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Indonesia: Logistics Management for Pandemic Influenza

KOMNAS FBPI Commodity Management System for USAID-Supplied Personal Protective Equipment

DECEMBER 2009

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the USAID |DELIVER PROJECT, Task Order 2.

KOMNAS FBPI

Indonesia: Logistics Management for Pandemic Influenza

KOMNAS FBPI Commodity Management System for USAID-Supplied Personal Protective Equipment

USAID | DELIVER PROJECT, Task Order 2
The USAID | DELIVER PROJECT, Task Order 2, is funded by the U.S. Agency for International Development under contract no. GPO-I-02-06-00007-00, beginning March 21, 2007. Task Order 2 is implemented by John Snow, Inc., in collaboration with PATH, Crown Agents Consultancy, Inc., Fuel Logistics Group (Pty) Ltd., UPS Supply Chain Solutions, The Manoff Group, MAP International, and 3i Infotech. Task Order 2 manages a global distribution mechanism for commodities to contain outbreaks of the highly pathogenic H5N1 avian influenza and to limit its potential to spread globally. Task Order 2 also assists in forecasting and procurement planning for developing countries and helps pre-position commodities in national and regional warehouses for rapid deployment in case of outbreaks.

Recommended Citation
Eberle, Jim, Chris Warren, and Russ Vogel. 2010. *Indonesia: Logistics Management for Pandemic Influenza.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 2.

Abstract
This manual was written for the National Committee for Avian Influenza Control and Pandemic Influenza Preparedness (KOMNAS FBPI), USAID, and other partners and organizations interested in the storage and distribution of personal protective equipment (PPE). USAID supplied the equipment to help address the PPE needs of KOMNAS FBPI, either before or after an outbreak of avian influenza.

The report has three main sections: (1) background, (2) assumptions, and (3) system design and standard operating procedures. The forms recommended for use with the system are included in the appendices.

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Contents

Tables

Acronyms

AI	avian influenza /Flu Burung
AMC	average monthly consumption/Konsumsi rata-rata per bulan
APBD	Anggaran Pendapatan dan Pembelanjaan Daerah/provincial (District) revenue and expenditure budget
APD/PPE	Alat Pelindung Diri/personal protection equipment
APBN	Anggaran Pendapatan dan Pembelanjaan Nasional/National Revenue and Expenditure Budget
BTKL	Biro Tekhnis Kesehatan Lingkungan/Technical Bureau for Environmental Health
CBAIC	Community-Based Avian Influenza Control Project /Proyek Pengendalian Flu Burung Berbasis Masyarakat
CDF	central distribution facility/ Fasilitas Distribusi Pusat
CRIV	combined requisition and issue voucher /Voucher Gabungan Permintaan dan Pengeluaran
DFP	district focal point/Titik Fokus Daerah
DepKes	Departemen Kesehatan/Department of Health
DepTan	Departemen Pertanian/Department of Agriculture
FAO	Food and Agriculture Organization of the United Nations/Organisasi Pangan dan Pertanian Dunia
FDP	Fasililtas Distribusi Pusat/central distribution facility
FPP	Fasilitas Penyimpanan Pusat/central storage facility
FEFO	first-to-expire, first-out/tercepat kedaluwarsa, terdahulu dikeluarkan/dipakai
FLPS	Formulir Laporan dan Permintaan Suplai/report and supplies request form
GDN	Goods Delivery Note/Nota Pengiriman Barang
GRN	Goods Received Note/Nota Penerimaan Barang
HCC	health crisis center/Pusat Krisis Kesehatan
HPAI	high pathogenic avian influenza/Flu Burung yang Sangat Patogenic
IFRC	International Federation of Red Cross
IRC	Indonesian Red Cross (Palang Merah Indonesia)

JSI	John Snow, Inc.
KKP	Port Health Office/Kantor Kesehatan Pelabuhan
KOMNAS FBPI	Komite Nasional Pengendalian Flu Burung dan Kesiap-siagaan Menghadapi Pandemi Influenza/National Committee for Avian Flu Control and Pandemic Preparedness
LDCC	local disease control center/Kantor Pengendalian Penyakit Daerah
LMIS	logistics management information systems/Sistem Informasi Manajemen Logistik
MoA	Ministry of Agriculture/ Departemen Pertanian (DepTan)
MoH	Ministry of Health /Departemen/Kementerian Kesehatan
MOS	months of supply/sisa stok dalam unit bulan
NPPP	National Pandemic Preparedness Plan/Rencana Nasional Kesiap-siagaan dan Respons dalam menghadapi Pandemi Influenza
PDSR	Participatory Disease Surveillance and Response/Surveilan and Tanggap Penyakit Partisipatoris (STPP)
PMI	Palang Merah Indonesia/Red Cross Indonesia
P2PL	Pengendalian Penyakit Menular & Penyehatan Lingkungan/Infectious Disease Control and Environmental Health
PPPD	Pusat Pengendalian Penyakit Daerah/local disease control center
PPE/APD	personal protective equipment/Alat Pelindung Diri
PROTAP	Prosedur Tetap/standard operating procedures
RSRP	report and supplies request form /Formulir Laporan dan Permintaan Supply
SATGANA	Satuan Tanggap Bencana/disaster response unit
S, M, L, XL	small, medium, large, extra large/ Kecil, Medium, Besar, Ekstra Besar
SDP	service delivery point/Tempat pe layanan
SOP	standard operating procedures/Prosedur Tetap
STPP	Surveilan and Tanggap Penyakit Partisipatoris/Participatory Disease Surveillance and Response
TGC	Tim Gerak Cepat/quick response team
USAID	U.S. Agency for International Development/Lembaga Pembangunan Internasional Amerika Serikat
VGPP	Voucher Gabungan Permintaan dan Pengeluaran/combined requisition and issue voucher
WHO	World Health Organization/Organisasi Kesehatan Dunia

Acknowledgments

The authors wish to acknowledge the contributions of the administrators and staff of the National Committee for Avian Influenza Control and Pandemic Influenza Preparedness (KOMNAS FBPI) for providing us with a description of their personal protective equipment (PPE) requirements. We would also like to thank the other partners involved in implementing this commodity management system; in particular, the Ministry of Agriculture (MOA), the Ministry of Health (MOH), the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), and the U.S. Agency for International Development (USAID).

The USAID |DELIVER PROJECT originally created the commodity management system proposed in this document. The system incorporates the recommendations of the aforementioned organizations who participated in a one-day workshop in April 2009 to review the document. The USAID |DELIVER PROJECT gratefully acknowledges the contributions of the participants of the April 2009 workshop and trusts that this new version of the manual will be helpful in addressing the PPE needs of KOMNAS FBPI, either before or after an outbreak of avian influenza.

Foreword from the Executive Chair of KOMNAS FBPI

History has shown that when an influenza pandemic occurs it is often followed by uncertainty in relation to the duration and the scope of the problem, the global impact, and the impact on various sectors (social, economic, health, homeland security, etc.). Often the pandemic is met with unpreparedness in resources and public services. Categorized as an emergency, the pandemic requires a quick multi-sectoral response that takes lessons learned into account.

Another challenge presented by a pandemic involves the difficulties inherent in supply chain logistics, specifically in regard to Personnel Protection Equipment (PPE) for fieldworkers. This manual will help health professionals manage PPE commodities both before and after an outbreak of avian influenza.

The logistics system described in this document was developed by KOMNAS FBPI and the USAID | DELIVER PROJECT, which is managed by John Snow, Inc. (JSI). We express our thanks to the USAID | DELIVER PROJECT and other partners involved in the implementation of the management system for PPE, especially the Department of Agriculture; Department of Health, Food and Agriculture Organization (FAO); World Health Organization (WHO); and the United States Agency for International Development (USAID).

Signed,

Bayu Krisnamurti

Background

The threat of an avian influenza (AI) pandemic is a global concern, as viruses have no political borders. With the goal of preventing an AI pandemic and limiting casualties, the U. S. Agency for International Development (USAID) is providing funds, equipment, and technical assistance to the government of Indonesia as that country works to prevent further transmission. This assistance includes providing Avian Influenza Control and Pandemic Influenza Preparedness (KOMNAS FBPI) with a stockpile of personal protective equipment (PPE), designing a logistics system for their commodities, and providing training on how to use the PPE and how to manage the logistics system.

In 2006, USAID provided PPE to several organizations, including the Community-Based Avian Influenza Control (CBAIC) project, the Food and Agriculture Organization of the United Nations (FAO), and KOMNAS FBPI. In July 2009, there were 10,000 PPE reserved for KOMNAS. USAID's current contract includes funding for managing the 10,000 PPE. At present, in case of an AI outbreak in humans, KOMNAS FBPI will send PPE out to line ministries that need supplies. Until further notice, USAID will pay for the cost of distribution.

Other PPE in-country includes approximately 100,000 PPE that have been distributed to all the regional hospitals in Indonesia; they were donated by the World Health Organization (WHO). USAID to investigate poultry infection. USAID donated approximately 100,000 other PPE to FAO. These PPE are being taken from the warehouse and distributed every month for poultry infection investigation.

The USAID |DELIVER PROJECT designed the logistics system for the storage and distribution of PPE for KOMNAS FBPI, with reference to the National Pandemic Preparedness Plan in facing an influenza pandemic; this document describes the system. The design includes the capacity to estimate the number of PPE needed in the event of an outbreak; a strategy for warehousing and distributing the PPE from the central level to a containment site; and standard operating procedures for the requisitioning, inventory control, and issuing of PPE.

This design focuses on PPE because KOMNAS is currently managing this commodity. If KOMNAS FBPI becomes responsible for other commodities (or for different types of PPE than those provided by USAID), as part of the National Pandemic Preparedness Plan (NPPP), the design description in this document will be updated.

Method and Design Process

Method

During the last two weeks of February 2008, to produce a system design for KOMNAS FBPI that would address their immediate need to provide PPE, the USAID |DELIVER PROJECT conducted a rapid assessment of the existing mechanisms that could support those needs. The project gathered data and information through key informant interviews, inspection of operating systems, and document reviews and observation. The project researched existing quantification methods, procurement processes, warehousing options, and distribution systems that might be used to establish a system that could be immediately implemented with the existing funding sources and resources.

