SUPPLIER SUMMIT

USAID Global Health Supply Chain Program Supplier Summit February 21-23, 2017



USAID Global Health Supply Chain Program

IMPLEMENTATION OF GSI GLOBAL STANDARDS FOR PRODUCT IDENTIFICATION







AGENDA

- Introduction and Overview
- Panel Discussion
- Mandate and Implementation Strategy
- Ongoing Activities
- Recommendations and Resources
- Q&A





INTRODUCTION





THE CHALLENGE

- Poor data visibility because items and products are identified in nonstandard ways
 - Proprietary identification numbers that are reassigned at various points in the supply chain
 - Identification inconsistent across procurement agencies and supply chain stakeholders through to the end user
- Lack of standardization in processes and operations because of inconsistent packaging labels
 - Multiple barcodes
 - Different types of barcodes
 - No barcodes

... WHICH RESULTS IN RISK TO SUPPLY CHAIN SECURITY



WHAT IS GHSC TRYING TO ACHIEVE?

Vision

To enable identification of every item procured at every point in the supply chain, through administration to the patient

Goal

To enable a secure and efficient supply chain from source through to service delivery

Objectives

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- To enable end-to-end data visibility
- To identify and implement supply chain efficiencies
- To ensure supply chain security
- To increase patient safety

GENERATION NEXT

SUPPLIER

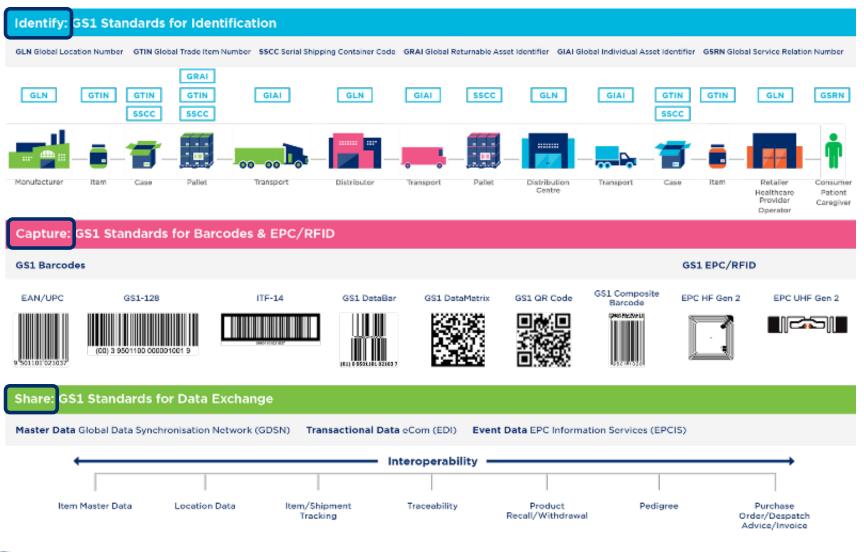
SUMMIT

USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM

GHSC-Procurement and Supply Management (GHSC-PSM) Single-award IDIQ	GHSC-Rapid Test Kits (GHSC-RTK) Single-award IDIQ Remote Medical International	GHSC-Technical Assistance (GHSC-TA) Multiple- award IDIQ Axios Chemonics LMI PriceWaterhouse Coopers	Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Cooperative Agreement MSH	Promoting the Quality of Medicines (PQM) Cooperative Agreement
GHSC-Quality Assurance (GHSC-QA) Contract FHI360		GHSC-Business Intelligence and Analytics (GHSC-BIA) GSA Contract Intellicog		The Coca-Cola Last Mile Project Global Development

GS1: GLOBAL SYSTEM OF STANDARDS TO ENSURE VISIBILITY

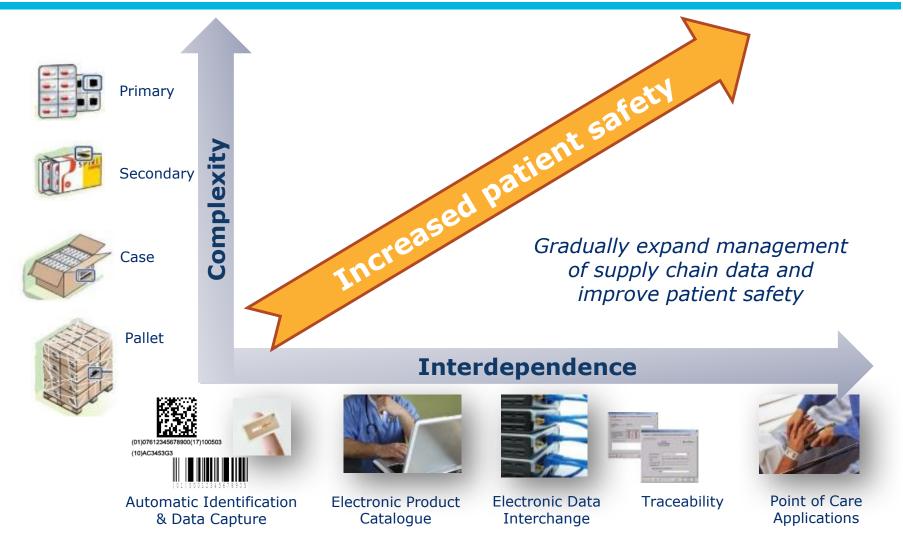






FOR A SECURE HEALTHCARE SUPPLY CHAIN







GS1 IS BOTH GLOBAL AND LOCAL





GS1 Global Office

Identification, creation, development and maintenance of standards and our foundational architecture, coordination with other international bodies, development of training programmes...

GS1 Member Organisations

Local offices in 112 countries around the globe. Implementation of standards, local regulatory adjustments, community management and relationship management with local governments and regulatory agencies...



