

Hospital Solutions

Distributor Role to Mitigate Costs & Complexity while Improve Patient Care in Hospitals Supply Chain Management

20th August 2015

Introduction and Context | VIEW FROM A DISTRIBUTOR



The healthcare industry is evolving; key trends include more complex product portfolios, growing demand in particular in **emerging markets**, and **increased regulatory scrutiny**



This, together with pressures to **reduce healthcare system costs** while improving patient care, has created challenges for existing Hospital supply chain and patient management models



Hospitals need to move towards more efficient & effective models that must result in better healthcare outcomes, but progress has been slow due to **complexity of task and barriers to change**



ZP has leading capabilities in supply chain management and patient care, and we believe we can support hospitals in the transformation process by offering targeted hospital solutions that will improve efficiency & lower costs



This document outlines services that Zuellig Pharma can provide to support hospitals mitigate increasing expenses & complexity and to improve patient care



Agenda

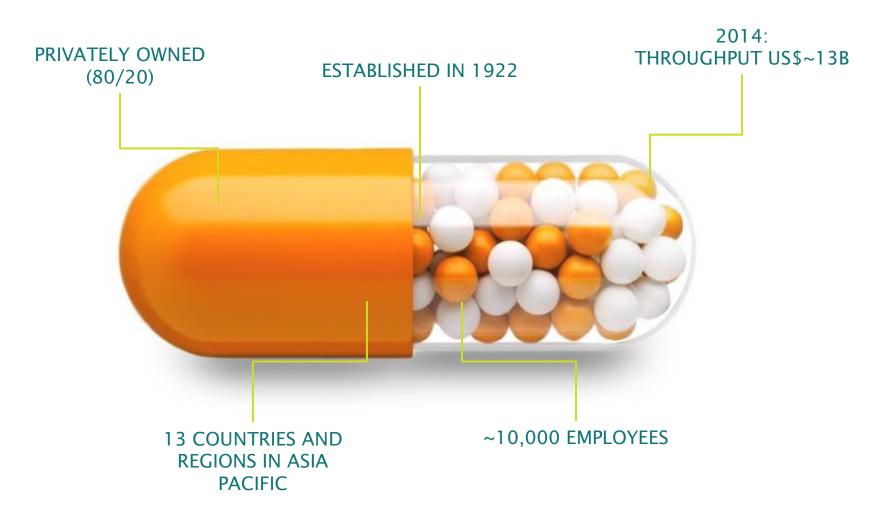
1) Introduction

- 2) Supply Chain Market Challenges
- 3) Solutions and Benefits
- 4) Conclusion



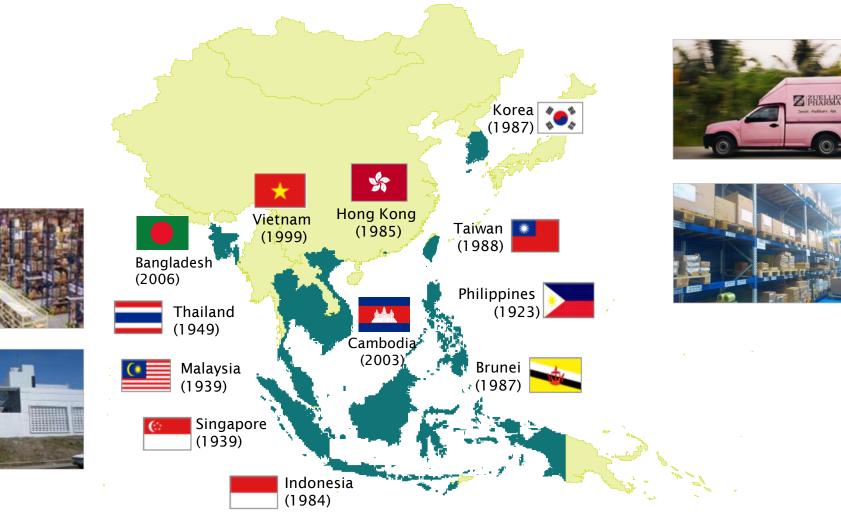
INTRODUCTION | ZUELLIG PHARMA OVERVIEW

Zuellig Pharma is Asia Pacific's leading healthcare solutions provider for healthcare products



