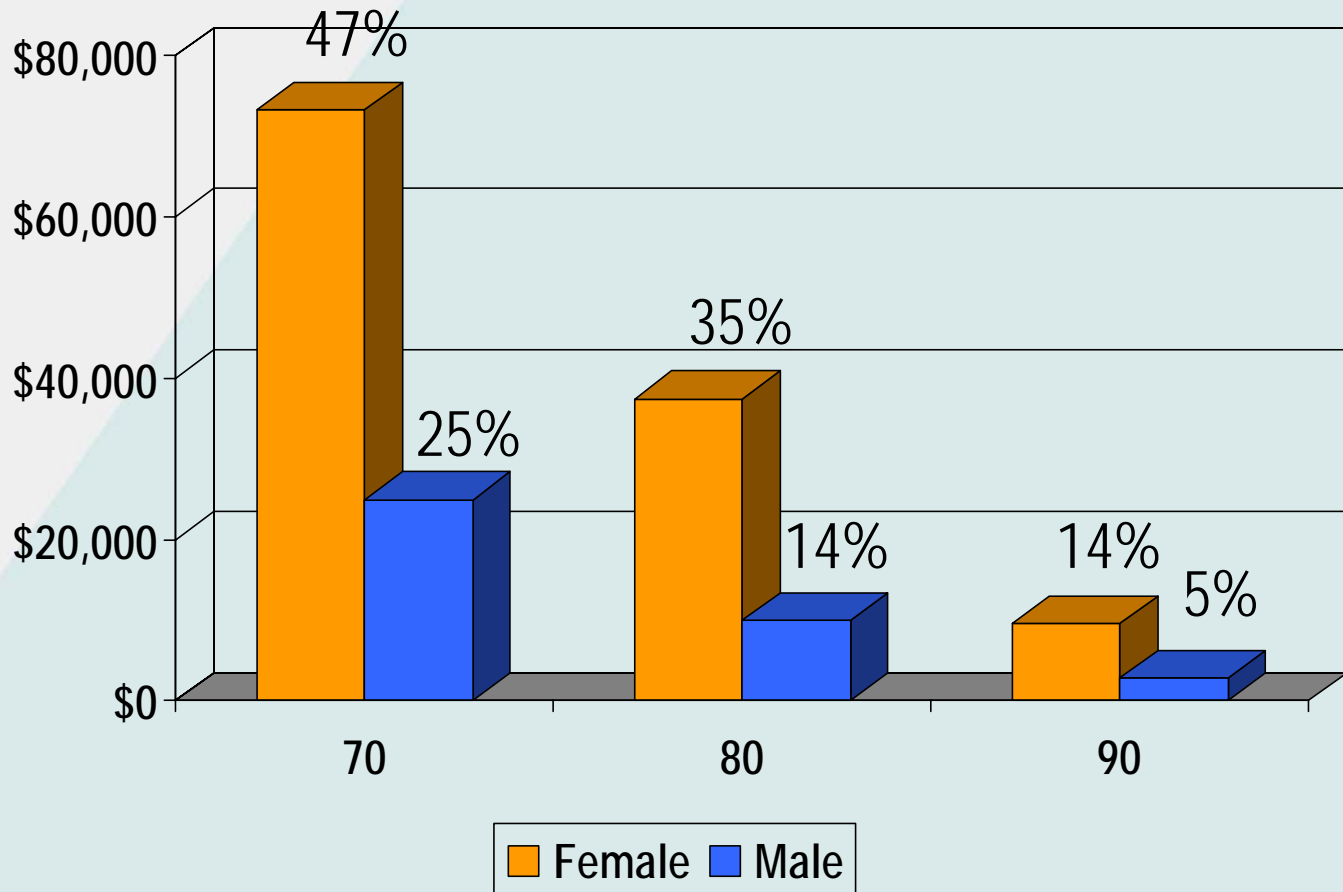


Shortfalls of Rules-of-thumb and Life Expectancies

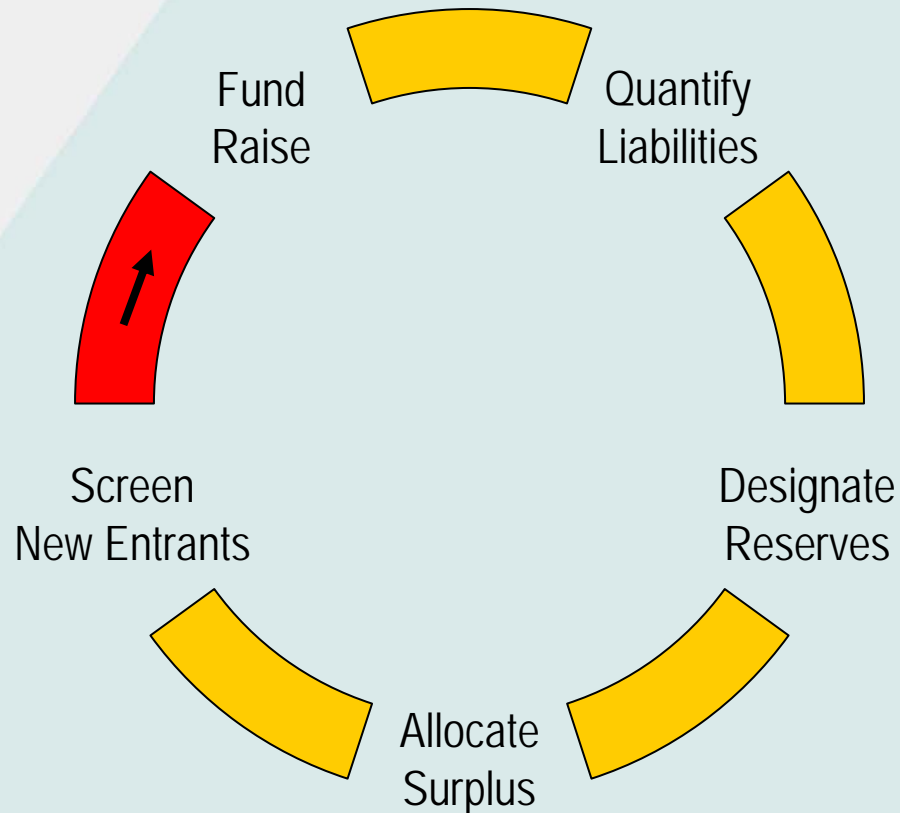
1. Income equals 2X monthly fee
 - ✓ Simple to apply
 - ✓ Works with Type A contracts, not with B and C
 - ✓ Inadequate for younger ages and couples
2. 12-year life expectancy
 - ✓ 50% of your population will live longer
 - ✓ Difficult to distinguish by level of care



