Emerging Disease Surveillance and Triage using the MPDS ProQA software

Greg Scott, Ken Hotaling, Chris Olola, Todd Stout

March 27, 2020

This webinar will be recorded and a link will be sent to all registrants, and made available online as soon as possible after the webinar.

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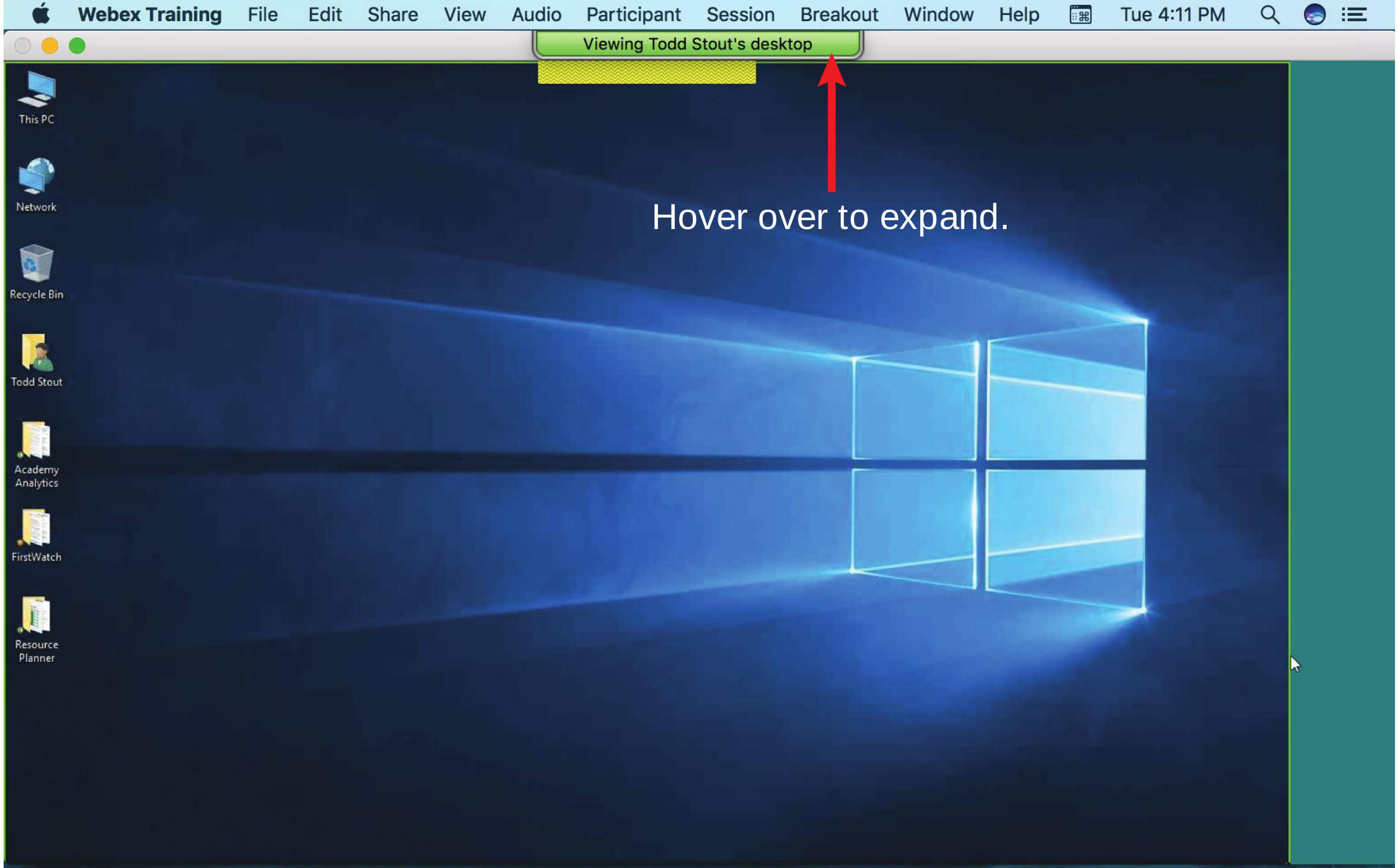
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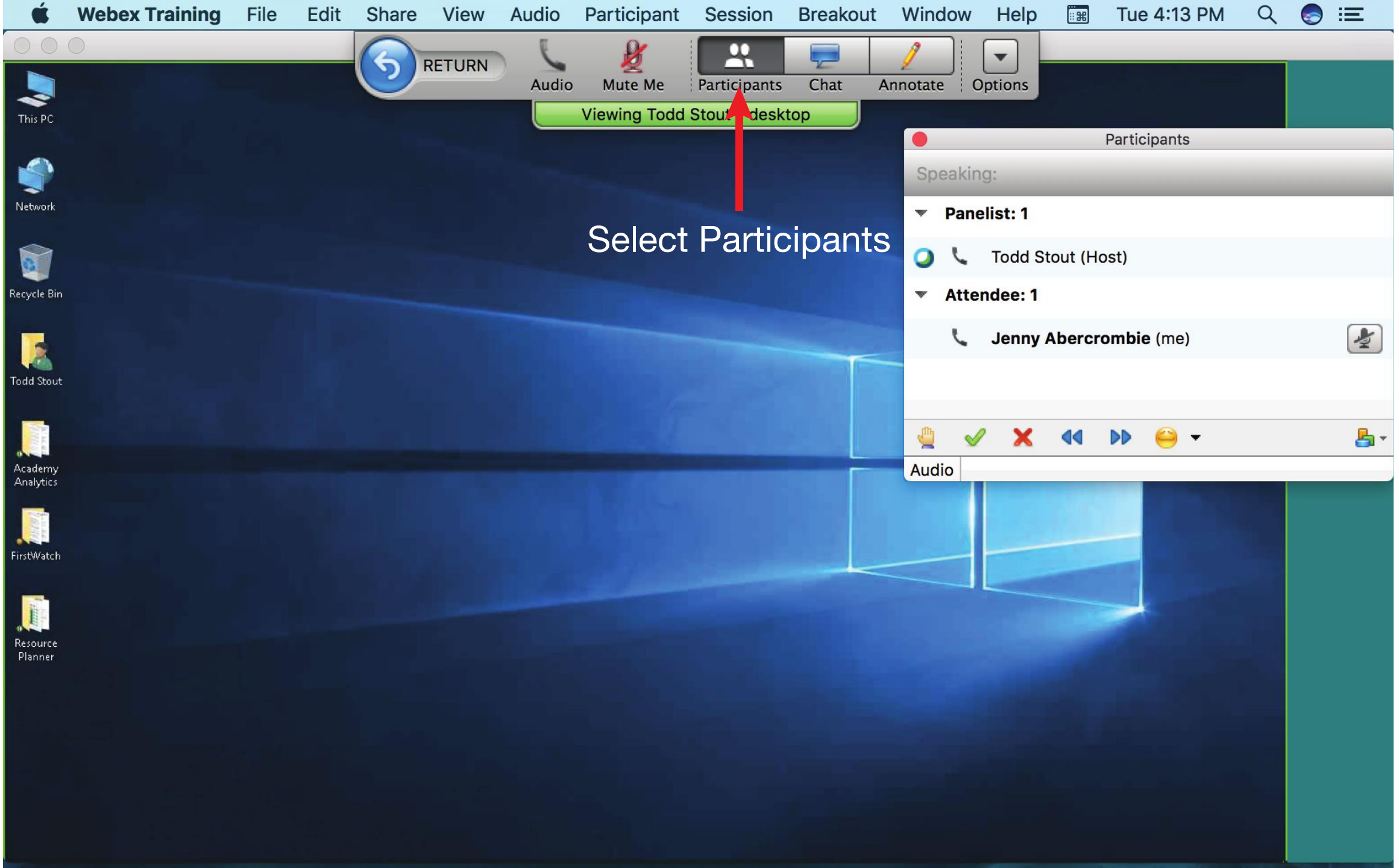
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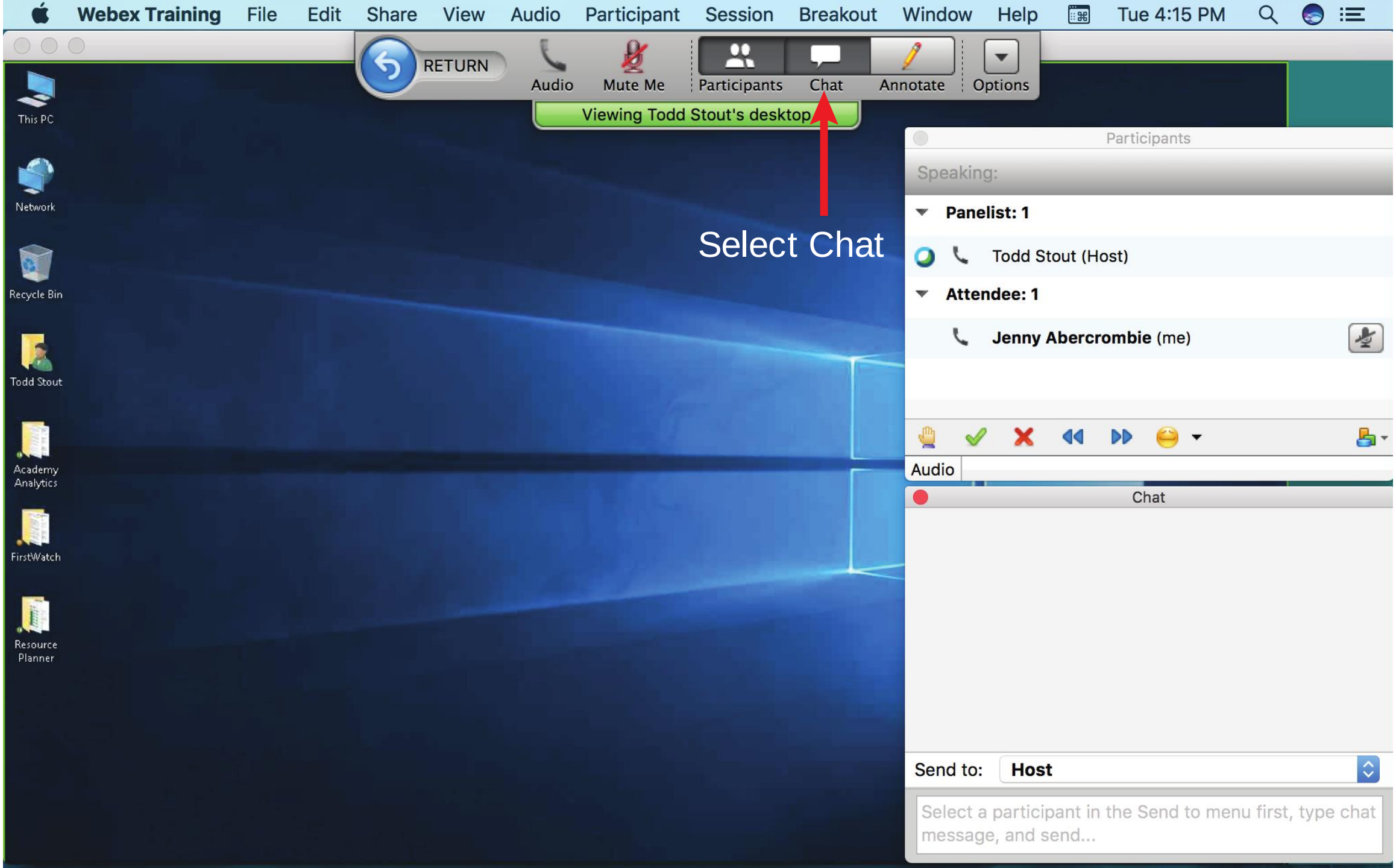
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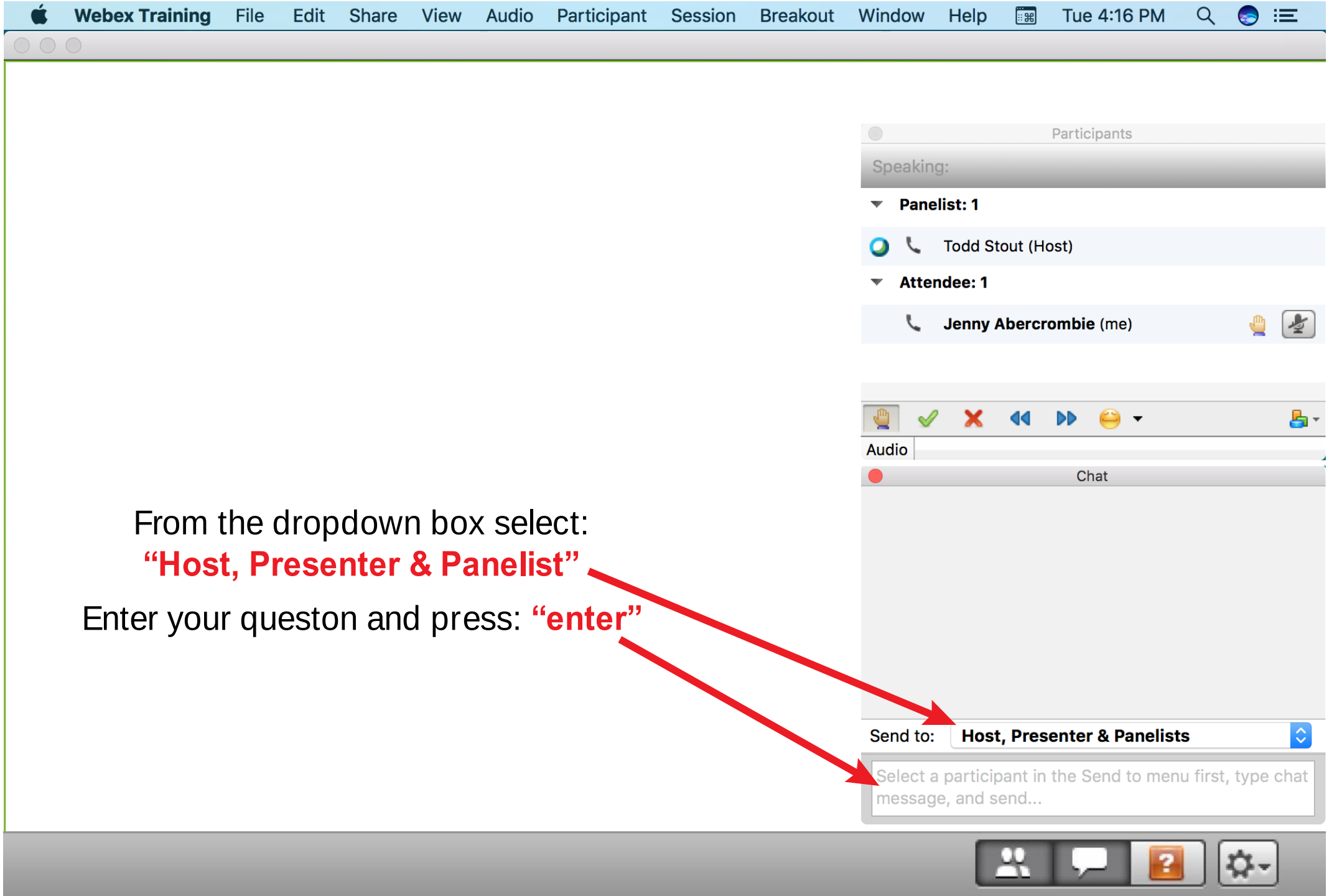

