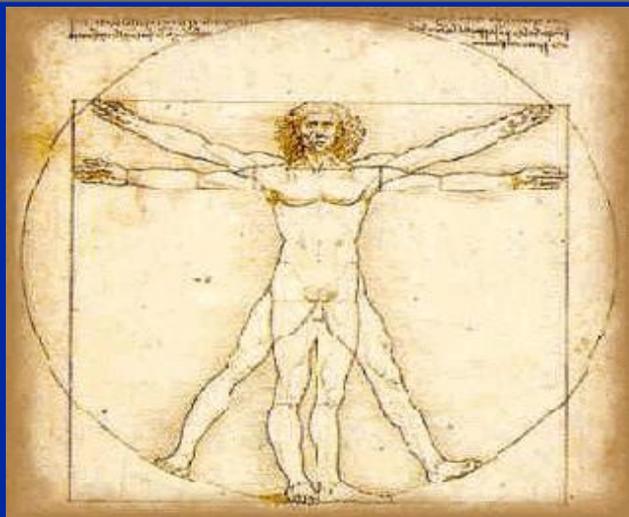


Sustainable Ergonomic Solutions for Injury/Illness Prevention



Roche Diagnostics
Don Pearson, MS, CIH
Manager Health & Safety

Objectives

- Company overview
- Review definitions for ergonomics
- Review lagging indicators
- Review our ergonomics management system process
- Return to work integration
- Review leading indicators.
- Lessons learned
- Management support
 - How to get it and sustain it



Roche Indianapolis

US Headquarters for Diagnostics Division

- Division of Hoffman La-Roche
- Facilities
 - 23 building with ~1.3 M square feet
 - ~150 acre campus
- People - ~3300 on campus, ~1,400 in field
- Revenue - 2010 revenues - >\$2 billion local, >\$47 billion global.
- Operations
 - Sales, Marketing, Field Services
 - Research and Development
 - Warehouse Operations
 - ~350K square feet
 - Manufacturing
 - blood glucose strips



High Level Lagging Indicators (2006 to 2010)

- **Production and Warehouse Areas [ergonomic injuries]**
 - Reduced by 84% (273 to 45), lost days; [97% w/ 2009 numbers]
 - Reduced by 73% (14 to 3.8), average lost work days.
 - Reduced by 99% (728 to 10), restricted days.
 - Reduced by 58% (19 to 8), ergonomic recordables.

- **Entire Operations**
 - Reduced by 31% (74 to 51), all recordables.
 - Total worker comp costs due to ergonomics declined by 93% (~477K to 35K).
 - Average claim reduced from ~20K to ~2K.
 - Be careful with work comp cost data.
 - Ensure you know what cases are still open and potential risks before citing such data as a positive.

- **Peer and Outside Recognition**
 - These help sustain your efforts with management



Company Recognition

- 2008 – Named in EHS Today as “One of America’s Safest Companies”.
- 2009 – Internal Corporate Audit – Identified our ergonomics program and how we incorporated the return to work process; as “one of the best” in the Company.
- 2010 - Recipient of Indiana’s Governors Workplace Safety Award.
- 2008-2010 – Liberty Mutual award for <50% of the OSHA DART Rate.

Our ergonomics program was the corner stone
of all these recognitions.



What is Ergonomics?



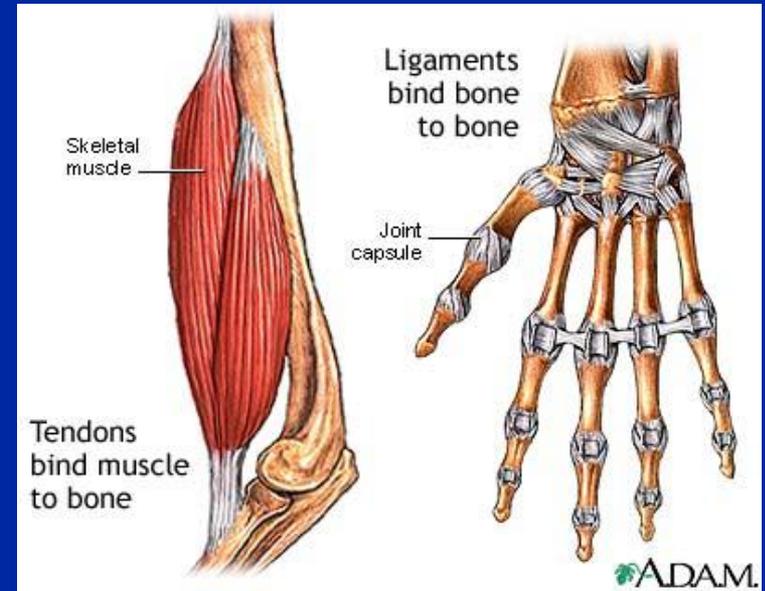
The applied science of equipment or process design, for the workplace, intended to *maximize productivity* by *reducing operator fatigue* and *discomfort*.

Also called *human engineering* or *human factors engineering*.