Subsidy ↓ with Entry Age; Male (\$s) < Female (\$s)



Step 5. Raise Funds

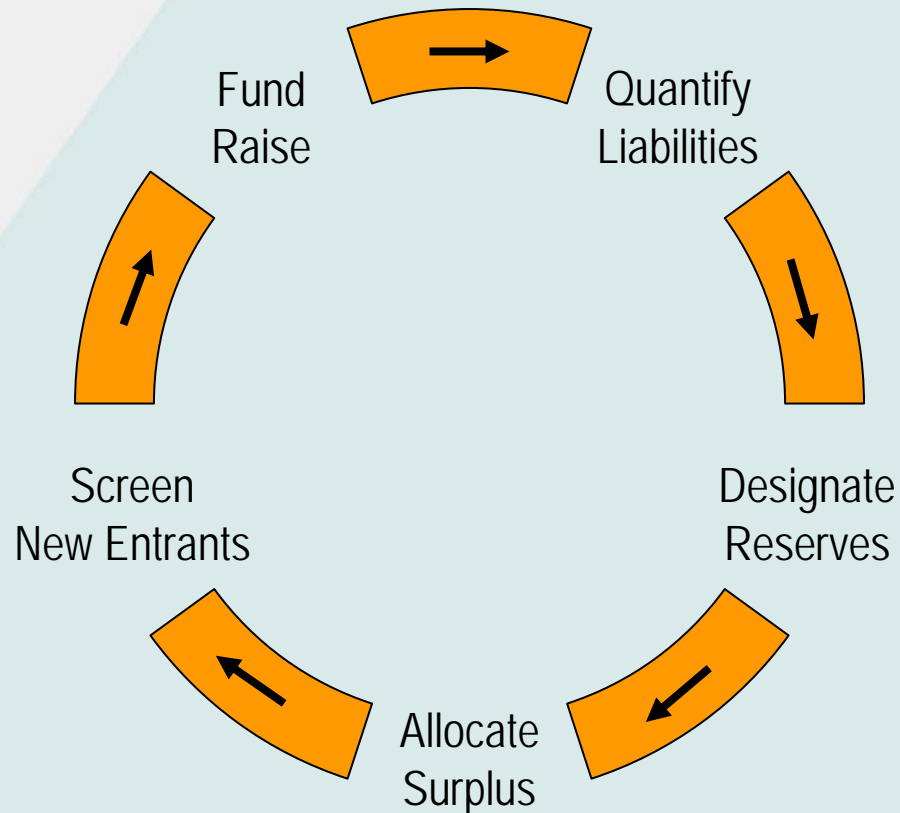


Projections Help to Explain Fundraising Targets

1. Deficit in funding benevolence liabilities
2. Needs to meet charitable mission
3. Future increases in subsidy cash flows



