1. Clinic

Reduced operating expenses of a 33-physician practice by

$528,000

per year.

MedProvider, CBRE,
Baylor Scott & White Health
Dallas, Texas, USA

2. Clinic

Reduced clinic visit cycle time by

33%.

Kenner Army Health Clinic
Fort Lee, Virginia, USA

3. Clinic

Decreased cost-per-patient clinic encounter by

13 %.

NexCore (a medical office building developer)
Chicago, Illinois, USA

4. Clinic

Reduced the number of clinic exam rooms required by

25% (9 rooms).

University Health System
Robert B. Green Campus Clinic
San Antonio, Texas, USA

5. Clinic

Reduced the construction cost of a

44,000 SF

clinic by

$623,000

by eliminating unnecessary space.

University Health System
Robert B. Green Campus Clinic
San Antonio, Texas, USA

6. Clinic

Increased the clinic patient throughput volume per exam room per day by

50%

without increasing staff or operating hours.

MedProvider, CBRE, Baylor
Scott & White Health
Dallas, Texas, USA

7. Clinic

Reduced clinic patient waiting time by

67%.

MedProvider, CBRE, Baylor
Scott & White Health
Dallas, Texas, USA

8. Clinic

Reduced clinic travel distance

31% for Patients,

21% for Providers, and

41% for Screeners.

Kenner Health Clinic
Fort Lee, Virginia, USA

9. Operating Theater

Eliminated a

$3M to $5M

planned expansion to accommodate 1,800 new cases by improving processes and scheduling.

Baylor Plano Regional
Medical Center
Plano, Texas, USA

10. Central Pharmacy

Reduced labor requirements by

26%.

University of Texas
Clements University Hospital
Dallas, Texas, USA

11. Ward

Reduced nurses' time spent walking to retrieve supplies by

21,900

hours per year, at a value of

$728,000.

University of Texas
Clements University Hospital
Dallas, Texas, USA

12.Operating Theater

Reduced the time surgeons had to spend walking by

75%.

University of Texas
Clements University Hospital
Dallas, Texas, USA

JACOBS®

13. Operating Theater

Reduced the cost of opening-day medical equipment requirements in a

35 OR Operating Theatre by **$8M.**

University Health System
Sky Tower
San Antonio, Texas, USA

14. Emergency Department

Reduced operating expenses by

$100,000

per year.

Yuma Regional Medical Center
Yuma, Arizona, USA

15. Elevators – Hospital Visitor

Reduced construction cost by

$3M and shortened the construction schedule by **1 month.**

University of Texas
Clements University Hospital
Dallas, Texas, USA

16. Elevators – Clinic Patient

Identified and eliminated a

50%

under-design problem for clinic elevators.

Clínica Bupa
Región Metropolitana
Santiago, Chile

17. Elevator – Office

Validated

performance of an office building elevator design under various current and future state occupancy models with various healthy heart stair usage programs.

American Greetings Corporation
Cleveland, Ohio, USA

18. Plaza - Pedestrian

Identified and eliminated a pedestrian bottleneck, improving flow by

200%,

on a 55,000 SF pedestrian plaza.

Tysons Corner Center
Tysons, Virginia, USA

19. Food Court

Reduced food preparation time by

250%, increased seat utilization by

100%.

University of Texas
Clements University Hospital
Dallas, Texas, USA

20. Materials Management

Optimized materials management performance; sited the loading dock and warehouse and

eliminated

a planned automated guided vehicle implementation based on simulation-developed ROIs.

University of Texas
Clements University Hospital
Dallas, Texas, USA

21. Company Operations Facility – US Army

Identified design issues that impacted space utilization efficiency and soldier/equipment readiness and developed solutions.

US Army
Installation Management
Command
Fort Wainwright, Alaska, USA

22. Physical Fitness Facility – US Army

Physical Fitness Facility Identified design issues that impacted soldier combat readiness and space utilization efficiency. Developed a solution to Improve access by

800% and reduce implementation timeline by **500%.**

US Army
Installation Management
Command
Fort Wainwright, Alaska, USA

23. Office

Developed a workplace design methodology incorporating multiple sensor technologies and simulation to

optimize employee-type/space-type matches

(a 5 by 15 matrix) while also achieving high spatial utilization rates.