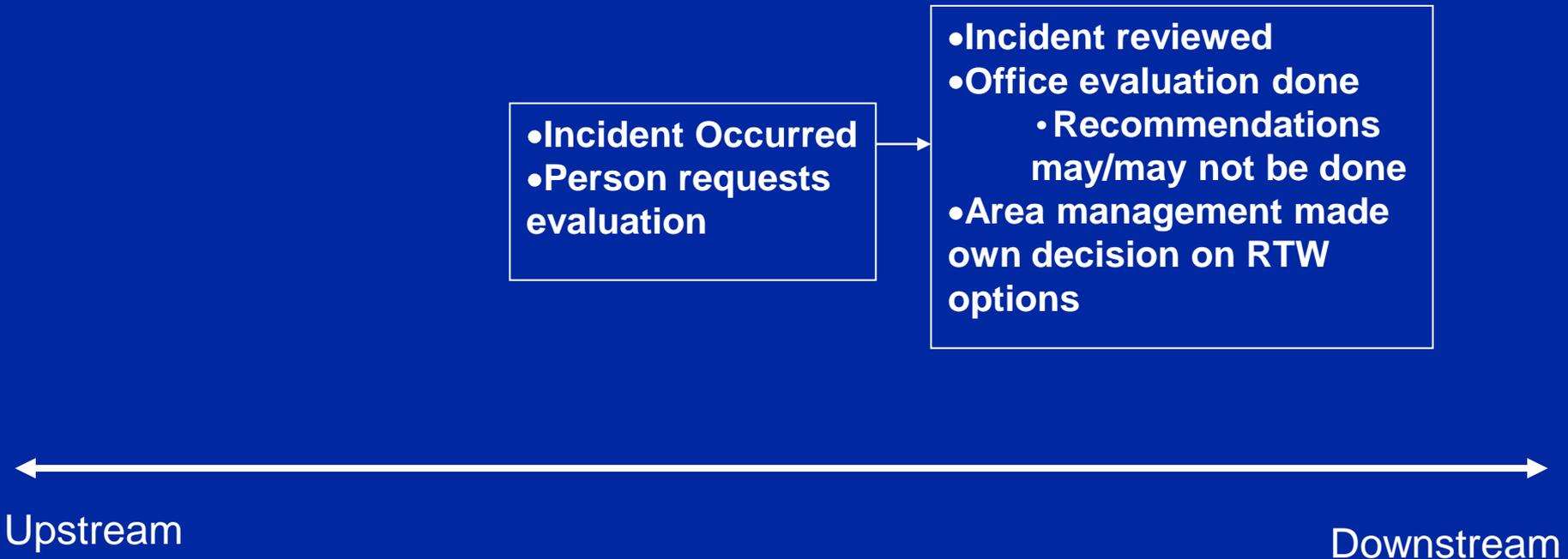


Sprain/Strain Terminology

- Injury or inflammation of soft tissue
 - **Sprain** involves one or more ligaments
 - **Strain** involves tendon or muscle
- Under US regulations sprain/strain can be
 - **Injury** (arising from sudden trauma)
 - **Illness** (arising from cumulative trauma)
- Examples
 - **Injury** – strained back muscle when lifting heavy box
 - **Illness** – tendonitis in wrist after doing computer data entry for two weeks, 6 months, etc..



Old way of Dealing with Ergonomic Injuries & Illnesses (~2003-04)



Issues with Old Way?

What is wrong with process?

- Never involved unless people were hurt or in discomfort.
- Waited until incidents occurred.

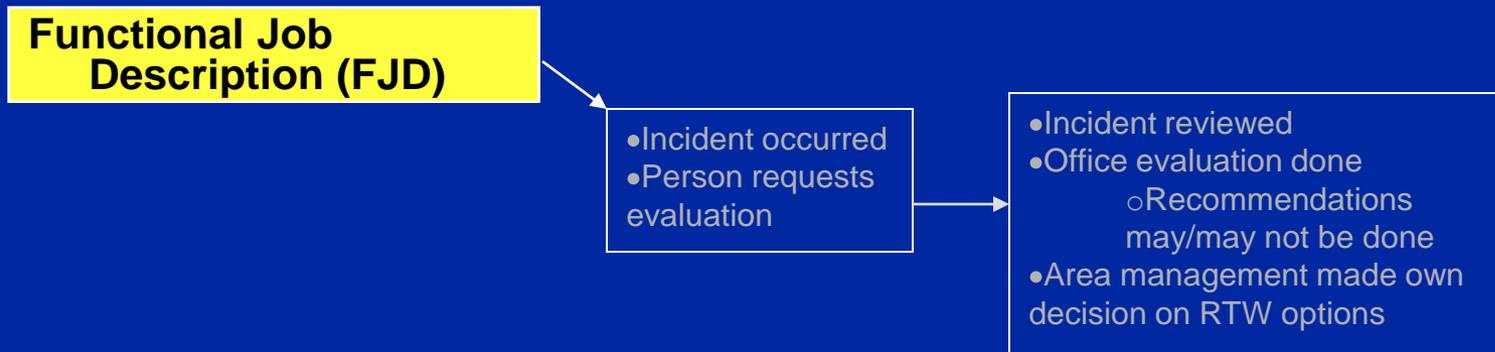
• What do we need to do?

- SUSTAINABLE practices and NOT just a reactive one
 - Can be done with proactive, methodical, and long-term involvement over all major areas of workforce. [E.g. HR, Legal, Medical, Business Leaders]
 - Set up good reactive processes to respond when incidents do occur.
 - We put our primary focus on ergonomic issues.

Why Did We Target “Ergonomic Injuries”?

- 75% of our lost work days were coming from sprain/strain type events in our warehouse and production areas.
 - When being faced with such a broad scale of operations; we had to keep our focus on the areas that would benefit the most people and could provide the largest return for our efforts (that is, hopefully less injuries and therefore reduced lost days).
 - We did not ignore any other areas of the operations; but we definitely put forth more effort towards warehouse and production operations.

Start of New Path of Dealing with Ergonomic Injuries (~2004-05)



FJD

(Functional Job Description)

- FJD clearly identifies all critical and essential physical demands of job tasks.
 - Scope was for warehouse and production operations.
- FJD answers the question, “What physical capabilities does a person need to safely perform this job?”
- FJD is then used proactively and reactively.