Repeat Process Again Next Year

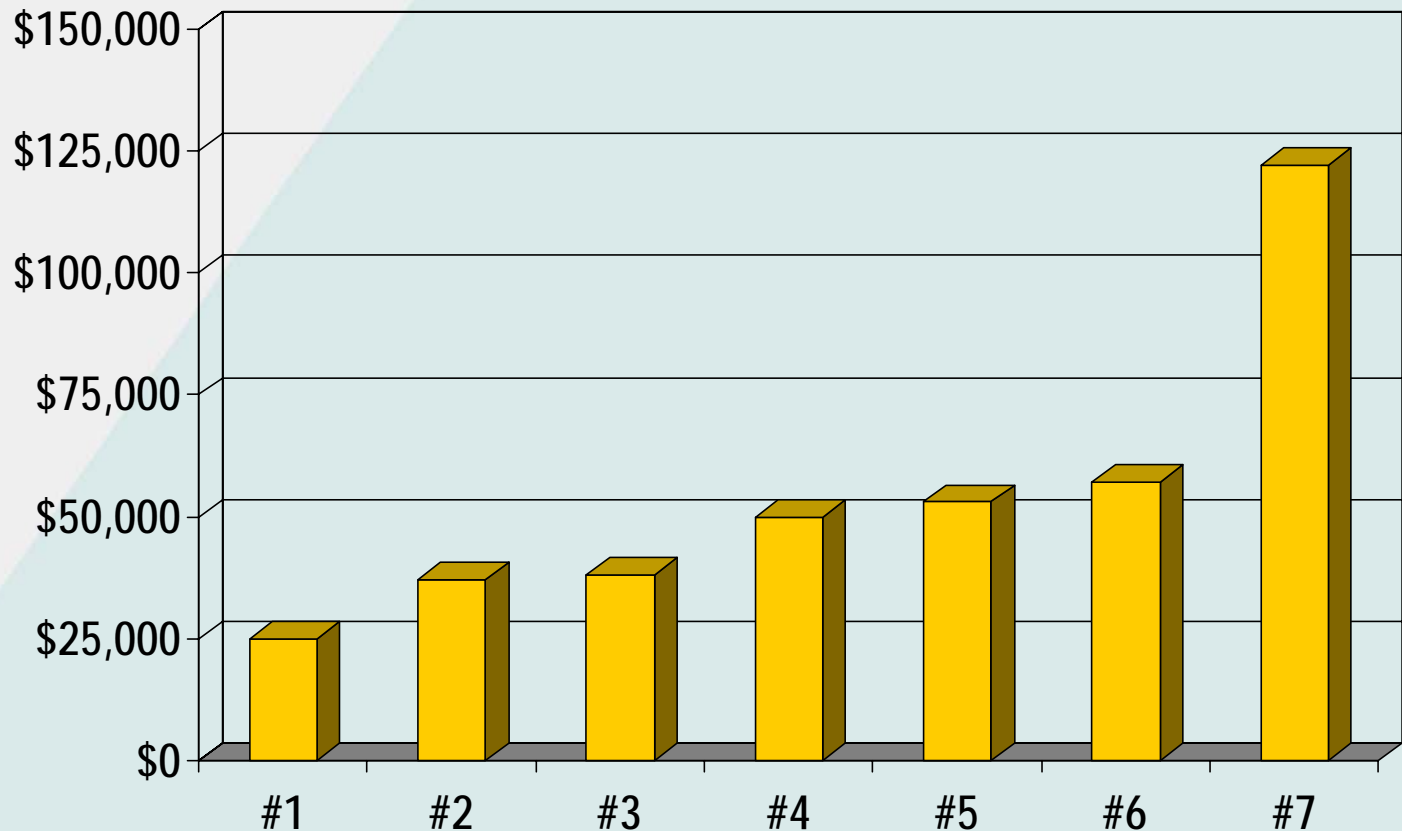


Challenges With Process

1. Data collection—format and timeliness
2. Stakeholder education about need
3. Defining personal allowance policy
4. Results may be surprising
5. Results don't show similarities among CCRCs

