



The Future of Healthcare IT

Devin Akin, CEO
Divergent Dynamics, Inc.



Divergent Dynamics, Inc.



Divergent Dynamics CEO Devin Akin named to
TWW Top 100 Wireless Experts for 2014
www.todayswirelessworld.com/top100/

Devin K. Akin
CEO, Founder
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➤ Devin Akin

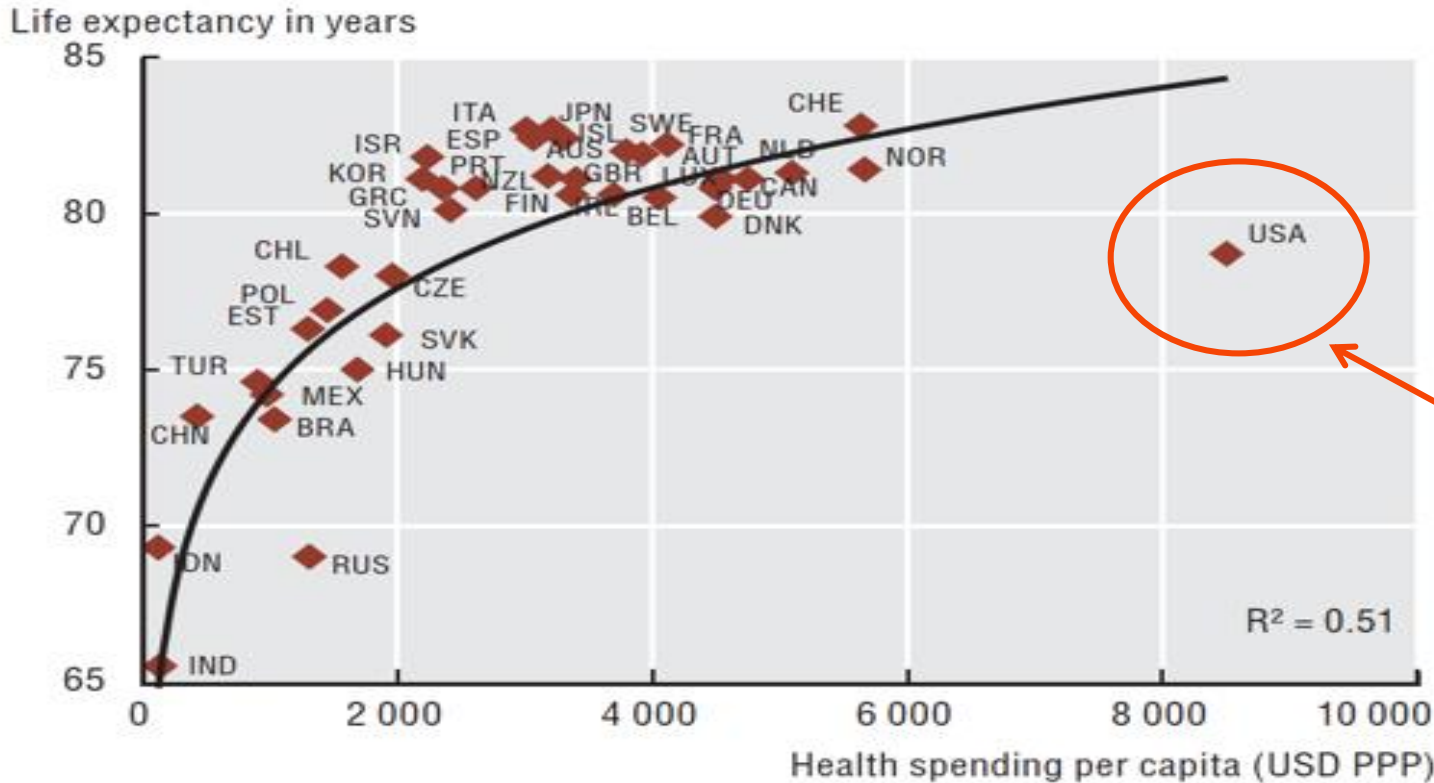
- ✧ 15 years of Innovative Experience in Wi-Fi
- ✧ Co-founder/CTO, The CWNP Program (cwnp.com), 2001-2009
- ✧ Chief Wi-Fi Architect, Aerohive Networks 2009-2013
- ✧ Network Architect, Author, Speaker, Educator, Blogger
- ✧ Advisor to most Wi-Fi manufacturers at some point since 2001

➤ Divergent Dynamics

- ✧ Wi-Fi Advisory & Education Services
- ✧ Wi-Fi Performance, Security, & Compliance Analysis
- ✧ Wi-Fi Design, Integration, Remediation, Optimization

Healthcare Finance Update

1.1.3. Life expectancy at birth and health spending per capita, 2011 (or nearest year)




➤ U.S. Healthcare is quickly heading toward a sub-optimal Socialist system

✧ Along the current path, there will ultimately be two systems: **public** and **private**