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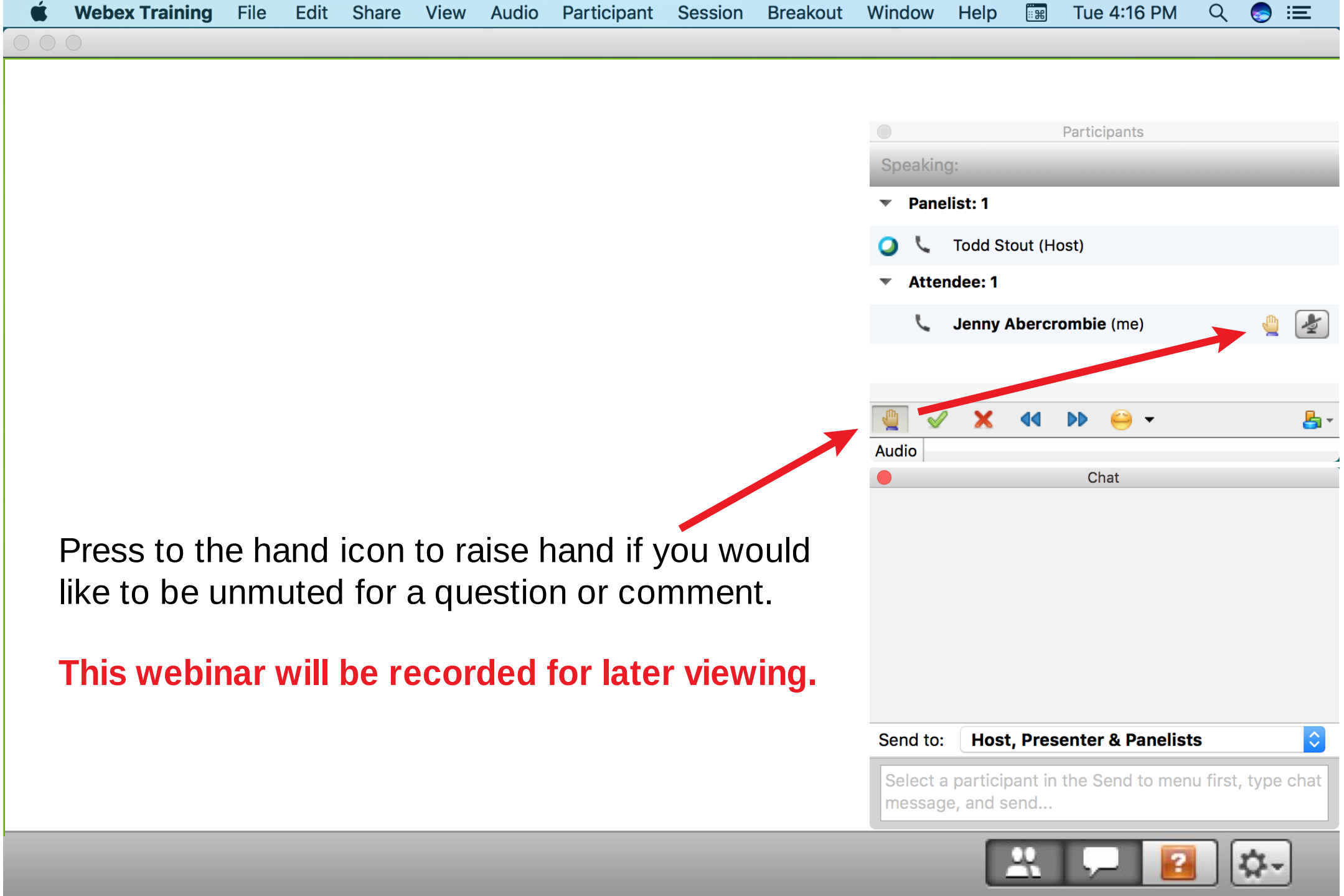
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Press to the hand icon to raise hand if you would like to be unmuted for a question or comment.
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Greg Scott’s Presentation

