The Business Case for Quality

Re-Examining A CFO's Perspective

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Presentation Objectives

- **Provide a brief overview of Cincinnati Children's**
- **Explore what concepts support Cincinnati's Business Case for Quality and consider whether these principals are unique to our environment?**
- **Demonstrate improved results through a focus on quality – case studies**
- **Introduce our concept of asset production maximization and the "Revenue Sweet Spot"**

Cincinnati Children's Brief Profile

- Size and Scope of Services (FY2008 budget)
  - Inpatient & Short Stay (Top 5):
    - Total staffed beds = 450
    - Admissions = 28,000
    - Bed Days = 127,600
    - Occupancy = 78%
  - Clinics & Emergency Room (Top 5)
    - Outpatient & Urgent care visits = 820,000 (50% treated at Base Facility; 50% treated in 10 OP Satellite Centers)
    - ER Visits = 95,300 (Base ER only, no urgent care)
  - Operating Rooms & Surgical Volumes (Top 5)
    - 46,000 hours of surgery performed

Cincinnati Children's Brief Profile

- Operating Revenues (Top 5)
  - Total Revenues (FY2008 Budget) = $1.3 billion
    - Net hospital revenues = $860 million
    - Net physician billing revenues = $200 million
    - External research support revenues = $150 million
- 10 Year Annualized Growth Rates (Top 5)
  - Patient volume growth = 7-9% per year
  - Revenue growth = 15% per year
  - Employee (FTEs) growth = 9% per year

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- Located in smaller greater metropolitan area
  - Approximate 2 million total population
  - Little to no growth in region for past 5 yrs

- Our program development strategy:
  - Develop unique offerings to small, highly specialized niche markets that generally require high investment costs to operationalize
  - Deliver compelling program results that stimulate and maintain sufficient volumes (market share) from very broad geographies to justify the investment and generate a reasonable return

- Extreme dependence on out-of-region referrals
  - 52% of inpatient revenues come from outside our region
  - Virtually all of our inpatient and surgical growth has come from unique program offerings that bring patients more than 100 miles

Our Vision

To be the leader in improving child health

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Our Mission Statement

Cincinnati Children's will improve child health and transform delivery of care through fully integrated, globally recognized research, education and innovation.

For patients from the community, the nation and the world, the care we provide will achieve the best:

- Medical and quality of life **outcomes**;
- Patient and family **experiences**; and
- **Value**

-- Today and in the future.

Why Did We Choose Quality to be the Focus of Our Operating Strategies & Business Model?

- Our Vision and Mission Are Globally Focused
- The Survival of our Unique Program Offerings Are Dependant on Referrals From Large Market Geographies
- Referring Sources/Patients Must Perceive High Value For Choosing Cincinnati
  - Value's Two Components:
    - Better results (medical outcomes and/or experience) for given cost
    - Cost (a more affordable price) for comparable results
- Quality and Continuous Improvement Address Both Components (Results & Costs) of This "Value Equation"

How did Quality become the Focus of Our Operating Strategies & Business Model?

- Given the factors we just reviewed and the mission and vision goals our Board chose to pursue: *THERE ARE NO OTHER OPTIONS*

- Our future is literally tied to our ability to differentiate our product offerings; otherwise - why would 52% of our revenue stream (and virtually all of our growth potential) continue to choose us?

Does Cincinnati's Thought-process Apply To My Hospital?

- Case study Evidence - Before tackling this question directly, let's share some brief details of our experiences:
  - Improved outcomes and error elimination –
    - Preventable hospital acquired infections
  - Better use of scarce and/or expensive resources –
    - Discharge planning
    - Evidenced-based care

SSI & VAP Initiatives

Improved Medical Outcomes & Error Elimination

- Clinical initiatives to reduce Surgical Site Infections (SSI) & Ventilator Associated Pneumonia (VAP)

- Just 3 years ago our rates were about equal to the national averages:
  - SSI rate = About 1 out of every 100 children receiving surgery
  - VAP rate = About 4 out of every 100 children placed on a vent

- Our own data suggested that maybe 15-20% of kids in the ICU who acquired a VAP or other serious infection might be expected to die

SSI & VAP Initiatives

Improved Medical Outcomes & Error Elimination

- Interventions aimed at reducing SSI & VAP rates were developed from published best practices and our own observations and thoughts

- What was achieved:
  - SSI rate was reduced by 60%; meaning 50 fewer kids suffered a preventable infection
  - VAP rate was reduced 90%; meaning 70 fewer kids suffered pneumonia while fighting to recover in our ICU
  - MORE IMPORTANTLY an estimated 12 lives that could have been expected to be lost went home!!