INTRODUCTION | OUR HISTORY AND COVERAGE

We have unparalleled heritage, experience, and coverage in Asia Pacific market

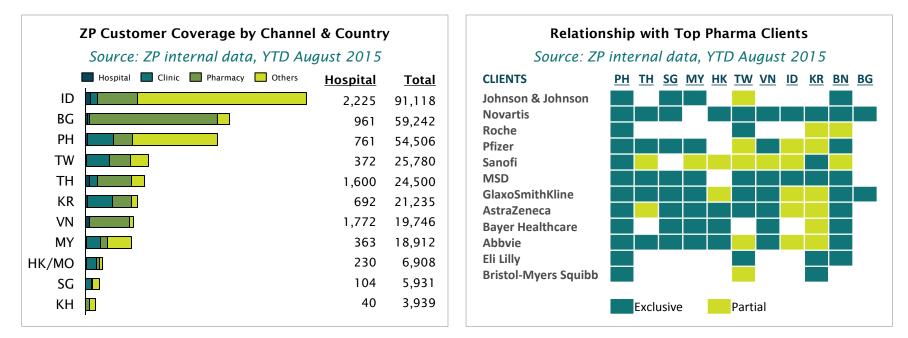


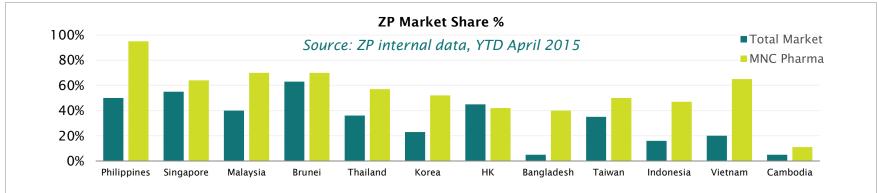




INTRODUCTION | STRONG PERFORMANCE. LASTING RELATIONSHIPS.

With our strong heritage, broader coverage, and lasting relationships, ZP has delivered consistent growth across a range of categories, enjoying a leadership position in the majority of our markets



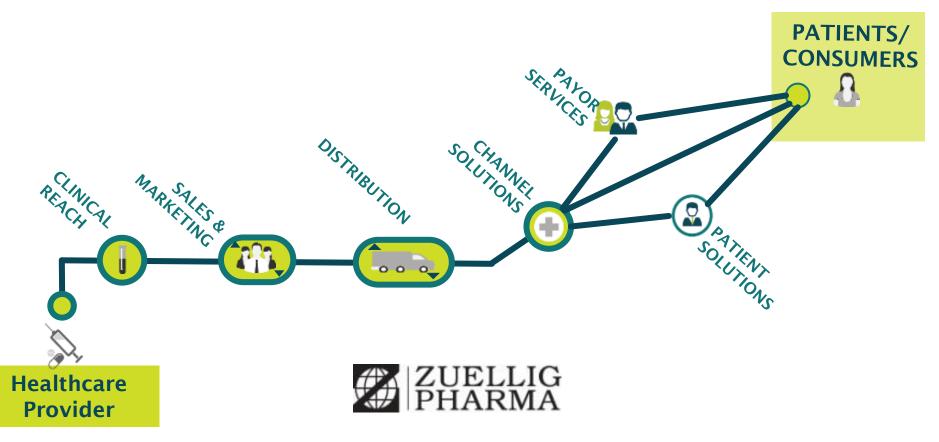




© Zuellig Pharma. All Rights Reserved.