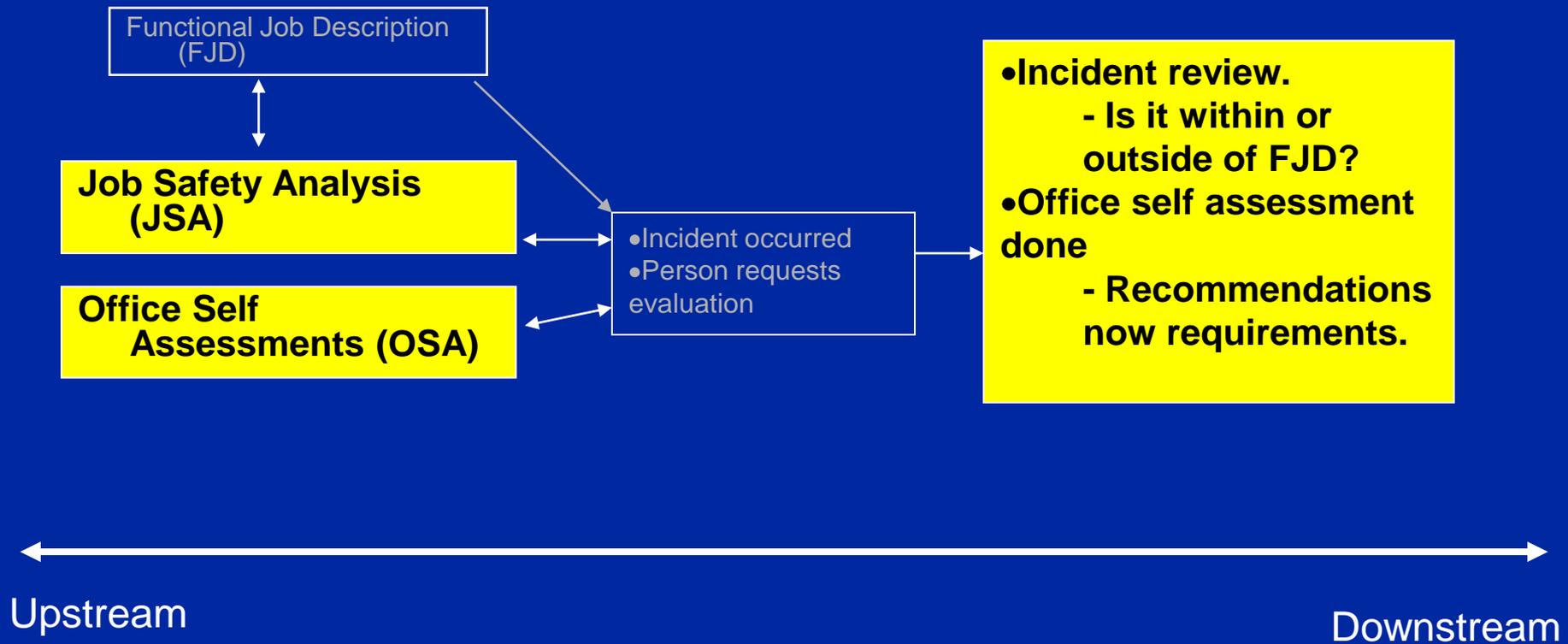
Proactive Use of FJD

- S&H Department collaborates on understanding of business operations.
- Area personnel kept involved throughout entire process.
 - During development, numerous discussions occur.
 - Draft document is then reviewed by area management with staff.
 - Area management then signs final document.
 - Area personnel then validate accuracy of document by participating in a physical test of a statistically significant sample size of work force.

Results:

- A physical test is conducted for each person in these affected areas (high risk areas of warehouse currently) as part of the hiring process.
- Reduces risk of injury from placing people in jobs which exceed their physical capacity.
- Reduces likelihood of workers' compensation fraud.
 - People cannot cheat the system.
 - Insurance reviews FJDs against claims to verify injury occurred at work.

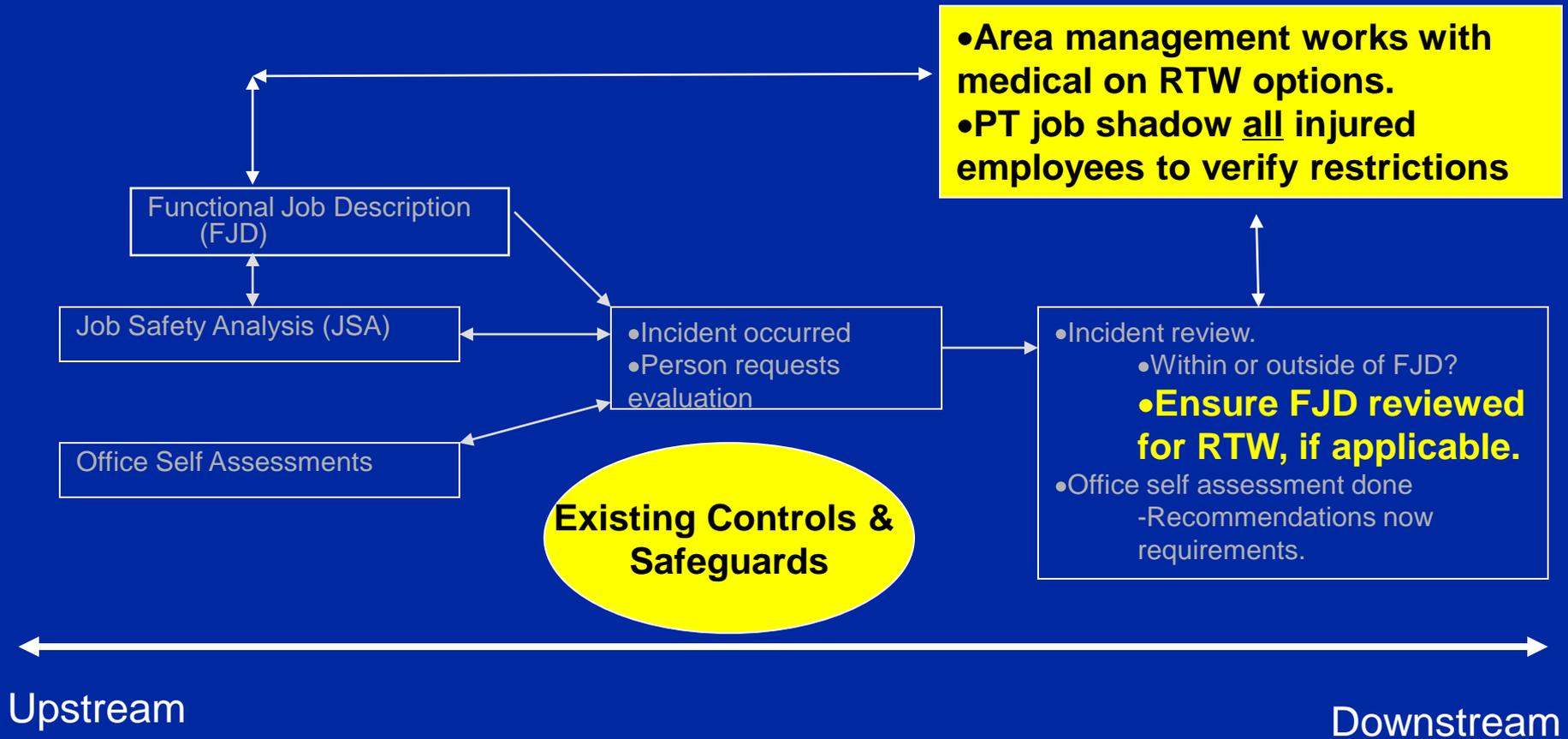
Ergonomics Management System Process (~2006)



Tools for Risk Identification/ Reduction/ Elimination (JSA & OSA)

- Job Safety Analysis (JSA)
 - Risk assessments facilitated by SHE staff and developed in concert with employees and area management.
 - Highly visible and encourages employee involvement
 - If “acceptable” risks remain, the decision to not reduce the risk or eliminate is done together through an educated and documented process for future review, if needed.
- Office Self Assessments (OSA)
 - Early identification of risk **AVOIDS** future illness/injury/surgery
 - High risk score prompts visit by ergonomist.
 - Available to all personnel in office buildings.
 - Internet based questionnaire and training.
 - Initial step before ergonomist involvement.

