



Break-Even Analysis Models

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INHS/Northwest TeleHealth



2006



2005 Business & Finance Goal

- Explore Break-Even Business Models
- Develop a Generic Model
- Develop an Example for a New Initiative or Project Expansion



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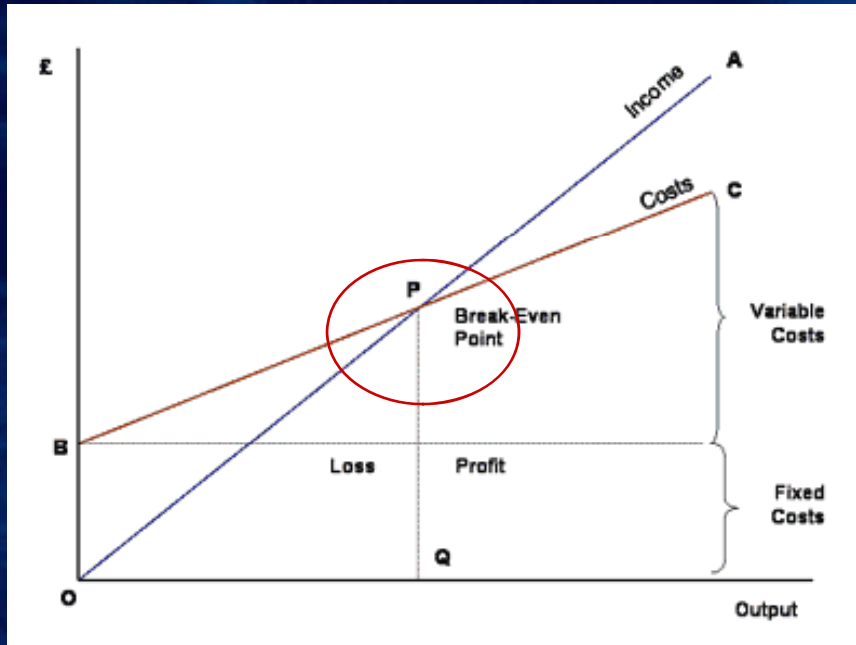


Available Models to Draw From

- Identified Several Comprehensive Models
- Discussed Development of a Generic Model
- SIG Discussion Concluded that Comprehensive Model too Complex to Fit Most Scenarios



Break-Even



- Relationship between initial investment outlays and required volumes to reach profitability
- Intersection of total income and total costs

How many consultations do I need to perform to cover my costs?



Figuring a Break-Even Point

- Total Costs are \$81,000
- Total Revenue per screening is \$67.00

$$\frac{\$81,000}{\$67} = 1,208 \text{ screenings}$$





Break-Even Value

- New Product Development
- General Expansion of Current Service Line
- Consequences of Shifting from Variable to Fixed Costs
- Forecasting (*Can I do that many screenings to break even?*)
- Understanding Limitations
 - Linear in Nature (when price and volume are constant)
 - Limited in Guiding Managerial Decisions
- Useful as a “First Step” in Setting Price and Making Financial Decisions





"40% of my time is spent on homeland security,
40% of my time is spent on healthcare"

"Healthcare is 30 times more difficult"

...oration of public and
of a 21st Century
saves money.



Newt Gingrich
CHT Founder

Center Events

- ▣ **Newt Gingrich to speak to the St. Barnabas Health System**
Thursday, May 4, 2006
Pittsburgh, PA
- ▣ **Newt Gingrich to speak at the Medicaid/Medicare Workshops for State and Local Healthcare Administrators Consumer-Centric Medicaid - The Future is NOW**
Monday, May 8, 2006
San Francisco, CA
- ▣ **CHT Member Meeting**
Friday, May 12, 2006
Atlanta, GA

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Member Spotlight

CHT CEO Nancy Desmond and Project Director Laura Linn illustrate the Center's efforts to transform diabetes care in the *Atlanta Business Chronicle's Healthcare Quarterly* (October 2005) "Diabetes in the 21st Century".

Why so complicated?



