

# Childhood Vaccine Program

Office of Immunization | (360) 236-2829 | [doh.wa.gov/cvp](http://doh.wa.gov/cvp) | [wachildhoodvaccines@doh.wa.gov](mailto:wachildhoodvaccines@doh.wa.gov)

## Vaccine Order Schedule Information: Economic Order Quantity and Recommended Order Quantity



## Contents

WHAT DO EOQ AND ROQ STAND FOR? .....	3
WHAT IS EOQ AND ROQ?.....	3
SHOULD I APPLY EOQ TO ALL ORDERS? .....	4
WHAT IS THE PURPOSE OF EOQ AND ROQ?.....	4
WHY DO WE HAVE EOQ AND WHY WAS IT IMPLEMENTED?.....	4
IS PARTICIPATION OF EOQ MANDATORY?.....	5
HOW DOES EOQ BENEFIT ME?.....	5
WHAT IF I PLACE AN ORDER OUTSIDE OF MY EOQ?.....	5
WHAT IF I RUN OUT OF VACCINE? .....	6
EOQ ORDER FREQUENCY .....	6
HOW DO I LOCATE MY EOQ? .....	6
EOQ AND YOUR ORDER SCREEN .....	7
CALCULATING ROQ.....	8
ROQ AND YOUR ORDER SCREEN .....	9
PLACING AN ORDER OUTSIDE YOUR ROQ.....	9

## What do EOQ and ROQ stand for?

EOQ is Economic Order Quantity.

ROQ is Recommended Order Quantity.

EOQ is commonly referred to as your ordering schedule, however the Ordering Schedule is only one part of your EOQ.

## What is EOQ and ROQ?

EOQ is the information you will see on your order page. This encompasses:

- Order frequency - how often an order should be placed
- Order timing - the time of the month an order should be placed
- Order schedule - the months that an order should be placed

Comments:

[Inventory Last Submitted](#): 03/16/2018  
[Vaccine Administered Report Last Submitted](#): 03/16/2018  
 Last Order Submitted: 03/11/2016 02:33:58 PM  
 Order Set: --select--

Inventory Transaction Report | Lot Number Summary | Edit Temperature | Doses Administered Report

**EOQ =** Order Frequency: Every Two Months    Order Timing: 1st to 15th  
 Order Schedule: February, April, June, August, October, December

ROQ is an equation to determine the order quantity that is recommended to be placed within the EOQ schedule for the clinic. ROQ factors in a 30 day safety stock to help ensure a clinic does not run out of vaccine.

### Example: Calculating ROQ for a provider ordering every 2 months

Order Frequency: Every Two Months    Order Timing: 1st to 15th  
 Order Schedule: February, April, June, August, October, December    = EOQ

Vaccine	Vaccine Name	Funding Source	Doses Used Last Month	Physical Inventory	Recommended Quantity	Order Quantity
Hib (PRP-T)	ACTHIB	SPLIT	13	28	20	10 !
HPV9	GARDASIL 9	SPLIT	8	63	0	40 !
IPV	IPOL	SPLIT	13	3	40	40 ✓
meningococcal MCV4P	Menactra	SPLIT	29	37	50	50 ✓

Always round UP to next package size

Order based on need. Add a comment if an order is above ROQ

## Should I apply EOQ to all orders?

While EOQ applies to most Childhood Vaccine Program (CVP) vaccines, it does not apply to seasonal influenza vaccines or vaccines with limited availability. Influenza vaccine can be ordered as needed within assigned allocations.

## What is the purpose of EOQ and ROQ?

The purpose of EOQ is to balance provider order size, order frequency, timing of orders, and inventory management. Having providers place vaccine orders according to their assigned order schedule (frequency and timing) more evenly distributes orders throughout each month, and throughout the year.

The purpose of ROQ is to work with EOQ in ensuring providers have enough vaccine to carry them to their next ordering time.

We do not want providers running out of vaccine due to inadequate supply. The ROQ tool was created to help manage the quantity of vaccines to order during a providers EOQ and ensure a safety stock. The safety stock is to ensure that providers have vaccine stock while allowing time for their new vaccine order to be received.

Always review the Vaccine Blurbs newsletter, this newsletter will let you know of important holiday shipping schedules.

## Why do we have EOQ and why was it implemented?

Economic Order Quantity is an industry best practice for inventory ordering, distribution, and management. EOQ is the Centers for Disease Control and Prevention (CDC) standard to more effectively manage the federal vaccine program nationwide.

Implementation Reasons:

- There were inefficiencies in how providers placed orders (such as; incorrect quantities, multiple orders within a short period of time, order spikes in the beginning of the month, and etcetera).
- At the national level, there should be greater predictability in ordering resulting in overall inventory management improvements.
- Implementing EOQ may reduce total operating costs for the program by optimizing the frequency and volume of publicly funded vaccine shipments. EOQ works to balance these competing costs by looking at total costs to save taxpayer dollars.

### **Is participation of EOQ mandatory?**

Yes. All providers enrolled in the Childhood Vaccine Program will be required to order according to their assigned EOQ.

### **How does EOQ benefit me?**

Providers may receive their publicly-funded childhood vaccines orders more quickly. Spreading orders throughout the month helps to alleviate the spike of orders that McKesson currently experiences at the beginning of each month.

Providers may be able to save time by creating larger, less frequent orders rather than a high volume of small orders.

Working with EOQ and ROQ takes the guesswork out of determining how much of each publicly-funded childhood vaccine is needed for a given order cycle. The tools may help you save time and feel more confident you are ordering the right amount of vaccine. This way you do not have to worry about publicly-funded vaccine wastage from ordering too much, or running out of publicly-funded vaccine from ordering too little.