GS1 – AN INTERNATIONAL STANDARDS ORGANISATION



Not-for-profit 112 Member Organisations Over one million user companies (from SME to global companies) Member driven 150 countries served; in more than 25 sectors 2,500 people helping us Over 6 billion transactions a day



S1 2016

RECOGNISED NGO STATUS BY UN







NATIONS UNIES

DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS

Office for ECOSOC Support and Coordination - NGO Branch

DC1-1480, 1 UN PLAZA, NEW YORK, N.Y. 10017 Tel: (212) 963-8652 • Fax: (212) 963-9248 www.un.org/ecosoc/ngo

1 August 2011

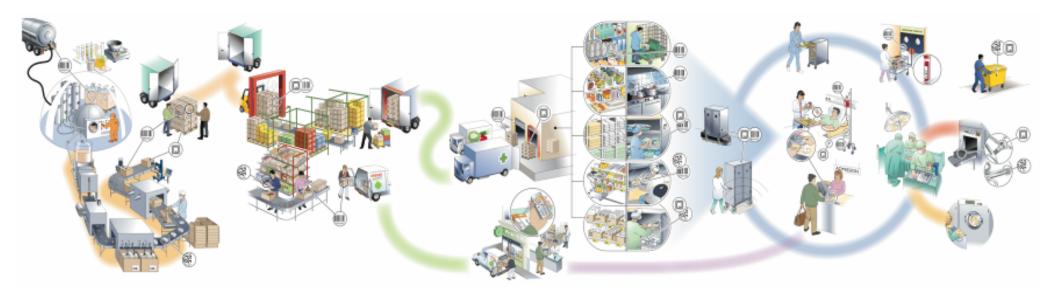
Dear NGO Representative,

I am pleased to inform you that the Economic and Social Council (ECOSOC) at its Substantive Session of July 2011 adopted the recommendation of the Committee on Non-Governmental Organizations (NGOs) to grant Special consultative status to your organization "GS1". On behalf of all staff of the Non-Governmental Organizations Branch, please accept our heartfelt congratulations.





VOLUNTARY, GLOBAL HEALTHCARE USER GROUP



To lead the healthcare sector to the successful development and implementation of **global standards** by bringing together **experts** in healthcare to enhance **patient safety** and **supply chain** efficiencies.



OUR VISION 2005



The vision of GS1 Healthcare is to be the recognised, open and neutral source for regulatory agencies, trade organisations and other similar stakeholders seeking input and direction for global standards in healthcare for





GS1 HEALTHCARE: AN EXPANDING, COMMITTED COMMUNITY OF GLOBALLY ENGAGED STAKEHOLDERS...





...and there are many more companies working with GS1 at a local level



WORKING WITH GLOBAL ORGANISATIONS...







World Health World Customs International Hospital

Organization













International Organisation for Standardisation

European Committee for Standardization

Health Level 7 International International Health Terminology Interchange Standards SDO

Clinical Data Consortium

Integrating the Healthcare Enterprise

Digital Imaging and Communications in Medicine

Joint Initiative Council

International

Council for Society for Quality

Commonality in in Healthcare



Organization



Federation



International







European Medical

Devices Industry Association

Eucom Medical Technology

Blood Banking Automation

European Association of Hospital Pharmacists

European Federation of Pharmaceutical Industries and Associations



...AS WELL AS WITH LEADING HEALTHCARE PROVIDERS TO IMPLEMENT...