Emerging Disease Surveillance and Triage using the MPDS ProQA software

This presentation covers the various software tools available in the ProQA-medical software program for managing the COVID-19 pandemic.

If you are not a ProQA-medical software user, the IAED has some printed materials available on it's website (emergencydispatch.org), however those materials are not updated as often, and do not have all the features of the ProQA-medical software and therefore will provide only basic COVID-19 surveillance and triage capability.

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Presenters

Greg Scott, IAED

Ken Hotaling, PDC

Todd Stout, FirstWatch

Chris Olola, IAED

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Outline

Introduction to ProQA COVID-19 Tools

Emerging Infectious Disease Surveillance (EIDS) Tool Demo

- Example Cases (with new “C” suffix & auto-launch on Protocols 6,10,13,26)
- Medical Director-Approved Questions & Instructions

Protocol 36 Demo

- Example Case
- Triage levels
- Creating Response Plans

Systemwide Reduced Response Demo

- Creating Response Plans

Data Mining and Reporting

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Emerging Infectious Disease Surveillance (EIDS) Tool

The EIDS tool provides for **enhanced caller screening** of possible COVID-19 patients to supplement standard medical priority dispatch questioning.

Use the EIDS Tool to gather more detailed information to identify patients with travel history, contact history, or symptoms of the disease, so responders can get early notification of suspected COVID-19 patients.

The EIDS Tool does not provide for reduced responses and alternate dispositions – it is primarily used for surveillance and gathering key information for responders as determined by the system medical director. It can contain medical-director approved instructions unique to COVID-19 conditions and dispositions.

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Emerging Infectious Disease Surveillance (EIDS) Tool

The IAED recommends using the **Emerging Infectious Disease Surveillance (EIDS) Tool** for the following Chief Complaints (at a minimum):

- **Sick Person** (Protocol 26)
- **Breathing Problems** (Protocol 6)

Also, the **EIDS Tool** should be used for other Chief Complaints when the caller offers information that would lead the Emergency Medical Dispatcher (EMD) to suspect a **respiratory-type illness**.

Example: Chest Pain (P10); Diabetic (P13)

*Note: Your **medical director** will determine which EIDS Tool questions will be asked. They are not required by the IAED as part of the standard questioning sequence.

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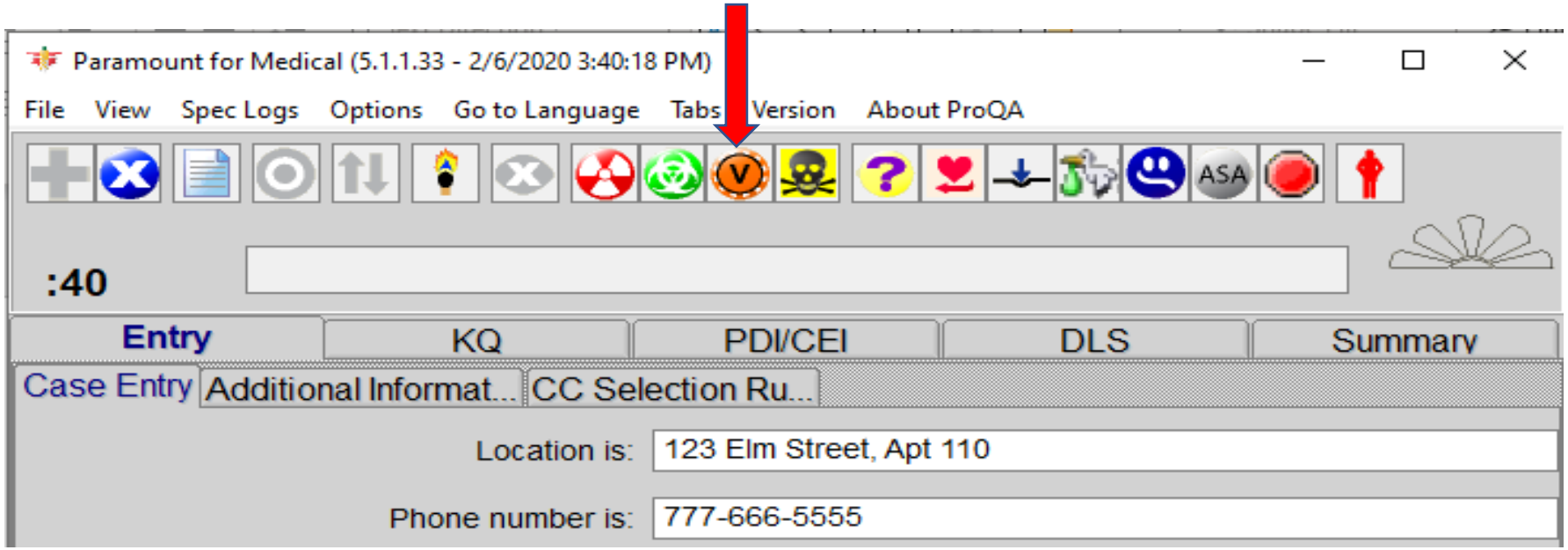
EIDS Tool Use

The EIDS Tool can be launched manually from any point in the ProQA call process; however the IAED recommends, in general, to launch the EIDS Tool immediately **after Final Coding** is assigned, or within Protocol 26 to achieve the **“C” suffix**.