- Complex Payor Mix
- Initial Funding Mechanisms
 - Grants
 - Equipment Purchase, Lease
- Calculating Indirect Cost Savings
- Complex Systems & Processes
- Measuring Improved Outcomes
- ...*Tons of Variables*

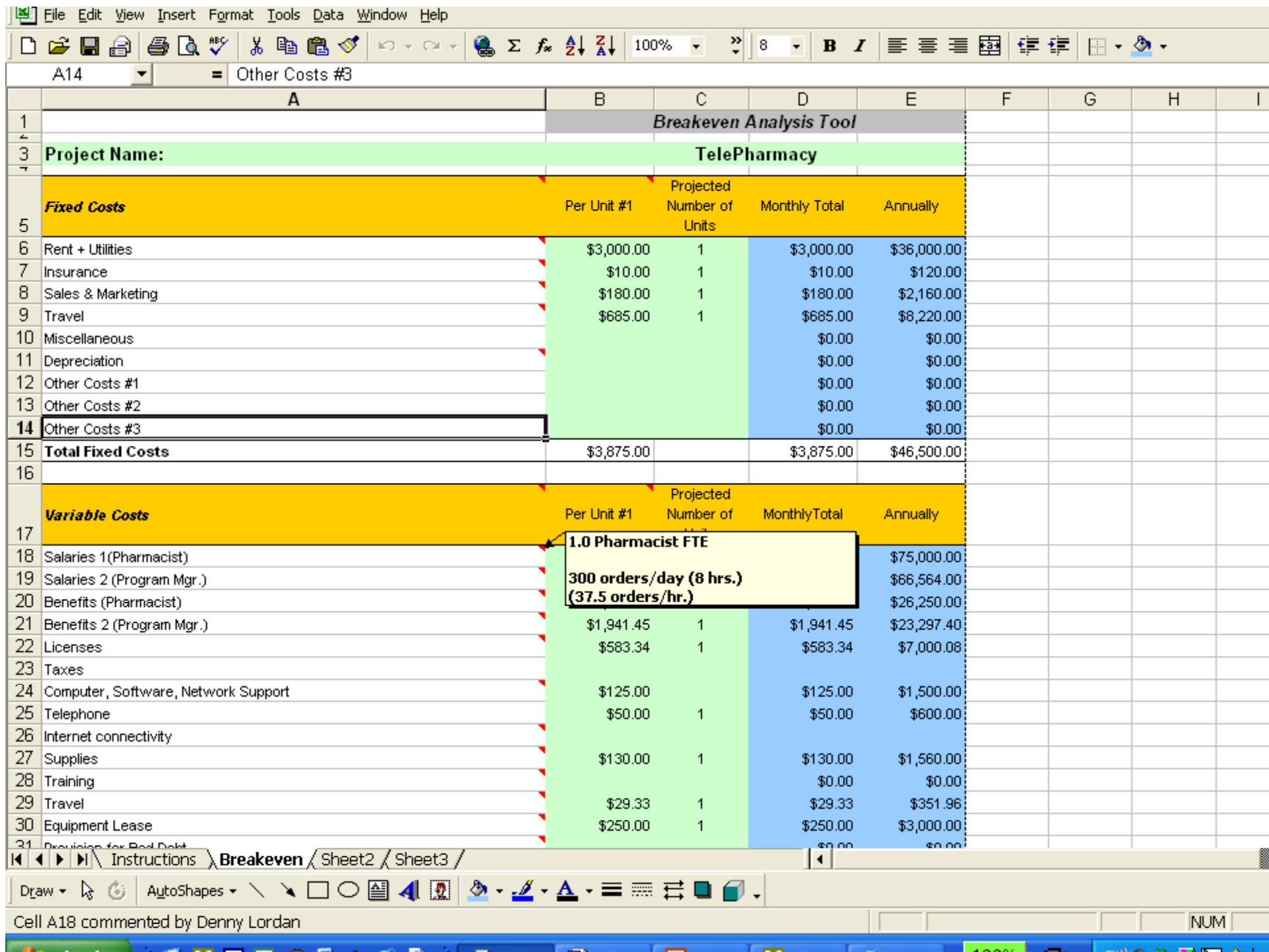


TelePharmacy Model

- Based on Contracted Services
 - No Revenue from Medicare, Medicaid, etc.
- Scalable Based on Pharmacist FTE's Processing XXX Number of Orders/Month
- Flat Fee (Start-up) + Per Order Charge
- One Pharmacist can Service Multiple Hospitals on Order Volume, Hours of Coverage
- No Contractuals, No-Shows, etc. to Worry About



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Microsoft Excel - Breakeven TelePharmacy V2

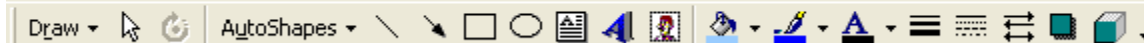
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A14 = Other Costs #3