GS1 HEALTHCARE AROUND THE WORLD

Members global user group

• GHX

Manufacturers

Hanulacturers	GIA	Planulacturers	Chi Kobert Bananger (Trance)
• 3M	 Marsh Consulting Ltd. 	• 3M	 CHRU Strasbourg (France)
 Abbott Laboratories/Abbvie 	 OCS Checkweighers GmbH 	• Bayer	 CHU de Québec (Canada)
 Actavis Pharma, Inc 	• Oracle	Becton Dickinson	 CHU DIJON (France)
 Actelion Pharmaceuticals Ltd 	Seidenader	 Boehringer Ingelheim 	 Deventer Ziekenhuis (Netherlands)
Alcon Labs	Tracelink	Coloplast	 Erasmus Medical Center (Netherlands)
 AMAG Pharmaceuticals, Inc 	 USDM Life Sciences 	Draeger Medical	 HealthShare NSW Health
Amgen	Distributors/Healthcare	• Genzyme	 HUG Geneva (Switzerland)
Astra Zeneca	providers/GPOs/T&L	• Hospira	 London Drugs (UK)
B. Braun	AmerisourceBergen (US)	Kimberly-Clark	 Maxima Medisch Centrum (Netherlands)
Baxter	Bernhoven Hospital (Netherlands)	Novo Nordisk	 Mayo Clinic (US)
• Bayer	Cardinal Health (US)	Pierre Fabre	 Sisters of Mercy (US)
Becton Dickenson	CH Aulnay sous Bois (France)	Purdue Pharma	 Sobeys Pharmacy (UK)
 Bristol-Myers Squibb 	Comparatio Health (Germany)	 Sanofi Aventis 	 UHBS (Switzerland)
Cook Medical	DHL Exel Supply Chain (UK)	 Smith and Nephew 	 UHCS Augusta VA (US)
Covidien	Erasmus MC Rotterdam (NL)	St. Jude Medical	 UMC Nijmegen (Netherlands)
 Edwards Lifescience 	Filip Vtori (Macedonia)	Stryker	 UMC Utrecht (Netherlands)
 Eli Lilly and Company 	 Hong Kong Hospital Authority 	Terumo	 VU medical center (Netherlands)
 F. Hoffmann-La Roche Ltd 	• HUG Geneva (Switzerland)	 Teva Pharmaceuticals 	 Walgreens (US)
Fresenius	• King FAISAL Specialist Hospital & Research	• UCB	• Walmart (US)
GE Healthcare	Center (Saudi Arabia)	Upsher-Smith	Associations
Genzyme	 Iberia Rehab Hospital (US) 	Distributors/Wholesalers	· AHA (US)
Gilead	McKesson	Aexxdis	CHeS (US)
 GlaxoSmithKline 	Novation (US)	 Alliance Unichem (Netherlands) 	CNOP (France)
 Johnson & Johnson 	Premier (US)	Amerinet	• EFPIA (Europe)
Medtronic	 St. James Hospital (Ireland) 	AmerisourceBergen	 Eucomed (Europe)
 Merck & Co. 	UMC Groningen (NL)	 Brocacef (Netherlands) 	• FENIN (Spain)
 Novartis 	 UNI.H.A (representing 17 French 	• CH2	• GIRP (Europe)
Pall Medical	university hospitals)	Depolabo	• HDMA (US)
Pfizer	• UPS	Galexis	 International Hospital Federation
 Purdue Pharma 	Wiener Krankenanstaltenverbund	GAMMA Wholesale	• JFMDA (Japan)
 Smiths Medical 	(Austria)	• Geodis	• LEEM (France)
• Takeda	Non-voting members	McMahon	• NACDS (US)
Teleflex	· AHRMM	 Mediq (Netherlands) 	Patient Safety Foundation (US)
• TEVA	Cladimed	Owens & Minor	• SNITEM (France)
Zimmer	 EDQM – Council of Europe 	Healthcare providers/Retailers	Others
Solution provider	FDA USA	AMC Amsterdam (Netherlands)	• GCS UNI H A (France)
 1WorldSync, Inc. 	 Instituto Brasileiro de Ética Concorrencial 	Antonius Ziekenhuis Nieuwegein	NEHTA (Australia)
Advanco	– ETCO	(Netherlands)	• RESA IDF (France)
• Axway	 Public Health Agency of Canada 	Ascension Health (US)	
 Blue Sphere Health Ltd. 	• US DoD	Bernhoven Ziekenhuis Uden	
 Dirk Rodgers Consulting, LLC 	 Healthcare Distribution Management 	(Netherlands)	And many mara
Excellis Health	Association (HDMA)	Capital District Health (Canada)	And many more

•

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CHI Robert Ballanger (France)

Manufacturers

CH René Dubos Pontoise (France)



GS1 HEALTHCARE - DIRECTED BY USERS LEADERSHIP TEAM 2016/2017

Tri-Chairs:

- Scott Mooney, McKesson
- Steve Capel, Medtronic
- Feargal Mc Groarty, St. James's Hospital

LT Members:

- Nick Manzo, 1WS
- Monica Kryzer, 3M
- Cyndi Poetker, Abbott
- Jeff Denton, Amerisourcebergen
- Volker Zeinar, B. Braun
- Nathan Habeck, Baxter
- Stefan Artlich, Bayer
- Dennis Black, BD
- Justin Bitter, Bernhoven Hospital
- Mike Meakin, DHL
- Sébastien Langlois-Berthelot, F. Hoffmann-La Roche
- Karen Conway, GHX
- Grant Courtney, GSK

- Jean-Michel Descoutures, IHF
- Tom Werthwine, J&J
- Peggy Staver, Pfizer
- Andrew Potter, Ramsay Health Care
- Grant Hodgkins, USDM
- Catherine Koetz, GS1 Australia
- Ana Paula Maniero, GS1 Brazil
- Valérie Marchand, GS1 France
- Michio Hamano, GS1 Japan
- Hans Lunenborg, GS1 Netherlands
- Beatriz Jorge, GS1 Portugal
- Glen Hodgson, GS1 UK
- Greg Bylo, GS1 US





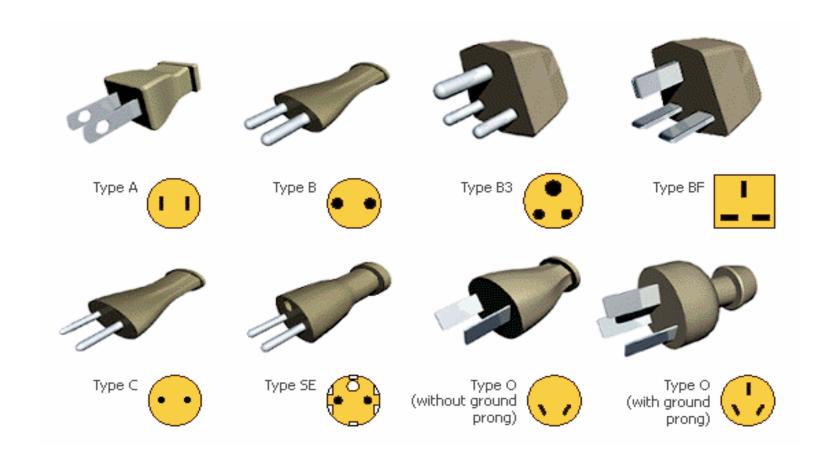
WHAT PROBLEMS DO GLOBAL IDENTIFICATION AND DATA STANDARDS SOLVE?





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Lack of standards in daily life is inefficient and annoying...





NO STANDARDISED PRODUCT ID



Same Product – Different Numbers

For example: 3M product with reference # 8630* Same product in different databases of distributors:

081048

MINN8630

TM-8630

3/M8630

001880

- Allegiance M8630
- Owens & Minor 4509008630
- BBMC-Colonial 045098630
- BBMC-Durr
- Kreisers
- Midwest
- Pacific
- UnitedUMS

*Note: 3M had actually assigned a GTIN to this product but the supply chain partners where not using it.