SSI & VAP Initiatives

Improved Medical Outcomes & Error Elimination

Nothing compares to the human impact of this effort & nothing is even remotely as important; but there is still more:

- We reduced the costs to the health care system by $8.5 million
- And we reclaimed 3 beds per year previously dedicated to infections that could now be dedicated our core strategy of unique program development
  - Each bed we construct has an estimated cost of $3 million of capital investment and staff training that we avoided
- Satisfying returns on investments - HUMAN impact, first and foremost, and economically as a secondary confirmation that doing the right thing is almost always financially rewarding

Discharge Planning

More effective utilization of scarce resources

- Discharge Planning
  - Four years ago less than 30% of all discharges occurred within 4 hours of meeting medical criteria
  - Patient who were medically ready for discharge utilized beds and critically short nursing staff because we failed to properly plan, communicate and coordinate
  - Today, nearly 80% are achieving discharge within 4 hours
  - We were able to reclaim 4 beds per year from simply improving a dysfunctional discharge planning process

Discharge Planning

More effective utilization of scarce resources

- Evidenced Based Care
  - Five years ago admissions and ER utilization from 4 common conditions accounted for 7,500 patient days per year
  - Clinical staff suspected large percentage did not required hospitalization and those that did were staying much longer than required for good outcomes
  - Problem attacked by teaming with community providers and payors to develop evidenced based standard treatments, order sets and admission/discharge criteria aimed at best results with fewest and most appropriate resources consumed

Discharge Planning

More effective utilization of scarce resources

- Evidenced Based Care – the results:
  - Today admissions for these common illnesses have dropped 30%; inpatient days have dropped 50% and lengths of stay by more than 25%
  - Payors have saved $9 million in hospital billings each year and shared a portion with the community doctors
  - Nurse staff is freed for more appropriate care and program growth
  - And 10 beds were reclaimed per year

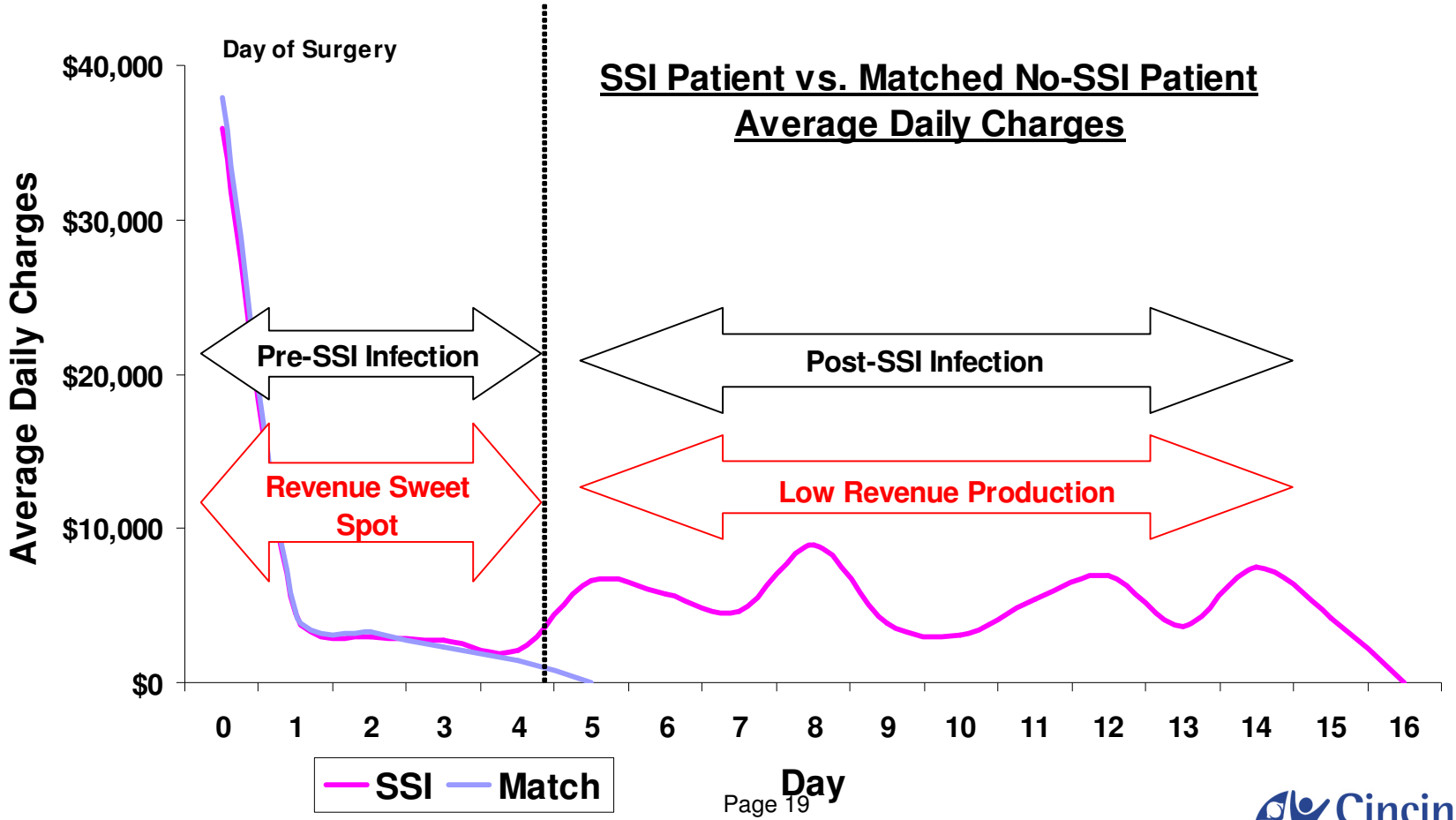
Major Issue For Your Management Team "BCQ Skepticism"