The review process was completed in April 2009. Representatives from all the major partners and line ministries were invited to a one-day workshop in April 2009 to review the assumptions and procedures outlined in this document. The participants made a number of recommendations; the standard operating procedures were modified to reflect these recommendations. This document, *Indonesia: Logistics Management for Pandemic Influenza*, is the result of that work.

Design Process

The original system design described in this document resulted from meeting with KOMNAS FBPI and key stakeholders. This current revised document describes the updated design as it reflects the recommendations made during the April 2009 workshop. Even with the changes, the design does not have all the information from many of the line ministries. Only the Ministry of Health (MOH) and Minstry of Agriculture (MOA) prepared plans for Phase 3 of a pandemic. Therefore, the design assumes much about the role of the ministries in Phase 3/4/5, especially how they relate to PPE requirements.

The particular components of the design process were to do the following:

- Specify the product that will be needed; quantify what will be needed for several likely outbreak scenarios.
- Define a strategy for warehousing and distribution that could accomodate the PPE needs for each scenario.
- Define a set of operating procedures for requisition, inventory control, and issuing PPE that could be implemented quickly, within the proposed warehousing/distribution framework.

The system described in this document could be considered to be a temporary system until the emergency preparedness plans of each line ministry involved in the NPPP (or some part of them) are available to begin the process of determining what the actual supply needs will be for a Phase 3/4/5 outbreak. Only after that is complete, can a system be designed to meet these needs and a permanent strategy for storage and distribution at containment sites be put in place. Such a system design, if desired, should result from a cooperative effort between KOMNAS and the line

ministries/stakeholders who will respond to an outbreak. The result should be a system that meets the needs of these same line ministries and stakeholders.

Assumptions

The system design presented in this document is based on a number of assumptions.

Commodity Specification

For the system design, it is assumed that the PPE provided by USAID meets the needs of all types of responders. Further review may be needed to determine if this is a realistic assumption.

Quantification

For this system design, the designers had to make a number of assumptions. The assumptions are based on the data that is currently available, discussions with KOMNAS FBPI/stakeholders, and the World Health Organization (WHO) emergency preparedness doctrine.

Response Scenarios:

The starting point for this quantification is the definition of three possible scenarios that KOMNAS may be asked to address.

Scenario 1: Appropriate Response as Needed

(Potential Human-to-Human Cluster Response—Phase 3):

In this scenario, a small cluster of individuals have either died from or been infected with influenza; there is reason to suspect that the AI virus has mutated and is readily transmittable from human to human. Because there is no actual proof that a mutation has occurred, the full Phase 4/5 containment plan has not yet been activated. However, the government has decided to contain the area in question (probably for a few days) until they can conclude whether or not the AI virus has mutated.

In this scenario, we assume that—

- the armed forces will be asked to cordon off the containment area
- a small police force will be asked to maintain order within the containment area
- a small number of health care officials will move those who are ill to area hospitals or other facilities for treatment and will determine if the virus has mutated
- a small number of local administrators/KOMNAS FBPI representatives/other government officials will manage the situation within the containment area.

Scenario 2: Responding at the Epicenter of the Pandemic Influenza.

(Actual Small Scale Human-to-Human Cluster Response—Phase 4/5):

In this scenario, the government has concluded that a small cluster of individuals have either died from or have been infected with a mutated form of the AI virus (confirmed signs of virological

mutation), which is now readily transmissible from human to human and has the potential to become pandemic. Now it is considered to be a public health emergency of international concern. Accordingly, the government has activated its Phase 4/5 containment plan (occurrence of a pandemic influenza in Indonesia). One of the response activities is to declare the epicenter area as a quarantined area.

In this scenario, it is assumed that—

- the police, assisted by the armed forces and local municipal administrators, will be asked to strictly cordon off the containment area
- a reasonably sized police force will be asked to maintain order within the containment area
- a reasonable number of health care workers will treat and move those who are infected to the local hospitals or other facilities
- a significant number of individuals will be employed to provide essential supplies, protective gear, and/or prophylaxis to those in the containment area
- a reasonable number of local administrators/KOMNAS FBPI representatives/other government officials will manage the situation within the containment area.

Because this scenario will probably be preceded by scenario 1, the government must be prepared to move to respond to this scenario whenever a potential human-to-human cluster is reported.

It is assumed that the quarantine area is not larger than 4 square kilometers and no more than 10,000 residents. If the influenza virus has spread outside the quarantined area, then it can be assumed that the virus will be more difficult to isolate and the plan for Phase 6 must be implemented. Even so, the government can still respond to multiple outbreaks if each outbreak is manageable.

Scenario 3: Influenza Outbreak.

(Actual Medium Scale Human-to-Human Cluster Response that is Efficient and Occurring in Several Locations—Phase 6:

In this scenario, the government has concluded that a significant number of individuals have either died from or been infected with a mutated form of the AI virus, which is readily transmissible from human-to-human. In this scenario, the epicenter may be in Indonesia or outside Indonesia but the virus has already entered into Indonesia is affecting a significant number of individuals.

In this scenario, it is assumed that—

- the armed forces will be asked to cordon off the containment area;
- a reasonable number of police will be asked to maintain order within the containment area;
- a significant number of health care officials will treat and move those who are infected to area hospitals or other facilities
- a significant number of individuals will be employed to provide essential supplies, protective gear, and/or prophylaxis to the inhabitants of the containment area
- a reasonable number of local administrators/KOMNAS FBPI representatives/other government officials will manage the situation within the containment area.

As with scenario 2, the government must be prepared to respond whenever a potential human-to-human cluster is reported.

In all three scenarios, it is assumed that the containment center is no larger than 4 square kilometers and has no more than 10,000 residents. If the AI virus has spread beyond this localized area, it is assumed that it cannot be contained and the plan for Phase 6 should be implemented. This does not preclude the government from responding to multiple outbreaks, *if* each outbreak is considered to be containable.

Scenario Assumptions:

Although each scenario described above has its own PPE requirements, this quantification assumes the following for all the scenarios:

- Only the armed forces will require protective masks because they will not interact with the inhabitants within the containment area and they will supply their own masks.
- The MOH has a plan in place to provide its health care responders with PPE; therefore, it is assumed that they will not require PPE.
- Another source will provide for the needs of the residents, including any protective gear they may require (i.e., masks and gloves).
- Each responder who enters the containment area (i.e., police, health care workers, individuals providing essential services, and all government administrators) will receive one pack of PPE per four hours spent within the containment area. Responders should use the contents of the pack according to the guidelines provided by the MOH. (See appendix C for details.)
- In some cases (police and health care workers), may either work multiple shifts, or they will be replaced by another responder during one or more shifts.
- Enough PPE will be provided to a containment site to address the needs of a scenario for one week. In a potential outbreak, this should be enough time for the health authorities to determine if the AI virus has mutated. In an actual outbreak, this should be enough stock to meet the need (with the expected lead time for delivery of no more than two days).
- At a minimum, storage must be available to meet the maximum needs for any of the three scenarios. The distribution courier can deliver the necessary PPE to the outbreak sites within one to two days.

The *central storage facility* should have the capacity to hold and make arrangements to store enough PPE for at least two simultaneous containable outbreaks, for at least two weeks (one week for distribution and another to cover the expected lead time for replenishment from abroad). Because this is an emergency preparedness plan, the central storage buffer can be small, if the lead time for replenishment is very short (within one week); it should be if the Bangkok Regional and USA-based warehouses are adequately stocked (they are assumed to be).

- The minimum storage space needed is *120 square meters of floor space for 28,000 PPE* if the supply is intended for several simultaneous outbreak areas; there should be an additional one week's buffer stock.

The calculation is based on certain assumptions: One outbreak of scenario 3 needs 30 square meters plus enough stock to respond to two (several) outbreak areas and a buffer stock for one week; therefore, the floor space needed is four times the need of the regional depot (4×30 square meters).

Warehousing

Central

Until other arrangements are made, the warehousing space in Jakarta that is being used to hold the USAID-supplied PPE for FAO will be the central distribution facility for the PPE that KOMNAS FBPI will use. Both USAID and FAO have given permission to store PPE for the use of KOMNAS FBPI at this central distribution facility (CDF), for the foreseeable future. Furthermore, FAO (through its warehousing agent) has agreed to manage the PPE meant for use by KOMNAS FBPI. USAID has stated that they will replenish the KOMNAS FBPI stock in an emergency, either by using the existing FAO supplies or importing additional supplies from abroad.

Based on the methodology outlined above, the KOMNAS FBPI CDF must have the capacity to store approximately 120 square meters of PPE at the CDF. According to FAO, 660 square meters of storage space is presently available; therefore, if only one-fifth of this space is allotted to KOMNAS FBPI, storage space should not be a problem, if the assumptions described above remain the same. Warehouse staff should be available to manage the KOMNAS FBPI stock, because FAO (through its warehousing agent) reports that they can store and process approximately 120 square meters of PPE every week.

Local

Storage at a containment site may be a problem. Because it is impossible to predict exactly where an outbreak might occur, it is impossible to pre-position stock any closer to an outbreak area than the central depot proposed above. For this reason, and because it would probably be cost-prohibitive to pre-position PPE below the central level, PPE must be delivered to the containment site at the time of an outbreak. For this system design, it is assumed that the relevant local authorities will provide adequate storage during an outbreak.

Distribution

The warehouses must have the capacity to accommodate the needs for pandemic scenario 3; which means that the distributors who transfer the commodities from the central distribution area to the target areas must have the capacity to transfer the commodities that are needed in a reasonable time (24–48 hours).

PPE will need to be transported from the CDF to the containment areas. At this time, FAO's courier will fund the transport of PPE to a containment site.

Table 1 summarizes the major assumptions that govern the system's design.

Table 1. System Design Major Assumptions

System Function	Design Assumptions
Selection	The PPE provided by USAID meets the needs of the individuals that KOMNAS FBPI will outfit.
Quantification	The list of assumptions provided above is near enough to reality that the quantification provided is accurate.
Procurement	USAID will continue to supply KOMNAS FBPI with PPE, as required, throughout any outbreak(s).
Warehousing	USAID/FAO will continue to support the central storage of PPE. The relevant authorities can arrange temporary storage facilities at the outbreak site(s).
Distribution	USAID will continue to fund a private courier service to distribute PPE to outbreak site(s).
Human Resources	KOMNAS FBPI has the capacity and organizational structure to command and coordinate the distribution and usage of PPE during an outbreak(s).