Different Products – Same Number

For example:

Part Number 10313 in Premier Inc. Product Item Master refers to:

- Medtronic's "NEEDLE CARDIOPLEGIA ADULT 16GA 5/8IN TIP 10IN"
- Hantover's "CARTRIDGE REPLACEMENT STUNNER YELLOW F/CALVES/HEAVY HOGS"
- Chattanooga Group's "ACCESSORY TRACTION REPLACEMENT STRAP XL FOR HALTER THORACIC RESTRAINT"
- HF Scientific's "TEST KIT WATER FREE CHLORINE DPD 25ML SAMPLE PHOTOMETRIC 1000/PK"



NO STANDARDISED PRODUCT INFORMATION



Inconsistent Packaging Data

- Order 20 cases, receive 20 boxes
- No uniform 'Unit of Measure' standard



Unit of Measure [Description	Unit of Measure	Description
BDFT B BN B BOLT B BR B BRRL B BXES B CO COIL C COIL C CRBY C CSES C CT C CTON C DR D DRUM D DRUM D DZ D DZEN D EA B EACH B	BOARD FOOT BOARD FOOT BUNDLE BOLT BOLT BARREL BARREL BARREL BOXES COIL COIL CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARBOY CARDY C	LOT LOTS LY LYRS NU NUTS OZ OZS PA PADS PA PADS PI PINT PK S PKGS PL PRS QR QRES QR QRES QT QTS RE REAM	LOT LOT (MULTI) LINEAR YARD LINEAR YARD NUT OUNCE OUNCES PAD PAD PINT PINT PACKAGE PACKAGE PAIL PAILS PAIR QUIRE QUIRE QUIRE QUIRE QUART QUART REAM © GS1 2016



NO STANDARDISED LOCATION ID



Multiple Names for the Same Manufacturer

Manufacturer	Manufacturer		
SOUTHLAND TECHNOLOGY 3M	3M 800-327-5380		
3M CO PHOTO PRODUCTS DIV	3M CO		
3M DIAGNOSTIC SYSTEMS INC	3M DENTAL 800-237-1650		
3M ELECTRICAL SPECIALTIES DIV	3M ESPE DENTAL DIVISION 800-364-3577		
3M HEALTH	3M ESPE UNITED STATES		
3M HEALTH CARE CDI	3M ESPE		
3M HEARING COMPONENTS	3M HEALTH CARE 800-521-2818		
3M INDUSTRIAL TAPES LTD	3M HEALTHCARE PRODUCT		
3M MEDICAL DEVICE DIV	3M HEALTHCATE		
3M MEDICAL IMAGING SYSTEMS DIV	3M MEDSURGE		
3M MEDICAL PRODUCTS DIV	3M MINNESOTA MINING MEG OFFICE		
3M MEDICAL-SURGICAL DIV	3M MINNESOTA MINNING & MFG.CO.		
3M MEDICAL/SURG	3M OCC. HEALTH AND ENV. SAFETY DIV		
3M PHARMACEUTICS AND MEDICAL S	3M OCC, HEALTH AND ENV, SAFETY DIV.		
3M-MEDICAL/SURGICAL	3M SARNS/CDI		
3M/ OCCUPATIONAL AND SAFETY DIV	3M SURGICAL		
3M - MINNESOTA MINING &	3M UNITEK 800-423-4588		
со	3M UNITEK		
3M FEDERAL GOVERNMENT	THREE M/ ESPE		
3M FEDERAL SYSTEMS DEPARTMENT	3M COMPANY C/O WAHL CORP.		
3M HEALTH CARE SYSTEMS	MINNESOTA SCIENTIF		
3M HEALTHCARE \$250 MINIMUM ORDER	CORPORATE ALLIANCE 3M CUSTOMER SERV		
3M HEALTHCARE(MINNISOTA MINNING)	3 M HEALTHCARE		
3M MEDICAL - CREDIT CARD	3 M UNITEK CORP		
3M MEDICAL PRODUCTS	3-M		
3M OCC. HEALTH AND ENV. SAFETY DIVISION	3-M COMPANY		
3M OCCUPATIONAL AND SAFETY DIV	3-M COMPANY-C/O O		
3M SAFETY DIVISION	3-M COMPANY-C/O OEM PRODUCTS		
3M-DENTAL PRODUCTS DIVISION	3-M PHARMACEUTICALS		
3M-HEALTH CARE	33M HEALTHCARE		
3M DENTAL PRODUCTS DIV.	3M		
3M UNITEK CORPORATION	3M PUERTO RICO		



This could be any manufacturer

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The need for global standards in healthcare





"CUSTOMIZED ACTIONS MEAN COSTS!!

Harmonisation of regulatory requirements and data standards will enableefficiency of a global product offering – otherwise complexity and cost willcontinue to raise"Senior Executive, MD company

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GS1 Identification Keys

ONO 20 Unique • Item identifier = **GTIN Global Trade Item Number** Non-significant Global Logistics unit SSCC identifier = Secure • 581 Serial Shipping Container Code Foundational Location identifier = **GLN Global Location Number**

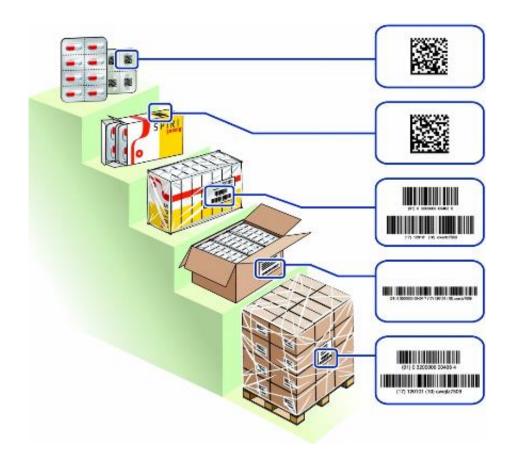
And there are more ...