- Quality Improvement is….. Good for payors, bad for providers
- Consider what your CEO or CFO might observe in the Cincinnati case study results:
  - SSI/VAP: Reduced billings & inpatient (IP) days
  - Discharge Planning: Reduced billings & IP days
  - Evidenced Based Care – Reduced billings & IP days

Improved Outcomes and Error Reduction - Maximizing Asset Production

- For the moment, put aside the most compelling issues of pursing quality to protect **human lives.**
- For the moment, put aside our community and social responsibilities to curtail endless building expansion and hiring to create additional capacity.
- Even, for the moment, put aside our understanding that our markets are increasingly demanding hospitals to differentiate on some basis of outcomes or costs.
- Be completely fiscally focused and consider only the impact of a couple of our case studies from a pure maximization of revenue production from available assets perspective.

Maximizing Asset Production – Revenue Production Associated with SSI



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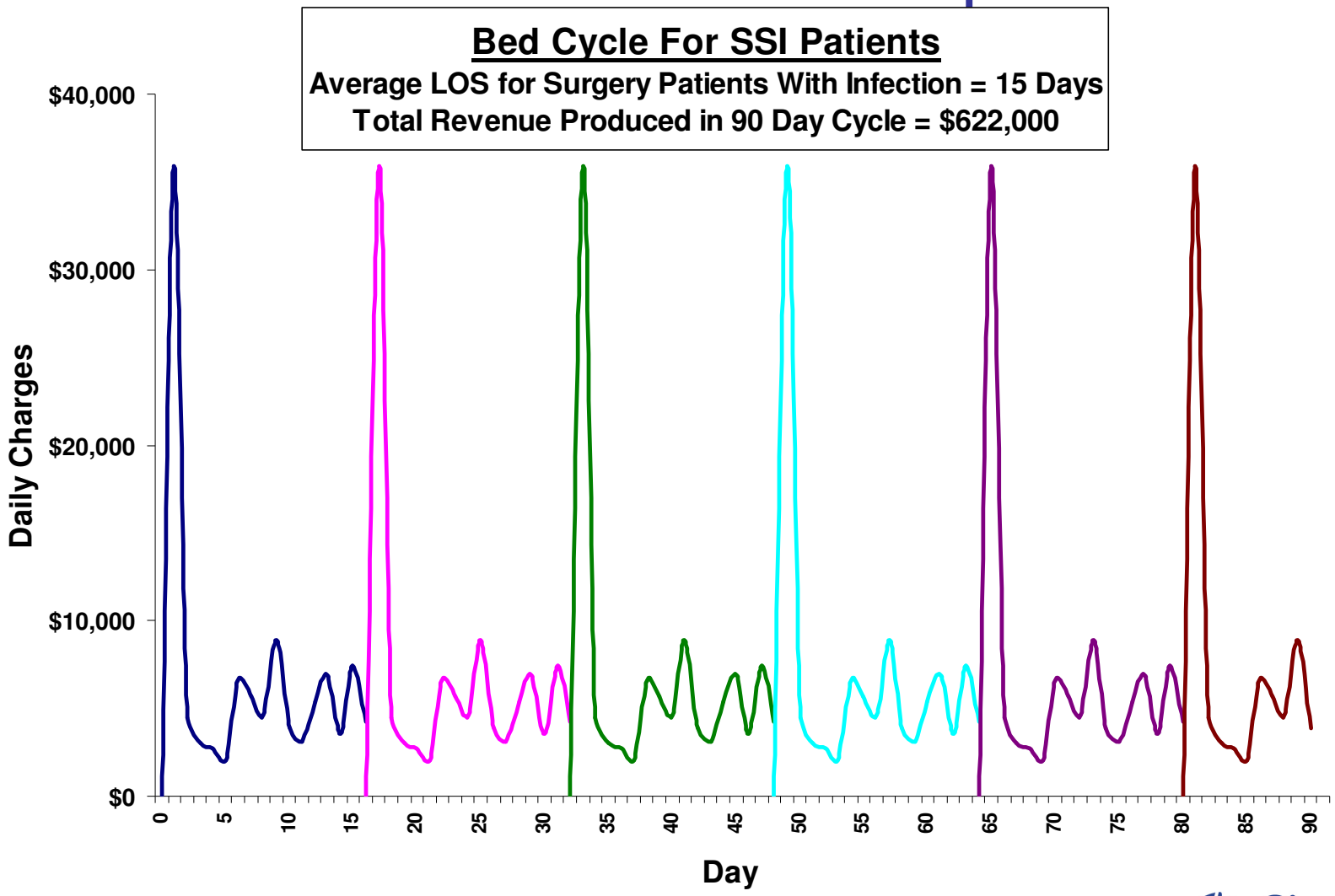
90 Day Revenue Production Cycle When 6 Patients Develop an SSI