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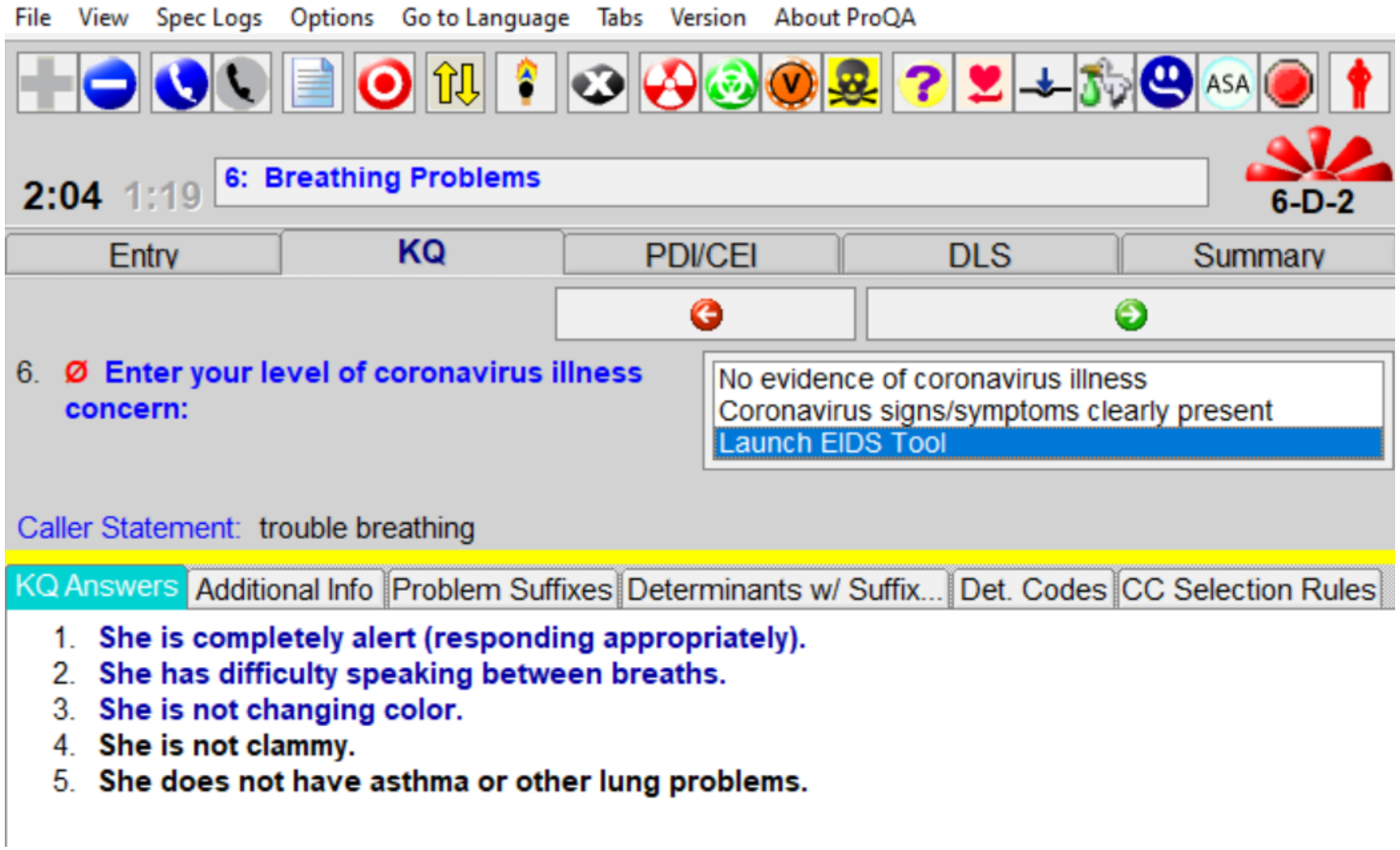
The EIDS Tool can be used to determine the “C” suffix on Protocol 26 with blue (operator) question.



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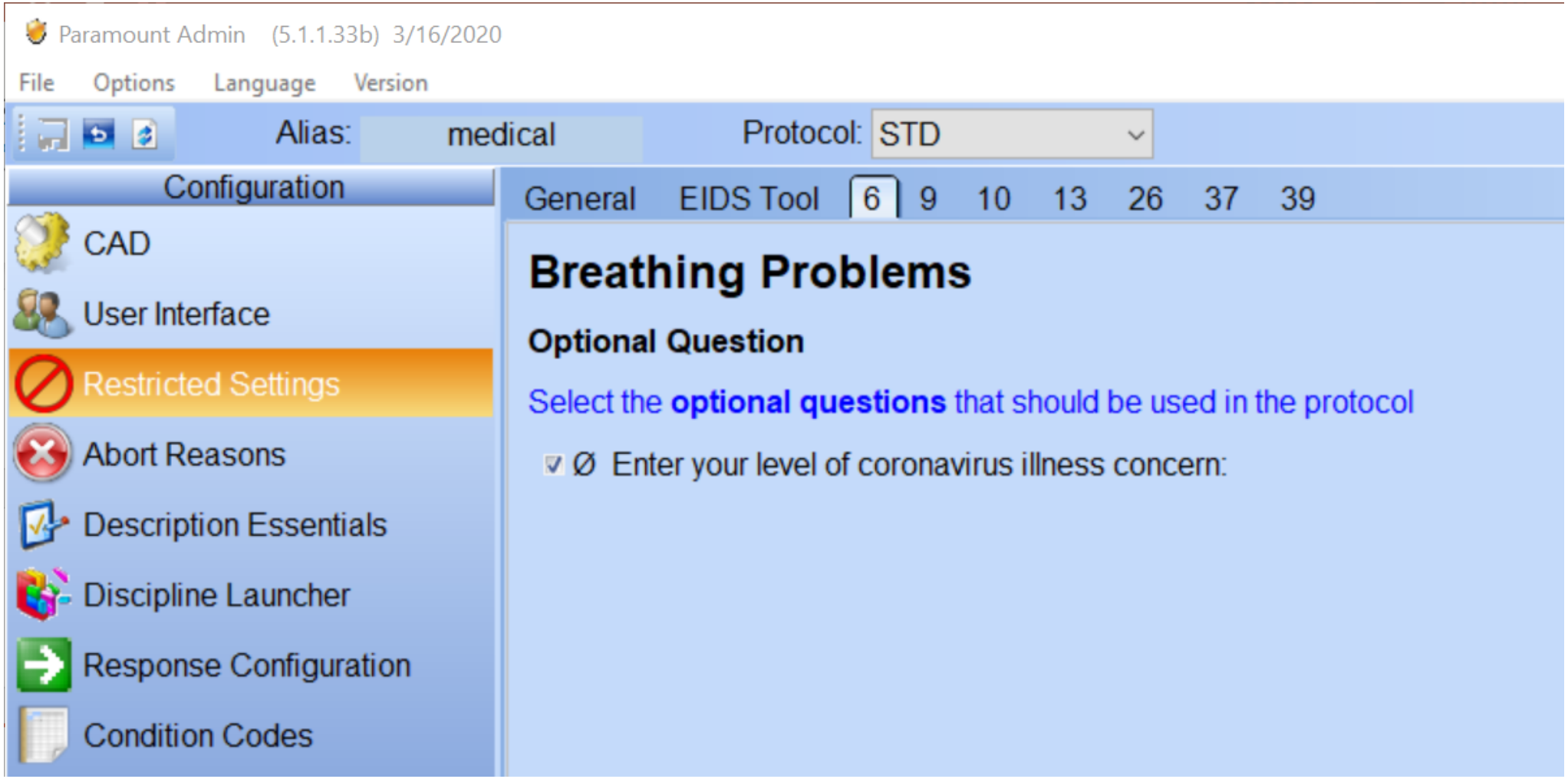
The coronavirus question is optional (configurable) on Protocols 6, 10, 13, & 26