	A	B	C	D	E	F	G	H	I
40	Direct Revenue	Per Unit #1	Projected Number of Units	MonthlyTotal	Annually				
41	Total Medicare revenue per patient, order, visit			\$0.00	\$0.00				
42	Total Medicaid revenue per patient, order, visit			\$0.00	\$0.00				
43	Total Commercial revenue per patient, order, visit			\$0.00	\$0.00				
44	Total Self pay revenue per patient, order, visit			\$0.00	\$0.00				
45	Total direct revenue per unit			\$0.00	\$0.00				
46	Total Contracted Revenue			\$2,083.35	\$25,000.20				
47	Other Direct Revenue			\$20,100.00	\$241,200.00				
48	Total contractual allowance			\$0.00	\$0.00				
49	Total Direct Revenue	\$22,183.35		\$22,183.35	\$266,200.20				
50									
51									
52									
53									
54									
55	Indirect Revenue	Per Unit #1	Projected Number of Units	MonthlyTotal	Annually				
56	Total indirect revenue per unit			\$0.00	\$0.00				
57	Grants								
58	Total Indirect Revenue	0.00		\$0.00	\$0.00				
59									
60	Total Revenue	\$22,183.35		\$22,183.35	\$266,200.20				
61									
62	Capital Outlay	Per Unit #1	Projected Number of Units	MonthlyTotal					
63	Office furniture	2,000.00	1	\$2,000.00					
64	Computers, Printers & Software	12,000.00	1	\$12,000.00					
65	Network equipment	500.00	1	\$500.00					
66	Telephones	200.00	1	\$200.00					
67	Other Capital #1			\$0.00					

Instructions Breakeven Sheet2 Sheet3



Microsoft Excel - Breakeven TelePharmacy V2

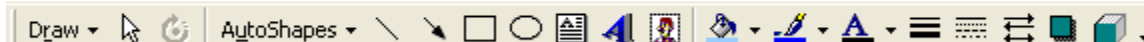
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A14 = Other Costs #3

	A	B	C	D	E	F	G	H	I
71									
72	Breakeven Including Capital Outlay	Per Unit #1		MonthlyTotal	Annually				
73	Total Costs	\$20,968.62	1	\$20,968.62	\$251,623.44				
74	Total Capital Outlay	\$1,225.00	1	\$1,225.00	\$14,700.00				
75	Total Revenue	\$22,183.35	1	\$22,183.35	\$266,200.20				
76	Variance	-\$10.27		-\$10.27	-\$123.24				
77									
78	Breakeven, Excluding Capital Outlay	Per Unit #1		MonthlyTotal	Annually				
79	Total Costs	\$20,968.62	1	\$20,968.62	\$251,623.44				
80	Total Revenue	\$22,183.35	1	\$22,183.35	\$266,200.20				
81	Variance	\$1,214.73		\$1,214.73	\$14,576.76				
82									
83	Breakeven Including Indirect Revenue & Capital Outlay	Per Unit #1		MonthlyTotal	Annually				
84	Total Costs	\$20,968.62	1	20968.62	\$251,623.44				
85	Capital outlay	\$1,225.00	1	\$1,225.00	\$14,700.00				
86	Total Revenue	\$22,183.35	1	\$22,183.35	\$266,200.20				
87	Total Indirect Revenue	\$0.00	1	\$0.00	\$0.00				
88	Variance	-\$10.27		-\$10.27	-\$123.24				
89									
90	Notes								
91	<i>Per order charge based on order volume, acuity, hours of coverage, etc.</i>								
92	<i>24X7 coverage= 4.5 FTE's</i>								
93	<i>Locums pharmacist cost \$125/hr.</i>								
94									
95	Order Pricing Scale:		\$2.50	\$3.00	\$3.35				
96	Orders/pharmacist/80 month	6000	\$15,000.00	\$18,000.00	\$20,100.00				
97	Orders/pharmacist/yr	72000	\$180,000.00	\$216,000.00	\$241,200.00				
98									
99	Order Pricing Scale:		\$3.50	\$3.75	\$4.00				
100	Orders/pharmacist/80 month	6000	\$21,000.00	\$22,500.00	\$24,000.00				
101	Orders/pharmacist/yr	72000	\$252,000.00	\$270,000.00	\$288,000.00				
102									
103									

Instructions Breakeven Sheet2 Sheet3





Break-Even Limitations

- Lacks a "Weighted Payor" Component
- Limited Forecasting Capability (Pro-Forma)
- Numerous Other Factors Must be Considered
 - *Assumes an Intimate Knowledge of Systems & Processes*