INTRODUCTION | SERVICES WE ARE PROVIDING

Our mission is to be the preferred healthcare partner, creating value for healthcare stakeholders by connecting Clients to Patients & Consumers



- Longstanding commitment to Principals
- Track record of collaboration and customized business models to suit market needs
- b Largest regional footprint in Asia
- υ Financial strength and stability
- Trusted Partner: compliance, QA



Our Platform

INTRODUCTION | 2014 ZPAP CERTIFICATION

Our extensive & certified logistics & delivery network ensure timely, efficient movement and storage goods throughout the region

Country/ Operations	GSDP	GMP for Secondary Repackaging	GCP for Storage & Distribution of Clinical Trial Materials	GDPMDD
Bangladesh	Yes	N/A	Yes	N/A
Hong Kong	Yes	Yes	Yes	Yes
Indonesia	Yes	N/A	Yes	N/A
Korea	Yes	Yes	Yes	Yes
Malaysia	Yes	Yes	Yes	Yes
Philippines	Yes	Yes	Yes	Yes
Singapore	Yes	Yes	Yes	Yes
Taiwan	Yes	Yes	Yes	Yes
Thailand	Yes	Yes	Yes	Yes
Vietnam	Yes	Yes	Yes	Yes

ZPAP internal certification audits by BSi are managed by ZP RQA. There is a regional contract between ZPAP and BSi.

 \checkmark

 ISO audits are managed by local country QA's.

 Zuellig Singapore and Taiwan are also certified to ISO 13485:2012.



Agenda

- 1) Introduction
- 2) Market Trends
- 3) Solutions and Benefits
- 4) Conclusion



CHALLENGES HOSPITALS FACING

Studies shows that increasing external pressure & internal demand requires transforming to new Hospital Supply Chain model

EXTERNAL PRESSURE



- More complex pharmaceutical & medical device product portfolio as companies are expanding product portfolios to meet rapidly changing markets
- E.g. # of SKUs/ packaging line has increased by more than 50% over the last 5 years



- **More global trade** driven by growth of global pharma market
- In the last decade, global trade in medical devices & pharmaceuticals has grown more than four times faster than commerce overall



Rising quality & compliance requirements driven by increased regulatory scrutiny and more complex products

INTERNAL DEMAND

- Cut costs in supply chain by reducing inventory level, obsolescence, & lead time
 - Pharmaceutical and medical device supply chain lag in performance behind other industries (e.g. FMCG)

	Pharma	Device	FMCG
Inventory (Days)	258	153	72
Obsolescence (% of sales)	3.1	2.8	0.5

- Improve healthcare access via
 - Reducing drug and device shortage
 - Delivering affordable healthcare to more population
- Provide better patient safety
 - Making it **harder for counterfeit products**, which could reach 5% of the market by 2016, to enter the supply chain
 - Reducing human and financial toll of medication errors, which occur for roughly 10-20% of all inpatient hospital admissions

Current hospital supply chain model might not be able to meet future challenges; Development of new capabilities & new ways of managing supply chain in needed

Source: 'Building New Strengths in the Healthcare Supply Chain', McKinsey & Company



CHALLENGES HOSPITALS FACING | CUSTOMER VOICES

During our interviews, Hospital healthcare professions also expressed their increasing demand of new Hospital supply chain management model

DEMAND FROM HOSPITAL PURCHASING TEAM

Product Visibility

- 'It is very important for procurement team to have real-time visibility of the products. This will help to reduce product expiry issue and shortage issues as well'
- Inventory Management
 - 'Most of our suppliers do not maintain inventory of some high-cost devices and the hospital has to wait for the product to be delivered before scheduling the surgery, which can be a big issue for urgent cases'
- Forecasting & Planning
 - 'Hospitals don't operate like McDonald's, which can forecast that it will sell 1 billion hamburgers this year, then purchase the drugs'

u Sourcing of new innovative drugs

- 'ZP has access to research based manufacturers we sometimes don't and you could help us get access to products that are not yet available commercially'

DEMAND FROM HOSPITAL SURGEON

- On-time and Immediate Delivery
 - 'Sometimes if we have urgent surgical need, we need to wait for the suppliers to deliver the products, which is a waste of time', Orthopaedic surgeon of Hospital B
- **Up-to date product & clinical knowledge** from the suppliers
 - 'Surgeon usually kick-starts the process for product procurement. Thus its important for surgeon to get up-to date product & clinical knowledge, i.e. from suppliers', Cardiovascular surgeon of Hospital D



