Welcome to St. Louis
St. Louis in 1904
Largest World’s Fair, Before or Since

1904 World's Fair in Forest Park
St. Louis in 1904
Largest World’s Fair, Before or Since

An astonishing accomplishment

- 900 buildings
- 1,272 acres
- >20 million total visitors
- >100,000 per day

First tastes of emerging foods

- Iced tea
- Hot dogs
- Ice cream cones
- Cow made 100% of butter
A Vibrant Pioneering Metropolis

“The very first human expression of a tall steel office building as architecture.”
Frank Lloyd Wright, 1931

Wainwright Building 1890
Things Were Looking Rosy in 1904

Ranking of St. Louis population among largest American cities

4th largest US city during the World’s Fair

#4

#5

#6

1880 1890 1900 1910 1920 1930 1940 1950
A Vibrant Pioneering Metropolis in 1900

Goods and services through either St. Louis or San Francisco

The second largest port city in the US after NYC
A Profound Choice for Civic Leaders

Stay the Course
Riverboats

Emerging Technology
Steam Locomotives
Enter the “CRI&P RR”
Chicago, Rock Island, and Pacific Railroad

1845: Rock Island IL civic leaders begin discussions

1847: Mississippi River bridge completed

1856: Fundraising difficult; little common faith that a railroad would connect two waterways

1874: CRI&P RR acquired the “St. Louis & Eastern RR”

1874: Eads Bridge crosses Mississippi into St. Louis

1902:
The Nation Began Passing Us By

1900 Census: 4th largest city

1990 Census: 34th largest city
Don’t Miss Today’s Key Insights

Those with the greatest timely insights provide the greatest value
We Spend the Most

2007 Per Capita Annual Healthcare Spend

$8,000
$6,000
$4,000
$2,000
$0

Mexico
Poland
Hungary
Slovak Republic
Czech Republic
Korea
Portugal
New Zealand
Japan
Spain
Italy
Greece
Finland
Iceland
United Kingdom
Sweden
Ireland
Denmark
Germany
Belgium
France
Austria
Canada
Luxembourg
Norway
United States

2009 OECD - ISSN 2075-8480
What Drives Healthcare Cost?

Healthcare Cost Theories

- Technology
- Demographics
- Epidemiologic variability
- Uninsured
- Under-insured
- Professional liability

- Regulations
- Knowledge
- Suboptimal decisions
- Excess specialists
- Excess supply
- Professional shortages
- Professional liability
The Law of Supply and Demand

Principles of Economics, Alfred Marshall, 1890

Outcomes Conference 2010
Who Creates Demand?
More Availability Creates More Usage

Discharge Rate/1000

Acute Care Beds/1000

Hip Fractures
Rates constant despite variability in hospital beds

More Availability Creates More Usage

- **All Medical Conditions**: US rates correlate with availability of hospital beds.
- **Hip Fractures**: Rates constant despite variability in hospital beds.


Outcomes Conference 2010
More Cardiologists = More Cardiology Visits

Number of cardiologists per 100,000

Visits to cardiologists per enrollee

The Cost of Dying
More Treatments, Similar Results

Medicare Spending

- Miami: $8,000
- Portland: $4,000
- Minneapolis: $2,000
- Orange County: $0
- Miami spends 2X more than Portland

Specialist Visits

- Miami: 30 visits
- Portland: 15 visits
- Orange County: 10 visits
- Minneapolis: 5 visits
- 6X more specialist visits

Hospital Stays

- Miami: 15 stays
- Portland: 10 stays
- Orange County: 5 stays
- Minneapolis: 2 stays
- Double hospital stays

Care Index

- Miami: 100%
- Portland: 80%
- Orange County: 60%
- Minneapolis: 40%
- Minimal difference in care

Source: Health Affairs

Outcomes Conference 2010
Behavior Drives Premature Deaths

The Last Decade of Drug Trend Reports
The Last Decade of Drug Trend Reports

Utilization  
Mix  
Market Analysis  
New Drugs  
Unit Cost 

Outcomes Conference 2010
The Last Decade of Drug Trend Reports

Market Analysis

Utilization

Mix

New Drugs

Unit Cost

2009 Drug Traditional Drug Trend: 4.8%

We asked...