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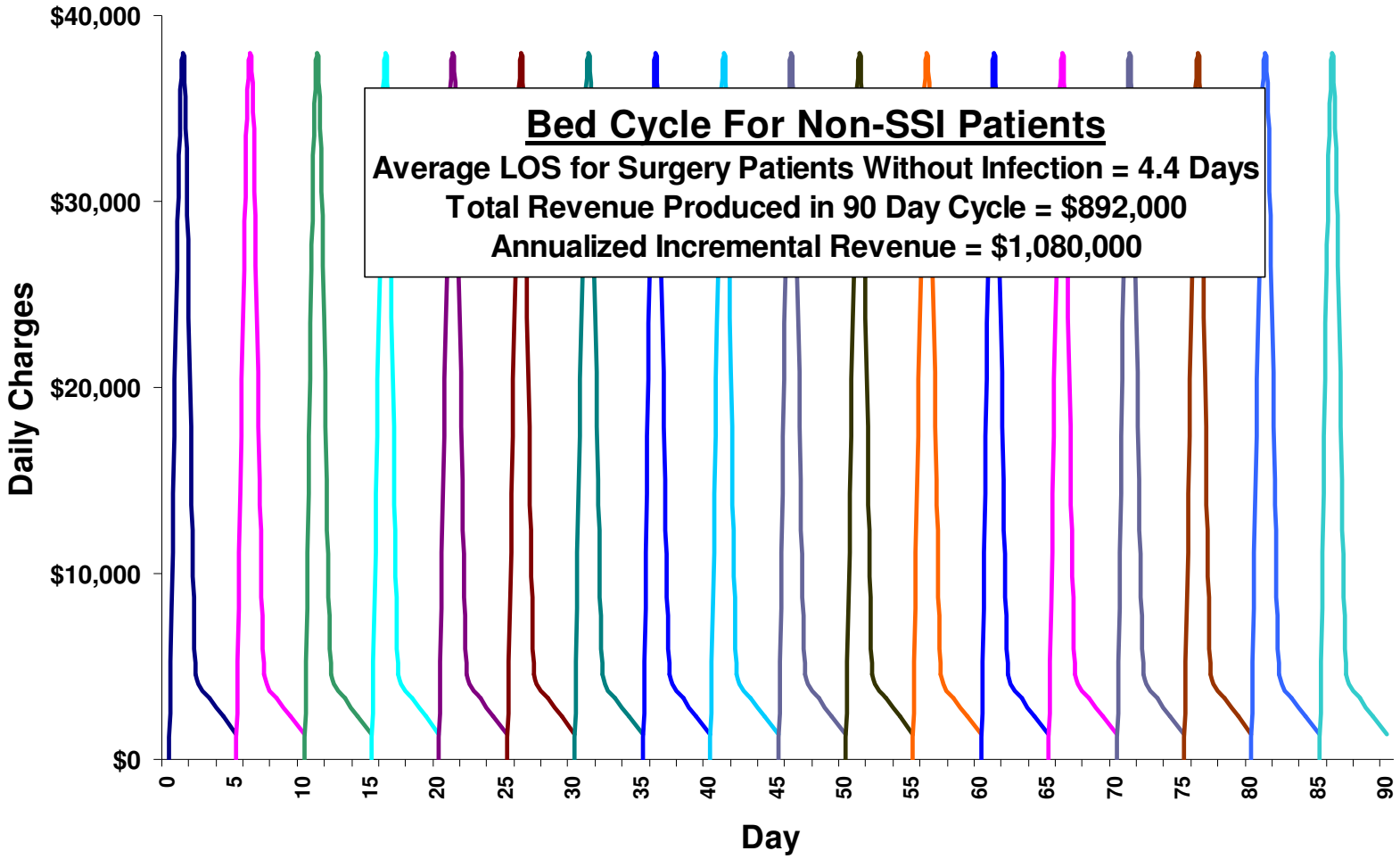
Same 90 Day Cycle of Revenue Production

If No Patients Acquire SSI (18 patient potential)