Ergonomics Management System Process (2007-Today)



Reactive use of FJD

- Medical staff uses FJDs to...
 - Communicate physical requirements of job to area management, treating physician, and brings in H&S to work together.
 - Quickly determines our ability to accommodate work restrictions.
 - Evaluate if alternative work areas can accommodate restrictions.
 - Physical therapist may job shadow individual to ensure restrictions are accurate from medical physician so no re-injury occurs.

Results:

- Faster RTW process
- Safer RTW (less risk of re-injury).
- Note: This increases productivity, saves money from less down time and retraining, not to mention morale tends to stay higher because people are not backfilling positions.
- In 2008 and 2009 we saved hundreds of days.

Return To Work Process Overview

- In 2008-09, one of my main objectives in this area of responsibility was to:
 - Partner with Medical to understand return-to-work injuries.
 - Better understand Roche's legal standing around return-to-work when an injury occurs and what Roche can/cannot do in relocating individuals and/or using them in a restricted capacity.
 - Integrate Medical with monthly incident reviews to stay on top of injuries resulting in loss or restricted time.
 - Ensure timely communication to safety staff upon Medical knowing of a potential loss or restricted time case.
 - Ensure Medical enforces full capabilities of returning people to work and bring me in when area management need additional re-enforcement of RTW processes are reasons for returning people under restrictions.
- Upon better understanding the legal capabilities Roche is allowed to do with work-related injuries, I coordinated with key business areas to transfer injured personnel (when work-related) to areas where tasks can still be performed by personnel under restrictions. This also pushes the business area to find work within their restrictions.

Comparison of Lost Days of Ergonomic Injuries vs. ALL Injuries within our Operations



	Warehouse (Lost Days)	Production (Lost Days)	Combined (Lost Days)	Entire Operations	Combined Total as Percent of Entire Operations
2006	181	92	273	365	75%
2007	110	57	167	696	24%
2008	3	1	4	118	3%
2009*	0	8	8	26	15%
2010	45	0	45	295	15%
2010**	45	0	45	64	70%

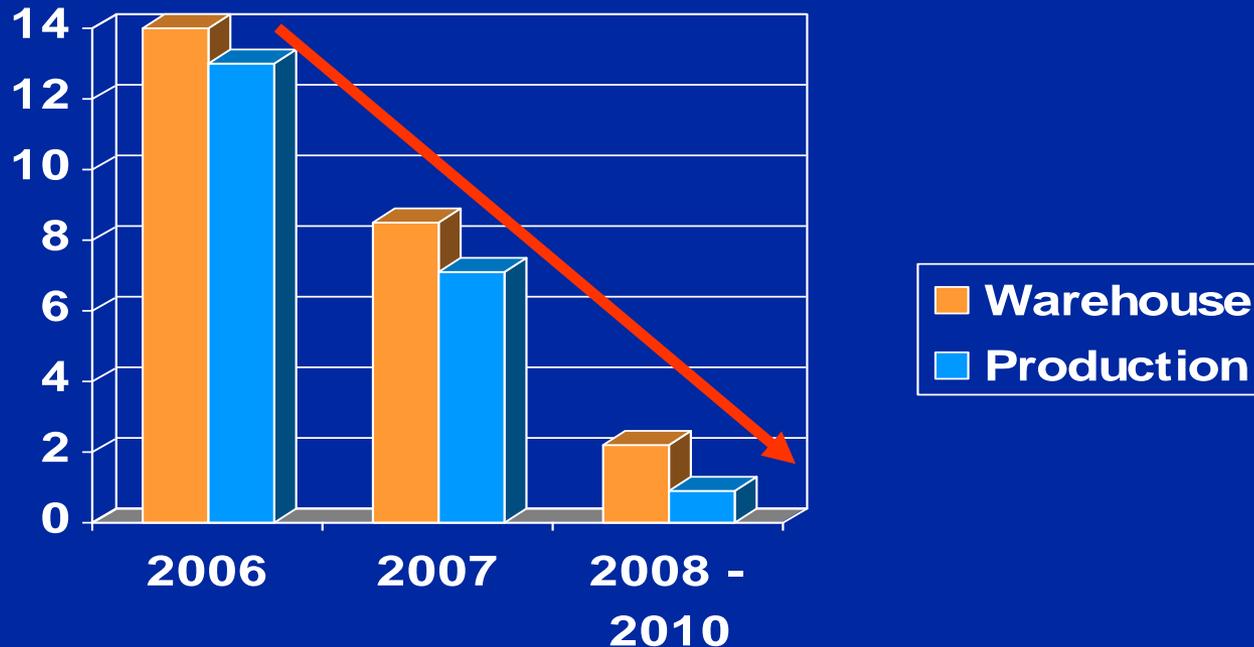
*RTW process saved up to 314 lost work days. Similar results in 2010.

**2010 Data shown without outlier information.

- Vehicle incident with 102 lost days. Fall from 9" ledge resulted in 129 lost days. These two incidents accounted for 78% of lost days in 2010.
- As an outlier, this means you don't get off on a tangent and redirect resources.

