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PANDEMIC!

*A true story of how one small lab
overcame a HUGE problem*

Rated M (mature audiences only)

Kristi McCallum

Oh wait....this isn't a movie and it is actually happening

(and I just became Lab Manager in February)



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Changes to operation

Immediate Actions

- Inventory of existing critical supplies
- Order critical supplies (reagents, standards, **PPE**, disinfectant, consumables)
- Dedicate resources to complete customer samples ASAP
- Meet with staff and CDA Emergency Management (beginning planning for the unknown)



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Changes to operation

First Weeks (Prior to Governor Polis Stay at Home Order)

- Deemed “essential” to stay open but must reduce staff by 50% in building (how to do this was a nightmare!)
- **Order laptops for telework, ensure VPN access for all employees (inventory to OIT, OIT heavily involved and overwhelmed)**
- Develop telework plan (webinars, assignments, QA projects) – what do chemists do at home???
- Develop plan for instrument shut-down if necessary
- Assign critical laboratory tasks (gas delivery, receipt of supplies, phone coverage, etc.)
- Contacted all of my sewing friends to help make masks for employees
- Met with each division to discuss sampling, PPE needs until sampling was halted entirely due to risk (created PPE list for tracking)
- Cancel service calls/meetings with vendors – created a SharePoint issue to track all of the missed verifications due to COVID



Division of Laboratory Services COVID-19 Staffing Procedure

Creation Date: 03-26-2020

Effective Date: 03-26-2020 to April 11, 2020

Document Type: Division Procedure



1. TITLE: Division of Laboratory Services COVID-19 Staffing Procedure

2. PURPOSE:

This procedure outlines the operational structure of the laboratory services division to comply with Executive Order D2020 017 and Amended Public Health Order 20-24 implementing Stay at Home Order and Requirements and the exemptions of Critical Businesses. Realignment of staff schedules and work duties to maximize social distancing and the amount of time at the work site.

3. OPERATIONS IMPACTED:

Colorado Department of Agriculture – Division of Laboratory Services:
Animal Health, BioChem and Metrology laboratories

Feed and Fertilizer Shut Down Checklist

Please complete or put "NA"

Equipment – Does NOT include refrigerators and freezers. We will have power and these will remain on. Balances, Incubators, VIDAS and VITEK will be left on. Water baths should be emptied/unplugged.

Instrument or Equipment	CDA No.	Can this be completely shut down (Y/N)	How long can it be shut down for (weeks)	Does it require gasses? Write name of gas	Can the gasses be turned off?
AA instrument				Y -	
AA instrument				Y -	
TruMAC N				Y -	
Sulfur/TruSpec				Y -	
Perkin Elmer ICP				Y -	
Perkin Elmer ICP				Y -	
ICM					
Microwave					
Ovens					
Hitachi HPLC					



Changes to operation

During Peak of Pandemic (Stay at home order)

- **Division of Lab Services held daily COVID calls to discuss updates and ongoing changes in pandemic**
- **Commissioner of Agriculture held weekly Town Hall meetings with entire agency**
- **Created calendar in Google Drive for staff schedules (also used to direct cleaning staff)**
- **Created list of PPE in-house and donated to workers in field**
- **Converted all meetings to online Google Hangouts**
- **Had 1:1 meetings with each staff member (make sure they were mentally ok – we just chatted 😊)**
- **During down sample time (no feed/fertilizer samples) we performed method detection limit verifications and method improvement validations**
- **Performed audits of methods**



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Challenges

Where do I start.....

Scheduling staff was a very difficult puzzle to solve

- **Staff with small children/online learning**
- **Analyses are all different with different time requirements/reruns for failed tests**
- **How to social distance in one lab area (Feed/Fertilizer and Pesticide areas)**
- **No food available to collect for surveillance samples**
- **No one to sign/approve documents**
- **Cancelling annual calibrations and service = QA issues**
- **Getting staff set-up to telework (not everyone has a work/home laptop, monitor, internet access, cables, VPN, etc...)**
- **Delays in deliveries of supplies**
- **Virtual everything = way too many emails, meetings, people sabotaging meetings on top of meetings!**
- **Getting our letter carrier to understand the front door is locked because the entire world is in a pandemic**



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Solutions that worked



- **Buddy System**
 - Those who perform “like” analysis not allowed in lab at same time

 - **Spreadsheets/SOPs/Operational Plans for each Division – Plans at each stage of pandemic**
 - **Google drive sharing of documents – Creation of BCL Team Drive**
 - **OIT and our lab created instructional videos**
 - **Creation of an online/electronic data review system**
 - **Creation of online credit card allocation system**
 - **Creation of an online supply order form**
 - **Calendars helped for tracking who was in and who was out**
 - **Allowing for flexibility was key – only be in lab for work that cannot be done at home**
 - **Great webinars and resources created during the pandemic – kept analysts busy learning**
- Excellent communication from Governor and CDA Senior Staff – Our leaders stayed ahead of the issues**



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Social Distancing Solutions

Buddy system to limit number of employees in lab at one time

Work in shifts and take work to other lab areas not being used but suited to needs

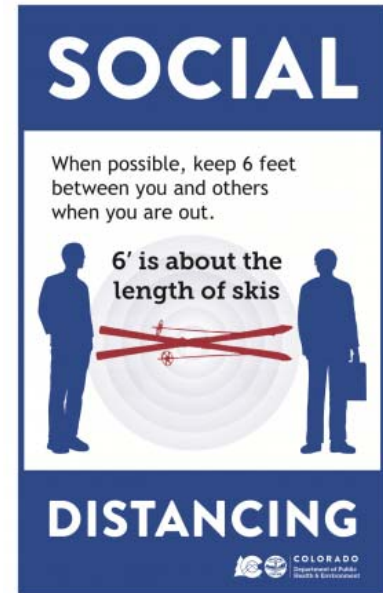
Only 2 staff allowed in one smaller room at a time (breakroom, copy room, receiving)

Daily disinfections of targeted areas (door handles, desks, lab benches, pipettors)

Created online/electronic processes for data review, ordering, data processing so that these can be done at home on work laptop/computer

Created signage everywhere to guide people

Truly caring about each other – the staff is amazing



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Thank you and stay safe!

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