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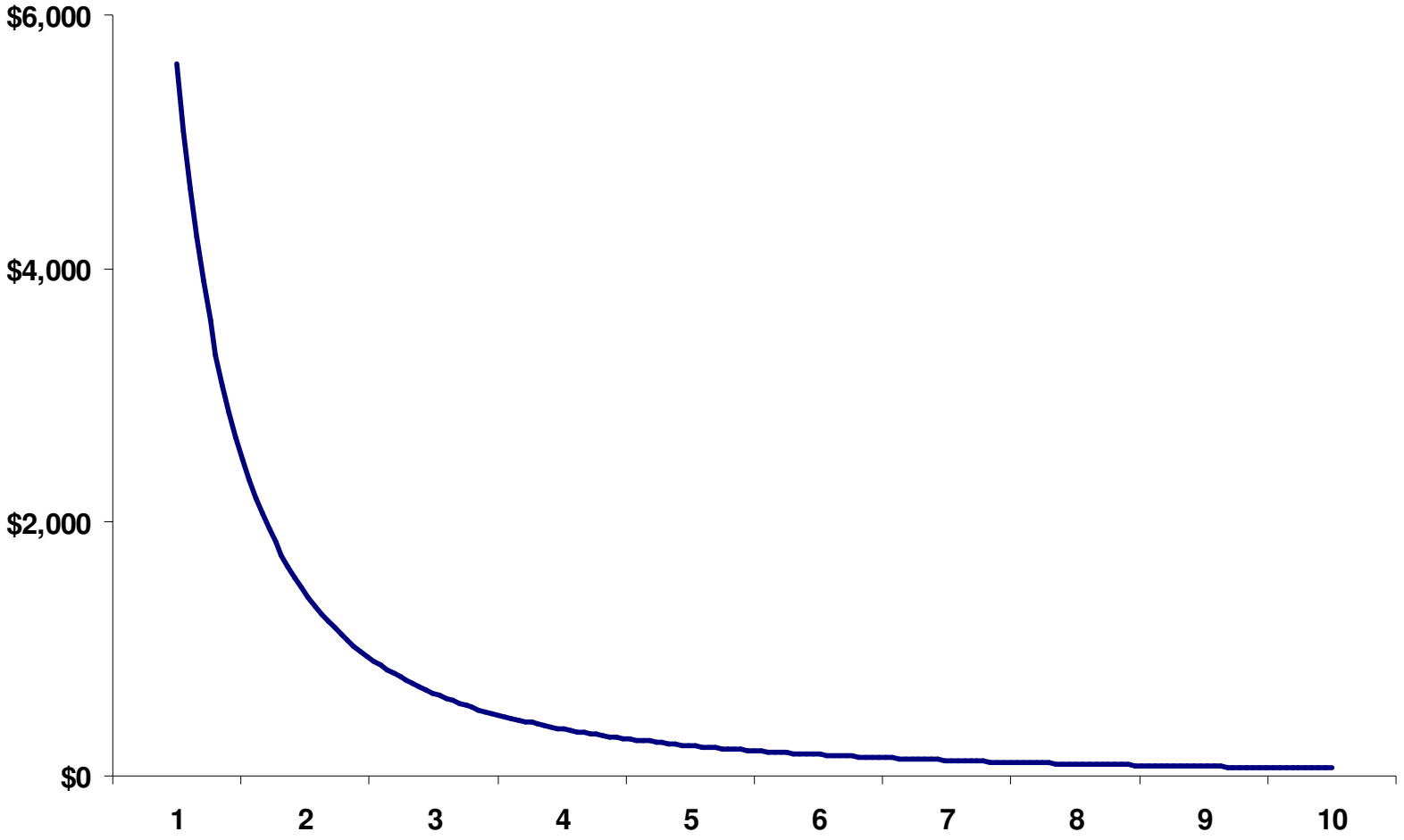
Apply the Concept of Maximizing Asset Production (i.e., the Revenue Sweet Spot) to Evidenced Based Care Case Study

- First recognize the standard, predictable profile of revenue generated per day:
  - Profile for Common Cases -
    - Gastroenteritis
    - Bronchiolitis
  - Profile for Tertiary Cases -
    - Bone Marrow Transplant (BMT)
    - ECMO (Extracorporeal Membrane Oxygenation)