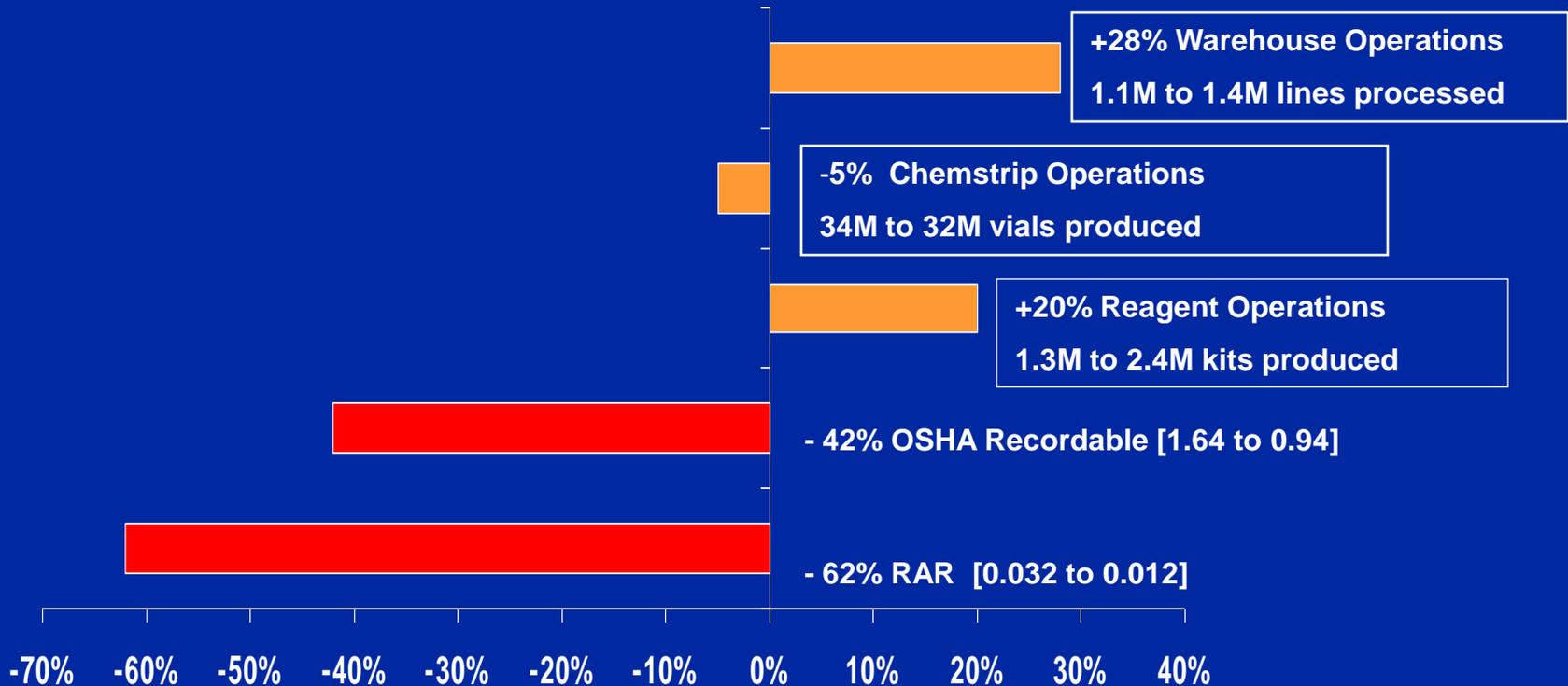
Severity Continues to Decrease*

Average Lost Days per Injury (Related only to Ergonomics)



- *As confirmed by medical staff and now with data.
- Take away – Costs saved; value added back to the business areas.
- Warehouse Sample size (n=recordables): 2006 = 12, 2007 = 13, 2008 = 7, 2009 = 4, 2010 = 4
- Production Sample size (n): 2006 = 7, 2007 = 8, 2008 = 3, 2009 = 5, 2010 = 4
 - NOTE: 2008 and 2010 - One incident resulted in a total of lost work days. These incidents accounted for all lost work days in the respective years. Combined the data in these three years for statistical comparison.

Operational Productivity Changes vs. Key Lagging Indicator Changes 2005-2009



Lesson Learned on Data Collection

- Ergonomic Injury...How do you define it?
 - Material Handling, Push/Pull, Cumulative Trauma, etc..
 - If you keep it all separate, you diminish your issue.
 - Solution...All grouped to one category... Ergonomic Injury.
- Organize major buckets that make sense.
 - E.g. of old system...
 - Was by building and co-mingled office, production, warehouse.
 - Problem... couldn't tell what major part of the organization injury occurred from.
 - Solution...Newly created categories...Office, Warehouse, Production, Field, Lab.

Lesson Learned on Data Collection...

Continued

- Vehicle incidents and slip/trip/fall incidents can show as sprain/strain just like an ergonomic injury.
 - Solution...with new ergonomic injury category, this is determined during the data collection process.
- Verify accuracy of data coming from other sources.
 - Understand their processes for data collection & reporting.

Results – Example Leading Indicators



- Completed FJDs (~60) and JSAs (risk assessments).
 - production and warehouse
- Percent of risks reduced or eliminated (Set target %)
 - Developed through 2008 from JSAs.
 - Will develop new goals this year
- People who failed or pulled out of hiring process
 - 15 of 102 (15%) [Data for first 3 years only]
 - 9 people failed; 6 decided not to try
- Voluntary office assessments
 - 490 (2006 to 2008 data)
 - 37% (91) reported extreme discomfort & verified by a licensed ergonomist as at risk.
- Use of Physical Therapist in Return To Work