System Design and Standard Operating Procedures

System Design

The PPE that USAID will provide to KOMNAS FBPI is for the specific use of KOMNAS FBPI. KOMNAS FBPI will determine how and by whom the PPE will be worn. In general, the PPE are intended to supplement PPE provided by other line ministries during an outbreak of avian influenza, although they may also be used during training or simulation exercises.

Commodity Specification

The PPE that USAID will provide to KOMNAS FBPI is packaged (in a plastic bag) for each individual responder; it protects a responder from avian influenza. Each pack meets the needs of a responder until the responder removes his gear. It is recommended that the complete kit be worn by anyone that is in contact with avian influenza victims. PPE is not to be reused (worn twice) if there has been any possibility of exposure to the avian flu virus.

Each pack contains the following items:

- 1 pair Tyvek coveralls
- 1 pair shoe covers
- 2 pairs nitrile gloves
- 1 plastic apron (in plastic pouch)
- 1 N-95 particulate respirator
- 1 pair goggles (with indirect vents)
- 4 alcohol wipes
- 1 virucidal disinfectant wipe
- 1 bag for infectious waste (red).

The packs are issued in a carton; each carton contains 25 packs.

The carton dimensions are 61 cm×38 cm×41 cm = 0.095 cubic meters.

Figure 1. Personal Protective Equipment

Quantification

The initial amounts required for training, simulation, and outbreak response must be quantified. For training and simulation, the KOMNAS FBPI will estimate the initial amounts required to support field operations.

For an outbreak, the individuals on the ground at the outbreak epicenter (especially the district chief), in consultation with KOMNAS, will estimate the amounts required by responders. If the amounts cannot be estimated, table 2 provides estimates for each of the three scenarios described in previous section.

Table 2. Estimates of Commodities Required at Containment Area per Week

Scenario 1: Response as needed

Type of Responder	# Responders	# per day	Days	Total
Uniformed security personnel1	30	6	7	1,260
Essential service providers2	0	0	7	0
Government administrators3	30	2	7	420
Total				1,680

Scenario 2: Response at the Epicenter of the Pandemic Area

Type of Responder	# Responders	# per day	Days	Total
Uniformed security personnel	50	6	7	2,100
Essential service providers	100	2	7	1,400
Government administrators	50	4	7	1,400
Total				4,900

Scenario 3: Responding to an Influenza Outbreak

Type of Responder	# Responders	# per day	Days	Total
Uniformed security personnel	100	6	7	4,200
Essential service providers	100	2	7	1,400
Government administrators	50	4	7	1,400
Total				7,000

Warehousing

Central

The warehousing space in Jakarta currently being used to hold USAID-supplied PPE for FAO will act as a central distribution facility for PPE that KOMNAS FBPI will use. FAO will set aside the 120 square meters of space required to store the PPE. FAO (through its warehousing agent) will also manage the PPE that will be used KOMNAS FBPI. USAID will replenish the KOMNAS FBPI stock in an emergency, either by using the existing FAO supplies or importing additional amounts from abroad.

Local

The relevant authorities at the outbreak site, usually from the district level, will coordinate with KOMNAS to designate an area at the site of the training/simulation/outbreak to temporarily store PPE for the duration of the training/simulation/outbreak.

1 Uniformed security personnel includes police, national army, municipal administrators, community guards, etc.

2 Water, electricity, etc. (8 essential services)

3 Government staff assigned to the affected areas or on duty to provide public services to the community in the affected areas.

Distribution

FAO's courier will transport PPE from the CDF to the containment sites throughout Indonesia. In all cases, a 24- to 48-hour turnaround time is expected. The PPE will be delivered either to the local storage site established by the local authorities, or to some other district-level storage site determined by the local authorities.

Waste Management

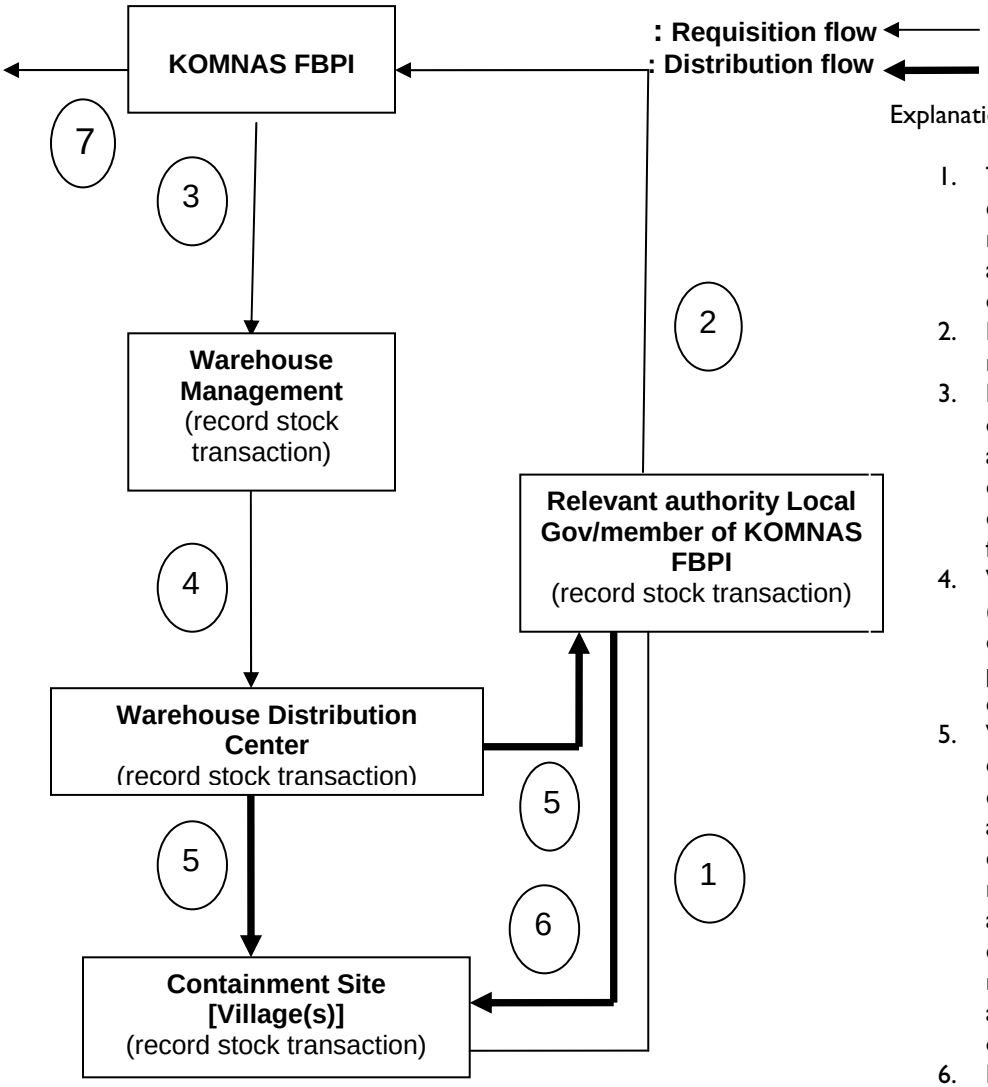
Used PPE must be collected and disposed of properly. It will be the local authorities' responsibility to designate a location where used PPE can be collected and temporarily stored. The site should be close to the storage area for the PPE. At the end of the training, simulation, or outbreak, the local authorities will dispose of the used PPE on or near the site.

Figure 2 shows the movement of PPE between the different levels of the system.

Figure 2. PPE Flow Diagram

Revised

PPE Requisition and Distribution Flowchart Resulting from Bogor Workshop per Pak Bayu



Explanation :

1. Tactical command post at containment site submits request to "relevant authority" (usually district office)
2. Relevant authority submits request to KOMNAS FBPI
3. KOMNAS FBPI submits order to warehouse (FAO) authorizing warehouse distribution center to deliver PPE to fulfill request from relevant authority
4. Warehouse management (FAO) asks warehouse distribution center to prepare delivery, contact its courier, and dispatch PPE
5. Warehouse distribution center (FAO) courier delivers to relevant authority; or directly to containment site, as requested by relevant authority; or directly to containment site, as requested by relevant authority (hence two options)
6. Relevant authority delivers PPE to containment site, if PPE sent to them (optional step)
7. KOMNAS FBPI submits order to USAID when PPE stock is low (under 500)

Standard Operating Procedures

The standard operating procedures in this section for requisition, inventory control, and issuing were designed to (1) be simple enough that they get the job done without interfering with the goal at hand—responding to an emergency, (2) be flexible enough to meet the changing requirements in the field, and (3) keep the pipeline full of PPE throughout the duration an emergency.

How KOMNAS FBPI Orders PPE

Role of KOMNAS FBPI:

KOMNAS FBPI will requisition PPE at the beginning of a training, simulation, or outbreak; they must determine the PPE recipients. This can be done in consultation with the local authorities at the training, simulation, or outbreak site.

KOMNAS FBPI must then determine the amount to supply. The amount requested will depend on the scenario and whether anyone else will assist in supplying PPE. If they are unsure about the number of PPE to order, KOMNAS FBPI should refer to the tables in section 3.1 to determine the exact amounts to order. The amounts are restated below:

Potential Human-to-Human Cluster Response:	1,680
Actual Small Scale Human-to-Human Cluster Response:	4,900
Actual Medium Scale Human-to-Human Cluster Response:	7,000

Because the CDF will provide the PPE, KOMNAS FBPI will submit its request to FAO by phone, fax, or as a Microsoft Word attachment to an email (copy USAID on the order). KOMNAS FBPI will submit a request using the Combined Requisition and Issue Voucher (CRIV) provided in appendix A of this document. For trainings and simulations, KOMNAS FBPI should seek approval from USAID before initiating any requests. In an emergency, no prior approval from USAID is required (unless additional stock is required).

KOMNAS FBPI should indicate the recipient of the PPE both on the form and to FAO via phone. It is KOMNAS' responsibility to determine who will receive the commodities and where they will be stored at the containment site. They should determine the recipient prior to contacting FAO and they should provide FAO with the recipient's full name, address, contact person, and telephone number.