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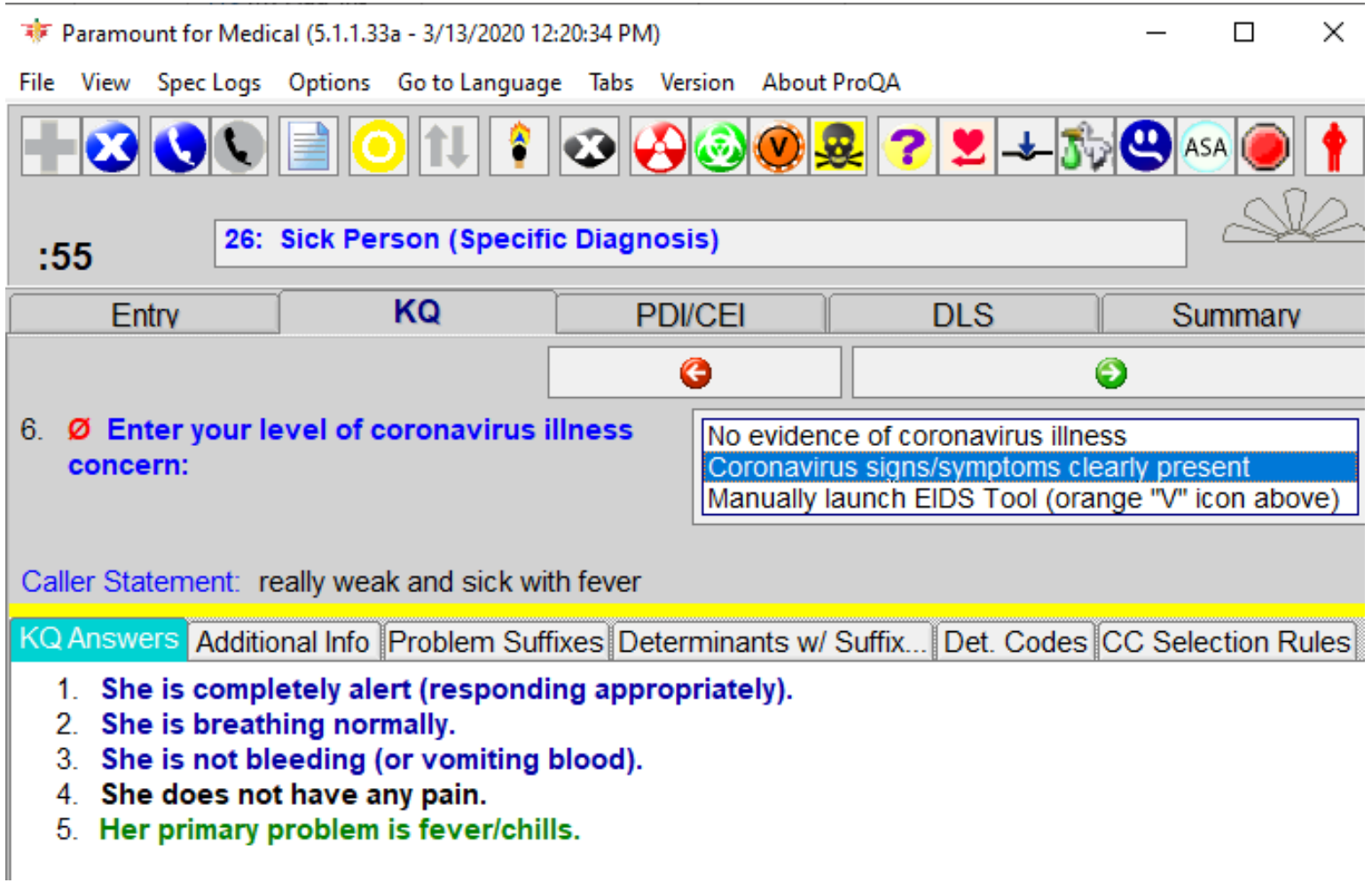
Blue (operator) Key Question within Protocol 26 will assign “C” suffix to Final Code when COVID-19 symptoms are discovered.



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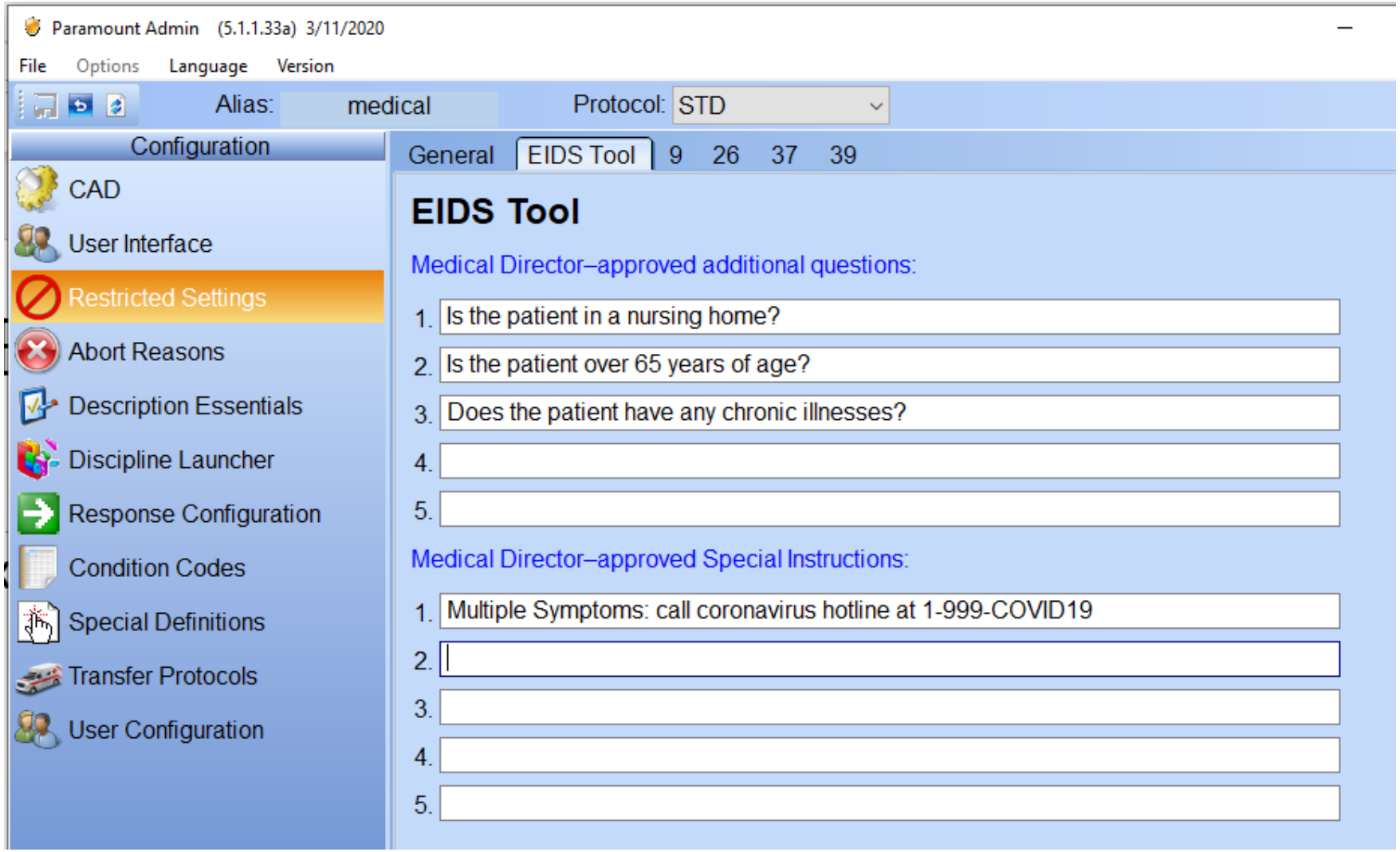
Adding Medical Director-approved additional questions to the EIDS Tool is done in the Admin Utility under Restricted Settings



