

Eastern Highlands Health District
Board of Directors Regular Meeting
Agenda
Zoom Meeting*
Thursday June 18, 2020, 4:30 PM

Call to Order

Approval of Minutes (April 23, 2020)

Public Comments

Old Business - none

New Business

1. Agreement for Local Public Health Emergency Preparedness Services By and Between the EHHD and NDDH FY20/21 - authorize

Town Reports

Subcommittee Reports

2. Executive Committee – Fee waiver report

Directors Report

3. COVID-19 Response Activities Update
4. Quarterly Activity Report for the periods ending 12/31/19 & 3/31/20
5. Viewpoint Cloud online permitting/payment system

Communications/other

6. Bill Gates re: The First Modern Pandemic
7. DPH re: Annual Fish Consumption Advisory
8. NY Times re: The Coronavirus Swamps Local Health Departments, Already Crippled by Cuts

Other business

Adjournment

Next Board Meeting – August 20, 2020, 4:30 PM

*In accordance with Governor Lamont's Executive Order 7B and social distancing guidelines recommended by the CDC to slow community spread of COVID-19, this meeting is physically closed to the public. The public may join the meeting via telephone. If you plan to join the meeting via phone, please email Millie Brosseau at mbrosseau@ehhd.org or call 860-429-3325 for the call in information.

Eastern Highlands Health District Board of Directors

Regular Meeting Minutes –Draft

Virtual meeting Via
Zoom*

Thursday April 23, 2020

Members present: E. Anderson (Andover), J. Carrington (Mansfield), J. Elsesser, (Coventry), J. Kelly (Bolton), T. Nuccio (Tolland), E. Paterson (Mansfield), M. Rosen (Tolland), B. Syme (Scotland) D. Walsh (Coventry), M. Walter (Columbia)

Staff present: R. Miller, C. Trahan, M. Brosseau, A. Gonzalez, K. Dardick

Others: E. Wiczenski (Willington)

J. Elsesser called the meeting to order at 4:35 pm.

D. Walsh made a MOTION seconded by E. Paterson to approve the minutes of the 01/16/2020 meeting. MOTION PASSED unanimously.

E. Paterson made a MOTION, seconded by T. Nuccio to approve the minutes of the 3/13/2020 meeting. MOTION PASSED unanimously with a note that the S should be removed from M. Walter.

Public Comments

Outreach was done per Executive order. No comments were received.

Appointment of Auditor FY 19/20

C. Trahan informed the board of the reason for selecting Blum Shapiro as auditor.

E. Paterson made a MOTION, seconded by D. Walsh to appoint Blum Shapiro as auditor for Eastern Highlands Health District for FY 19/20. MOTION PASSED unanimously.

Resolution for Signature Authorization

T. Nuccio made a MOTION, seconded by E. Anderson to adopt the "Resolution for Signature Authorization" for fiscal year 2020/2021 contracts with the Connecticut Department of Public Health, as presented on April 23, 2020. MOTION PASSED unanimously.

Committee Reports

Finance Committee

R. Miller presented an overview of the financial report for the period ending 3/31/2020.

E. Paterson made a MOTION, seconded by T. Nuccio to accept the financial report for the period ending 3/31/2020.

Adopted FY 20/21 Budget

J. Elsesser initiated discussion regarding whether modifications should be considered since the budget was adopted prior to COVID-19. Discussion ensued. R. Miller reported that there is COVID Crisis funding from CDC that supports any supplies and materials directly expended to the response and overtime of staff assigned to the response. A voucher for reimbursement has been submitted, but R Miller does not anticipate it being a material amount.

Board consensus is that no changes would be made at this time to the FY 20/21 budget.

Town Reports

Columbia M. Walter inquired about what The Main Moose would need to do to open. R. Miller noted that they can open now if they take away all the seating, set up a queue to enforce social distancing and have all employees wear masks.

Tolland M. Rosen reported that the town of Tolland is have EOC meetings twice a day. They are considering scaling back to once per day. M. Rosen noted that social distancing is in place at the town hall. Two squads of employees alternate which week they are working at the town hall.