### **What if I place an order outside of my EOQ?**

Off schedule orders will be accepted. Providers may be contacted to discuss off-schedule ordering if appropriate exception reasons are not provided in the order. If you place an order outside your schedule, order enough vaccine to get you to the delivery of your next scheduled vaccine order.

Providers can contact the Childhood Vaccine Program regarding an order placed outside their EOQ.

We do not want providers running out of vaccine due to inadequate supply. If a provider needs help with ordering quantities, please contact us at [WAChildhoodVaccines@doh.wa.gov](mailto:WAChildhoodVaccines@doh.wa.gov).

## What if I run out of vaccine?

No matter when you are scheduled to order, you may place an order if you are in danger of running out of publicly-funded childhood vaccine. ROQ tools are designed to help you avoid running out of vaccine so this shouldn't happen very often when utilized.

CDC recommends that you keep a 30-day safety stock of publicly-funded vaccines to help ensure you do not run out. Please use the Recommended Order Quantity tools to help ensure a safety stock.

## EOQ Order Frequency

Your Economic Order Quantity is determined by how many doses you are approved to receive each year.

Doses Per Year	Order Frequency
0 – 199	Every 6 Months (bi-annually)
200 – 799	Every 3 months (quarterly)
800 – 3,999	Every 2 Months (bi-monthly)
4,000 plus	Monthly

## How do I locate my EOQ?

1. Log into the Immunization Information System (IIS)
2. Select Orders/Transfers
3. Select Create/View Orders
4. Select Create Order
5. Locate your EOQ under your order set information
6. Cancel the order if you were not intending to create an order
7. Please see below image regarding EOQ within your order screen

## EOQ and Your Order Screen

The below image is an example of what your order page will look like with an EOQ.

You can see the following within the green box:

- Order frequency - how often an order should be placed
- Order timing - the time of the month an order should be placed
- Order schedule - the months that an order should be placed

PIN: 193999	Instructions: CLOSED 12-1
Order Date: 12/29/2016	Order Status: In Progress
Submitter: BECKY MITCHELL (BMITCHELL)	
Comments: <input type="text"/>	
<b>Inventory Last Submitted:</b> 11/17/2016	
<b>Vaccine Administered Report Last Submitted:</b> 11/17/2016	
<b>Please Submit your Monthly Vaccine Administered Report before reconciling your vaccines.</b>	
Last Order Submitted: 12/14/2016 11:06:57 AM	
Order Set: --select--	▼
<input type="button" value="Inventory Transaction Report"/>	<input type="button" value="Lot Number Summary"/>
<input type="button" value="Edit Temperature"/>	<input type="button" value="Doses Administered Report"/>
Order Frequency: Every Two Months    Order Timing: 1st to 15th	
Order Schedule: February, April, June, August, October, December	

**EOQ**

## Calculating ROQ

ROQ is the recommended number of vaccine doses your facility should order based on your EOQ (how frequently you order and during which months). ROQ is a guide and does not factor in seasonality or other reasons for increased need. Always remember, do NOT run out of vaccine. Order based on your facility's needs.

### How to Manually Calculate Your ROQ

Your ROQ is your order frequency plus one month of safety stock (use the below multiplication key).

<b>Start with</b>	<p>Order frequency + 1 month safety stock = Order frequency and safety stock total</p>			
<b>Finish with</b>	<p>Order frequency and safety stock total × Doses used last month - Current physical inventory = <b>ROQ</b> (rounded up to next package size)</p>			
If you order every month, multiply doses used last month by 2	If you order every 2 months, multiply doses used last month by 3	If you order every 3 months, multiply doses used last month by 4	If you order every 6 months, multiply doses used last month by 7	



## ROQ and Your Order Screen

Recommended Order Quantity is the recommended amount of vaccine to order based on your EOQ. Please note that the example below does not take into consideration seasonality. If you order more vaccines during specific times of the year please make sure to order based on your facility's needs.

The below image provides an example of an ROQ calculation. The recommended order quantity should be rounded to the next package size when ordering.

### Example: Calculating ROQ for a provider ordering every 2 months

Order Frequency: Every Two Months    Order Timing: 1st to 15th  
 Order Schedule: February, April, June, August, October, December    = EOQ

Vaccine	Vaccine Name	Funding Source	Doses Used Last Month	Physical Inventory	Recommended Quantity	Order Quantity
Hib (PRP-T)	ACTHIB	SPLIT	13	$13 \times 3 = 39 - 28 = 11$	20	10 !
HPV9	GARDASIL 9	SPLIT	8	$8 \times 3 = 24 - 63 = -39$	0	40 !
IPV	IPOL	SPLIT	13	$13 \times 3 = 39 - 3 = 36$	40	40 ✓
meningococcal MCV4P	Menactra	SPLIT	29	$29 \times 3 = 87 - 37 = 50$	50	50 ✓

Always round UP to next package size

Order based on need. Add a comment if an order is above ROQ

## Placing an order outside your ROQ

Here is an example of placing an order with comments to indicate why an order quantity is greater than what is recommended.

Order Details								
Vaccine	Vaccine Name	Funding Source	Dose Used Last Month	Physical Inventory	Order Quantity	Urgent	Priority Reason	Comments
DTaP	DAPTACEL	SPLIT	5	10	60	<input type="checkbox"/>	--select--	Clinic

The order quantity is outside the recommended order quantity amount. In this case please provide a comment. An example of a comment could be: Clinic event, back to school demand, increase in demand, scheduled appointments, etcetera. Providing a comment will help reduce delays in approving your order by letting us know why you needed to order outside your schedule or outside your recommended order quantity.