Ideally - identifiers and data carriers at all packaging levels





NOTE: Data carriers shown are for illustration purposes only!



Note: Images shown are for illustration example only, refer to local regulations and/or the latest version of the GS1 General Specification for more detail.

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The master data problem

Every company has a database filled with master data about the products they make, sell, or buy

But when one company changes any bit of information in their database or adds a new item, another database becomes outdated!



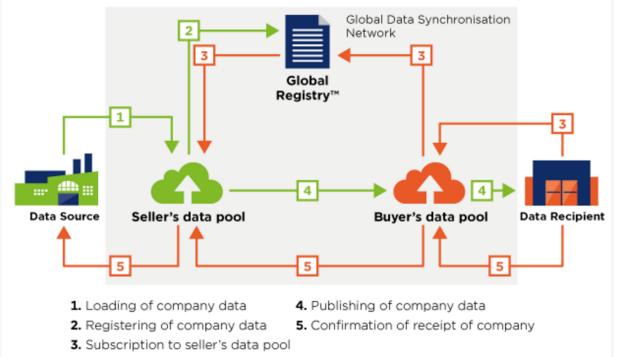
1970s





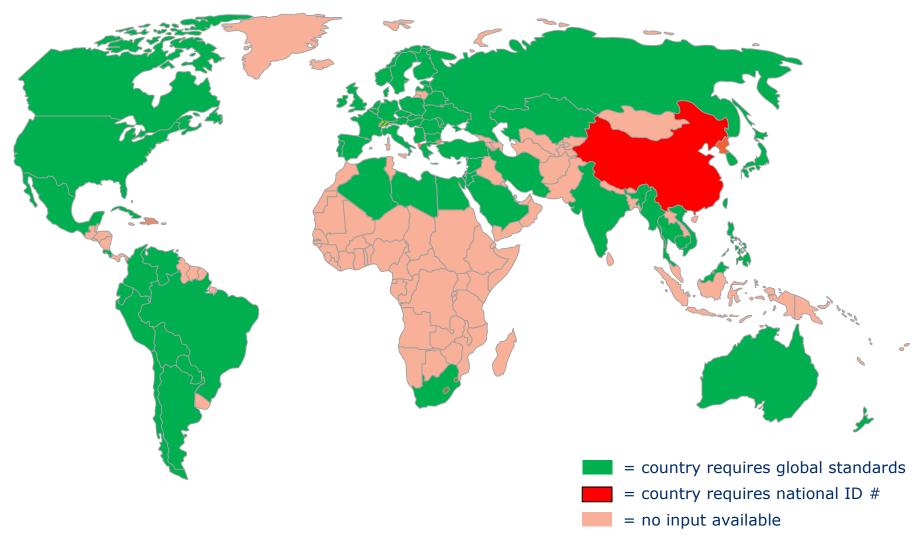


The GS1 Global Data Synchronisation Network® (GDSN®) is a network of interoperable data pools enabling collaborating users to securely synchronise master data based on GS1 standards. GDSN supports accurate, real-time data sharing and trade item updates among subscribed trading partners.





IDENTIFICATION OF PHARMACEUTICALS...AFT





ULTIMATELY, IT'S ALL ABOUT ...



PATIENT SAFETY!



In Every Country



PANEL DISCUSSION

The future of global standards and product identification in the donor community



FOR ZEBRAS IT'S NOT A PARTY UNTIL SOMEONE BRINGS THE BAR-CODE SCANNER.



PANELISTS



Peter Alvarez (Moderator) Senior Director, Identification and Data Strategy Healthcare GSI Global



Hitesh Hurkchand RMNCH Trust Fund (ISG) United Nations Children's Fund (UNICEF)



Roberto Mena Procurement Specialist United Nations Population Fund (UNFPA)



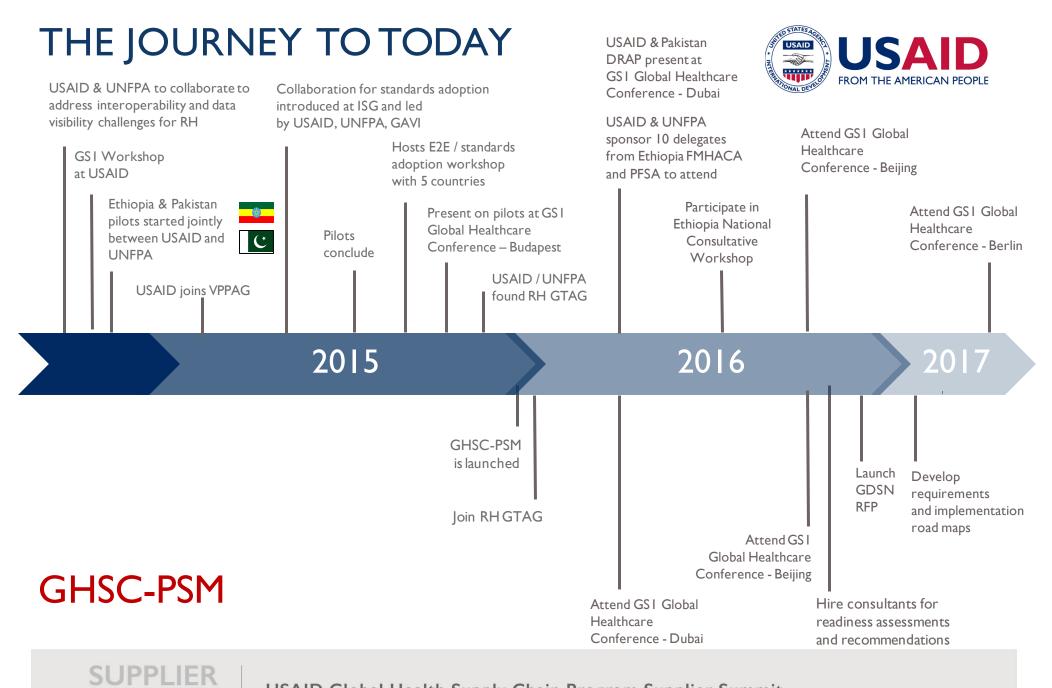
Hayley Traeger Program Advisor for Strategic Engagement United States Agency for International Development (USAID)