Gastroenteritis
Profile of Charges by Day



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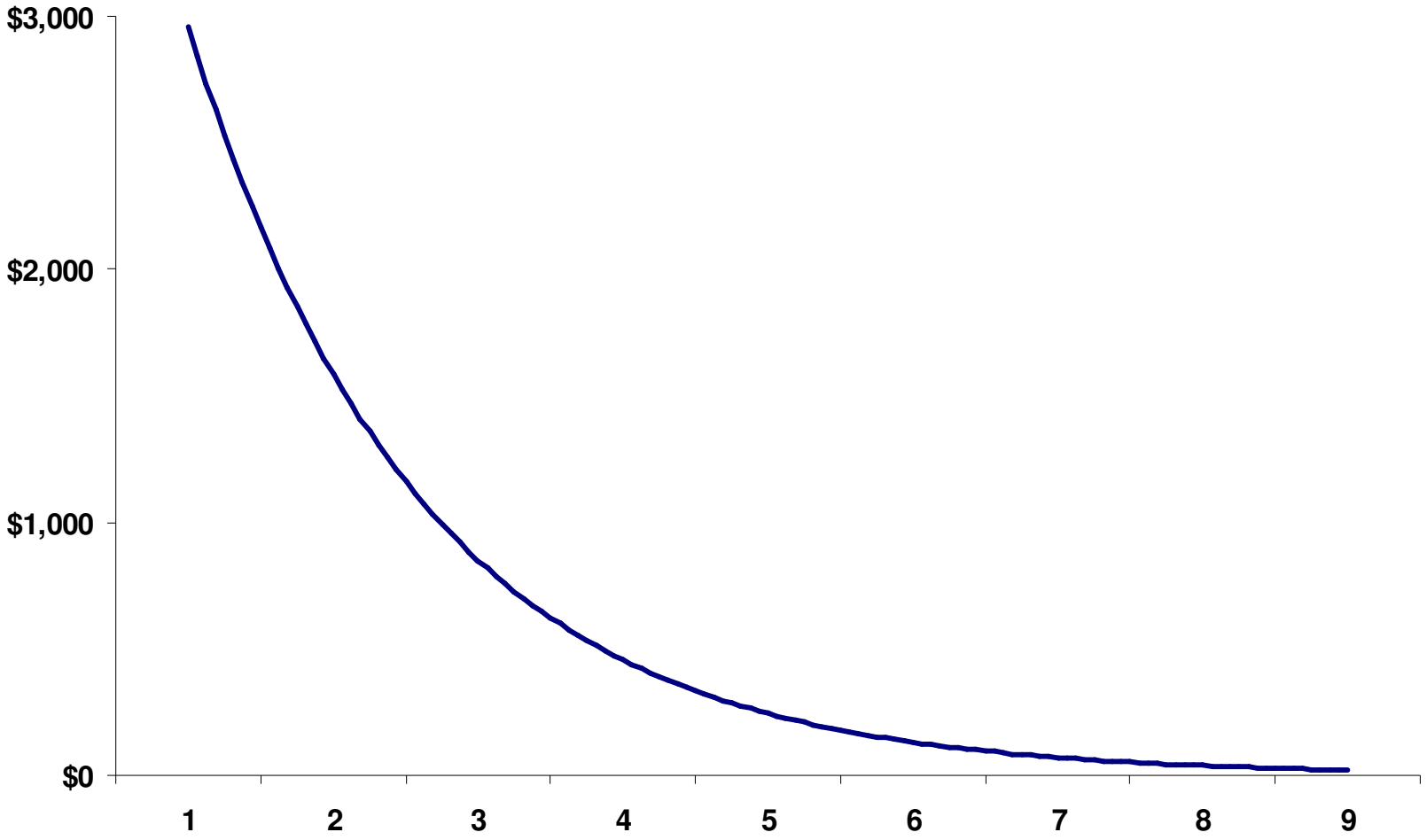
Bronchiolitis
Profile of Charges by Day



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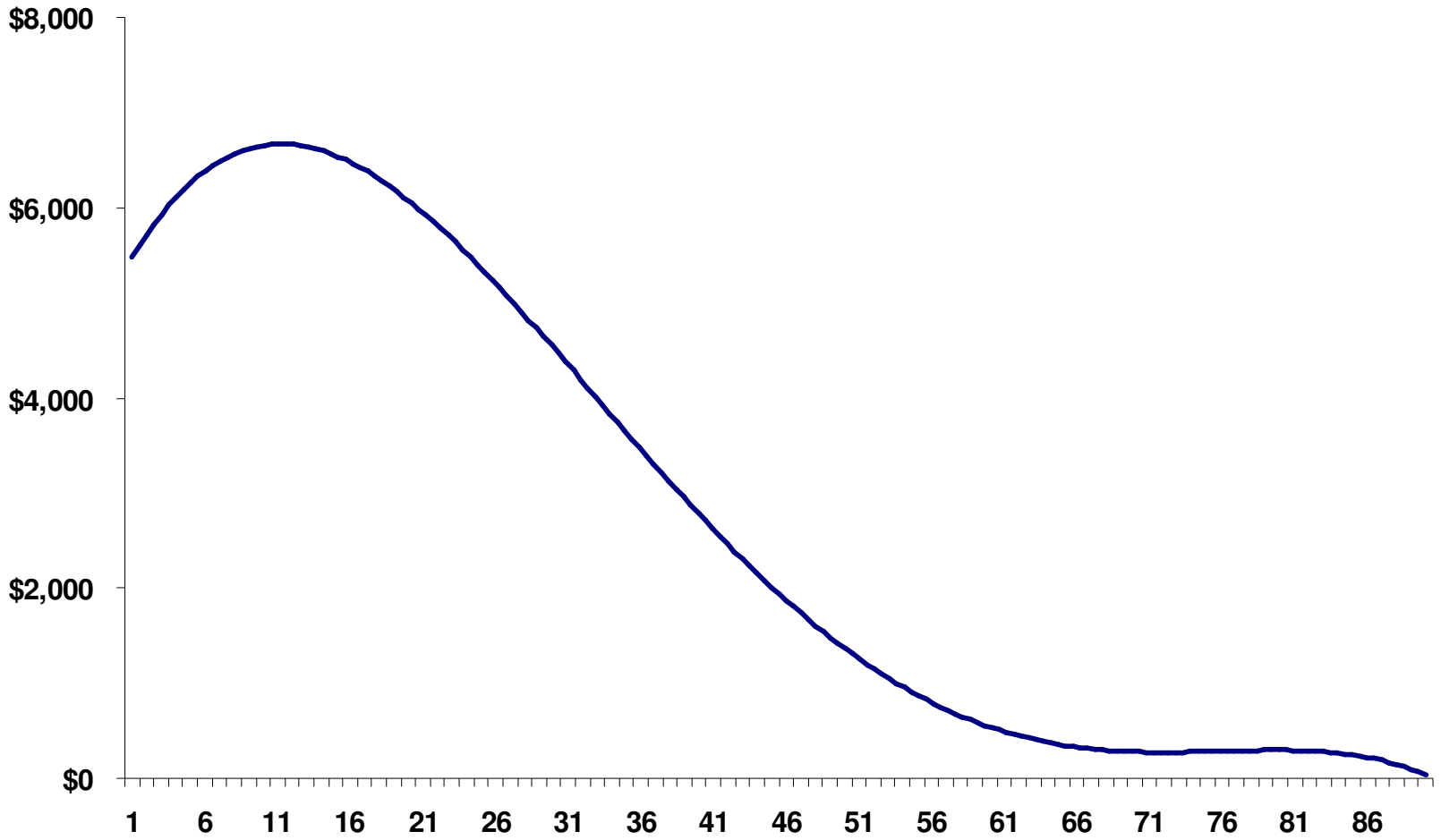
Bone Marrow Transplant
Profile of Charges by Day