➤ Huge spending

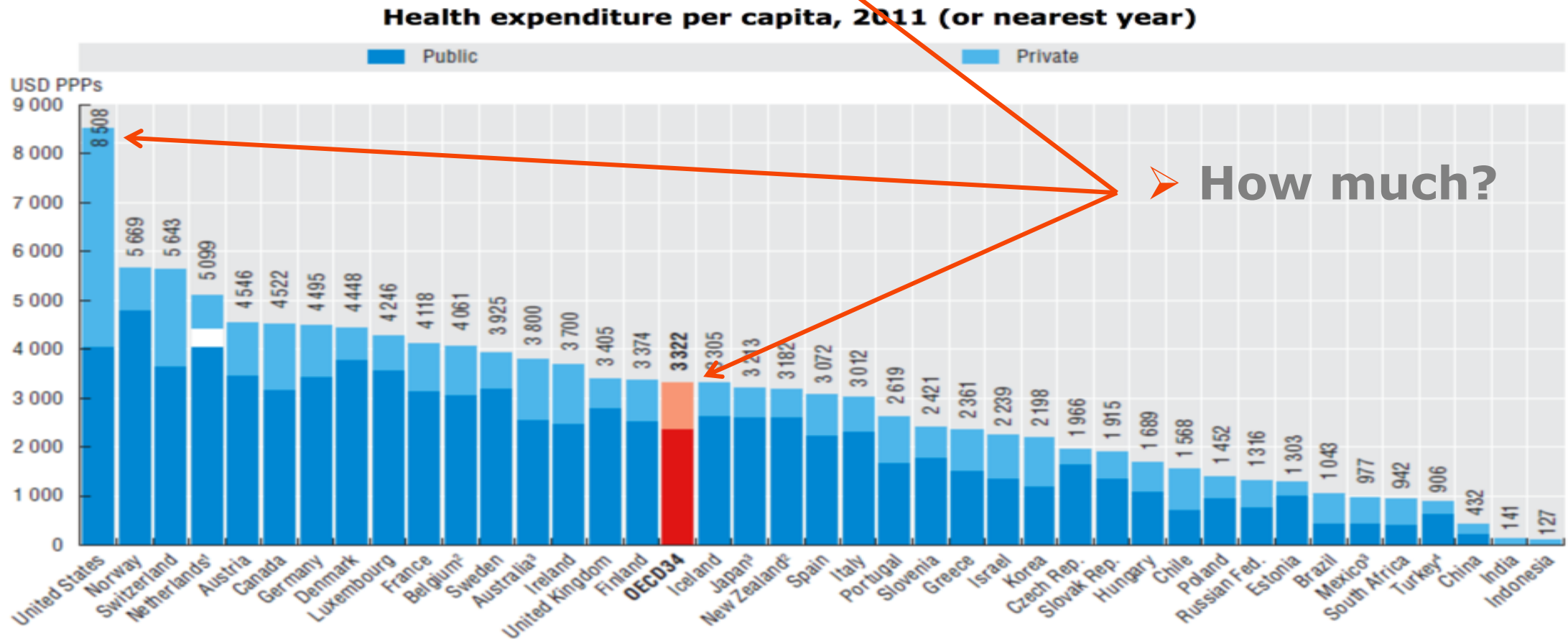
➤ Short life expectancy

Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>; World Bank for non-OECD countries.

StatLink  <http://dx.doi.org/10.1787/888932916040>

Healthcare Finance Update

Health expenditure per capita varies widely across OECD countries. The United States spends two-and-a-half times the OECD average



How much?

EXHIBIT ES-1. OVERALL RANKING

COUNTRY RANKINGS

Top 2*
Middle
Bottom 2*



	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/Capita, 2011**	\$3,800	\$4,522	\$4,118	\$4,495	\$5,099	\$3,182	\$5,669	\$3,925	\$5,643	\$3,405	\$8,508

Notes: * Includes ties. ** Expenditures shown in \$US PPP (purchasing power parity); Australian \$ data are from 2010.

Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults; 2012 International Health Policy Survey of Primary Care Physicians; 2013 International Health Policy Survey; Commonwealth Fund *National Scorecard 2011*; World Health Organization; and Organization for Economic Cooperation and Development, *OECD Health Data, 2013* (Paris: OECD, Nov. 2013).