What really drives these numbers?
### New Approach to Trend Analysis

#### Market and Behavioral Analysis

<table>
<thead>
<tr>
<th>Market Forces</th>
<th>Behavioral Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence</td>
<td>Drug mix</td>
</tr>
<tr>
<td>Cost per unit</td>
<td>Channel</td>
</tr>
<tr>
<td>Units per Rx</td>
<td>Therapy adherence</td>
</tr>
<tr>
<td>Patent expirations</td>
<td>Total behavioral savings opportunity</td>
</tr>
<tr>
<td>New drug entrants</td>
<td></td>
</tr>
</tbody>
</table>
New Approach to the Drug Trend Report: Market and Behavioral Analysis

Cholesterol
0.8% Trend

Diabetes
9.8% Trend

Seizures
-29.8% Trend

Behavior
balanced market forces

Behavior
exacerbated market forces

Behavior
enhanced market forces

Class Trend
Market Forces
Behavioral Factors
New Approach to the Drug Trend Report: Market and Behavioral Analysis

- **Cholesterol**: 36% (Market Forces: $25 PMPY, Behavioral Factors: $15 PMPY)
- **Ulcers**: 33% (Market Forces: $15 PMPY, Behavioral Factors: $8 PMPY)
- **Viral**: 29% (Market Forces: $15 PMPY, Behavioral Factors: $8 PMPY)
- **Depression**: 26% (Market Forces: $15 PMPY, Behavioral Factors: $15 PMPY)
- **Hypertension**: 26% (Market Forces: $17 PMPY, Behavioral Factors: $17 PMPY)
- **ADHD**: 24% (Market Forces: $6 PMPY, Behavioral Factors: $6 PMPY)
- **Seizures**: 24% (Market Forces: $6 PMPY, Behavioral Factors: $6 PMPY)
- **Neurologic**: 22% (Market Forces: $6 PMPY, Behavioral Factors: $6 PMPY)
Behavioral factors drove $163 billion of waste
Three Behavioral Factors Drove
$163 Billion of Waste in 2009

- Drug Mix: $51 Billion
- Channel Choice: $6 Billion
- Non-Adherence: $106 Billion
Can Your State Afford This Waste?

States in the lowest 25% for waste per capita
States in the middle 25% for waste per capita
States in the highest 25% for waste per capita

Source: Express Scripts, Inc.
Outcomes Conference 2010
Member Cost-Share Continues to Fall

Traditional

2008: $1,000 23.4%
2009: $750 22.9%

Dollar amounts all PMPY

Specialty

2008: $125 2.7%
2009: $100 2.6%

Outcomes Conference 2010
Member Cost-Share Continues to Fall

Average copay in both 2008 and 2009: $12.66

Member share:
- Traditional and Specialty Combined: 21.2%
- Member share: 20.5%

Dollar amounts all PMPY
Outcomes Conference 2010
Specialty Growth Continues

2009

- Traditional: 76%
- Specialty: 24%

2014

- Traditional: 60%
- Specialty: 40%
Specialty Growth Continues in Medical and Pharmacy

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional</th>
<th>Specialty in Pharmacy Benefit</th>
<th>Specialty in Medical Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>76%</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>2014</td>
<td>60%</td>
<td>18%</td>
<td>22%</td>
</tr>
</tbody>
</table>
Leading Specialty Classes Maturing

**Rheumatoid Arthritis**
- US Population: 1,300,000
- Cost per year: $20,000/yr
- Number of drugs:
  - '14: 14
  - '09: 7
  - '04: 4

**Anticoagulants**
- US Population: 300,000
- Cost per year: $12,000/yr
- Number of drugs:
  - '14: 7
  - '09: 3
  - '04: 3

**Multiple Sclerosis**
- US Population: 400,000
- Cost per year: $30,000/yr
- Number of drugs:
  - '14: 16
  - '09: 6
  - '04: 4

**Growth Hormone**
- US Population: 15,000
- Cost per year: $32,000/yr
- Number of drugs:
  - '14: 9
  - '09: 7
  - '04: 5

Outcomes Conference 2010
Biogenerics: The Law of the Land

Potential Savings Of Biogenerics In the United States

Study Authors: Steven Wink, MD, and Jonah Kohn
Market and Behavioral Analysis of Specialty Pharmacy

- **Inflammatory**: 17.7% Trend
- **Multiple Sclerosis**: 34.4% Trend
- **Hepatitis C**: -12.0% Trend

**Biogenerics will greatly increase the importance of behavioral factors**

- **Class Trend**: 40%
- **Market Forces**: 30%
- **Behavioral Factors**: 20%
Healthcare Trends Guide Our Actions

Drug mix
Therapy adherence
Channel
Specialty pharmacy

Those with the timeliest insight provide the greatest value

Manage for the future
Conclusions

- $163 billion of savings today
- Healthcare savings begin in the home
- Embrace proven behavioral tools today