



FINANCING THE HEALTHCARE INTERNET

**The E-Health Colloquium
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Overview

- [Finance and the industry life cycle
- [Private equity: Venture capital, angels
- [Public equity: IPO and the after-market
- [Consolidation: M&A, leveraged buyout
- [Conclusion: Finance and healthcare



Finance and the Industry Life Cycle

- [Emerging sectors: new products and firms
- [Growth sectors: ramping up
- [Mature sectors: large, consolidated firms
- [Declining sectors: high revenue, low growth



Emerging Sectors

- [Emerging products and firms
 - [Meagre revenues, no profits
 - [Untested product, technology, demand
 - [Great need for risk-friendly capital
- [Angels, strategic investors, venture capital
- [E-Health, biotechnology?



Growth Sectors

- [Established products and markets
- [Rapid growth in revenue, first profits
- [Public capital markets: IPO
 - [Equity, convertible debt
- [Biotechnology, devices, home health?



Mature Sectors

- [Predictable revenues, profits
- [Secondary capital market
 - [Secondary debt and equity offerings
 - [Earnings as internal capital source
 - [Repurchase shares and retire debt
- [Managed care, long term care?



Declining Sectors

- [Consolidated firms, entry barriers
- [Profits (free cash flow) but low growth
- [Repurchase shares and retire debt
- [Conglomerate diversification
- [Hospitals?



E-Health: Private Equity

- [Offer risk-tolerant capital to emerging firms
- [Contacts with potential suppliers, distributors, partners
- [Venture capital
- [Angels and incubators
- [Strategic investors



The Venture Capital Revolution

- [Overall VC investment:
 - [1997: \$11.5B; 1998: \$14.2B; 1999: \$35.6B
 - [First quarter 2000: \$17.2B
 - [Internet: 63% of total
 - [ROI 1999: All 146%, early stage 248%
- [Source: pensions (23%), individuals (22%), endowments (21%), corporations (15%)



Venture Investments in Health

\$Millions	1Q 1998	1Q1999	1Q2000
E-Health	3	49	274
Services	298	238	249
Biotech	153	146	585
Devices	168	223	350



Other Private Equity Investments in E-Health

- [Angel investors, incubators
- [LBO/VC partnerships
 - [KKR/Accel
- [Strategic investors
 - [Microsoft, Intel
 - [UnitedHealth Group, PacifiCare



Public Equity Markets

- [Cheaper, more patient (?) investors
- [Exit strategy for angels, VCs, stock options
- [Equity as currency for M&A
- [Continual oversight, always in play
- [Nontrivial transactions costs



E-Health IPO

- [1999 and 1Q2000: 26 e-health IPO
- [Raise \$1.5B at IPO
- [Post-IPO price surges
 - [Ventro (1520%), Healtheon (1480%), Trizetto (910%), Neoforma (500%), SciQuest (470%)



E-Health After-Market Collapse

- [2Q2000 major correction of tech equities
- [E-health followed down, missed rebound
- [By June, of 26 e-health IPO firms:
 - [21 trading 80% below 52-week high
 - [23 trading below IPO price



Current Public/Private Equity Sentiment

- [Resurgence of major stock indices
- [Flight to quality: proven firms, products
- [Internet: from B2C to B2B to infrastructure
- [E-Health infrastructure firms?
- [No rebound in e-health
- [VC, IPO refocus on biotechnology



Consolidation of E-Health Sector

- [Logic of merger and acquisition
 - [Horizontal, vertical, diversification
 - [Network effects: winner take all?
 - [Most M&A is diversification
 - [Most VC investments end in M&A, not IPO
- [Leveraged buyout?



E-Health Merger and Acquisition

- [Established firms consolidate
 - [The WEBMD conglomerate
 - [Medscape/Medicallogic
- [Equity volatility has dampened acquisitions
 - [Neoforma/Eclipsys
 - [Trizetto/IMS Health



Leveraged Buyout?

- [LBO focus on rustbelt conglomerates
- [PPM sector has gone LBO or BK
- [Of 1000 tech IPO since 1990:
 - [200 trade below PE of 20; 300 trade below IPO
- [Joint ventures between LBO and VC firms
- [Junk bond market depressed



Clicks and Mortar in E-Health

- [Content
 - [Aetna/Harvard; Stanford eskolar
- [Connectivity
 - [MedUnite
 - [WebMD and Humana
- [Supply chain
 - [Tenet/Broadlane and Ventro
 - [VHA, UHC, and Neoforma



The Future

- [Go where the pain is greatest: Healthcare
- [But healthcare problems appear intractable
- [Administered pricing: Medicare BBA
- [Consumers: cost-unconscious entitlement
- [The last mile: connecting physicians
- [Privacy is more important and difficult



The Three Axioms of Healthcare

- [Americans want the best healthcare someone else will pay for
- [We demand our fair share of unnecessary and inappropriate procedures
- [When the going gets tough, the empowered consumer wants government regulation



Never Forget

- [Revenue = cost
- [Waste = jobs
- [Profit = fraud
- [Good luck