Business 101

- 1 KEEP THE BOTTOM LINE IN CHECK
- 2 CAN'T CUT YOUR WAY TO LONG-TERM SUCCESS
- 3 FOCUS ON THE TOP LINE
- 4 DIVERSIFY (CREATE NEW LINES OF BUSINESS)
- 5 SCAN THE PERIPHERY
- 6 THE FAST EAT THE SLOW

Healthcare Finance Update

- Large healthcare providers (e.g. HCA, Tenet, Ascension) are currently acquiring smaller ones and profiting by:
 - Cutting Costs
 - Increasing Efficiency
- A focus on the bottom line only goes so far, for so long
 - Diminishing Returns
 - Negative impact on staff and customers
- In a for-profit system, costs will always rise over time
- Eventually there must be a focus on top-line revenue
 - Alternative income sources are the only viable long-term answer

We've Been Here Before

- 1 GAMING (GAMBLING) INDUSTRY
- 2 AIRLINE INDUSTRY
- 3 WALMART
- 4 DISNEY

Gaming (Gambling) Industry: 1989



Las Vegas Transformation: From Sin City to Family City

By ROBERT REINHOLD, Special to The New York Times
Published: May 30, 1989

Never has Las Vegas, the glittery and gaudy capital of American gambling, faced more competition for the gambling dollar and yet never have its casinos been more popular - and profitable. Las Vegas has responded to the new realities of gaming by trying to transform itself from sin city into family entertainment zone, where wagering seems as routine as taking in a movie.

Consider the new Gold Coast Casino, a virtual supermarket of games. It has 72 lanes of bowling, two first-run movie houses and a clean, modern day-care center where grandmotherly looking women in yellow smocks mind the youngsters until midnight while their parents pump quarters into 2,000 video poker and slot machines, fight the odds at blackjack and keno or cheer on the ponies on the big television monitors from Belmont, Hollywood Park, Churchill Downs and other race tracks all over the country.

"We are dealing more with the masses of people now," said the casino's part-owner, Michael Gaughan, whose family has run casinos here since 1951, when card and dice "table" games were the main trade. "In the early days we had only a few slot machines for the wives."

Even as other parts of Nevada have suffered from out-of-state gambling competition, the Las Vegas Strip booms. Despite new competition from Atlantic City and lotteries run by 28 states and the District of Columbia that drew an estimated \$15 billion to \$17 billion last year, the number of visitors to Las Vegas swelled to 17.2 million last year, nearly a 50 percent increase over 1982. And since 1984, gross casino revenues in Clark County (mainly Las Vegas) have grown from 41 percent to 44 percent of the American casino gambling total; in 1988, casinos here raked in \$3.1 billion before taxes and expenses.

<http://www.nytimes.com/1989/05/30/us/las-vegas-transformation-from-sin-city-to-family-city.html>



Now, It's About Experience

- Transitioned from gambling halls to entertainment & experience
- From the world's largest Ferris wheel to mind-numbing buffets to the most opulent spas, gambling in Las Vegas is often not the main attraction



Gaming Industry: 2014

- Las Vegas Strip resorts have more space devoted to restaurants and shopping than slots and tables
 - And in some, RETAIL generates more revenue per square foot than GAMBLING
- Is it really the “Gaming” vertical market now?
 - Or is it the Entertainment vertical with some gambling thrown in?

THE FORUM SHOPS AT CAESARS



ABOUT THE FORUM SHOPS AT CAESARS

“**T**he Shopping Wonder of the World,” The Forum Shops are a must-see Caesars Palace shopping destination that includes approximately 160 stores representing some of the biggest names in fashion. The Forum Shops has continued to grow, most recently adding 175,000 sq. ft. and expanding the Las Vegas shopping mall all the way out to the Strip.

Las Vegas Restaurants at The Forum Shops include Spago, The Palm, Sushi Roku, Max Brenner, Trevi, Cheesecake Factory and Planet Hollywood.

GARDEN OF THE GODS POOL OASIS



ABOUT GARDEN OF THE GODS POOL OASIS

Spacious, elegant and stately, the Garden of the Gods Pool Oasis is a collection of exclusive watering holes, decadent cabanas and palatial sunbathing spots is the ultimate warm-weather destination, no matter whether you bow before the gods of the sun or the water.

Each of the Garden of the Gods’ six Las Vegas pools offers a unique and distinctive experience for sun worshippers as well as those who would prefer to make a splash. You’re sure to find one perfect for your mood.

Airports: Converting Idle Time

- Converting idle time into billions in revenue
 - Food / Drink
 - Retail shops
 - Entertainment



Airports: Build Them. They Will Come.



The screenshot shows the airport's website with a search bar, navigation menu, and a section titled "About ATL Airport". A red arrow points from the "Airport History" link in the navigation menu to a larger, detailed view of the airport's history.