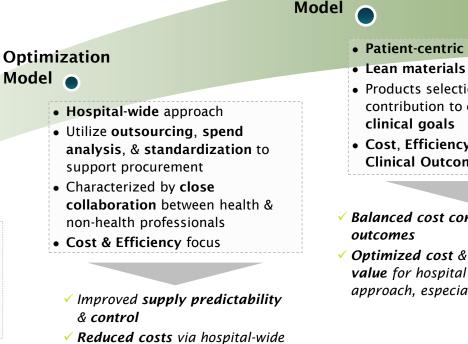


TRENDS | EVOLVING NEW MODELS

Globally, Hospital supply chains management is moving from foundation model to transformation model

Foundation Model

- Departmental approach
- Supply chain as **pipeline for** products & services
- Limited focus on efficiency & productivity
- Operations focus
- Ensure supplies are in stock
- Minimalistic Supply Chain Management
- Few synergies across hospital



• Patient-centric approach

Transformation

- Lean materials management
- Products selection based on contribution to **organizational** &
- Cost, Efficiency, & Quality Clinical Outcomes focus
- Balanced cost control with patient
- Optimized cost & realized overall *value* for hospital via collaborative approach, especially with clinicians

Source: 'The Transformative Hospital Supply Chain Balancing Costs with Quality', Strategy & Company

Model

Connect. Healthcare. Asia.

synergies & economics of scale



Agenda

- 1) Introduction
- 2) Market Challenges
- 3) Solutions and Benefits
- 4) Conclusion



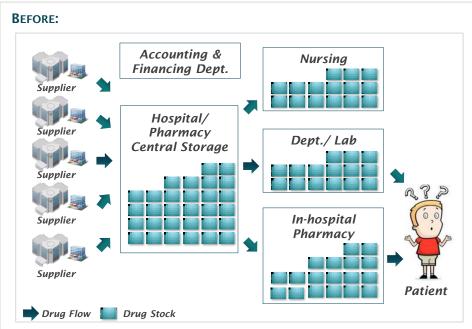
SOLUTIONS | OUR INTEGRATED SERVICE PORTFOLIO

We aim to become a broad based strategic healthcare partner - creating more value by connecting Clients to Patients/Consumers, HCP's & Customers in both traditional & innovative new ways

14

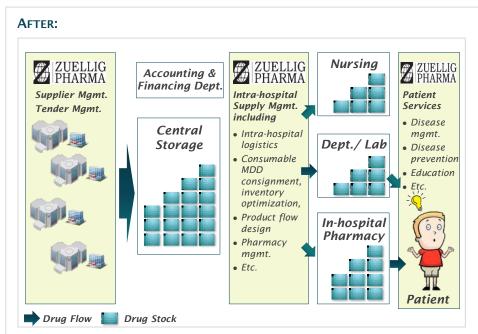
HOSPITAL SOLUTIONS | OVERALL VALUE PROPOSITION

ZP has the capabilities and expertise to drive efficiencies, cost savings, and better treatment outcomes for Hospital customers



KEY FEATURES

- Low efficiency because of the complicity of in-hospital logistics
- **High cost** due to high inventory level, high inventory management cost, and long lead time
- Low visibility on inventory level, resulting in
 - High risk in obsolesce and counterfeit products
 - Hard to plan and forecast demand
- Lack of patient management programs to educate patients, ensure adherence, track efficacy, and thus improve treatment results



KEY FEATURES

- Improved efficiency via better drug & medical device logistics system design and management
- Reduced costs through
 - Right sized inventory with better forecasting, more inventory visibility, and shortened lead time
 - Lower inventory management and logistics management costs with centralized and streamlined services
 - Less product expiry issues due to better forecasting and management important for many drugs and vaccines
- Improved patient satisfaction & outcomes with patient services

15

HOSPITAL SOLUTIONS | OUR SERVICES TODAY AND TOMORROW

We have prioritised our short, medium and long term focus areas based on service complexity and value to our Hospital customers