Completed

Completed

Implemented

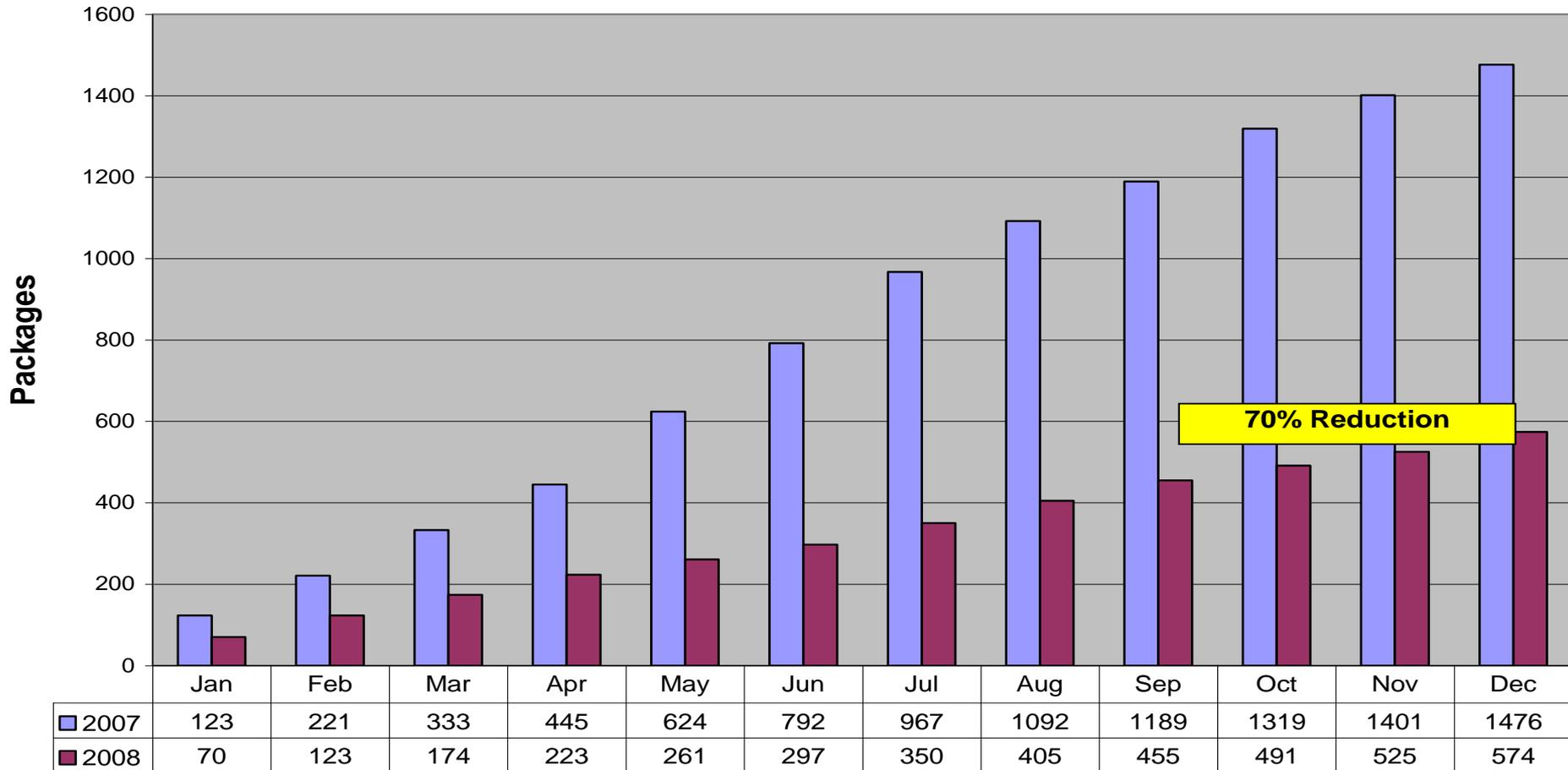
Implemented

Implemented

Warehouse Leading Indicator



**Packages Prepared for Shipment \geq 50 pounds
2007 vs. 2008**



Getting Management Buy-in & Sustaining Their Engagement

- How did we get it?
 - Stars were aligned, but we were prepared for the opportunity.
 - 2005 – Corporate - reduce accidents globally by 20% by 2010.
 - Would never happen without focus on ergonomic injuries.
- Align site and area operational goals to corporate and site goals
 - Tie in any corporate goals to your site goals.
 - Develop metrics or requirements of corporate goals and/or site goals to area management annual goals.
 - If you have area teams, develop goals for them that are aligned.

Management Buy-in

Example – Align Global Goal down to Team Goals

- Corporate
 - Reduce accidents by 20% over five years (2005-2010)
- Local Site Action Plan
 - 2006 – 100% completion of FJDs and JSAs for all production and warehouse areas
 - 2007 – 100% implementation and/or development of action plans to reduce or eliminate unacceptable risks.
 - 2008 – Implement post-offer testing across all warehouse and production operations.
- Local Operational Areas and/or SHE (Safety, Health, & Environmental) Teams
 - Develop goals for teams in part, to identify hazards within their operational areas. [E.g. identify and mitigate most prevalent hazard.]
 - This gives local management focus and keeps them aligned with corporate and site goals.



Scorecard

SHE Team
Alignment

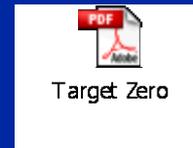
Management Buy-in

You Need the Culture and Focused Message

- Focus

- Target Zero Concept

- Source – Lockheed Martin



- Followed their principles of focus and integrating safety.

- Example...Reduce total lost work days due to ergonomic injuries within operational areas of warehousing and production; to zero.

- Detailed review of any incident related to ergonomic injury.

- We modified the concept further.

- What is your most hazardous issue in your areas and focus your attention to reduce the occurrences.

Getting Management Buy-in & Sustaining Program over the Years

- Recognition from outside entities helps keep momentum.
- Keep up with the changing management environment and tie in leadership slogans and management systems.
 - Over past 8 years
 - 5 site leaders, 3 new direct report VPs, 2 new direct bosses; and changed reporting structure four times.
 - Keep up with the company slogans and align.

Management Buy-in

Example, Alignment of Ergonomics Program to Site Leadership Five Business Values

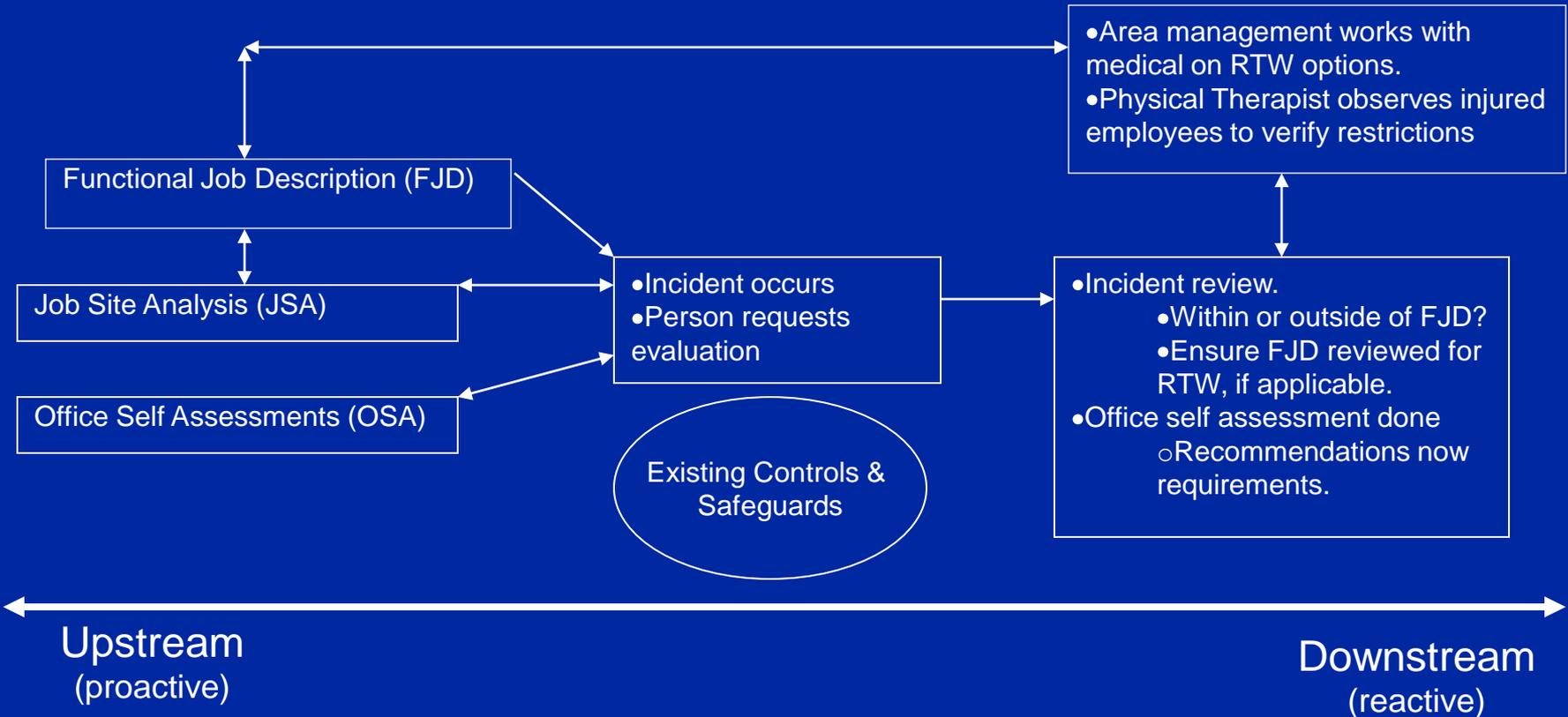
- Compliance
 - No regulation is telling us to focus on ergonomics.
 - Program is leading edge and is beyond compliance.