Airport History

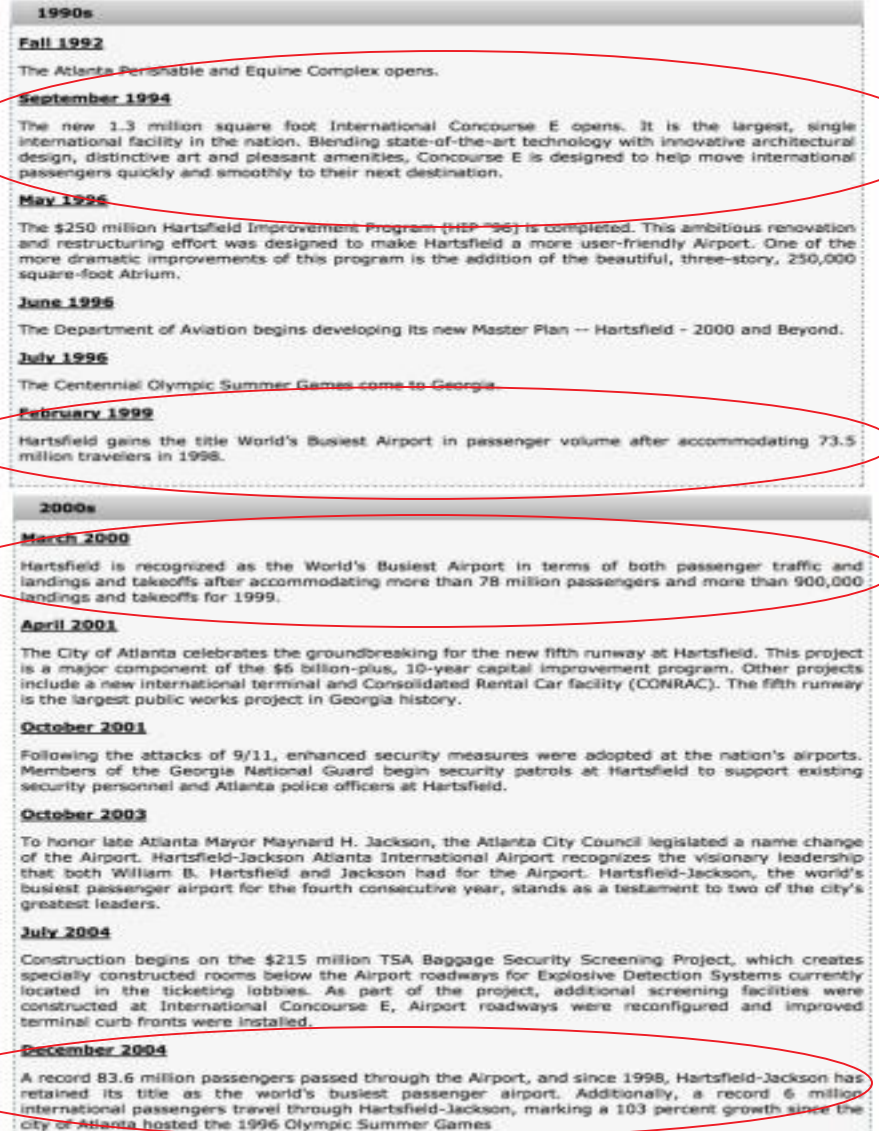
1980s

September 21, 1980

William B. Hartsfield Atlanta International Airport opens the world's largest air passenger terminal complex, covering 2.5 million square feet. The terminal is designed to accommodate up to 55 million passengers a year.

December 2004

A record 83.6 million passengers passed through the Airport, and since 1998, Hartsfield-Jackson has retained its title as the world's busiest passenger airport. Additionally, a record 6 million international passengers travel through Hartsfield-Jackson, marking a 103 percent growth since the city of Atlanta hosted the 1996 Olympic Summer Games



This detailed view of the airport history page includes the following entries:

- 1990s**
- Fall 1992**: The Atlanta Peninsular and Equine Complex opens.
- September 1994**: The new 1.3 million square foot International Concourse E opens. It is the largest, single international facility in the nation. Blending state-of-the-art technology with innovative architectural design, distinctive art and pleasant amenities, Concourse E is designed to help move international passengers quickly and smoothly to their next destination.
- May 1996**: The \$250 million Hartsfield Improvement Program (HIP '96) is completed. This ambitious renovation and restructuring effort was designed to make Hartsfield a more user-friendly Airport. One of the more dramatic improvements of this program is the addition of the beautiful, three-story, 250,000 square-foot Atrium.
- June 1996**: The Department of Aviation begins developing its new Master Plan -- Hartsfield - 2000 and Beyond.
- July 1996**: The Centennial Olympic Summer Games come to Georgia.
- February 1999**: Hartsfield gains the title World's Busiest Airport in passenger volume after accommodating 73.5 million travelers in 1998.
- 2000s**
- March 2000**: Hartsfield is recognized as the World's Busiest Airport in terms of both passenger traffic and landings and takeoffs after accommodating more than 78 million passengers and more than 900,000 landings and takeoffs for 1999.
- April 2001**: The City of Atlanta celebrates the groundbreaking for the new fifth runway at Hartsfield. This project is a major component of the \$6 billion-plus, 10-year capital improvement program. Other projects include a new international terminal and Consolidated Rental Car facility (CONRAC). The fifth runway is the largest public works project in Georgia history.
- October 2001**: Following the attacks of 9/11, enhanced security measures were adopted at the nation's airports. Members of the Georgia National Guard begin security patrols at Hartsfield to support existing security personnel and Atlanta police officers at Hartsfield.
- October 2003**: To honor late Atlanta Mayor Maynard H. Jackson, the Atlanta City Council legislated a name change of the Airport. Hartsfield-Jackson Atlanta International Airport recognizes the visionary leadership that both William B. Hartsfield and Jackson had for the Airport. Hartsfield-Jackson, the world's busiest passenger airport for the fourth consecutive year, stands as a testament to two of the city's greatest leaders.
- July 2004**: Construction begins on the \$215 million TSA Baggage Security Screening Project, which creates specially constructed rooms below the Airport roadways for Explosive Detection Systems currently located in the ticketing lobbies. As part of the project, additional screening facilities were constructed at International Concourse E, Airport roadways were reconfigured and improved terminal curb fronts were installed.
- December 2004**: A record 83.6 million passengers passed through the Airport, and since 1998, Hartsfield-Jackson has retained its title as the world's busiest passenger airport. Additionally, a record 6 million international passengers travel through Hartsfield-Jackson, marking a 103 percent growth since the city of Atlanta hosted the 1996 Olympic Summer Games