Role of FAO:

When FAO receives a requisition from KOMNAS FBPI, they should quickly review it to ensure quality. After it is reviewed, FAO should enter the name of the person authorizing the requisition on behalf of FAO in the space entitled Approving Authority, which is at the bottom of the CRIV. FAO should then forward the CRIV to its warehousing agent at the CDF. FAO should follow-up with a phone call to ensure that the CDF knows to prepare the order for shipment. FAO should retain a copy of the submitted CRIV.

Table 3. How KOMNAS FBPI Orders PPE

Step	Actions	Comments	Responsible Entity
1	KOMNAS FBPI evaluates whether to submit request for PPE.	KOMNAS FBPI evaluation is based on whether one of three prescribed scenarios have occurred, or if there is another need for PPE (e.g., for training).	KOMNAS FBPI
2	If KOMNAS FBPI decides the request is advisable, KOMNAS FBPI indicates the amounts required and designates the recipient (i.e., the containment area).	KOMNAS FBPI must determine the exact coordinates of the recipient.	KOMNAS FBPI
3	If KOMNAS FBPI decides the request is advisable, KOMNAS FBPI contacts FAO (with copy to USAID).	KOMNAS FBPI request is sent via fax or email (with phone backup). If amounts required at outbreak site can't be estimated for one week, then the amount to order is based on one of three prescribed scenarios (maximum for scenario 1: 1,680, scenario 2: 4,900, and scenario 3: 7,000). KOMNAS FBPI completes Combined Requisition and Issue Voucher based on the job aid entitled "Completing the Requisition and Issue Voucher for Initial Requisition Process for Containment Area."	KOMNAS FBPI
4	FAO instructs its warehouse agent and courier to release and deliver to the containment site, as instructed by KOMNAS FBPI.	FAO informs its agent to follow instructions provided by KOMNAS FBPI. FAO signs request and sends via fax or email (with phone backup) to its agent.	FAO

How the Central Distribution Facility (CDF) Distributes PPE

Role of CDF:

The CDF must issue commodities either directly to a containment site per the details of the CRIV or another district-level storage site specified by the local relevant authorities. After they receive the CRIV, their main responsibility is to review it and, if acceptable, prepare the outgoing order for shipping. After the shipment has been prepared, the CDF should indicate the amount they are shipping on the CRIV in the column labeled Quantity Issued, then sign the bottom of the CRIV under Issuing Authority. They should request a copy of the courier's delivery paperwork and give this to KOMNAS and FAO for their records.

Role of Courier:

After the courier arrives to pick up the impending shipment, the courier should inspect the commodities and sign the CRIV on the line labeled "Courier." The courier should also require the CDF to complete their paperwork and leave a copy of this paperwork with them.

Table 4. How the CDF Distributes PPE

Step	Actions	Comments	Responsible Entity
1	Review information on CRIV received.	.	CDF
2	Prepare order according to information on CRIV received/amount requesting authority actually needed.		CDF
3	CDF makes contact with courier to pick up shipment.		CDF
4	Complete "Quantity Issued" column on CRIV and sign under "Issuing Authority" at bottom of CRIV.	Enter the amount for shipment in the column "Quantity Issued."	CDF
5	Inspect shipment contents and sign CRIV under "Courier."	Count shipment contents and compare to "Quantity Issued" on CRIV. If not the same, reconcile with CDF and correct before signing.	Courier
6	Forward CRIV to recipient.	Determine best method to deliver CRIV and follow-up. Keep copy of CRIV for records.	CDF.
7	Sign delivery note or other courier-generated paperwork.	Sign the courier's paperwork and maintain the original copy. Send copy to KOMNAS FBPI.	CDF
8	Courier delivers from CDF to containment site or other district-level storage site.		Courier

How the Containment Site Receives PPE

Role of Containment Site or Relevant Authorities:

After each containment site receives PPE, they must indicate the receipt by completing the Quantity Received column on the CRIV; they then sign the bottom of the CRIV under Recipient. They should keep a copy of the CRIV and return it to KOMNAS FBPI. To complete the transaction, they should also complete any paperwork that the courier gives them.

Role of Courier:

After the courier delivers the PPE to the containment site, they should complete their paperwork and give a copy to KOMNAS FBPI to confirm the delivery.

Table 5. How the Containment Site Receives PPE

Step	Actions	Comments	Responsible Entity
1	Prepare to receive PPE.	Make arrangements to store the commodities.	Containment site (with assist from KOMNAS FBPI and relevant authorities, as necessary).
2	Make contact with courier to know estimated time of arrival of PPE.		Containment site (with assist from KOMNAS FBPI and relevant authorities, as necessary).
3	Complete "Quantity Received" column on CRIV and sign under "Recipient" at bottom of CRIV.	Enter the amount actually received from courier in the column "Quantity Received" and sign. Maintain original of CRIV. Send a copy to KOMNAS.	Containment site (with assist from relevant authorities, as necessary).
4	Sign delivery note or other courier-generated paperwork.	Sign the courier's paperwork and ask for copy. Maintain original copy of courier's paperwork. Send copy to KOMNAS.	Containment site (with assist from relevant authorities, as necessary).

How KOMNAS FBPI Resupplies PPE for Containment Sites

Role of Relevant Authorities at Outbreak Site:

Whether and when to resupply the containment site should be based on the daily rate and how much remains in stock. The stock level of PPE must be reviewed daily by local authorities based on the usage rate. Each day, the daily usage rate must be determined. When the stock remaining at the site falls below three days worth of PPE, a reorder should be placed by local authorities to KOMNAS FBPI to bring the stock up to one week's worth of stock.

Every day, at the end of the day, a physical inventory of the stock should be conducted. A stock card should be kept at the containment site and updated every day with the results of the physical inventory. The daily usage rate can be determined based on the physical inventory.

The process for reorder will follow the same process as the initial supply to a containment site.

How KOMNAS FBPI Reorders Supply for CDF

Role of KOMNAS FBPI:

KOMNAS FBPI's role is to estimate the daily usage rate at containment sites and to determine when the stock of PPE at the CDF assigned to KOMNAS has dropped below 14 days of stock (i.e., when the stock of PPE is less than 14 times the daily usage rate). When the stock has dropped below 14 days of stock, KOMNAS FBPI should reorder to raise the stock to 28 days of stock (i.e., 28 times the daily usage rate).

If KOMNAS FBPI cannot determine the daily usage rate at the containment site, when the KOMNAS FBPI stock at CDF falls below 5,000, they should place an order to raise the stock to 10,000.

Role of USAID:

The decision whether to and when to resupply the CDF depends on the following factors: the stock status of KOMNAS FBPI-dedicated PPE in the CDF, the availability of FAO stock within the CDF for use by KOMNAS FBPI during an outbreak, and the rate at which the PPE is being used throughout the outbreak. USAID must first decide what stock is available for use by KOMNAS FBPI during an emergency. If FAO has available stock for use by KOMNAS FBPI, then it is recommended that this stock be used to replenish the KOMNAS stock. Otherwise USAID should place an order to replenish the KOMNAS FBPI stock.

Table 6. How KOMNAS FBPI Reorders PPE for CDF

Step	Actions	Comments	Responsible Entity
1	Determine daily usage of PPE throughout outbreak.	KOMNAS FBPI should accumulate data on daily usage throughout outbreak.	KOMNAS FBPI
2	Determine if PPE needs to be reordered from abroad or from FAO stock within the CDF.	If daily usage information is available, determine whether stock at CDF has dropped below "daily usage," multiplied by 14. If daily usage information is not available, determine whether stock has dropped below 5,000 PPE.	KOMNAS FBPI

Step	Actions	Comments	Responsible Entity
3	Reorder PPE, if needed.	If "daily usage" information is available, reorder to increase stock to last for 28 days. If not known, reorder to increase stock to 10,000. Complete CRIV accordingly.	KOMNAS FBPI
4	Place request abroad or CDF depending on availability of FAO stock of PPE.	If stock is available from FAO stock of PPE, USAID should direct FAO to release it to KOMNAS FBPI. Otherwise, USAID should follow normal procedures to order stock from abroad on an emergency basis (i.e., quick turnaround and delivery).	USAID

How CDF Records and Reports Data

Role of CDF:

The main role of the CDF in inventory control is to maintain a stock ledger and update it after every receipt, issue, or adjustment. The CDF should perform a weekly physical inventory of PPE during an outbreak and should update the stock card, as required.

When there are no outbreaks, reporting on storage transactions at the CDF can be limited. Once a month reporting by the CDF to KOMNAS FBPI is sufficient during these times. Because transactions will be limited, no special reporting instrument is required. The transactions can be organized in a table and sent by email to KOMNAS FBPI, as warranted.

Table 7. How the CDF Records and Reports Data

Step	Actions	Comments	Responsible Entity
1	Update stock card after each transaction.	See instructions under job aid entitled "Completing the Stock Card."	CDF
2	Perform physical inventory and update stock card.	Enter results of the inventory on the stock card. CDF should perform monthly physical inventories during non-outbreaks. The CDF should perform a physical inventory once a week.	CDF
3	Report transactions.	During non-outbreaks, CDF should provide list of monthly transactions to KOMNAS FBPI at end of each month. During an outbreak, CDF should provide transaction and stock data to KOMNAS FBPI central office weekly.	CDF

How to Manage PPE Waste

Role of relevant authorities:

The relevant authorities must establish a location at the periphery of the site to hold all used/contaminated PPE. This site must be secure and be a reasonable size to hold all the used PPE that might be generated during an outbreak.

The local authorities should dispose of the used PPE at the conclusion of the outbreak. See appendix C for the procedures for disposal.