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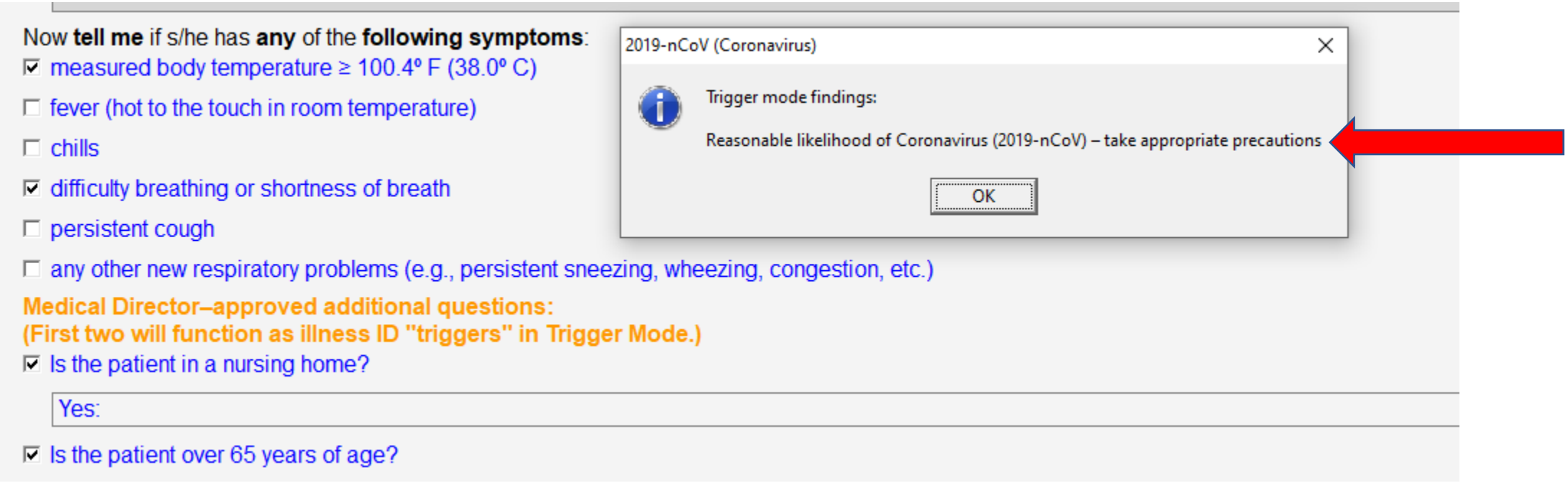
EIDS Tool: Trigger Mode

In **trigger mode**, multiple 'trigger' symptoms (2 or more) will display warning message:

Fever and/or measured body temperature ≥ 104/38 = 1 symptom

Medical Director questions 1 & 2 count separately



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Protocol 36: Purpose and Use

- Protocol 36 provides for **reduced response and alternate dispositions** for **potentially infected** COVID-19 patients when deemed necessary by your local authorities.
- Use Protocol 36 when you expect your system to be **stressed** by **high call load**, **fewer** available **EMS resources**, & hospital-patient **overcapacity** (i.e., part of your community's **medical surge plan**).
- Protocol 36 is a **significant operational change**. It calls for **bypassing** several common chief complaints to get as many potential COVID-19 patients as possible in one 'bucket' – Protocol 36.
- Protocol 36 requires **just-in-time training** for both dispatch staff and field responders, and developing **new response plans**. This training and planning will need to be specific to your agency.
- Once Protocol 36 is implemented, you assume widespread community transmission in your region. This means both travel history and disease exposure questions are of little value, although it is still possible to use the **EIDS Tool** to obtain that information if deemed necessary by your local authorities.

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Using Protocol 36 for COVID-19

Use Protocol 36 for Chief Complaints of:

- Breathing Problems (Protocol 6)
- Chest Pain (Protocol 10)*
- Sick Person (Protocol 26)

Rules

1. Once **surveillance** or **triage** is **locally approved**, **use Protocol 36** for the medical (non-trauma) Chief Complaints of **Breathing Problems** (Protocol 6), **Chest Pain/Chest Discomfort** (Protocol 10), **Headache** (Protocol 18 – not COVID-19), **and Sick Person** (Protocol 26). Protocol 36 provides **shunts** to these protocols when the outbreak disease is **not likely** in the patient.

*** Approximately 48% of all Chest Pain reported is respiratory in nature (Scott et al, 2017, Prehosp Emer Care)**

These 3 chief complaints make up approximately **one-third** of all cases:

Sick Person: 16%
Breathing Problems: 10%
Chest Pain: 8%

***Total = 34%**

***Based on aggregate MPDS data 2012 - 2020**

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Using Protocol 36

Protocol 36 **Key Questions** are designed out the most likely **COVID-19 patients** from other **established medical conditions** such as **cardiac-caused chest pain** and respiratory distress from other (**non-COVID-19) causes**.

Protocol 36 **shunts** some cases to **Protocol 10 (chest pain)** and **Protocol 6 (Breathing Problems)** when the patient condition is likely **not due to COVID-19** (e.g., ≥ 35 yrs.; chest pain; heart attack history). This ensures only likely COVID-19 patients get a **reduced response** or **alternate disposition**.

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Protocol 36 Checklist for Implementation

- ❑ Is there (expected or existing) widespread **community transmission** in your region? (If so, **responders** will likely use protective gear [PPE] for **all EMS calls, so the EIDS Tool** information may be of little value).
- ❑ Have you created a **response plan** for **Protocol 36 determinant codes and triage levels** with reduced responses and alternate dispositions (including response/transport options)?
- ❑ Have you created a just-in-time training lesson for both dispatch staff and responders that describes changes in local procedures and responses?
- ❑ Does your system have a nurse triage line, or a 24/7 COVID-19 hotline that can be utilized by Emergency Medical Dispatchers (EMDs) in your dispatch center?
- ❑ Have all hospitals and alternate disposition sites been contacted to determine patient navigation arrangements to or away from their facilities?

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Summary of Important Changes and Updates (EIDS and P36)

- User controlled **auto-launch** of EIDS Tool with **“C” (COVID-19) suffix** option on Protocols 6,10,13 & 26
- Modified “trigger mode” settings to 2 symptoms from standard list or top 2 medical director questions
- **EIDS Tool** added to **Police** and **Fire** Dispatch System (PPDS & FPDS)
- Fixed text field sizing issue for Medical Director-Approved Questions in EIDS Tool
- Added COVID-19 specific pathway in Protocol 36
- Added additional PDI language to Protocol 36 for localized reduced response and alternate dispositions

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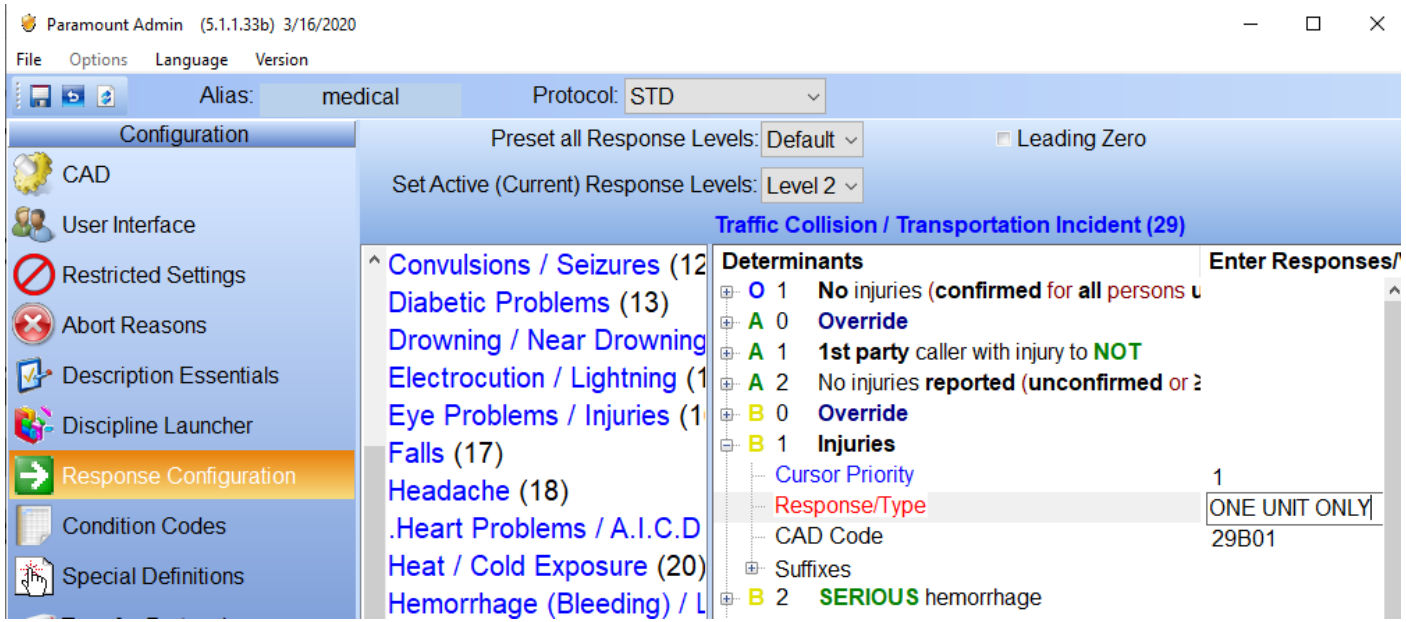
Systemwide Reduced Response

ProQA also provides the capability to create and use response plans for **systemwide reduced response** -- i.e., when all or nearly all EMS responses must be assigned fewer response resources due to a prolonged state of system overload.