Airports: We built them. They came.



Hartsfield–Jackson Atlanta International (ATL)

Year : 2012

Traffic rating : A-

Very large airport | world rank : #1 (in passengers)

Country : USA (rank : #1)
Geographic area : North America (rank : #1)
Sub-region : Northern America (rank : #1)

Revenue Passengers : 95.5 million
Commercial flights : 740 thousand
Freight & Mail metric tons (SI) : 646 thousand

Last impact study found on this airport

Hartsfield–Jackson Atlanta International (ATL, 2009, Comparability with our framework : YES
 Direct employees declared in the study : 68 267 (delta rate with our results : -8%)
 Study : Connecting the region to the world
 Author : Hartsfield–Jackson Atlanta International Airport

About our quantification

YES Econometric models
 NO Local activities analysis
 YES Input-Output models
 NO Passengers survey

Confidence in our evaluation [-25%:+25%] 
 To reduce the confidence interval, please contact us to have an upgrade analysis  contact@ecquants.com

ECONOMIC IMPACT

(millions, current)	US dollars	% of total
TOTAL Value added	23 716.5	
Direct	10 272.9	43%
Indirect	4 149.2	17%
Induced	4 517.9	19%
Catalytic	4 776.5	20%



SOCIAL IMPACT

(in thousand)	Human resources	% of total
TOTAL Labor force	196.6	
Direct	74.3	38%
Indirect	37.7	19%
Induced	41.1	21%
Catalytic	43.4	22%



Value added produced by the airport (USD, current)



Employment produced by the airport



Super Walmart? Perhaps yes.



1988: The first Walmart Supercenter opened in Washington, MO, combining general merchandise and a full-scale supermarket to provide one-stop shopping convenience.

America's Top Retailer: Walmart was the nation's number-one retailer. As the Walmart Supercenter redefined convenience and one-stop shopping, *Every Day Low Prices* went international.

1997: The company celebrated its first **\$100 billion** sales year.

2002: For the first time, Walmart topped the Fortune 500 ranking of America's largest companies.

2002: For the first time, Walmart exceeded **\$400 billion** in annual sales.

2014: The company employs 2.2 million associates worldwide and serves more than 200 million customers each week at more than 11,000 stores in 27 countries.

Walmart's Many Lines of Business



What about the...