Coventry J. Elsesser reported that construction projects are still happening. Cumberland farms stopped construction. No timeframe for when they will open. Numerous capital projects are underway. Large restaurants shut down; pizza places are experiencing best business due to being able to offer family packs etc. Alcohol dependent restaurants are hurting. J. Elsesser noted that the school lunch program is up to 350 food deliveries. In addition, Foodshare will be held next Wednesday at 1st congregational church. E. Anderson informed the board that the CERT team in Andover has taken on responsibility for Foodshare.

Andover E. Anderson reported that the 2 restaurants in town are open for take-out service. E. Anderson informed the board that the majority of the town employees are working from home with only 1 person at a time in the offices.

Mansfield J. Carrington reported that the Mansfield Community Center is closed. And with no students at UConn, businesses are hurting. J. Carrington noted that Geno's restaurant has closed permanently.

Willington E. Wicenski noted that the only department that is working fully staffed is the public works department due to the size of the crew.

Bolton J. Kelly following all of the DECD regulations; anyone who can work from home is working at home. Town hall open with one person staffing Monday through Thursday 9-1. Friday the town hall is closed for deep cleaning. Custodial staff is split. Highway crew is working but not permitted in the same vehicle. Moved from 2x weekly to 1 week unified command meetings. 2 RVs to serve as spaces where potentially infected first responders could be housed.

Scotland B. Syme reported that the town hall in Scotland is closed but people can make appointments. Savino Transportation laid off staff.

Director's Report

COVID-19 Response - Update

R. Miller provided an update on some of the activities with which the health district is involved. Contact tracing is soon to be enhanced by the State DPH. They will be acquiring an additional 500+ people to assist with contact tracing. It is unknown if they will be paid or voluntary. These people will be available

to the district if the need for tracing exceeds our capacity. The district has been acquiring and redistributing PPE from the region 4 pick-up point weekly. Primary Healthcare providers have received some of this PPE. The office is supporting and interpreting the executive orders. In addition, the office is actively supporting first responders in the jurisdiction. Communication and social media messaging is ongoing.

R. Miller reported that for the future, we are looking at continued contact tracing and mass vaccination.

A total of 70 MRC volunteers have been fully vetted and an additional 90 are at some stage of the process.

R. Miller shared graphs showing case numbers in our district compared to the state.

K. Dardick shared a graph showing the data from the daily reports, noting that on the state level we are still climbing for the number of cases, deaths seems to be flattening and the number of hospitalizations has flattened. J. Elsesser questioned if the number of cases is increasing because of increased testing. K. Dardick noted that this is a probability.

K. Dardick stated that the percentage of people infected nationally is still low. He suggested that this leaves approximately 90% of the population still susceptible and there is no indication that the virus is going away over the summer as influenza does. The idea of relaxing social distancing is a pipe-dream. Until there is a vaccine or active treatment, social distancing measures will need to be in place.

T. Nuccio requested that K. Dardick discuss herd immunity

K. Dardick responded that we still don't know how immunity works with this infection and whether it is protective immunity meaning is this immunity permanent (such as chicken pox or measles). Herd immunity only comes into play if 80% of the population has protective immunity.

R. Miller shared outbreak curves showing that social distancing is working to keep our healthcare system from being overloaded and projections of the timeframe for continued social distancing.

ViewPoint Cloud – Update

R. Miller reported that View Point Cloud is now live and in use. In an effort to encourage social distancing, the district is encouraging all applications to be submitted and paid for online. After reviewing and finalizing internal financial procedures it is planned to have satellite towns refer citizens to the online portal. And for those that want to submit a paper application and check they will be sending them to the main office. Communication to towns detailing this policy change will be forthcoming. This will take work off the office staff at the satellite offices.

J. Elsesser initiated discussion about the app "How do you Feel". R. Miller conveyed that it is another tool providing another data set to review. It could provide early identification of hot spots to which resources could be deployed.