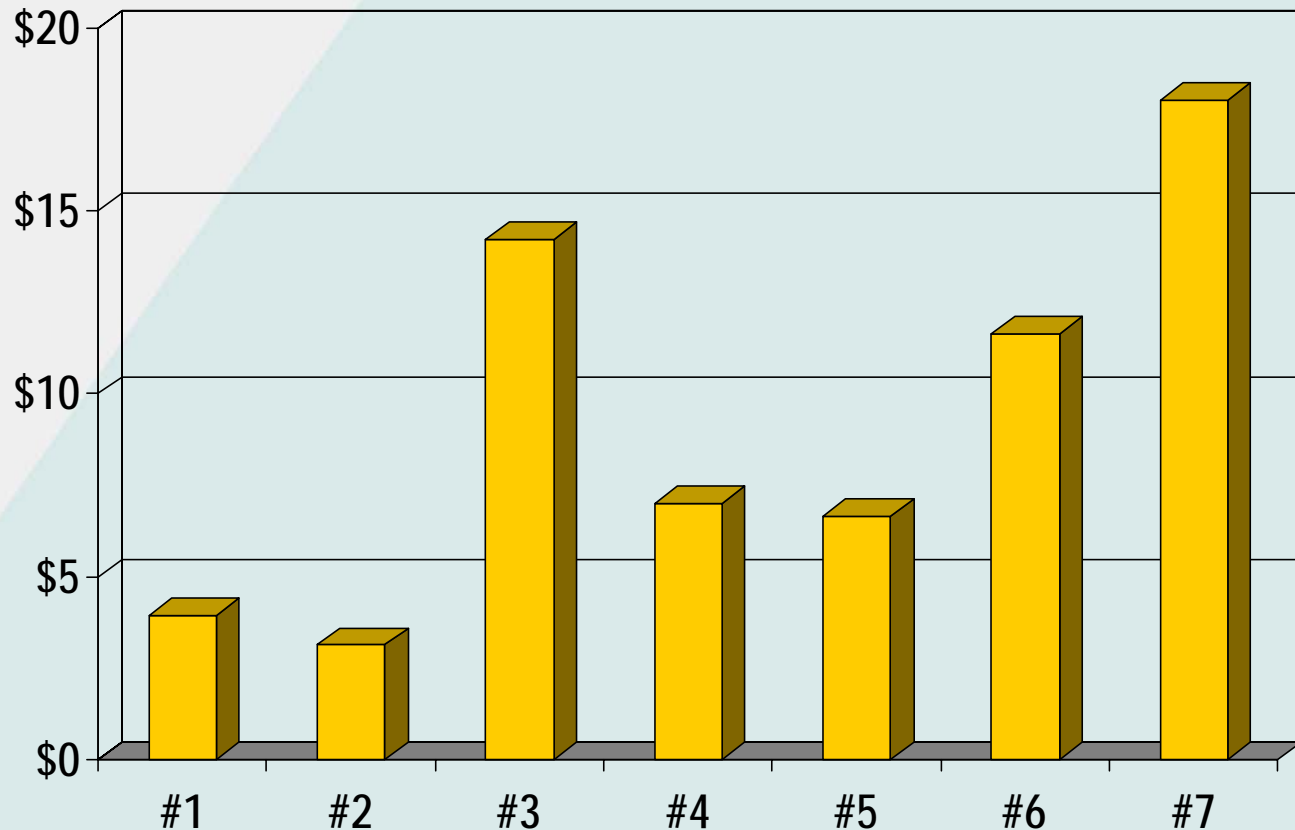


Per Capita Liabilities Range from \$25K to \$125K

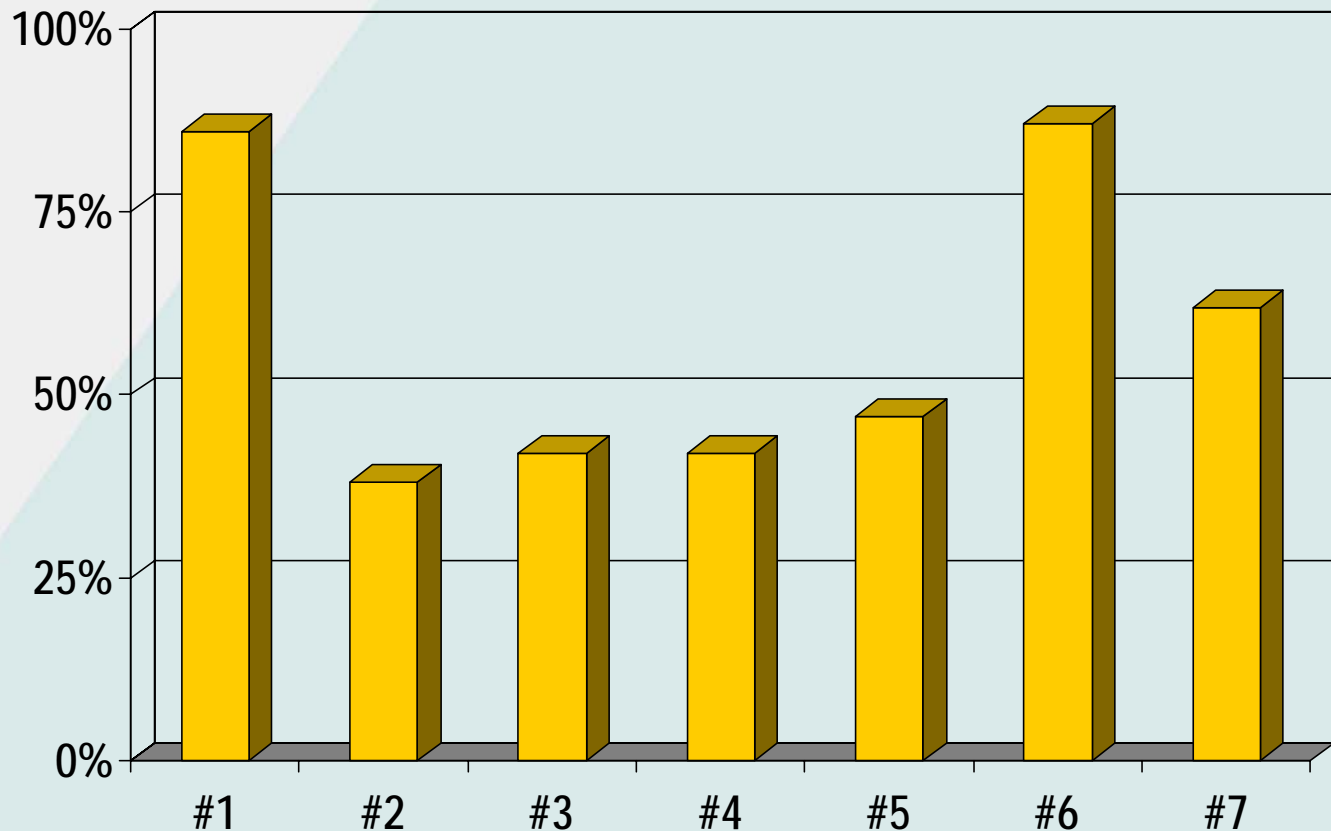


Aggregate Liabilities Range from \$3M to \$18M

Millions



40%-to-90% of Residents are Projected to Receive Aid



Recommendations

1. Calculate benevolence capacity
2. Define fund-raising goals
3. Set benevolence fund distribution policies
4. Apply financial screening criteria that is consistent with goals and policies
5. Quantify and report to Board on aid needs