Zuellig Pharma Hospital Solutions Service Map

Key Highlights

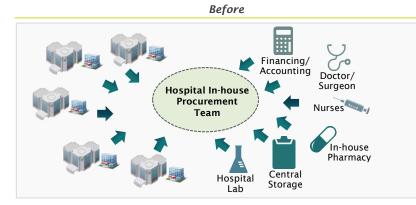


VALUE ADDED SERVICE 1 | Tender Management/Order Consolidation

VALUE PROPOSITION: OUTSOURCE ADMINISTRATIVE TENDER MANAGEMENT AND ORDER CONSOLIDATION WORK

- All: Simplify tender management process among hospitals, healthcare manufacturers and other stakeholders
- **Customers**: Improve efficiency and effectiveness of supply chain management without additional cost Release time and resources for more strategic supply chain management activities
- **Clients:** Easier tender management process via personalized services from 3rd party

HOW IT WORKS:

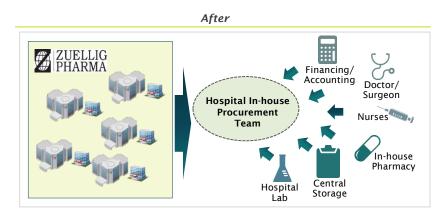


KEY FEATURES

- Hospital in-house procurement team manages every details of tender process from internal requirement to suppliers arrangements
- Hospital in-house procurement team is responsible for order processing, both regular orders and urgent orders

POTENTIAL ISSUES

- Procurement team spends huge among of time and resources managing administrative activities
- Limited time/ resources to develop and implement strategies for supply chain management and upgrade supply chain model



KEY FEATURES

- Hospital outsource administrative work, e.g. suppliers communication, information consolidation & documentation, etc.
- Hospital have the 3rd party to collect order requirements, optimize various orders, and manage delivery

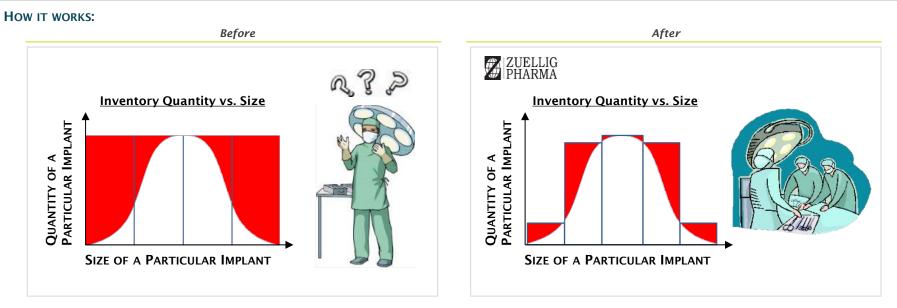
POTENTIAL BENEFITS

- Reduced resources for procurement team to manage non-core logistics & supply chain management
- Central point of contact, improving communication
- Higher efficiency and effectiveness in order delivery via consolidated order management

VALUE ADDED SERVICE 2 | Long term and Short term Consignment

VALUE PROPOSITION: CONSIGN CLINICAL PRODUCTS WITHOUT THE NEED FOR HOSPITALS TO PURCHASE EVERY ITEM RIGHT AWAY

- All: Reducing the possibility of product/ medical device shortage
- Customers: Increasing choices over products and medical devices without increasing expense right away Redeploying healthcare resources to clinical operations instead of logistics or inventory
- Clients: Improving product/ medical device visibilities and potentially increase product/ medical device sales



KEY FEATURES

- Hospitals only purchase & store high usage product/ medical devices, but with all sizes and shapes
- Hospitals face increasing cost reduction pressure to reduce the expense spend on inventory
- Surgeons easy to face product / medical device shortage, especially for rare disease/ operations

KEY FEATURES

- Hospitals minimize under-utilized inventory with data insights & LT & ST consignment
- More product varieties; less shortage issues
- Less inventory costs as hospitals don't have to pay for the product/ medical devices before consumption



VALUE ADDED SERVICE 2 | Long term and Short term Consignment

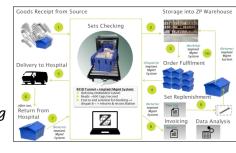
Our ad-hoc solutions and technologies are our key competence