- Transparency
 - Open with employees and business areas at all levels on process.
 - HR (staffing and generalists), Operations (Director Level-down), and Medical Staff
 - Align corporate goals, site goals, and business area objectives.

Management Buy-in Alignment of Ergonomics Program to Five Business Values

- Leadership & Teamwork
 - Proactive, don't except status quo, we challenge.
 - Provides direction and vision to area management.
- Process Excellence
 - Think out of the box, we have a continual process for evaluation & improvement.
 - Measurable leading and lagging indicators to help make decisions.
- Service Provider
 - Partner with business processes to integrate long-term, sustainable solutions.
 - Reduced injuries translates to a healthier, more productive, and efficient work force.
 - Bottom line, we provide business added value.

Ergonomics Management Process



Text version of previous slide

How have we reduced injuries and severity of injuries?

- Focused on leading cause of lost and restricted time.
 - Ergonomics or sprains/strains
 - Both cumulative trauma and one time events were our focus.
- Documented physical requirements for all production and warehouse operations.
 - “New hire” candidates must pass physicals for highest risk operations.
- Completed risk assessments for all production and warehouse operations.
- Incorporated medical staff with return-to-work process.
 - Direct job rotation of injured personnel vs. lost days.
 - Implemented use of a physical therapist to prevent re-injury.
- Internet self-assessment tool for office personnel.
 - access to a licensed ergonomist if needed.
- Continually assess risk reduction measures with changes in work environments.

Lessons Learned



- If possible, do the JSAs at the same time or just prior to completing your FJDs.
- Understand what metrics you will use to measure performance.
 - Set up your data collection to match what you will need.
 - Reduces manual review later.
 - Make sure you group your ergonomic injuries together.
 - Ensure good understanding of statistics.
- Vigorously challenge your own data.
 - Look for ways that your data is not favorable and understand it.
 - If you don't, your management or others will.

Lessons Learned



- Involve employees with development of your program.
- Integrating RTW is extremely important.
 - Find out who is handling your medical claims and become their friend.
 - Need to have FJDs of operations before this is truly beneficial.
 - Use Physical Therapists to help avoid re-injury during RTW.
- Don't Underestimate need for outside recognition
 - Find ways to get awards and peer recognition.
- Focus area management annually on simple targeted tasks that align directly with site and/or corporate goals.

Next Steps 2011 & Beyond



- Warehouse areas
 - Updating ALL JSAs in warehouse operations
 - Renovation occurred, follow same process as we did before.
 - Update ALL FJDs once risks are reduced/eliminated.
 - Integrating post-offer testing for all warehouse operations.
- Office self assessment tool – discussing making it mandatory
 - For new hires and when people move locations.
- Field employees
 - Just completed risk assessment for field services.
 - Getting involved in sales and marketing.



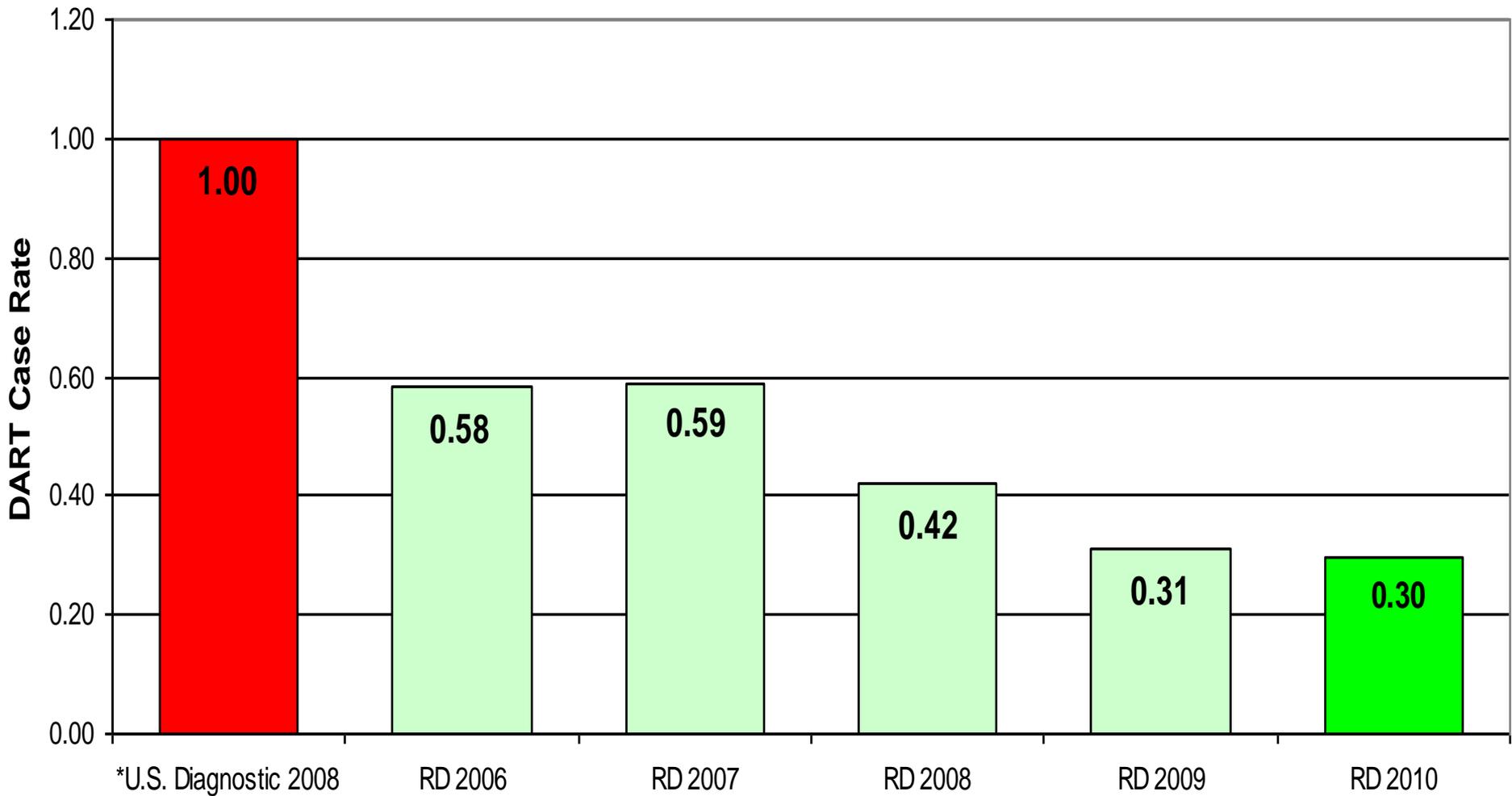
Questions??