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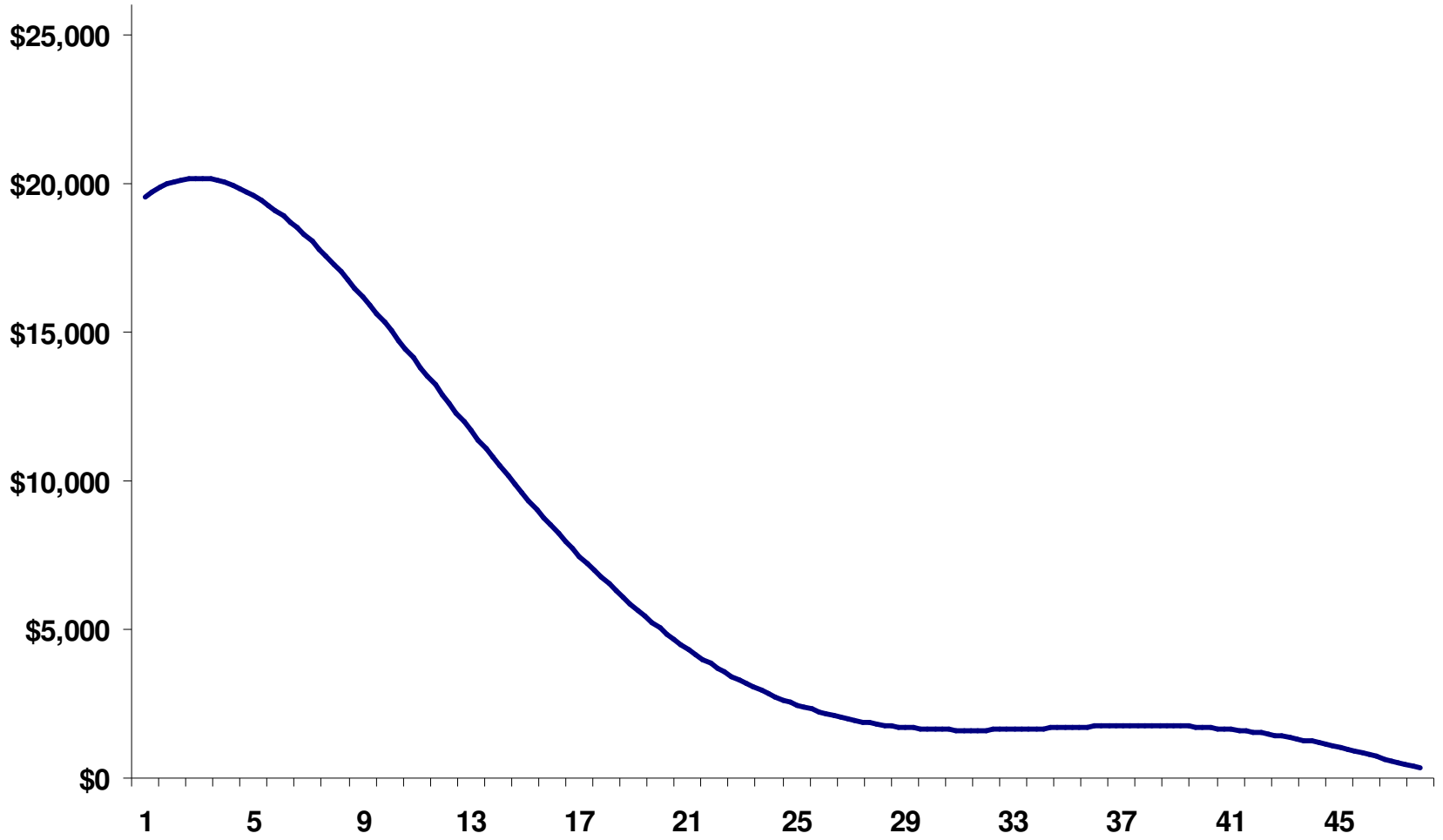
ECMO
Profile of Charges by Day