BOOKING MANAGEMENT

- Surgical Preference bookings
- Management of all up and coming and historical booking and order creation
- Short Term Booking / Loan kit bookings
- Intra Hospital / Top up bookings

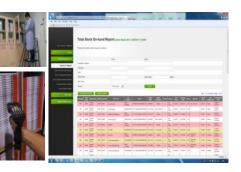
RFID: CABINETS AND TUNNEL

- Loan Set Management
- Streamlining procurement & replenishment workflow
- Tracking of instruments at picking and on return
- Increased Picking & Return Accuracy



HOSPITAL CONSIGNMENT MANAGEMENT

- On site stock take at the hospital (Information flow) done by using Barcode Scanner
- Inventory control
- Shorts and long-term consignment
- Can not be left to the principal decisions



PLANNING AND SOURCING

- Forecasting / Medium term planning
- Planning of routes
- Real-time positioning
- Delivery/Pick up notification systems







VALUE ADDED SERVICE 3 | Intra Hospital Logistics

VALUE PROPOSITION: OUTSOURCE TEDIOUS INTRA HOSPITAL LOGISTICS TO EXPERIENCED THIRD PARTY

- All: Ensure high quality assurance of intra-hospital logistics, reducing potentials of damage or expiration
- Customers: Potentially decreasing lead times, reducing inventory, and improving healthcare results with 'lean' logistics Redeploying healthcare workers to clinical operations instead of managing supply chain
- Clients: Improved visibility / data on product usage & quality

HOW IT WORKS: **Before** After HSP HSP warehouse warehouse Central Control & Planning Process ZUELLIG PHARMA Principal HSP HSP warehouse warehouse HSP HSP warehouse warehouse Product Flow Product Flow

KEY FEATURES

- Healthcare workers manages supply chain, e.g. inbound logistics, inventory management, and outbound logistics
- Most of the healthcare workers lack professional experiences in supply chain management
- Logistics management usually are not 'lean'

KEY FEATURES

- *Reduce stock at the hospital by transferring inventory to a central warehouse that services all hospitals*
- *Re-allocate hospital warehouse space to wards, operating theatres and other revenue generating operations*
- Monitor/forecast supply chain activities

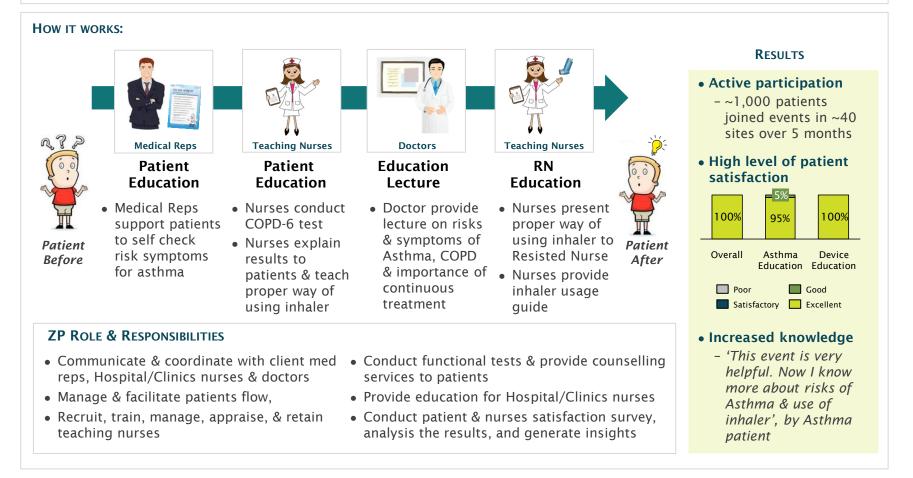
20



VALUE ADDED SERVICE 5 | Hospital Patient Services

EXPECTED BENEFITS:

- Enhance patient disease awareness through medical/ disease lecture presented by physicians & ZP outreach nurses
- Increase device usage & effectiveness via education on use of inhaler
- Improve patient compliance adherence via proper designed intervention
- Deepen & broaden engagement between manufacturer and Hospitals/Clinics, leveraging patient centric services