- Garden Center
- Photo Center
- Paint Center

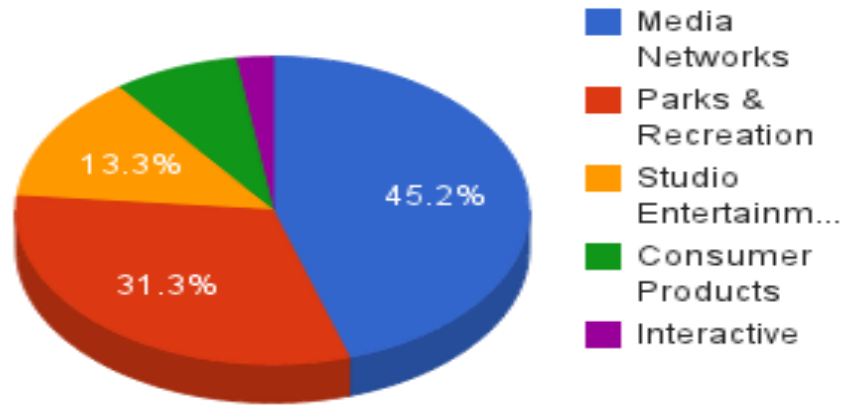


Walmart Partnerships

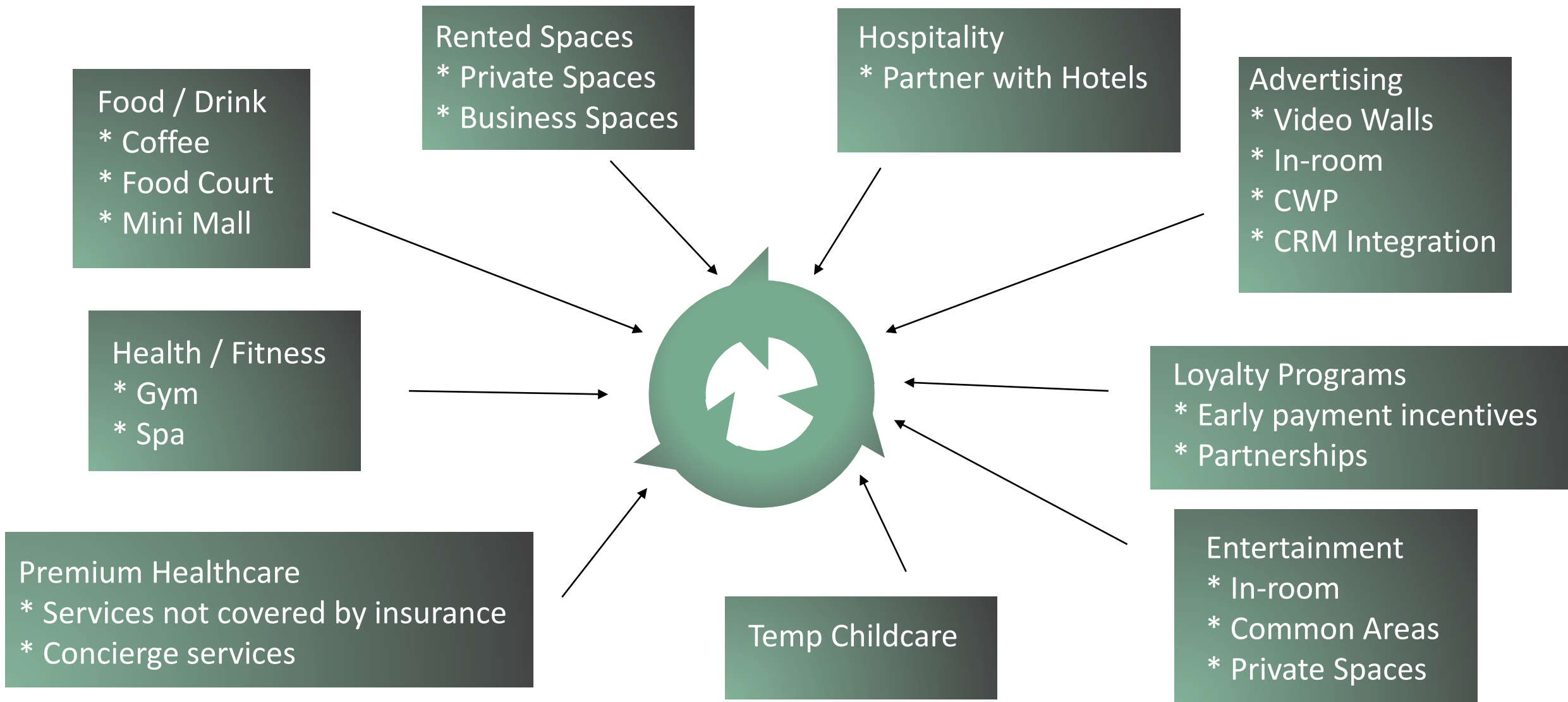


Disney: Starts Big, Gets Bigger

The Walt Disney Co - Revenue

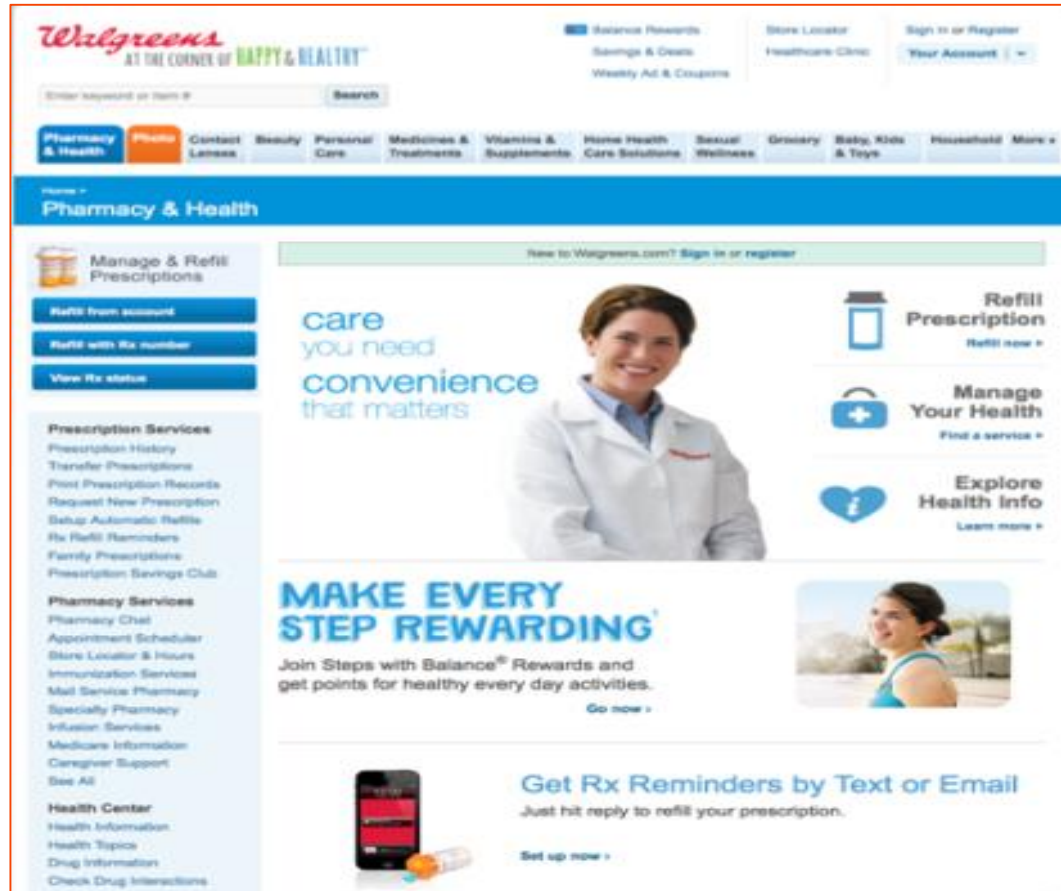


Mo Money




Healthcare Finance Update

- Retailers are adding affordable healthcare products and services to their portfolio
 - ✧ This is direct competition for healthcare providers

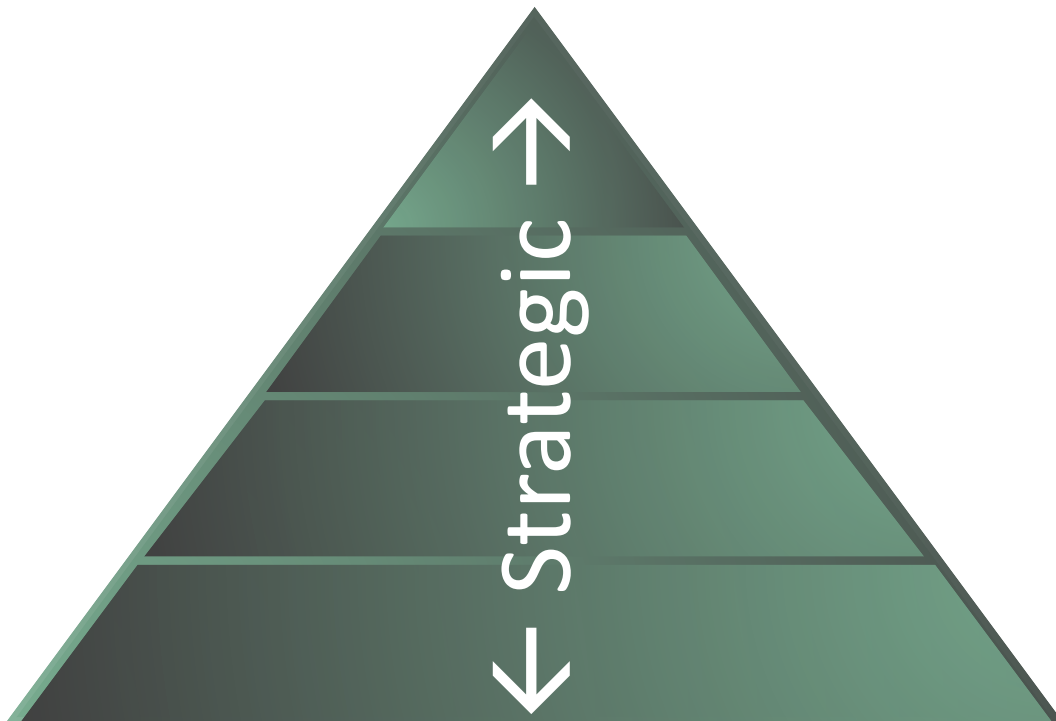


The screenshot shows the Walgreens Pharmacy & Health website. The top navigation bar includes links for Balance Rewards, Savings & Deals, Weekly Ad & Coupons, Store Locator, Healthcare Clinic, and Sign In or Register. A search bar is present below the navigation. The main content area features a sidebar with links for Manage & Refill Prescriptions, Prescription Services, Pharmacy Services, and Health Center. The central banner promotes "care you need convenience that matters" with a photo of a pharmacist. Below this, there's a section for "MAKE EVERY STEP REWARDING" and "Get Rx Reminders by Text or Email".



The screenshot shows the Walgreens Healthcare Clinic website. The top navigation bar is similar to the Pharmacy & Health page. The main content area features a "healthcare clinic" logo and a list of services including Locations & Visit Times, Schedule Appointment, About Your Visit, Our Services, Insurance & Prices, and Contact Us. A prominent banner advertises "take care clinic" with a photo of a doctor examining a patient. To the right, a list of benefits includes Walk-Ins Welcome & Appointments Available, Open 7 Days & Weeknights, Too, Most Insurance Accepted, Treatment For Patients 18 Months & Older, Board-Certified Family Nurse Practitioners, and On-Site Pharmacy. At the bottom, there are three service categories: prevention & wellness, treatment, and monitoring & management.