A systemwide reduced response plan is only activated with authorization from the principle EMS authority for your system.

Systemwide reduced response is independent from P36 Response Plan.



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Greg Scott’s Continued Presentation

- Shared screen content (see recording)

Ken Hotaling’s Presentation

- Shared screen content (see recording)

Chris Olola’s Presentation

- Shared screen content (see recording)

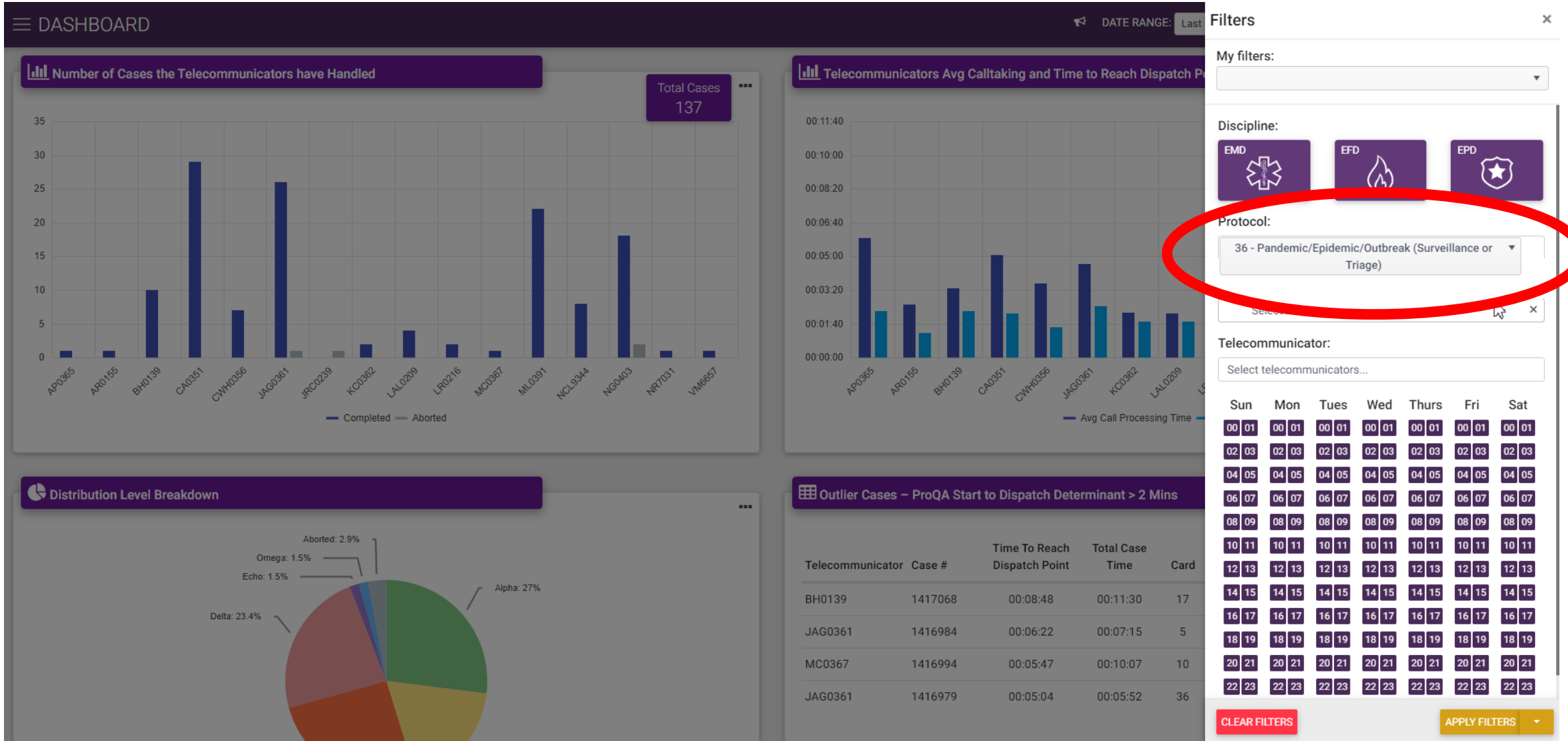
Todd Stout & FirstWatch

- Academy Analytics & COVID-19
  - Filtering for Protocol 36
  - EIDS page
  - Specialty Protocol 36 page
- FirstWatch & COVID-19 Surveillance & Alerting
  - Combined Data Sources: CAD, ProQA, & ePCR
  - FirstWatch Trigger Views
    - 75% are customized for local needs
  - PowerBI Dashboards

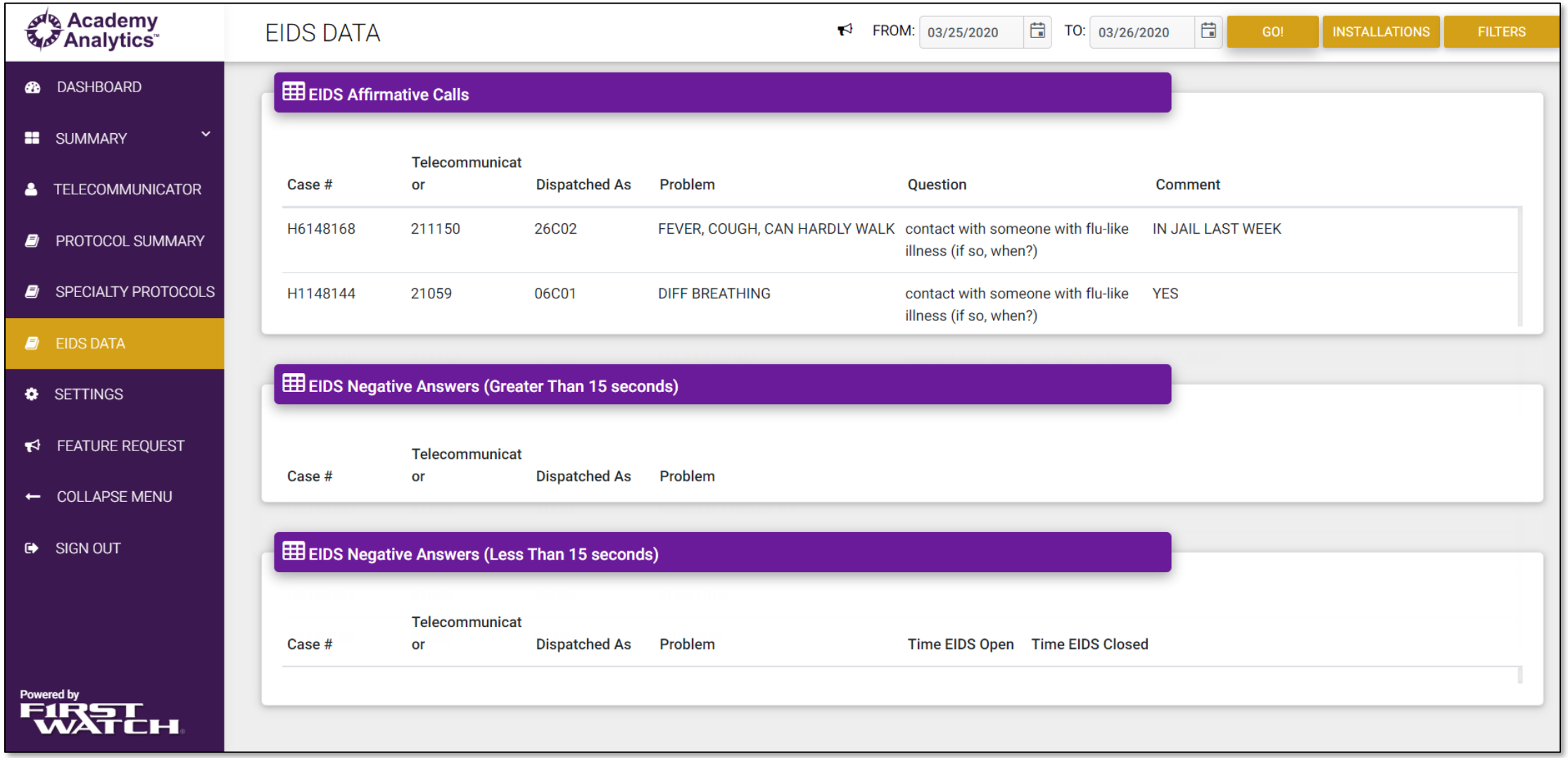
Save the Date & Time

- Live Webinar on Using Academy Analytics for COVID-19 Surveillance
- Monday, March 30 @ 9:30am Pacific
- Details will be emailed to
  - Academy Analytics Users
  - All registrants for this webinar
  - People signed up for updates at www.firstwatch.net/hi