IMPLEMENTATION STRATEGY







USAID Global Health Supply Chain Program Supplier Summit

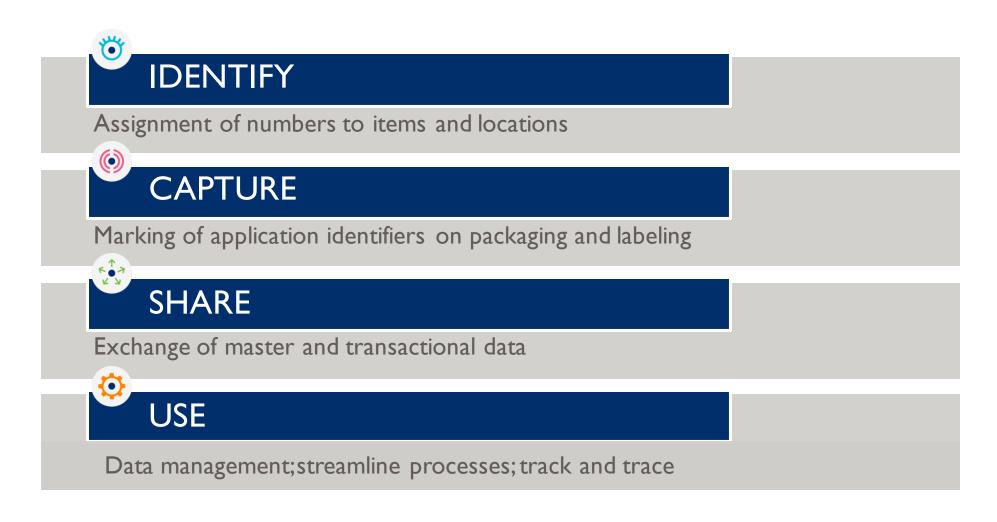
SUMMIT

GENERAL PRINCIPLES

- Adopt global standards to promote efficiency, reliability, and effectiveness
- Clearly identify vision, goals, and objectives to motivate requirements
- Requirements should capture what is necessary to secure the supply chain
- Requirements should be phased in over time to allow for transition
- Leverage successful practices and systems from other markets
- Harmonize with other key stakeholders in the community to:
 - \checkmark Minimize the risk and investment required by suppliers
 - \checkmark Maximize benefits to country supply chains and patients
- Establish benchmark metrics and KPIs to ensure accountability and measure progress

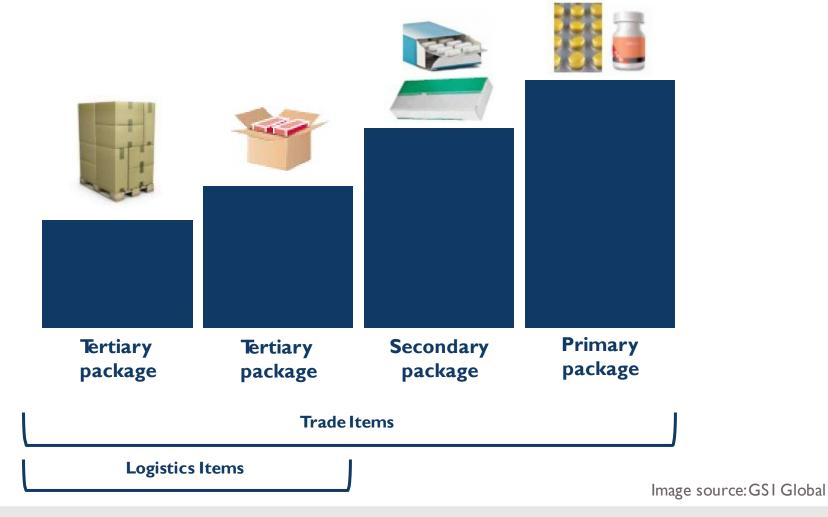


THERE ARE FOUR ELEMENTS TO OUR STRATEGY





WHAT DOES THE STRATEGY APPLY TO?





IMPLEMENTATION WILL ROLL OUT IN FOUR PHASES

	2017	2018	2019	2020	2021	2022
Within 6 months*						
Phase I	0-1	8 months				
Phase 2		0-36	months			
Phase 3			0-60	months		



*Within 6 months of initial contract being signed

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To identify, organizations need to register with GS1 to obtain a GS1 Company Prefix and assign numbers to items and locations.