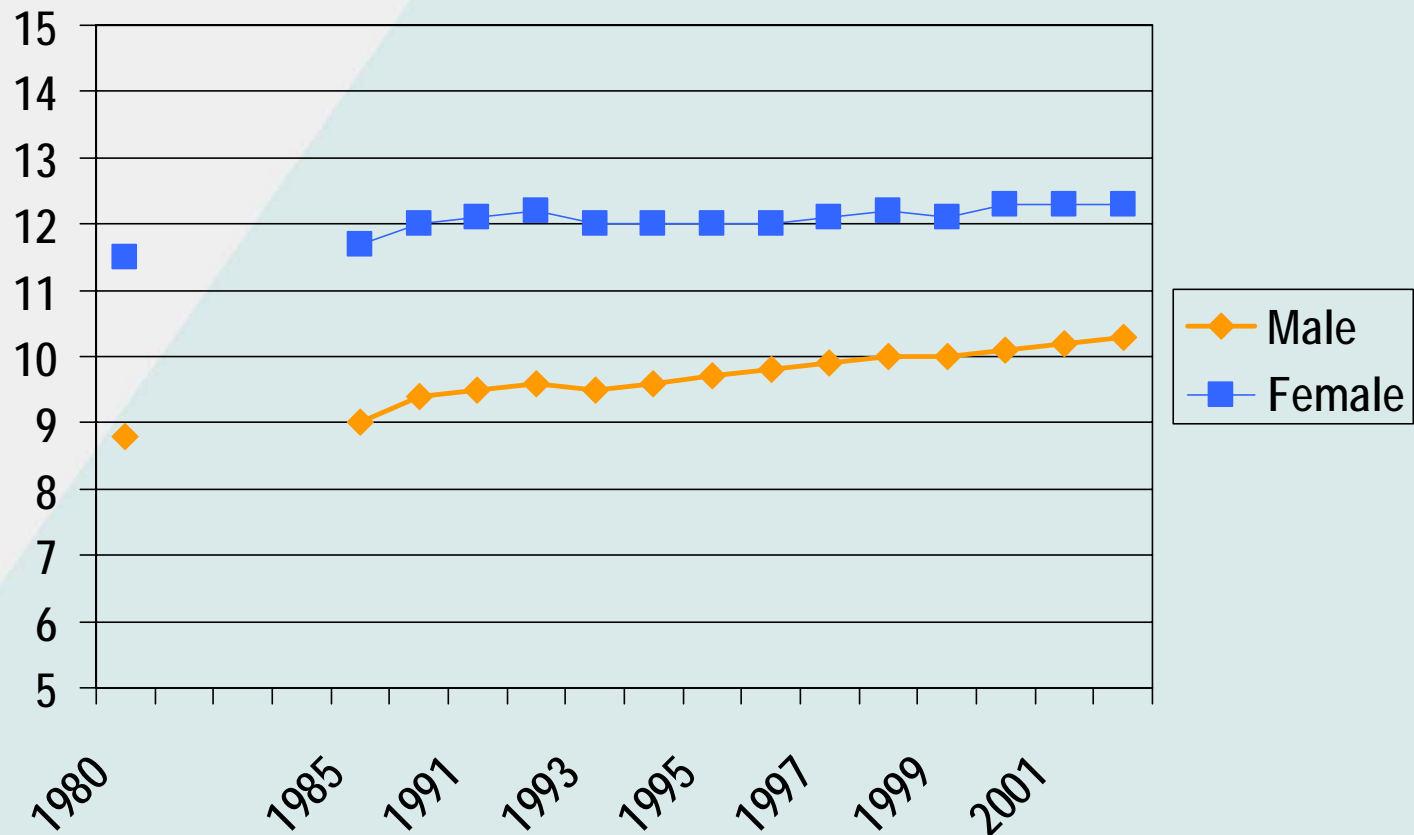


Part II: Health Care Utilization Risks

Contracts that Minimize Financial Aid Risks

Type A

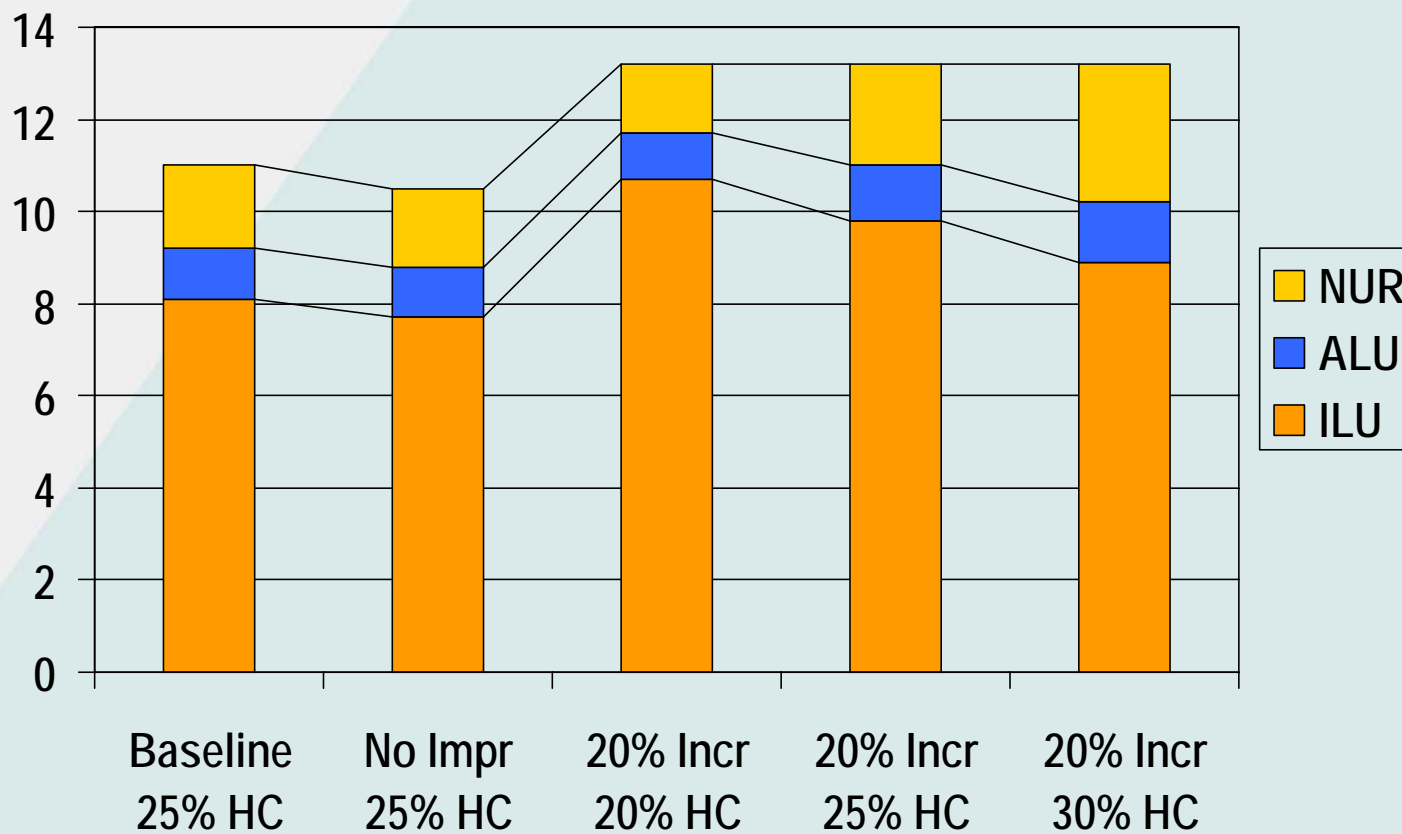
Nearly 10% Increase in Life Expectancies since 1985