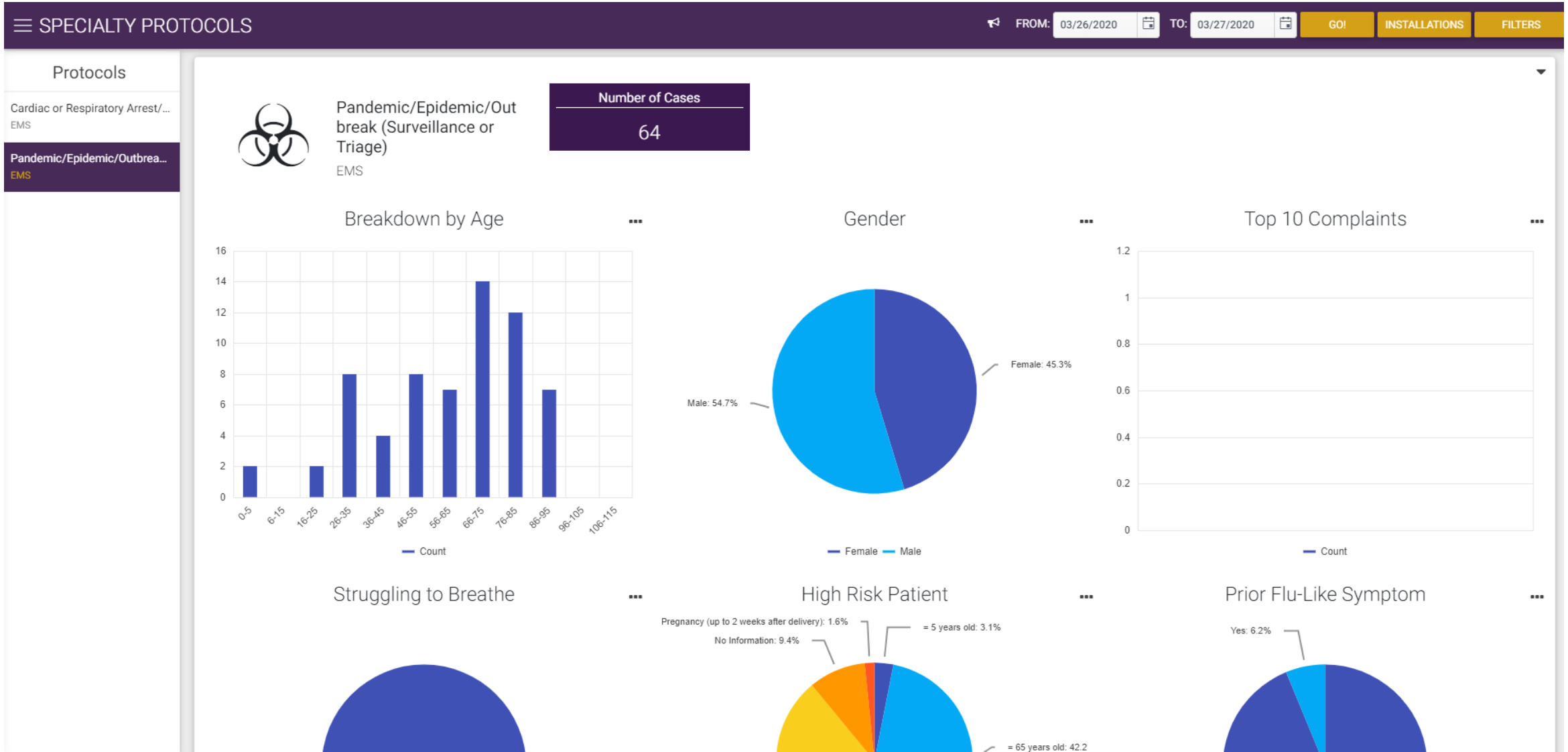
Academy Analytics – Filtering for 36



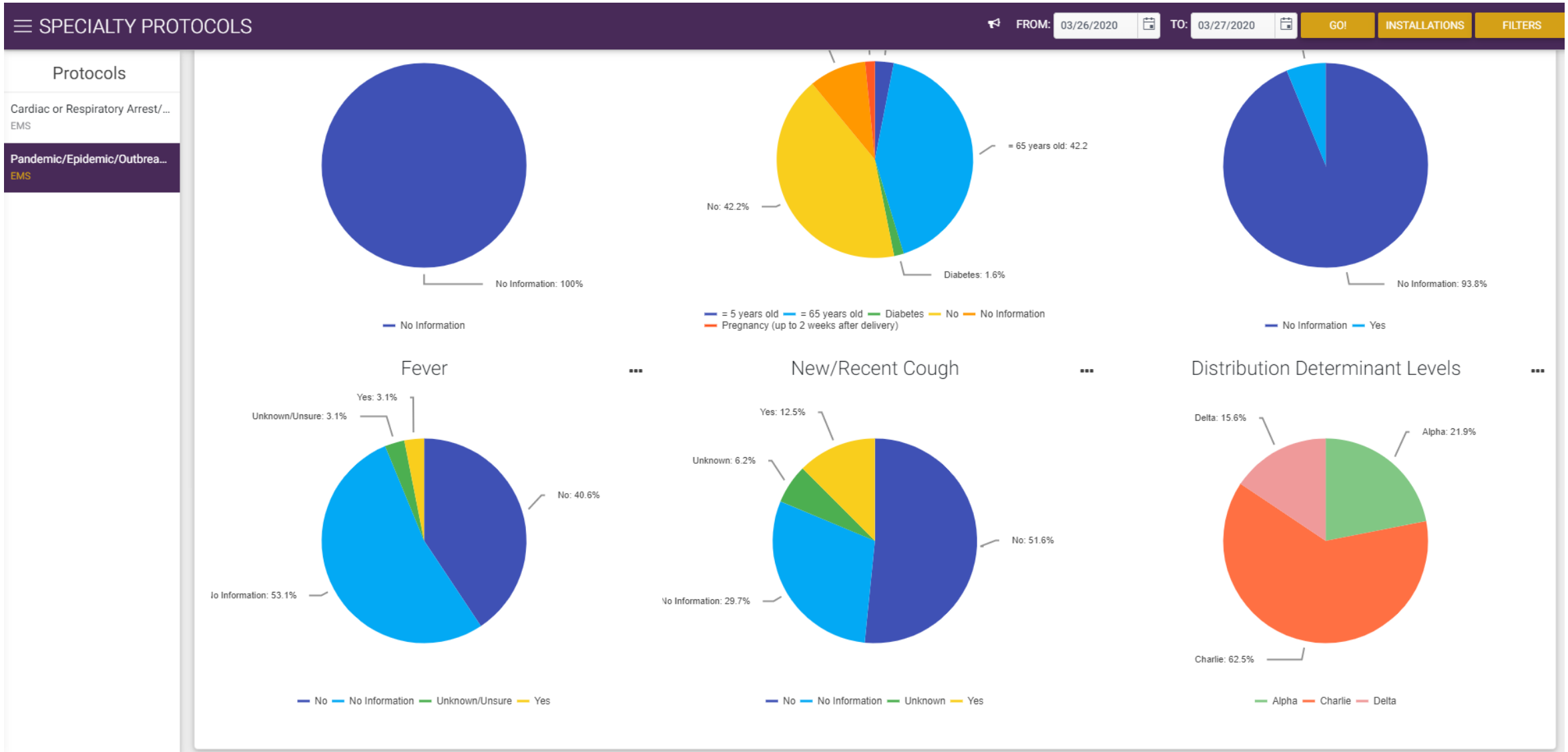
Academy Analytics – **New** EIDS Page



Academy Analytics – **New** Protocol 36 Page



Academy Analytics – **New** Protocol 36 Page (cont'd)



FirstWatch – Combined Data Sources & Custom

Todd Stout’s Continued Presentation

- Shared screen content (see recording)

Thank You! Any Questions?

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