- Contact Info if Questions Later
 - donald.pearson@roche.com
 - 317-521-7425

Extra Slides

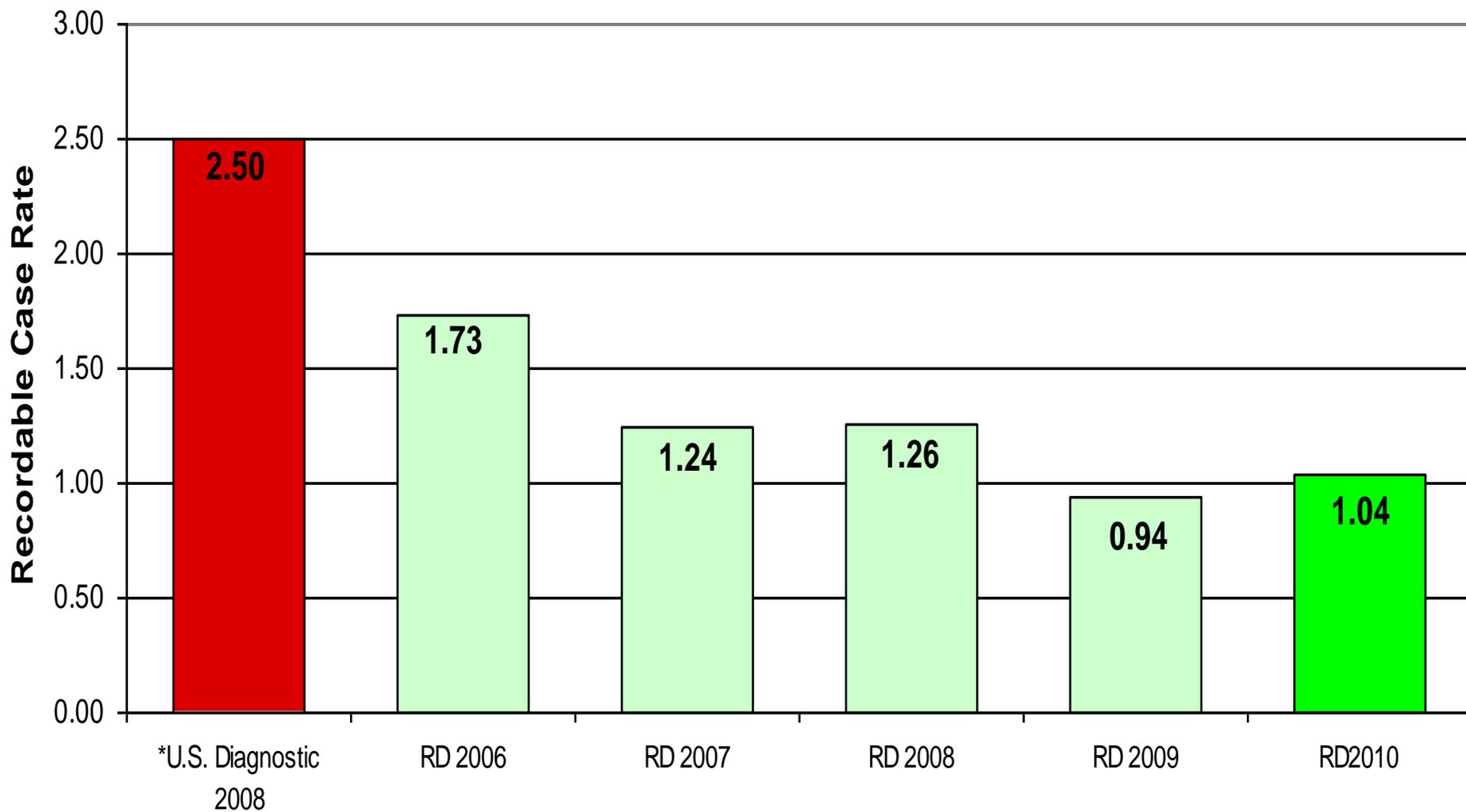


Indianapolis Campus Days Away, Restricted Duty or Transferred Workers (DART) Incident Rate
Comparison
(per 100 Full Time Employees)



* U.S. Diagnostics 2010 is the BLS calculated rate for the Invitro Diagnostic Substance Manufacturing industries in 2008, NAICS code 325413.

Indianapolis Campus Rates of Recordable Injury and Illness Cases (per 100 Full Time Employees)



*U.S. Diagnostics 2010 is the BLS calculated rate for the Invitro Diagnostic Substance Manufacturing Industries in 2008, NAICS code 325413.