Confidential global
energy company

JACOBS®

JACOBS CONNECTED ENTERPRISE

CONNECTED PLACES

Smart and Connected Buildings/Campuses/Districts/ Corridors/Bases/Cities, Smart Grids and Connected Utilities/Infrastructure, Pedestrian Modeling, Resiliency, Real Time Operations

GOAL

Economic growth and enhance quality of life

CONNECTED MOBILITY

Urban & Inter-Urban Mobility, Connected & Autonomous Vehicles, Mobility as a Service (MaaS), Intelligent Transportation Systems (ITS)

GOAL

Reduce congestion, increase productivity, and facilitate the movement of people and goods

CONNECTED ASSETS

Intelligent Asset Management, Predictive Maintenance, Lifecycle Extension, Workforce Optimization, Decision Science, Smart Water

GOAL

Optimize operations of assets in an efficient, safe, and effective manner (reducing OPEX)

Optimize total expenditure of existing assets in an efficient, safe, and effective manner (reducing TCO)

CONNECTED DELIVERY

Virtual & Augmented Reality, Automated Design, Common Data Environment, Additive Construction/Manufacturing, Connected Construction

GOAL

Optimize delivery with increased efficiency, reduced schedules, and improved quality and consistency

Optimize investment in new and improved assets through expenditures informed through lifecycle feedback (reducing CAPEX)

Cybersecurity | Internet of Things | Predictive Analytics | Applied Geospatial Science | Automated Design

Jacobs combines leading-edge information and operational technology with deep domain expertise and intimacy, to provide holistic solutions that help our clients make better business decisions

JACOBS

CONNECTED PLACES

Optimising how people use and move through the built environment to support inclusive growth and enhanced quality of life.

CONNECTED MOBILITY

Finding new ways to tackle the challenge of urban mobility across the transport landscape, ensuring faster and more comfortable journeys for passengers.

CONNECTED ASSETS

Maximising performance and minimising downtime of key infrastructure to meet the demands of a growing population.

CONNECTED DELIVERY

Creating a collaborative platform and working environment for better information management and sharing of rich, multi-dimensional model data through the full project lifecycle.

GET IN TOUCH:

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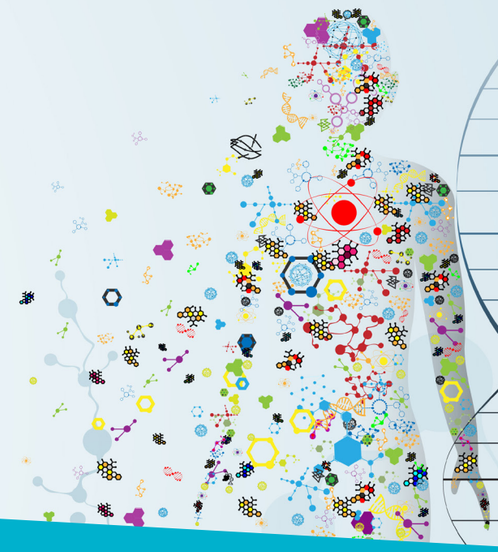
A clear perspective in global health



What if we showed you how we're solving the world's greatest challenges by transforming intangible ideas into intelligent solutions.

Populations across the globe are growing and aging, increasing the demand for new and expanded healthcare facilities and hospitals. At the same time, patient demographics, standards of care, nursing models and patient journeys are changing. More sustainable and sophisticated healthcare infrastructure, that integrates calming aesthetics, nature and daylight to create more healing and adaptable health environments and maximise patient recovery, is required.

PREDICTIVE ANALYTICS

Predictive Analytics (PA) is the process of using current and extensive objective, empirical and quantitative healthcare data to predict future need and guide project investment and design decisions. Discrete event simulation tools create a digital representation of all the work that occurs within and around a facility and are used to review and rank-order hundreds of design alternatives to maximise the entire solution space.

The simulation includes data relating to physical space, materials management and transport systems, medical equipment, IT and clinical communication technologies, staffing models, patient scheduling and arrivals protocols, and every step of every process that forms each unique patient care journey.

PA offers three key advantages:

1. The clinical and financial performance of preliminary design concept plans is assessed using the same key performance indicators that will be used to evaluate the actual built facility once it is operational.
2. The model includes both first costs and lifecycle FTE costs, helping to make intelligent trade offs between the two. Initial construction costs represent between 6.5% - 8% of lifecycle costs while staffing costs represent between 72% - 76%; optimising the latter is key to long-term healthcare cost reduction strategies.
3. PA allows us to test hundreds or thousands of high fidelity solutions rapidly, at no risk and very low cost, and without any construction or staff retraining expense.

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