Table 8. How to Manage PPE Waste

Step	Actions	Comments	Responsible Entity
1	Establish location at containment site to temporarily store used PPE.	The location for storing used PPE should not be the same as the location for storing unused PPE. It should be secure and have available boxes for storing the used PPE.	Local authorities
2	Dispose of used PPE at CDF.	Arrangements should be made to ultimately dispose of the used PPE at the site.	Local authorities

Job Aids

Table 9. Completing the Requisition and Issue Voucher for Initial Order for Containment Area

Step	Actions	Comments	Responsible Entity
1	Enter the date, recipient name, address, contact point, and telephone number in the appropriate spaces at the top of the form.	The recipient should be well known by KOMNAS FBPI It is important get a contact point at the containment site.	KOMNAS FBPI
2	On the first row of the form, enter the phrase: "USAID-Supplied PPE Packs" in the column labeled "Product Name." Enter the word "Pack" in the column labeled "Unite of Measure."		KOMNAS FBPI
3	On the first row of the form, enter the number required in the column labeled "Quantity Ordered." Do not fill in any other columns.	If the amount required for one week cannot be estimated, then the amount required is 1,680, 4,900, or 7,000 PPE, respectively, depending on whether it is scenario 1, 2, or 3.	KOMNAS FBPI
4	Enter the name of the person making the requisition on behalf of KOMNAS FBPI in the space labeled "Requisition Authority," at the bottom of the form. Include the date.	Person who will be subsequent contact point should provide contact information.	KOMNAS FBPI
5	On the first row of the form, enter the number issued in the column labeled "Quantity Issued."		CDF
6	Enter the name of the person issuing on behalf of CDF in the space labeled "Issuing Authority" at the bottom of the form. Include the date and hour.		CDF
7	On the first row of the form, enter the number received in the column labeled "Quantity Received."		Site or relevant authorities
8	Enter the name of the person receiving on behalf of the site in the space labeled "Recipient," at the bottom of the form. Include the date and hour.		Site or relevant authorities

Lessons Learned from Other Organizations

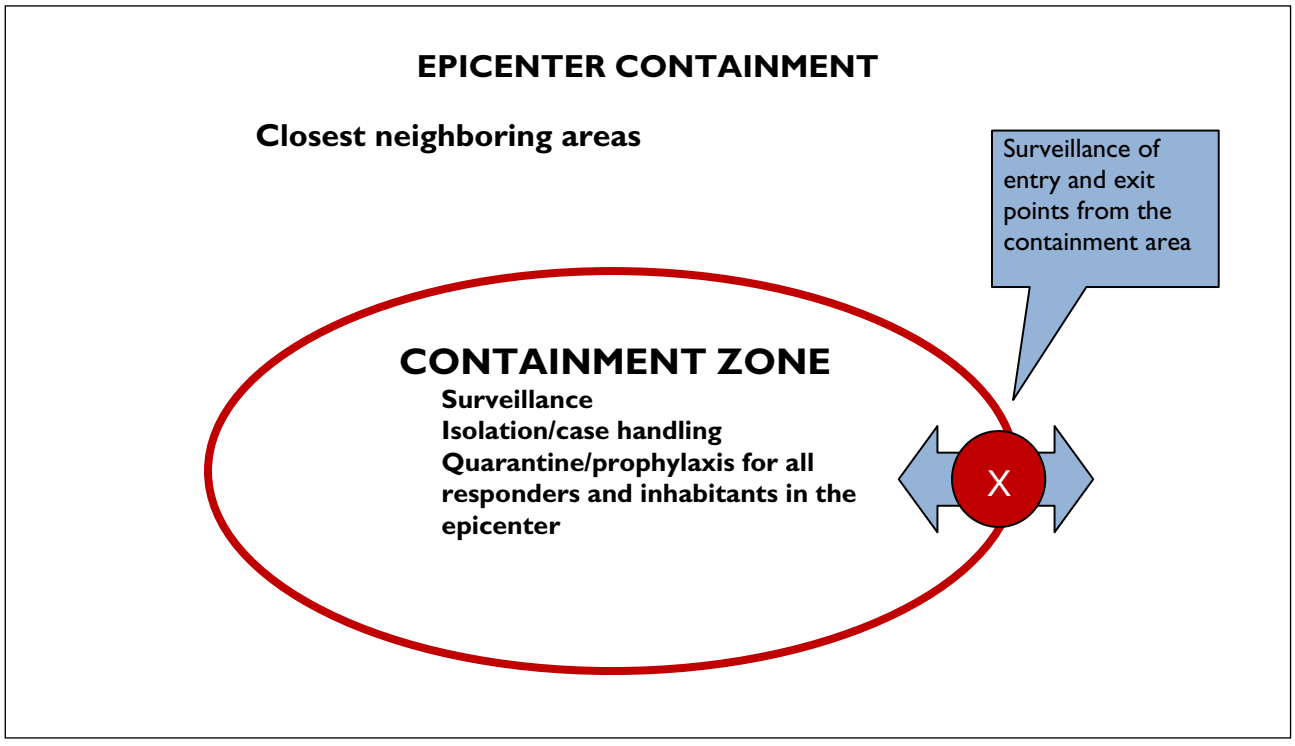
PPE Usage, Stockpiling, and Distribution by the Ministry of Health

Background

Pandemic Influenza Epicenter Concept

The pandemic influenza epicenter is where the epidemiologic and virologic signs of human-to-human transmission of pandemic influenza virus is first detected.

Figure 3. Epicenter Containment



The MOH provides a guideline for PPE usage based on the type of users and their location, including epicenters. PPE is used in hospitals, community health centers, the field, and the laboratory. In epicenters, PPE will also be used in the quarantine area and in the Port Health Office (KKP).

Objectives of PPE Usage

PPE can protect the responder's skin and mucous membrane from exposure to patient's blood, body fluids, skin, and mucous membrane. Procedures that carry risks are patient treatment procedures, including routine procedures, orthopedic surgery, autopsy, or dental treatment with high speed drills.

PPE usage at a hospital

- Personnel in an isolation room should wear full PPE gear: plastic goggles, visor/helmet (if applicable) or head cover, shoe covers, waterproof coveralls, surgical gown, plastic apron, surgical mask and N-95 mask, disposable gloves over long gloves, and boots.
- Triage personnel should wear a surgical mask and gloves.
- Infectious disease ambulance personnel (doctor, paramedic, and driver) should wear full PPE gear.

PPE usage in community health center

- Triage personnel should wear a surgical mask or N-95 mask and gloves.
- Examination room personnel should wear PPE, including mask, gloves, coveralls, head cover, and shoe covers.

PPE usage in the field

- Field personnel or rapid response team should wear gloves, N-95 mask, and boots.

PPE usage in the laboratory

- Personnel in the laboratory should wear plastic goggles, head cover, shoe covers, boots, waterproof coveralls, plastic apron, N-95 mask, and disposable gloves.

PPE usage in quarantine area (for instance, an epicenter)

- Personnel within the quarantine or isolation area, but not in direct contact with the suspected case, can wear only the N95 mask (five masks/person/day) and gloves.
- People in the quarantine area can wear only a surgical mask (10 masks/person) for 20 days of use.
- Inhabitants of a house within the quarantine area should wear a mask whenever they go out.

PPE usage at port health office/KKP (for instance, an epicenter)

- Officers guarding entry points should wear an N-95 mask.

- Officers in airports/harbor clinics should wear PPE, including an N-95 mask, gloves, head cover, coveralls, and shoe covers.
- Ambulance personnel (doctor, paramedic, and driver) should wear PPE, including an N-95 mask, head cover, coveralls, goggles, and boots.

Personal Protection Equipment Inventory and Storage

In 2007

In 2007, KOMNAS FPBI procured 24,585 sets of PPE with funding from the state's budget. Each set comprises goggles, disposable white apron, gloves, N-95 mask, and boots. In 33 provinces, 23,950 sets have been distributed. The remaining 635 sets are stored in a P2PL warehouse and are used for field investigation.

In 2008–April 2009

WHO donations stored in P2PL warehouse included 10,000 pairs of boots with 4,000 pairs remaining; 10,000 aprons with 4,000 remaining; 10,000 N95 mask with 600 remaining; 10,000 pairs of goggles with 200 remaining; and 10,000 pairs of size medium and large gloves.

In 2008

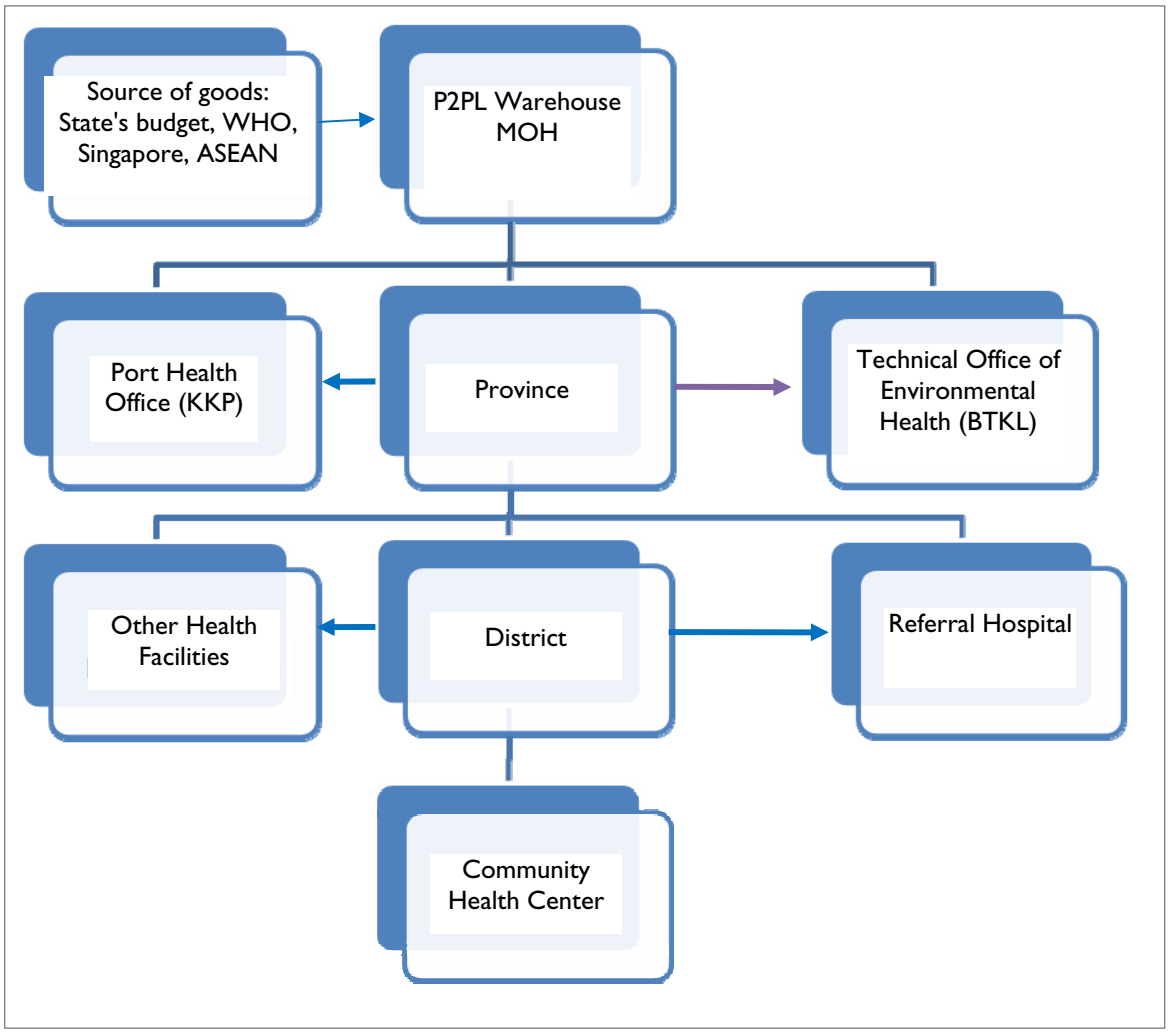
In 2008, 20,880 units of particulate respirator; 31,000 units of surgical masks; 100,000 pairs (in 100 boxes) of disposable gloves; 17,500 isolation suits; 33,200 isolation gowns; 1,700 pairs of safety goggles; and 4,992 antiseptic kits were stored in the WHO warehouse.