	Within 6 months	Phase I
Secondary Packaging Multipack and/or Single Pack Carton (Trade Item)	 ✓ (01) Global Trade Item Number (GTIN) ✓ Other attributes as requested 	
Tertiary Packaging Case/Carton (Trade Item)	✓ (01) GTIN✓ Other attributes as requested	
Tertiary Packaging Pallet (Trade Item)	✓ (01) GTIN✓ Other attributes as requested	
Location		✓ Global Location Number (GLN) Sold-from✓ GLN Ship-from



GTIN:(01) 07046261398572Batch:(10) TEST5632Expiry:(17) 130331S/N:(21) 19067811811



CAPTURE

To capture, organizations need to apply relevant automatic identifier and data capture (AIDC) technology to packaging that includes required application identifiers and human readable interpretation (HRI)

	AIDC	Phase I	Phase 2	Phase 3
Secondary Packaging Multipack/Single Pack Carton (Trade Item)			 ✓ (01) GTIN ✓ (10) Batch / Lot ✓ (17) Expiry 	✓ +(21) Serial Number
Tertiary Packaging Case/Carton (Trade Item)		 ✓ (01) GTIN ✓ (10) Batch / Lot ✓ (17) Expiry 		✓ +(21) Serial Number
Tertiary Packaging Pallet (Trade Item)		 ✓ (01) GTIN ✓ (10) Batch / Lot ✓ (17) Expiry 		✓ +(21) Serial Number
Tertiary Packaging Case/Carton (Logistics Item)	(00) 0 0014141 123469769 0			 ✓ (00) Serial Shipping Container Code (SSCC)
Tertiary Packaging Pallet (Logistics Item)	(00) 0 0014141 123456799 0			✓ (00) SSCC





To learn more about data exchange mechanisms, please attend "You Say Data, I Say Data: Data Exchange with GHSC-PSM" immediately following this session

To share, organizations need to register with GHSC-PSM's Supplier Portal for transactional data and the Global Data Synchronization Network (GSDN) for master data

	Within 6 months	Phase I	Phase 3
Master Data Products	✓ (01) GTIN✓ Additional attributes		
Master Data Location		✓ GLN Sold-From✓ GLN Ship-From	
Transactional Data Purchase Order (PO)	 ✓ (01) GTIN ✓ (37) Quantity 	 ✓ +GLN Sold-from ✓ +GLN Ship-from ✓ +GLN Bill-to / Sold-to 	✓ +GLN Ship-to
Transactional Data Advanced Shipping Notice (ASN)	 ✓ (01) GTIN ✓ (10) Batch / Lot ✓ (17) Expiry ✓ (37) Quantity 	 ✓ +GLN Sold-from ✓ +GLN Ship-from ✓ +GLN Bill-to / Sold-to 	✓ +SSCC✓ +GLN Ship-to
Transactional Data Packing Slip	 ✓ (01) GTIN ✓ (37) Quantity 	 ✓ +GLN Sold-from ✓ +GLN Ship-from ✓ +GLN Bill-to / Sold-to 	✓ +GLN Ship-to
Transactional Data Invoice	 ✓ (01) GTIN ✓ (37) Quantity 	 ✓ +GLN Sold-from ✓ +GLN Ship-from ✓ +GLN Bill-to / Sold-to 	✓ +GLN Ship-to

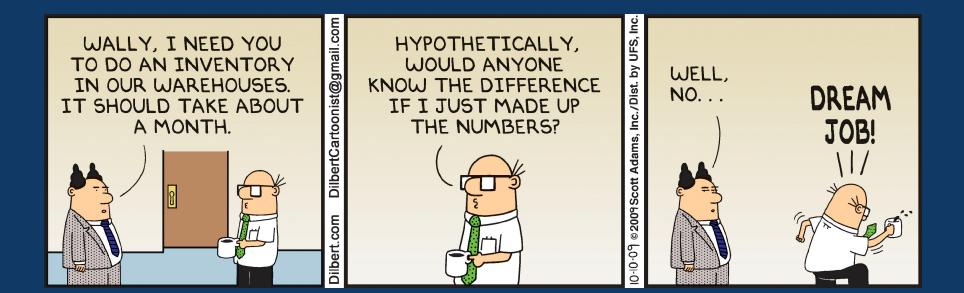


EVALUATION CRITERIA (AQSCIR-P)

	Assurance of Supply	 Production capacity Quantity in stock (when required) Past performance 	
	Regulatory	 Administrative requirements Registration in country 	
S	Quality	 QA requirements (USFDA, WHO, GHSC-QA) Shelf life Stability studies / climatic zone standards 	Criteria and % Weights Are Tailored to the
EXAMPLES	Service	 Lead time (stock, fresh production) Customer service Product Identification 	Commodity and/or Product and Specific
ш -	Cost	 Specific / Unique label language Unique distribution requirements 	Sourcing Strategy
	Innovation	 Serialization Packaging optimization New /improved products 	
_	Price	• FCA unit price	

BESTVALUEAWARD STRATEGYTOACHIEVE DESIRED MARKET OUTCOME







STRATEGIC ENGAGEMENT WITH PARTNERS

- Reproductive Health Global Traceability and Advisory Group (RH GTAG)
- GFATM's Global Steering Committee Private Sector Advisory Council – Traceability Sub-Working Group
- GSI Global Healthcare Conferences