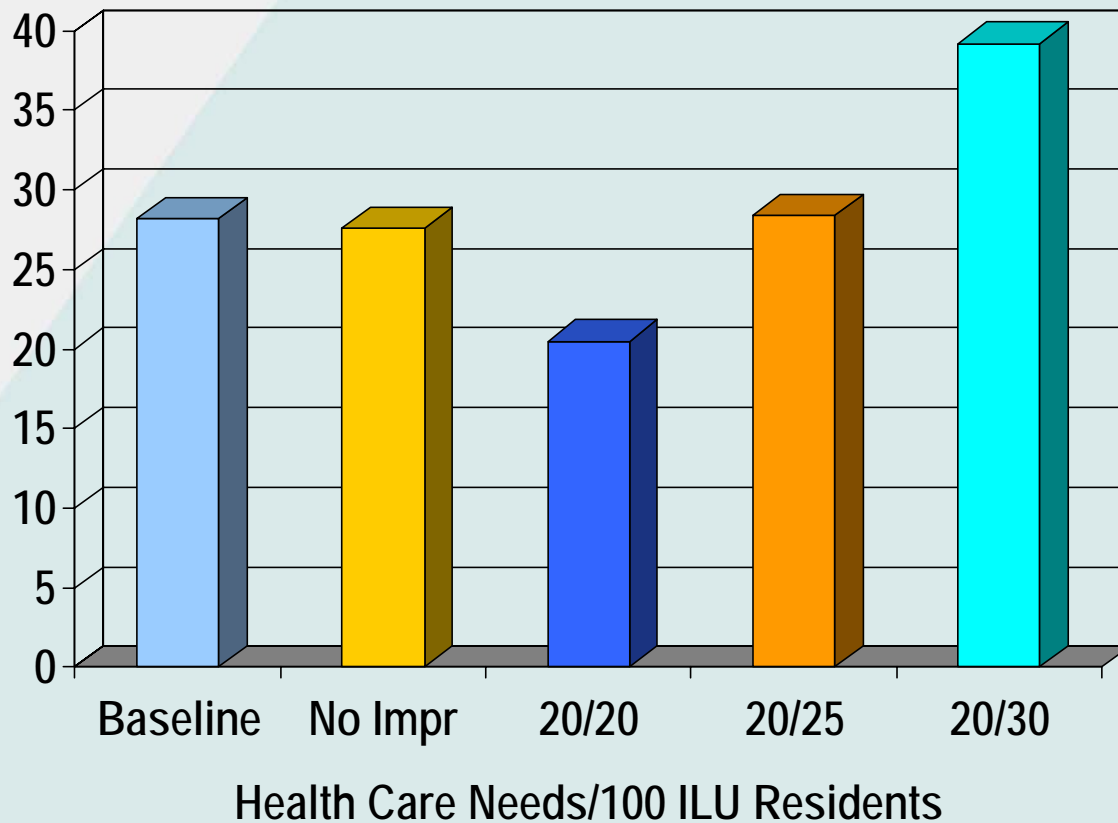
% Health Care Lifetime is Critical Factor in Contract Financial Risks

Baseline "BL"	Mortality improvements	LE > General Population	25% in HC
No Impr "NI"	No	~ BL	= BL
20/20	Yes	20% > BL	< BL
20/25	Yes	20% > BL	= BL
20/30	Yes	20% > BL	> BL