PPE Distribution and Delivery

The MOH will distribute PPE to 33 provinces; WHO will help finance the distribution costs. The standard operating procedure for distribution is to relay the PPE through the Provincial Health Service/Port Health Office (KKP)/Technical Office of Environmental Health (BTKL) to the District Health Office. The Provincial Health Service coordinates and is responsible for managing the pharmaceutical warehouse. PPE would be placed at the Provincial Health Service's pharmaceutical warehouse, which will also facilitate and distribute requests from the District Health Office, Community Health Center, referral hospital, and Port Health Office (KKP).

PPE delivery will be made if a region is affected by AI (especially in the 12 most vulnerable provinces). As part of pandemic preparedness, PPE will also be sent to provinces where AI has not yet infected humans. Therefore, if there is an increase in suspected AI cases, more deliveries will be made and more PPE will be needed.

Figure 4. Logistics Flow Diagram



PPE Usage in HPAI Control Activities by the Ministry of Agriculture

The Latest Update on Poultry AI Cases in Indonesia

Between 2003–2008, poultry

AI infection occurred in 291 districts, in 31 provinces, with more than 13 million poultry dead/culled. Based on AI prevalence, the provinces are classified as—

- AI-free (2 provinces): North Maluku, Gorontalo
- Endemic/high prevalence (17 provinces): Java, Sumatra (except Bangka Belitung), South Sulawesi, Southeast Sulawesi
- Low prevalence (14 provinces): Bali, East Nusa Tenggara, West Nusa Tenggara, Kalimantan, Maluku, Papua, West Papua, Sulawesi (except South and Southeast Sulawesi), and Bangka Belitung.

To diagnose AI, the surveillance of suspected AI cases and the diagnosis is confirmed by a rapid test. From May–October 2009, while this document was being prepared, there were no reports of poultry AI infection in Bali, East Nusa Tenggara, West Nusa Tenggara, Kalimantan, Maluku, Papua, West Papua, or Bangka Belitung.

If an AI case is found in a previously AI-free area, conduct stamping out (mass culling) within a specified radius (i.e., 1 km) from where the first AI case was found. If an AI case is found in an endemic/low prevalence area, conduct limited/focal culling of AI infected poultry or poultry that were in close contact with the dead/AI infected poultry.

Purpose, Objectives, and Procedures for PPE Usage

PPE are used to prevent exposure against pathogenic microorganism, especially Participatory Disease Surveillance and Response (PDSR) System for Highly Pandemic Avian Influenza (HPIA). PPE is provided to personnel from the Animal Husbandry Service and/or PDSR, as well as for members of society involved in activities with a high risk of exposure to the AI virus, such as depopulation, rapid testing, sample gathering, etc.

The PPE usage procedure is determined by the risk of exposure to the avian influenza virus:

- Level 1—Green (not an active case): Wash hands with soap and disinfect soles of shoes.
- Level 2—Yellow (active case or suspected AI; for example, those found during rapid test): Wear partial PPE gear (mask, goggles, gloves, apron, and shoes covers).
- Level 3—Red (high-risk activities, such as depopulation): Wear full PPE gear.

After PPE is used, it is considered to be contaminated by a virus; it must be destroyed by burning, then burying within the infection area. Personnel cannot enter clean areas if they are wearing PPE that was worn in an AI-infected area.

PPE Inventory—Reasons for Providing PPE

As of March 27, 2009, there were 2,818 boxes (25 sets each), for an inventory total of 70,450 sets of Dupont Tyvex-brand PPE, ranging in size from small, large, and extra large; which included goggles, mask, two pairs of gloves, coveralls, apron, antiseptic kit, shoes covers, and plastic bag. The PPE inventory is stored in PT Pos Indonesia's warehouse at Cibitung, Bekasi, West Java.

This PPE fulfills LDCC's routine requirements, as well as urgent needs during outbreaks when LDCC does not have enough PPE in stock. PPE is also provided for FAO and MOA staff during field visits, and it is also used for during training.

Storage, Control, and Management Procedure for PPE Stock

PPE in the warehouse will be stored separately, based on the user's project; for example, PPE stock for FAO-HPAI project will be kept separate from PPE stock for KOMNAS FBPI. PPE will also be grouped, based on the origin of the PPE—i.e., from USAID or other donors—and based on its size. PPE for provincial- or district-level activities will be stored at the respective provincial or district offices.

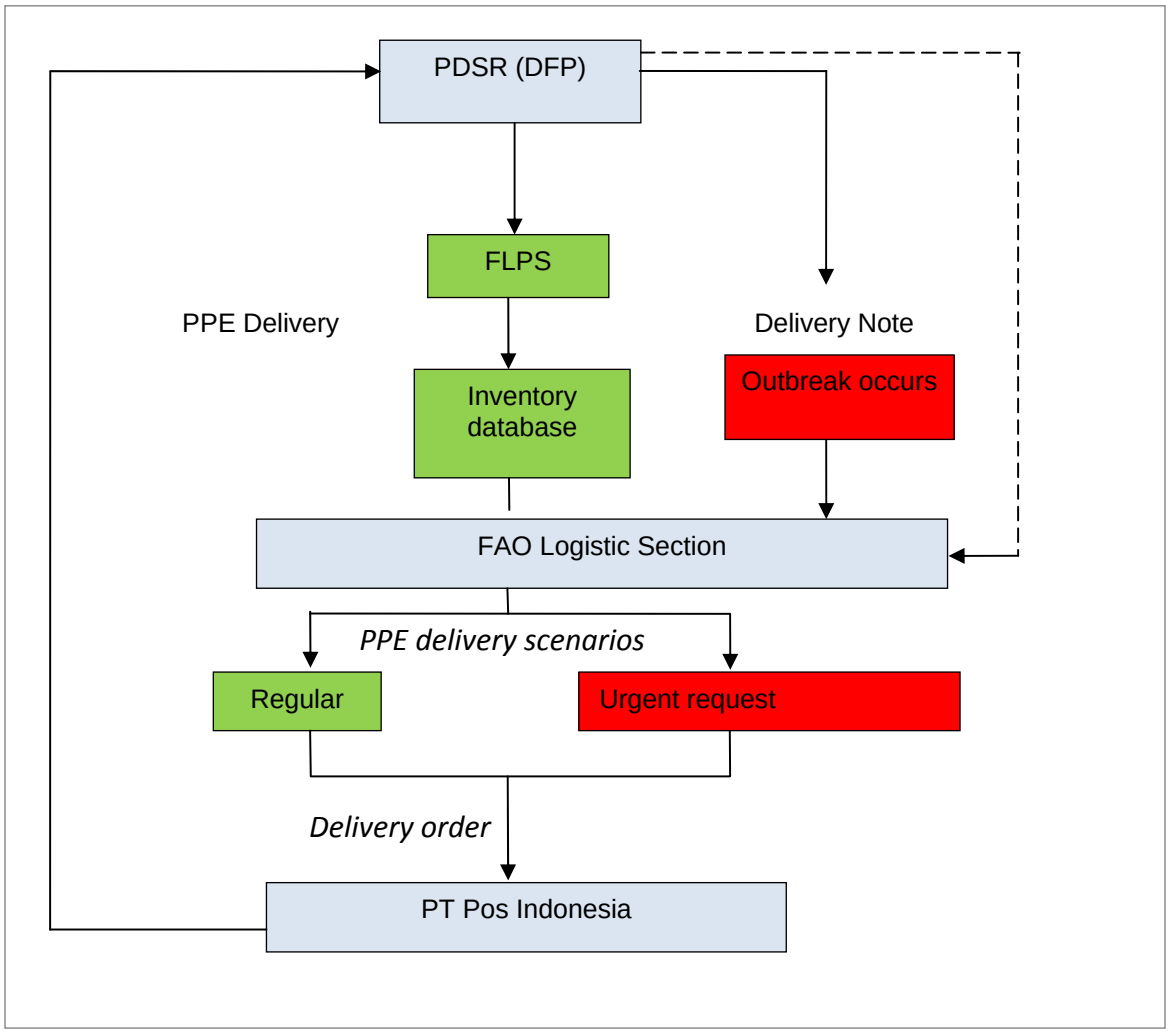
As part of stock control, PT. Pos Indonesia will submit a periodic stock report for PPE stored in the warehouse, which is then verified by the FAO logistics section during a physical inventory in the warehouse (at least once a month). For PPE stock in the field, the FAO logistics section monitors the stock based on an inventory database and the Report and Supplies Request form (*Formulir Laporan dan Permintaan Supply*/FLPS) filed by the district. When this document was created (October 2009), PPE stock was sufficient for the next six-month's projected distribution.

The FAO logistics section, with assistance from PT Pos Indonesia as the warehouse owner, manage and supervise the PPE stock. The FAO is financing the operational costs, which includes warehouse lease and management, as well as PPE distribution to the regions.