Financial simulation for Tele-Rehabilitation

- National Rehabilitation Hospital, Washington, DC
- Funded by NIDRR, US Dept. of Education
- Public Domain
- Developed by:
 - Susan Palsbo, PhD.,
Research Fellow, National Rehabilitation Hospital
Principal Research Associate, College of Nursing and Health Sciences
George Mason University, Fairfax, VA 22030
 - Michael J. McCue, DBA
Professor, Department of Health Administration
Virginia Commonwealth University, Richmond VA

- Contact: spalsbo@gmu.edu





TeleRehabilitation Model

Interactive Excel Spreadsheet

- Allows for individual user to import data specific to a program, operation, service, or initiative



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Microsoft Excel - Telemedicine Interactive Spreadsheet_May05

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C10 =IF(SUM(C4:C9)=0,0.0001,SUM(C4:C9))

	A	B	C	D	E	F	G	H	I	J	K
1	Table 1.1 Medicare Patient Revenue										
2				Origination fee:	\$	25.00					
3	Speech-Language Pathology Services	CPT Code	Projected Number of Encounters	Gross Medicare Revenue per Encounter	Medicare Origination Fee (add CPT code) per encounter	Net Medicare payment per encounter (after patient coinsurance and deductibles)	Patient co-pay per visit (formula assumes 20% coinsurance) (1)	Total SLP Revenues			
4	Speech language evaluation (60 min)	92506	10	\$ 60.00	\$ 25.00	\$48.00	\$ 12.00	\$850.00			
5	Laryngeal function studies	92520	10	\$ 85.00	\$ 25.00	\$68.00	\$ 17.00	\$1,100.00			
6	Swallowing Oral Fix Therapy	92526	10	\$ 32.00	\$ 25.00	\$25.60	\$ 6.40	\$570.00			
7	Cognitive skills development, each 15 min	97532	40	\$ 20.00	\$ 25.00	\$16.00	\$ 4.00	\$1,800.00			
8	Assessment of Aphagia (60 min)	96105	10	\$ 60.00	\$ 25.00	\$48.00	\$ 12.00	\$850.00			
9	other SLP telepractice							\$0.00			
10	Total SLP		80					\$5,170.00			
11											
12	Physical Therapy Services	CPT Code	Projected number of Encounters	Gross Medicare Revenue per Encounter	Medicare Origination Fee (add CPT code) per encounter	Net Medicare payment per encounter (after patient coinsurance and deductibles)	Patient co-pay per visit (formula assumes 20% coinsurance) (1)	Total PT Revenues			
13	Individual Therapy Activities	97530	10	\$ 18.00	\$25.00	\$14.40	\$ 3.60	\$430.00			
14	PT evaluation	97001	10	\$ 35.00	\$25.00	\$28.00	\$ 7.00	\$600.00			
15	Wheelchair manipulation/propulsion	97542	10	\$ 50.00	\$25.00	\$40.00	\$ 10.00	\$750.00			
16	Manual therapy techniques	97140	30	\$ 40.00	\$25.00	\$32.00	\$ 8.00	\$1,950.00			
17	other PT telepractice										
18	Total PT		60					\$3,730.00			
19											
20	Total Medicare Rehabilitation Services		140					\$8,900.00			
21											
22	1. Note: Users may wish to adjust patient copayments for bad debt loss.										

Instructions 1.1 Medicare Rev 1.2 Medicaid Rev 1.3 Commercial Rev 1.4 Self Pay Rev 1.5 Workers Comp

Draw AutoShapes



TeleRehabilitation Model

- There are 13 sheets
- Revenues: Volume and reimbursement into, 6 revenue sheets for you:
 - Table 1.1: Medicare
 - Table 1.2: Medicaid
 - Table 1.3: Commercial insurance.
 - Table 1.4: Self pay (can include contracts with school districts).
 - Table 1.5: Workers compensation.able 1.6: Captured savings from IRF PPS payment through shortened length of stay





TeleRehabilitation Model

- Expenses: Fixed and variable expenses
- Separated out telecommunications expenses, medical expenses, and capital expenses.
 - Table 2.1: Telecommunications expenses.
 - Table 2.2: Medical expenses.
 - Table 2.3: Capital expenses.



TeleRehabilitation Model

- **Net income:** Assumed growth rates by payor.
 - Table 3: Consolidated revenues. This flows from Table
 - Table 4: Consolidated expenses. This flows from Table 2.
- **Breakeven analysis.**
 - Table 5. This flows from the prior sheets.
 - **5 year *pro forma* financial performance, payback period and ROI. Enter assumed growth rates.**
 - Table 6: Projected 5-year annual income.