Possible Future Life Expectancies



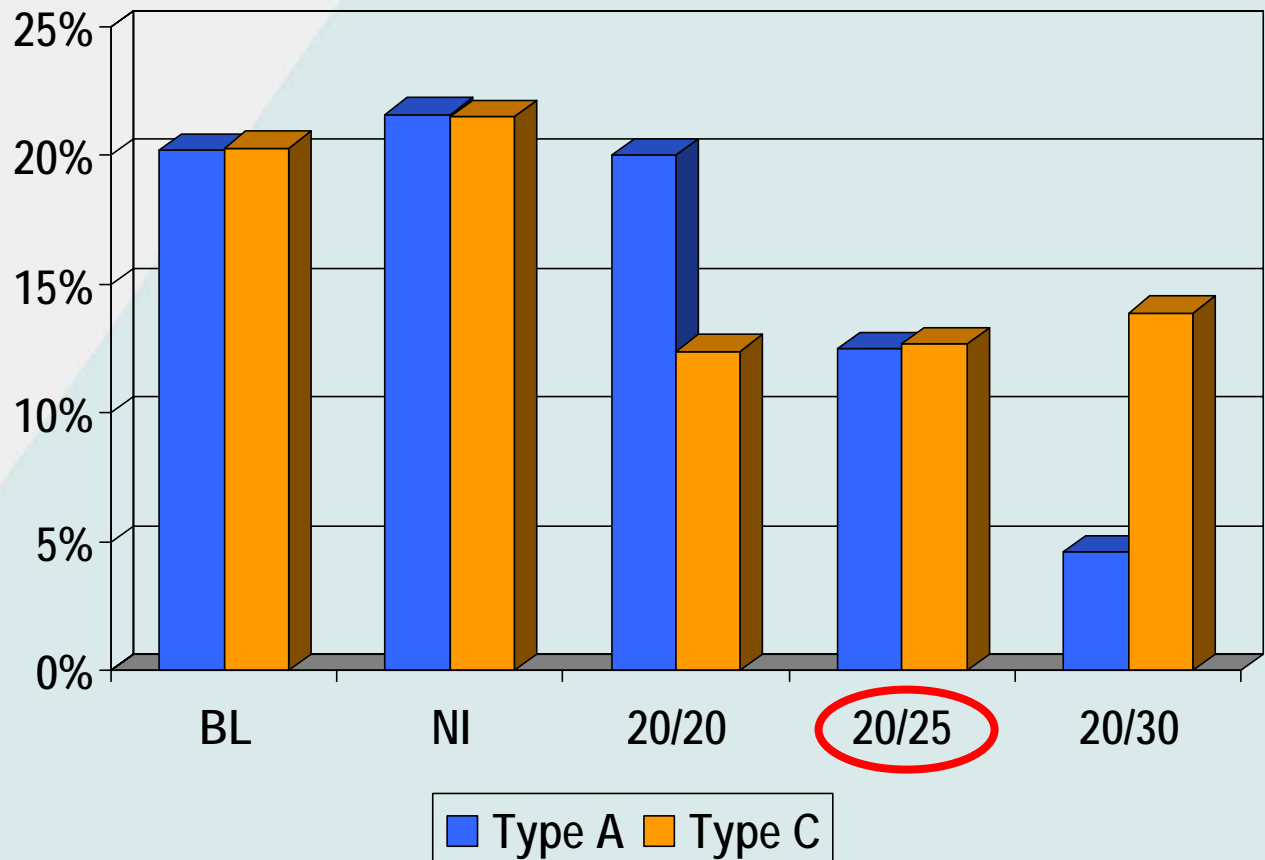
Health Care Needs May or May Not Increase with Higher LEs



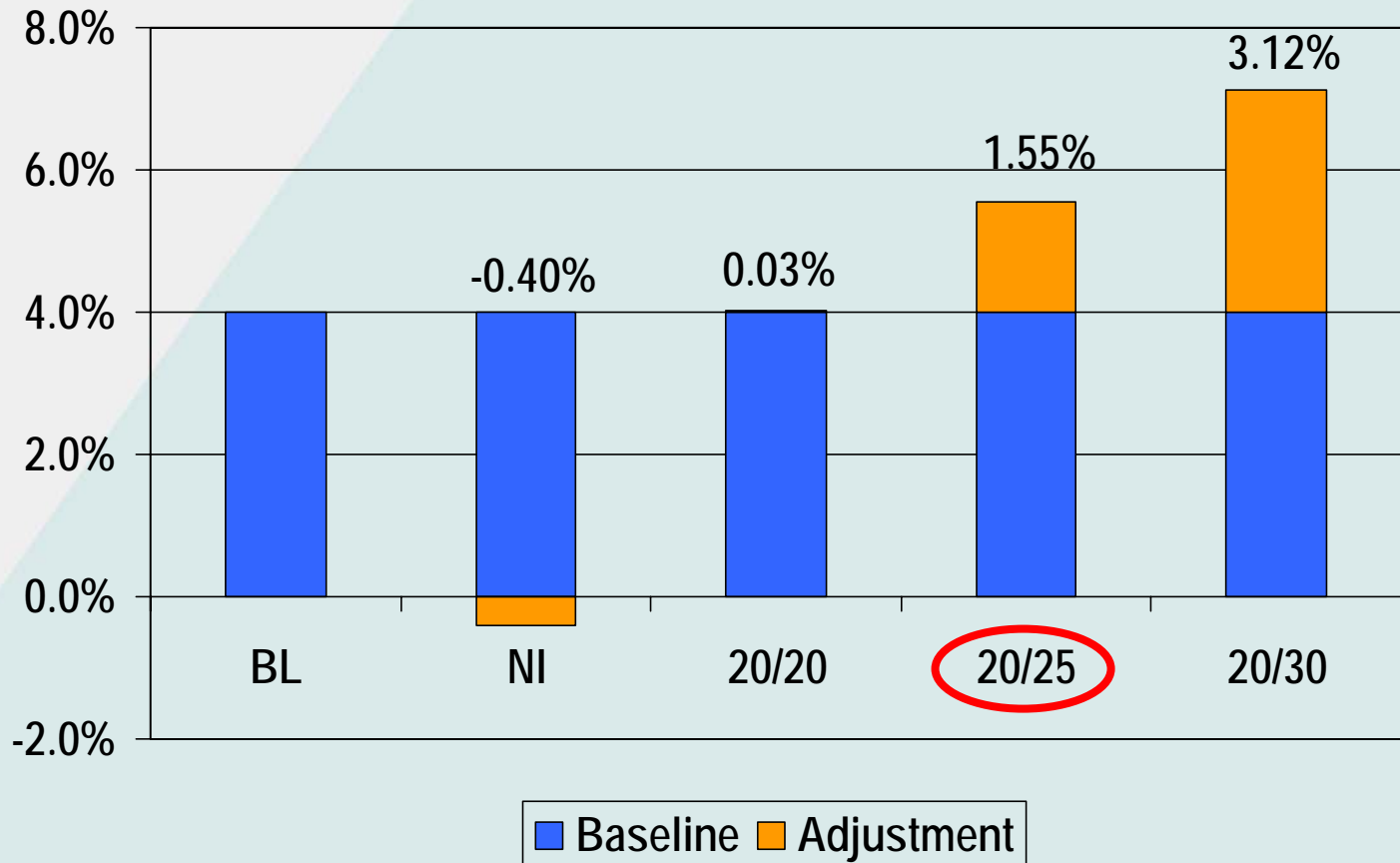
“Equivalent” Fees for Type A and C Contracts