Scenario for PPE Delivery and PPE Distribution Diagram

PPE delivery to the field usually follows two patterns—regular deliveries and urgent deliveries. Regular delivery is based on inventory database and also based on the Report and Supplies Request form (*Formulir Laporan dan Permintaan Supply*/FLPS), which is filed by the district. Meanwhile, urgent deliveries are made when there is an urgent need because of an outbreak.

Figure 5. PPE Distribution Diagram



Lesson Learned from the Usage and Management of PPE by the Indonesia Red Cross (IRC)

To support HPAI control activities in Indonesia, IRC has distributed PPE to trained village volunteers; each PPE set contains Tyvek Dupont coveralls, shoe covers, apron, goggles, N-95 mask, 2 pairs of gloves, disinfectant and alcohol, and biohazard infectious waste disposal bag.

Purpose and Objectives of Providing PPE

The IRC provides PPE to improve its capacity to respond to pandemic influenza, while its objectives are—

- to ensure the availability of PPE for each line of PMI's service, especially during a pandemic
- to shorten PMI's internal distribution chain for a more effective response
- to provide each member of the disaster response unit (SATGANA) with PPE.

For Whom and Under what Conditions PPE will be Provided

IRC provides PPE for volunteers and on-duty staff (SATGANA). PPE is not provided as a set, but it is provided separately for each item because (1) various types of IRC services require different types of PPE; (2) demand for PPE is expected to be high, so items can be substituted or complemented; and (3) procurement and distribution in the field is easier if PPE is distributed as separate items. At the province/branch level, PPE is provided as a packet for each kind of service.

PPE Stockpile and Stock Control Procedure

PPE stockpile is stored in two kinds of warehousing areas: the central warehouses in Jakarta and Surabaya; and the regional warehouses in Banda Aceh, Padang, Yogyakarta, Makassar, Manado, Sorong, and Banjarmasin. IRC does not keep a PPE stockpile for pandemic situations; therefore, to procure PPE, an appeal must be submitted to IFRC (KOMNAS FBPI) when it is needed. IRC's stock control procedures for PPE include the reception of goods and services (including customs clearance, documentation, and goods inspection) and storage (including bin card and stock, as well as stock control on location).

Distribution Method and the Distributor

The logistics division distributes PPE from IRC's warehouse to the region/branch that has submitted a requisition form. IRC's fleet or courier service will deliver from the warehouse to the branch in no more than 24 hours, including a delivery note. The branch will distribute directly to service units within the branch's area.

PPE Procurement and Management

The social and health services division will inform the goods procurement division about its PPE requirements. Subsequently, the goods procurement division will coordinate with the relevant procurement team about the availability of funds to procure the goods. The goods procurement division will coordinate with the logistics subdivision about storage location and budget. The logistics subdivision will manage the received PPE supply.

Lessons Learned from PPE Management

- Be on the alert for PPE misappropriation (or misuse/improper use) as this is very likely to happen during a panic situation that makes the equipment ineffective.
- Ensure that there is a clear explanation on how and when to use PPE.
- PPE coveralls can cause the wearer to become very hot; the goggles often fog up.

PPE management diagram, storage diagram, and delivery note

Figure 6. PPE Management Diagram

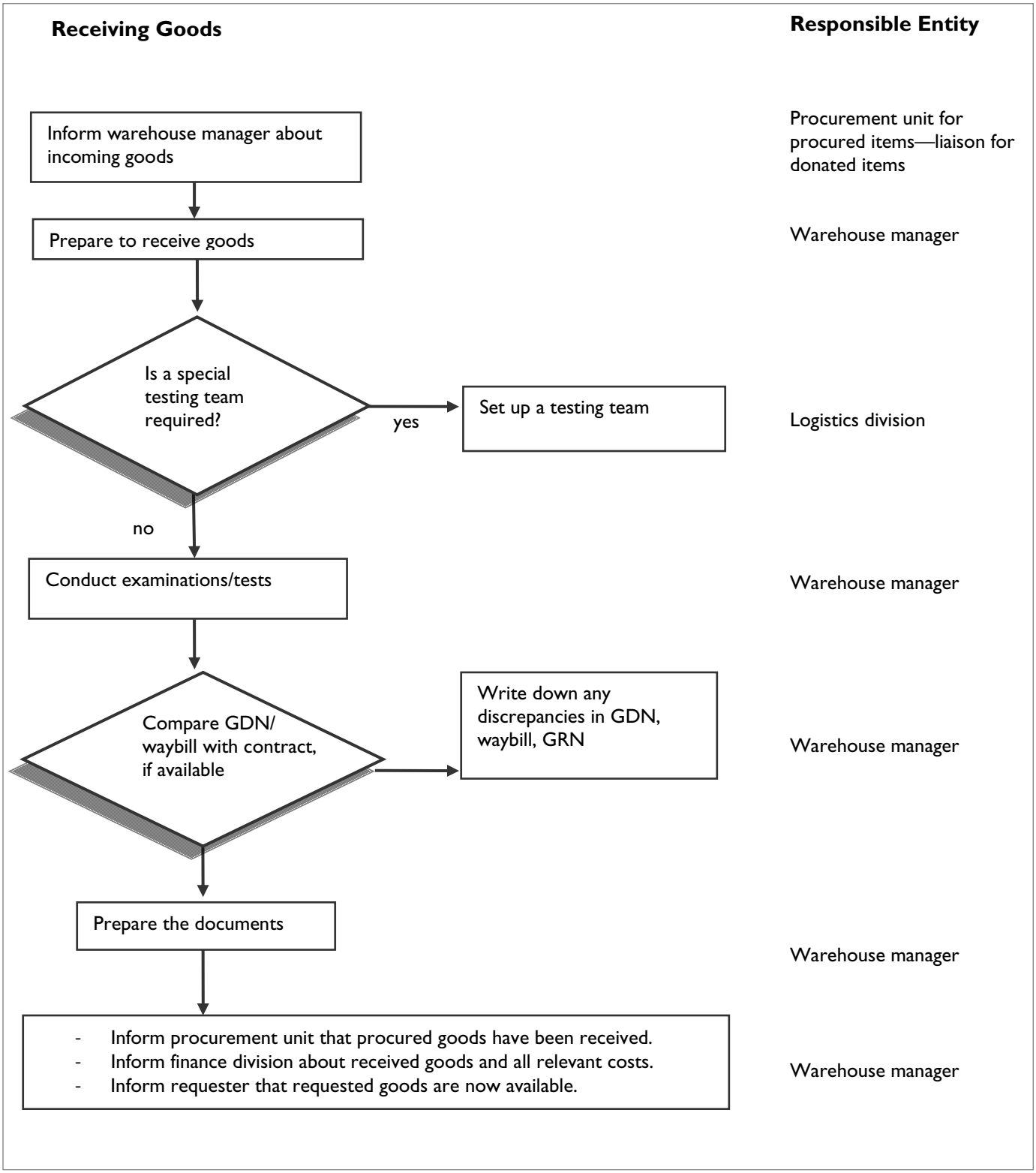


Figure 7. PPE Storage Diagram

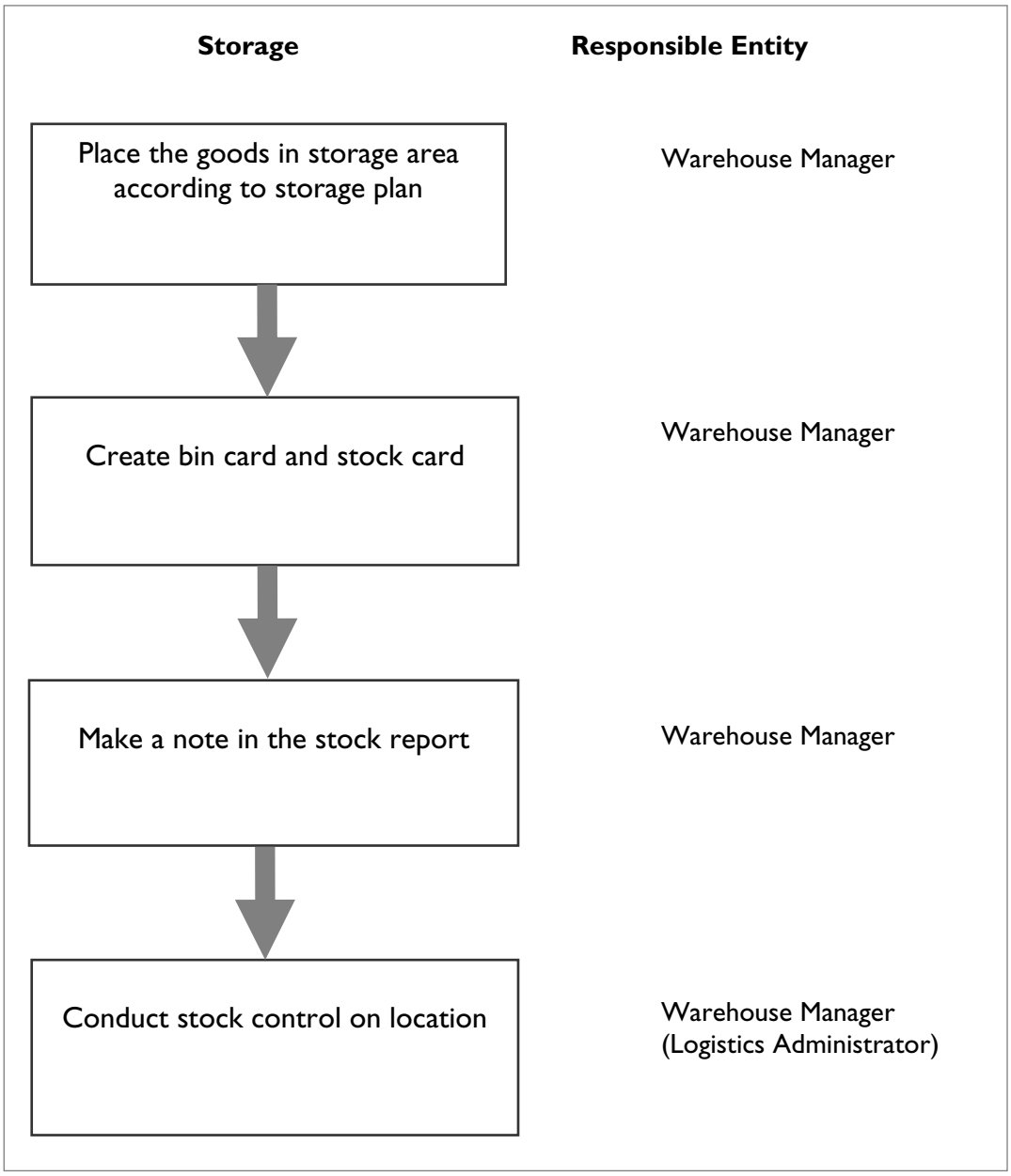


Figure 8. Goods Deliver Note

Nota Pengiriman/GDN
(Good delivery Note)