Experiential Healthcare: Strategic



Bring Retail Practices to Healthcare

Healthcare + Retail = Higher Profits

Network = Cardiovascular System

The Two-Step Approach

- Healthcare providers must add retail products and services to their portfolios to become (or remain) profitable
 - Tremendous profits are being missed
- Experiential Healthcare is a two-step approach to dramatically increasing healthcare provider income
 - Step 1 - "Convert idle time to revenue."
 - Step 2 - "Build it. They will come."

Expansion Challenges

1 ADDITIVE COMPLIANCE REQUIREMENTS (e.g. HIPAA + HITECH + PCI)

2 SEPARATE BILLING FOR HEALTHCARE & RETAIL

3 THE NETWORK AS A UTILITY

4 INTERNET OF THINGS & BYOD

5 POLITICS

Realistic Forward Movement

1 BUILD THE INFRASTRUCTURE (“Build It and They Will Come”)

2 OFFER ADDITIONAL SERVICES

3 CONVERT IDLE TIME TO DOLLARS

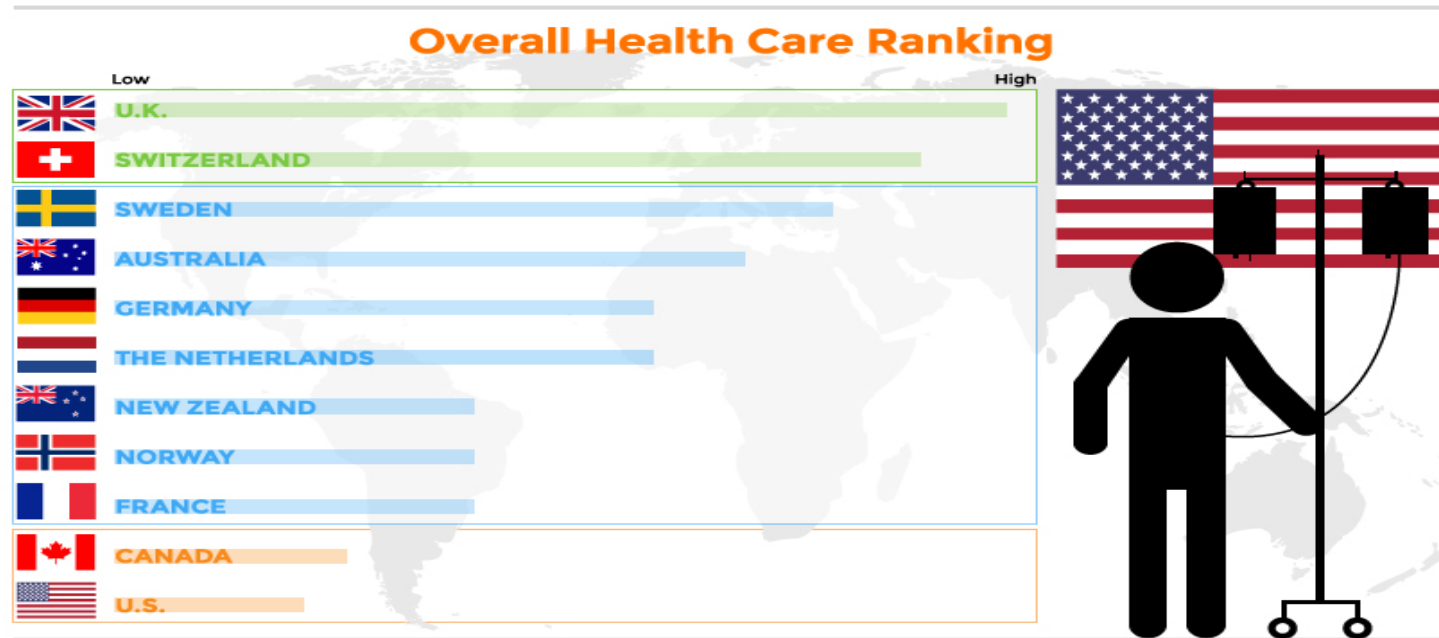
4 CAPTURE REVENUE FROM “HAVE TO BE THERE” VISITORS

5 CHANGE PERCEPTION OF HEALTHCARE, PIECEMEAL

Not Interested?

U.S. HEALTH CARE RANKS LAST AMONG WEALTHY COUNTRIES

A recent international study compared 11 nations on health care quality, access, efficiency, and equity, as well as indicators of healthy lives such as infant mortality.



Source: K. Davis, K. Stremikis, D. Squires, and C. Schoen, *Mirror, Mirror on the Wall: How the Performance of the U.S. Health Care System Compares Internationally, 2014 Update*, The Commonwealth Fund, June 2014.



Thank You!