	Type A	Type C
Entry Fee	\$ 352,600	\$ 352,600
ILU Monthly Fee	\$ 2,578	\$ 1,578
ALU Monthly Fee	\$ 2,578	\$ 4,319
NUR Month Fee	\$ 2,578	\$ 8,273

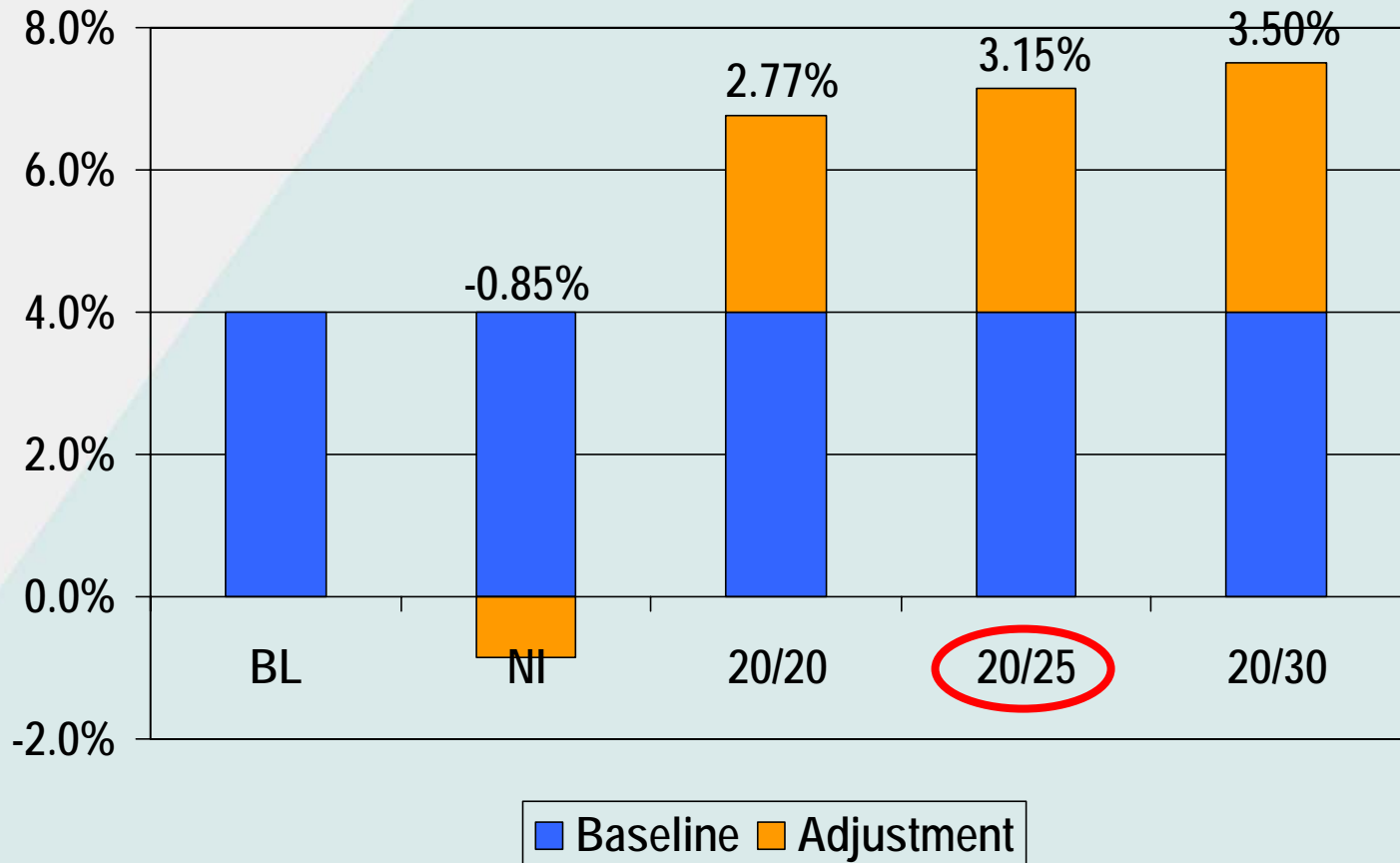
Contract Margins Affected by Relative Change in HC Lifetimes



MSF Adjustments to Type A for Increasing Longevity



MSF Adjustments to Type C for Increasing Longevity



What Is the Impact of LE Assumptions On Financial Aid?

Type A; spend; Baseline	11.2%	PV = \$ 219
Type A; spend; 20/30	14.4%	\$ 367
Type C; spend; Baseline	56.6%	\$ 119,162
Type C; save + Medicaid; Baseline	31.2%	\$ 29,050
Type C; save + Medicaid; 20/30	41.3%	\$ 59,123

Observations

1. Longevity affects all contracts
2. Justifiable need for fee margins
3. No contract eliminates all financial risk
4. Financial aid risk may be > health care risk





1. Total life expectancy likely to increase
2. Decreases or constant % health care lifetime

Source: Proceedings of National Academy of Science
Vol. 95, pp. 15618-15622, December 1998

Which Contracts Fall Within Your Risk Tolerances?

Increasing longevity; health care % increasing Type B, C, D	
Increasing longevity; health care % same Type A, B, C, D	Increasing longevity; health care % decreasing Type A

Questions and Answers