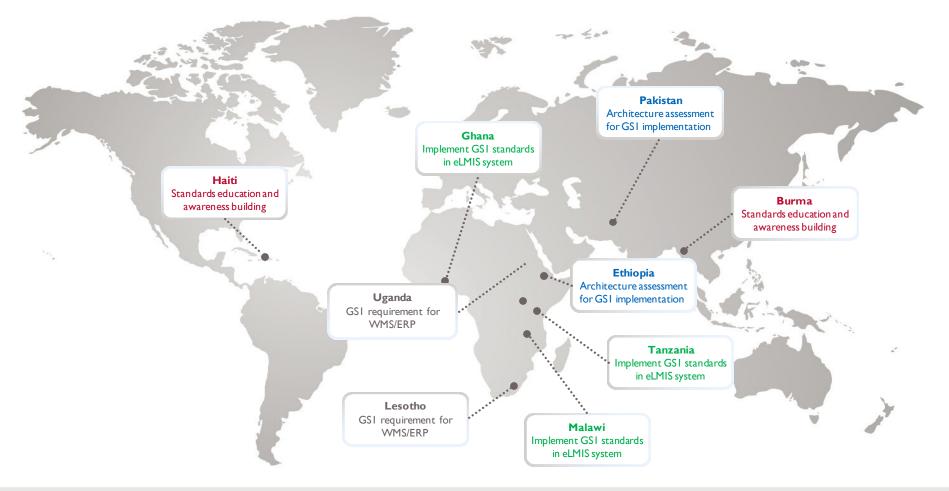


GLOBAL SUPPLY CHAIN IMPLEMENTATION

Completed	Up Next		
 Assessment of ARTMIS's ability to support standards implementation 	 Implement recommendations 		
 ✓ Identified opportunities for process improvements 	 Implement operational processes to leverage standards in GHSC-PSM's logistics management function and regional distribution centers 		
 Product catalog structured around standard data identifiers and common industry attributes 	Award GDSN contractIntegrate master data		
 ✓ Developed preliminary requirements 	Issue supplier benchmark surveyComplete implementation guideline		



GHSC IS SUPPORTING STANDARDS IMPLEMENTATION IN SEVERAL USAID-SUPPORTED COUNTRIES



USAID Global Health Supply Chain Program Supplier Summit

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SUMMIT

ETHIOPIA NATIONAL CONSULTATIVE WORKSHOP ON GLOBAL HEALTHCARE STANDARDS FOR TRACK AND TRACE





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IMPROVING ETHIOPIA'S HEALTHCARE SUPPLY CHAIN INTEGRITY THROUGH END-TO-END VISIBILITY

- Five-year strategy for implementation of standards and technologies to improve mechanisms to control counterfeit products and improve supply chain visibility.
- Improve patient safety, supply chain security, and supply chain efficiency through product traceability.



LESSONS BEING LEARNED IN ETHIOPIA

- Invest upfront to gain government support
 - Create opportunities for education and information sharing with regulatory and procurement agencies
 - Select the right project champion
- Enable suppliers, government, and donors to share information about the movements of products and assets through the supply chain
 - Develop a culture of data for decision-making and visibility
 - Select a sustainable and interoperable system



GSI STANDARDS PILOT IN PAKISTAN

- GSI standards were first piloted by Pakistan with USAID and UNFPA support on vaccine and contraceptives products in 2015
- The following recommendations were made to the Drug Regulatory Authority Pakistan (DRAP) and Vaccine Presentation and Packaging Advisory Group (VPPAG)
 - Need to apply standards to the local context
 - Legislation is required around packaging labeling
 - Serialization is key to enable track and trace
 - inventory accuracy
 - batch-level tracing





WHAT BENEFITS ARE BEING SOUGHT IN PAKISTAN?

- One standard to use with all pharmaceutical partners
- Authentication of products provided to patients
- Fast and accurate data capture at every point in the supply chain
- Enables efficient, accurate, and targeted recalls
- Improved party-to-party communications throughout the supply chain
- Warehouse automation and improved inventory accuracy
- Time and cost saving for healthcare providers at service delivery points



THE WAY FORWARD

SUPPLIER

- Drug Regulatory Authority of Pakistan and Ministry of NHSR&C developed GSI standards legislation in Pakistan
 - Summary recommendation approved by the Prime Minister; awaiting endorsement of Cabinet Division,
- Continue leveraging GSI-compliant products where available
 - Pakistan has started receiving GSI-compliant BCG and pentavalent vaccine products
- USAID assistance through GHSC-PSM and USP
 - Collaboration among DRAP, pharma industry, GSI Pakistan, and other relevant partners to carve out a three- to five-year roadmap for implementation

RESOURCES FOR SUPPORT



RECOMMENDATIONS

- Engage the technical leads on packaging, product identification, and/or serialization in your organization to inform them of GHSC's emerging product identification mandate
- Register with your <u>local GSI member organization</u> and request a company prefix
- Participate in the industry events to learn from peers on best practices for implementation
 - GSI Global Healthcare Conference, 4-6 April 2017, Berlin, Germany
 - GSI Global Healthcare Conference, 17-19 October 2017, Chicago, United States



RESOURCES

- **GSI** General Specification
- GSI Logistics Label Guidelines
- GSI EPCIS Standards Specification
- GSI Member Organizations Contact Information
- RH GTAG Identification Guidelines for Reproductive Health Products
- VPPAG Generic Preferred Product Profile for Vaccines
- <u>The Alliance for Global Pharmaceutical Serialization (RxGPS)</u>
- <u>"Strength in unity: The promise of global standards in healthcare"</u>



ACRONYMS

Acronym	Definition	Acronym	Definition
AI	GSI application identifier	ISG	Interagency Supply Chain Group
AIDC	automatic identification and data capture	MDM	master data management
ARTMIS	GHSC-PSM automated requisition tracking management information system	МОН	Ministry of Health
ASN	advanced shipping notice	PSM	Procurement and Supply Management Project
DRAP	Drug Regulatory Authority Pakistan	RMNCH	Reproductive, maternal, newborn and child health
EDI	electronic data interchange	RH GTAG	Reproductive Health Global Traceability Advisory Group
eLMIS	electronic logistics management information system	SSCC	serial shipping container code
EPCIS	electronic product code information services	UNFPA	United Nations Population Fund
GDSN	global data synchronization network	UNICEF	United Nations Children's Fund
GFATM	Global Fund to Fight AIDS, Tuberculosis, and Malaria	USAID	United States Agency for International Development
GHSC	Global Health Supply Chain Program	VPPAG	Vaccine Presentation & Packaging Advisory Group
GLN	global location number	WMS	warehouse management system
GTIN	global trade item number		
HRI	human readable interpretation		



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APPENDIX







<u>What if standards in grocery stores worked</u> <u>like they do in the healthcare supply</u> <u>chain?</u>