PMI

PALANG MERAH INDONESIA
Indonesian Red Cross Society

NOTA PENGIRIMAN / Delivery Note **F.7**

Tanggal (1) *Date* ***3 Juni2005***	**Nomor** (2) *Number* : ***printed number*** / *Kode / Kode Cabang / lokasi penampungan sementara*
Kepada (3) *To* ***Gudang PMI Cabang Aceh Besar***	**Dari** (4) *From* ***Kantor PMI Pusat***
Untuk Perhatian (5) *Attention* ***Penanggungjawab ditempat tujuan***	**Pemindahan / Distribusi** / (6) *Transfer / Distribution / (coret salah satu sesuai tujuan)*
Sarana Transportasi (7) *Method of transport* ***Truck***	**Nomor Kendaraan** (8) *Vehicle number* ***BL 9980 XX***
Tandatangan Pemeriksa (9) *Verification signature* ***IRMAN RAHMAN***	**Donor** (10)

Req form Nomor	Barang *Commodity*	Satuan *Unit Type*		Jumlah *Quantity*	Total Berat *Total Weight*	Ukuran *Size*	Harga / Unit	Keterangan *Remarks*
(11)	(12) Baby kit	Unit	(13) Box	(15) 60	(16) 120 kgs	(17) ……m^3	(18)	(19)
		Berat	(14) 2 kgs					
		Unit						
		Berat						
		Unit						
		Berat						
		Unit						
		Berat						
		Unit						
		Berat						
	Jumlah berat			(20)	(20)	(20)		

Nama Jasa Pengirim – (21)	**Diterima oleh** – (25)
Nama dan Tanda Pengenal – (22)	**Jumlah Satuan** – (26)
Tanda tangan / Tanggal – (23)	**Tandatangan / Stempel** – (27)
Keadaan Barang – (24)	**Keadaan Barang** – (28)

Putih – Pengirim / **Hijau** – Penerima / **Biru** – keuangan pengirim / **Kuning** – File Log / **Pink 1** - Jasa pengirim, **Pink 2** Pemohon (29)
Catatan : Form ini hanya disimpan oleh petugas yang ditunjuk, jika salah atau batal harus disimpan

Appendix A

Combined Requisition and Issue Voucher

Date _____

Name of Recipient _____

Address of Recipient _____

Contact Point for Recipient _____

Contact Telephone # _____

Product Generic Name	Unit of Measure	Closing Stock	Daily Consumption	Quantity Ordered (KOMNAS)	Quantity Issued CDF	Quantity Received (SITE)

Additional Comments: _____

Signed _____ Date/Hour_____
Requisition Authority (KOMNAS)

Signed _____ Date/Hour_____
Approving Authority

Signed _____ Date/Hour _____
Issuing Authority - CDF

Signed _____ Date/Hour _____
Courier

Signed _____ Date/Hour _____
Recipient (Site)

Appendix B

Proper Putting On of (Donning) Personal Protective Equipment

1. **Put coveralls on FIRST**. Always start with the coveralls, which should be big and loose, enabling you to pull the coveralls on over your clothes (even over a skirt) without restricting movement. Be certain to zip up the coveralls.

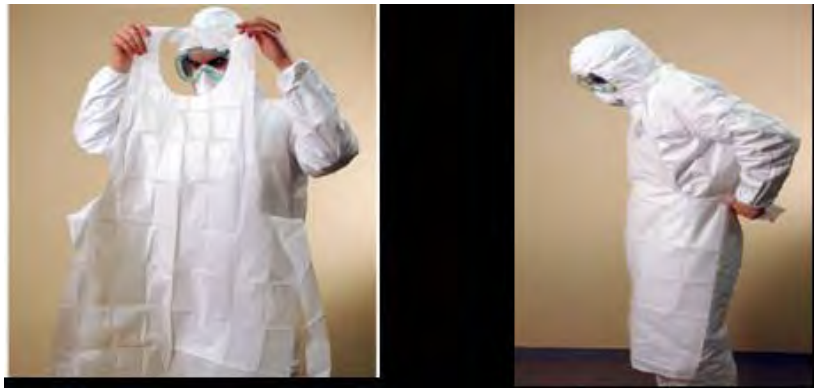
2. **Put shoe covers on SECOND.** They fit over the coverall feet, providing another layer to protect your shoes from contamination.

3. **Put the respirator on THIRD.** This protects you from inhaling the infectious avian influenza virus into your nose and lungs.

4. **Put the goggles on FOURTH.** The goggles should fit snuggly over and around your eyes.

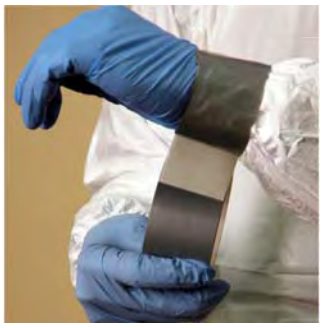
After the respirator and goggles are in place, pull the hood on your coveralls over your head.

5. **Tie on the apron FIFTH.** Open the small packet containing the apron. Place the apron over your head, then tie it in the back.



6. **Put on the gloves SIXTH.** You will find two pairs of gloves in the PPE kit. The white or clear gloves go on first, then the darker pair of gloves goes on over the clear gloves for an extra layer of protection.

Tape the area where the gloves and coverall sleeves come together to ensure that no contaminants come in contact with your skin.



NOW YOU ARE READY

Important Things to Remember When Using Personal Protective Equipment

Wearing PPE

Workers have said that wearing PPE can sometimes make the job more difficult to accomplish because the coveralls, etc., can be cumbersome, hot, and uncomfortable. However, they also know that when properly used, this equipment will prevent them from becoming infected, or from spreading the virus to other farms or people, especially the people they care most about. Remember that—

- All the items supplied in the PPE kits are disposable; they are designed to be used only once. Do not reuse any PPE or wash it for reuse; you could infect yourself or someone else.
- Do not use, or provide, N-95 respirators to others, without instructions on the health risks associated with them. For example, workers with poor lung function may not be able to wear these respirators.
- If you can, do a fit test to make sure no particles can get through. A video on test fitting is available for you to view.
- Always wear the respirator when you are working; do not hang it around your neck.
- If any piece of PPE is torn or becomes dirty, change it immediately.
- Identify a designated area for putting on PPE. Ideally, it should be a clean area away from birds or any other potentially contaminated equipment, such as cages, crates, or farm tools. All personnel should use this area to put on their PPE.

Disposing of PPE

- Identify an area for removing PPE. Ideally, this area should be away from the area that has recently been depopulated and/or decontaminated. All personnel should use this area to remove their PPE.
- Before taking a break, remove all your PPE and discard it. Put on a new set after the break.
- Immediately after using PPE, place it in the red plastic bag provided in the PPE kits.
- Seal the red plastic bags and dispose of them properly; follow the instructions of the local officials or person supervising the work about where to place red infectious waste bags when they are full.
- Disposal methods (such as burning or burial) may differ by situation or location. Local officials or those supervising the work will probably decide on how best to dispose of used PPE and other items that have come in contact with the virus.

The N-95 Particulate Respirator

The respirator in your kit is called an *N-95 particulate respirator***.** There are a few things that you should know about it:

- Respirators are designed to fit adults; they are not recommended for use by children.

  Using an N-95 respirators alone will not fully protect you from acquiring an avian influenza infection—the respirator must be used in combination with all of the other PPE items in your kit.

- N-95 respirators must be fit to each face. An N-95 respirator that has not been fitted properly can leave unprotected gaps between the respirator and your face; these gaps will impair the respirator's effectiveness.
- Facial hair or unusual facial features may make it difficult to fit N-95 respirators properly. N-95 respirators cannot be worn effectively by men with beards or unshaven faces.
- When N-95 respirators become wet from saliva, sweat, or respiratory secretions, they lose their protective properties and must be changed.
- If a respirator is splashed and becomes wet, change it using strict hand-washing procedures and gloves.
- Discard and replace respirators after 4–6 hours of use. The other PPE can remain on for the duration of your activities.
- Surgical masks are not respirators! Surgical masks are designed to protect patients from contaminants generated by the person wearing the mask. They filter out large-size particles in the air, but they offer little protection against the avian influenza virus.
- Do not hang N-95 respirators around your neck when working. Always wear them when working.

Appendix C

The Proper Sequence for Taking Off (Doffing) PPE

1. Remove and dispose of the apron.

2. **Wipe off outer gloves** with the germicidal wipe and dispose of the used wipe in the infectious waste bag.

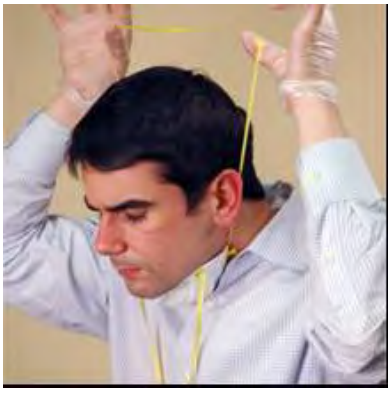
3. Remove the outer boot by holding the top and rolling it off of your foot. Place it in the biohazard bag.

4. Untape and remove the outer gloves and place them in the biohazard bag.

5. Unzip and roll down the coveralls until they are inside out and place them in the infectious waste bag.

6. Remove the goggles by the strap and place them in the infectious waste bag.

7. **Remove the respirator** by grabbing the top and then the bottom elastic bands, and pull it up over your head. Place the respirator in the red infectious waste bag.



8. Remove the inside gloves and place them in the infectious waste bag.

9, Close the biohazard bag by tying the corners of the top of the bag together.

10. EWipe your hands with a germicidal wipe and dispose of it in the biohazard bag.

11. Wash your hands and you are ready to go.

Appendix D

Contacts

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