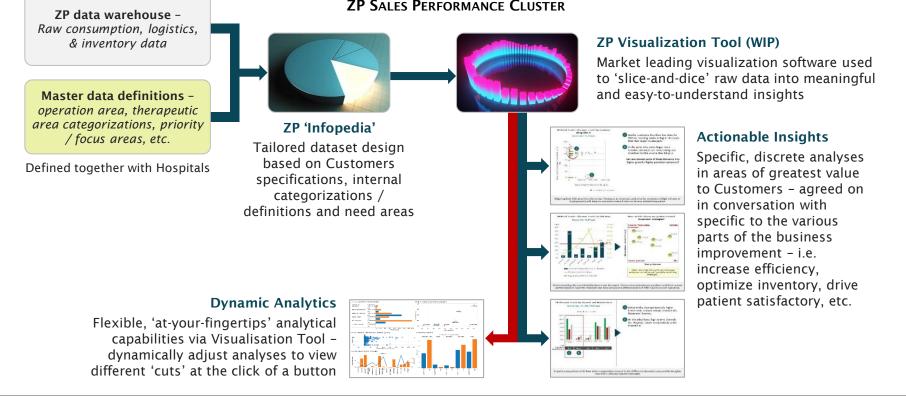
22

VALUE ADDED SERVICE 6 | Data Analytics & Insights

KEY DIFFERENTIATORS

- Broad and deep experience in data management and analysis
- Deep-dive insights tailored to specific needs of Customers
- A focused on findings that can be actionable ... the "So-What?"
- Dynamic 360 degree perspective of different areas of performance

How IT WORKS:



ZP SALES PERFORMANCE CLUSTER

© Zuellig Pharma. All Rights Reserved.





Agenda

- 1) Introduction
- 2) Market Challenges
- 3) Solutions and Benefits
- 4) Conclusion



HOSPITAL SOLUTIONS | INITIAL SERVICE OFFERINGS DETAILS



HOSPITAL SOLUTIONS | OUR SERVICE PORTFOLIO



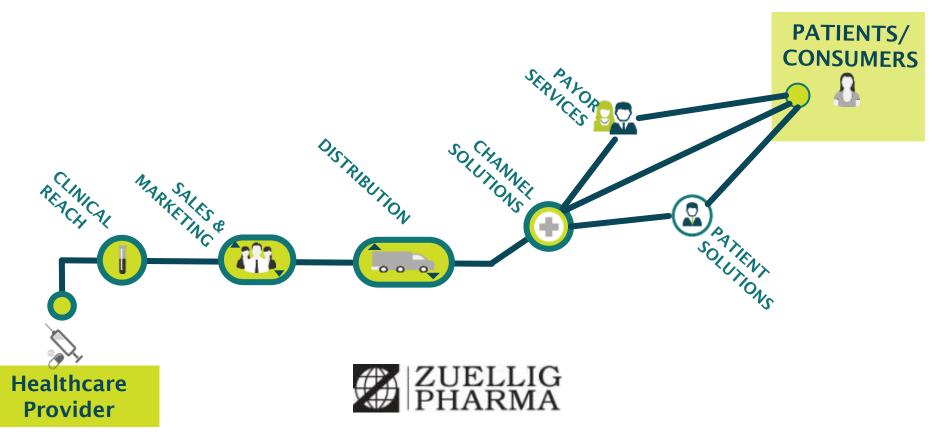
CONCLUSION | SERVICE DIFFERENTIATORS

Core value of our solutions and services is to drive efficiencies, which brings a clear service differentiator to all stakeholders



CONCLUSION | SERVICES WE ARE PROVIDING

Our mission is to be the preferred healthcare partner, creating value for healthcare stakeholders by connecting Clients to Patients & Consumers



- Longstanding commitment to Principals
- Track record of collaboration and customized business models to suit market needs
- Largest regional footprint in Asia
- υ Financial strength and stability
- Trusted Partner: compliance, QA



Our Platform