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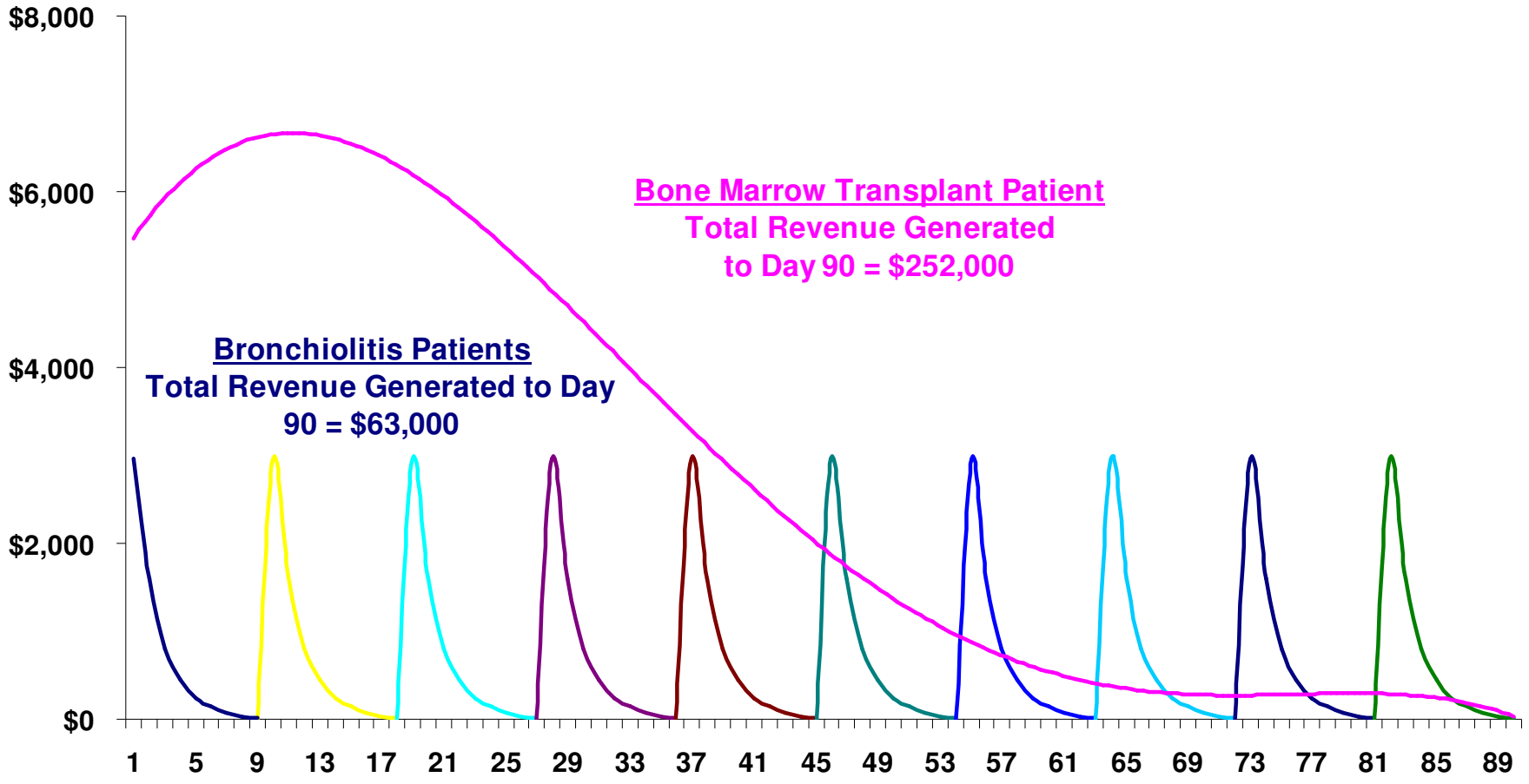
Maximizing Asset Production – Benefits of Redirecting Asset Production to Tertiary Program Development



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So Does the Pursuit of Quality and Continuous Improvement Have Potential to Become the Core Business Strategy for Your Hospital?

- Consider The Business Case:
  - Improves the value of services to patients and payors
  - Minimizes (or offers an alternative to) investment in capital assets to expand capacity
  - Empowers and enables increasingly scarce human assets to work at the highest level of production and performance on "value-add" activities

- But Focus On The Most Important Case:
  - It saves children's lives and allows each of us to be the ultimate steward's of our community trust!