E. Paterson made a MOTION, seconded by D. Walsh to adjourn at 6:20 pm. MOTION PASSED unanimously.

Respectfully submitted,

Robert Miller
Secretary



Eastern Highlands Health District

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Memo

To: Board of Directors

From: Robert Miller, Director of Health

Date: 6/15/2020

Re: Agreement for Local Public Health Emergency Preparedness Services By and Between the Eastern Highlands Health District and the Northeast District Department of Health

Background

You may recall that in February 2018 the Eastern Highlands Health District and Northeast District Department of Health established a cross jurisdictional sharing arrangement, which created a shared full-time Public Health Emergency Preparedness Coordinator (PHEPC).

Attached for your review and consideration is the above referenced agreement updated for fiscal year 2020-2021. The agreement terms are the same from the previous fiscal year, with one exception. The hourly rate is \$38.68. This is an 2.0% increase from the previous year. This increase is due to an adjustment in the PHEPC compensation.

Fiscal Impact

Both direct and indirect costs associated with the execution and implementation of this agreement will be covered, in whole, by the PHEP grant with no additional cost to the health district.

Recommendation

Since the establishment of this arrangement in February 2018 there is a net increase in the effective work hours benefiting our agency because a significant portion of the work conducted by this position (meetings attended, reports and deliverables completed) benefit both agencies simultaneously. This has resulted in an increased capacity to enhance agency capabilities.

The individual affected by this agreement is eminently qualified; a self-motivated professional. His performance to date for our agency exceeds expectations.

It is respectfully recommended that the board authorize execution of this agreement as presented. If the board concurs, the following motion is in order: *Move, to authorize execution of the "Agreement for Local Public Health Emergency Preparedness Services by and between the Eastern Highlands Health District and the Northeast District Department of Health" as presented on June 18, 2020.*

**AGREEMENT FOR LOCAL EMERGENCY PREPAREDNESS SERVICES BY
AND BETWEEN
THE EASTERN HIGHLANDS HEALTH DISTRICT
AND
THE NORTHEAST DISTRICT DEPARTMENT OF HEALTH**

This Agreement for local public health services is entered into on this the 16th day of May, 2019 by and between the Eastern Highlands Health District, a public health district with offices located at 4 South Eagleville Road, Storrs, CT 06268, hereinafter referred to as "EHHD" and the Northeast District Department of Health, a public health district with offices located at 69 South Main Street, Brooklyn, CT 06234, hereinafter referred to as the "Contractor".

I. PURPOSE

The purpose of this agreement is to form a basis for the Contractor to provide public health emergency preparedness planning and response services for the EHHD. To fulfill this purpose, the Contractor and EHHD recognize Robert Miller, Director of Health for the EHHD to have the authority to perform the duties of Director of Health as specified in Chapter 368e of the Connecticut General Statutes. Duties of the Contractor will be performed by a Public Health Emergency Response Coordinator and/or any employees of the Contractor qualified by training and experience to perform such duties.

II. CONTRACT PERIOD

Contractor will be retained for the period commencing July 1, 2020 and continuing through June 30, 2021. The terms of the contract may continue on a year-to-year basis by mutual consent of both parties unless terminated in accordance with Section V of this agreement.

III. PAYMENT

In consideration of Contractor's performance of these services, EHHD agrees to pay the Contractor as follows: ~~thirty-seven dollars and ninety-two cents (\$37.92)~~ **thirty-eight dollars and sixty-eight cents (\$38.68)** per hour for twenty (20) hours per week and mileage equaling 50% of actual miles traveled. **Mileage will be calculated using the prevailing IRS Standard Mileage rate.** Mileage does not include miles from home to work/or miles between Health Districts. Travel time to or from home/worksites other than NDDH or EHHD shall be calculated as follows: miles from home to site less miles from home to worksite. Contractor will invoice EHHD on a quarterly basis. If employment of the Public Health Emergency Preparedness Coordinator is terminated, both parties will share equally in the cost of Earned Vacation Time due to employee in accordance with the Contractor's termination policy.

IV. DESCRIPTION OF SERVICES

A. The Contractor and EHHD agree that the following services will be provided by EHHD as required through this agreement:

1. Administrative supervision for EHHD will be provided through Robert Miller, Director of Health.
2. Provide appropriate supervision and resources, including, but not limited to office space, telephone, fax, copier, administrative support, and access to information to support the Contractor to fulfill the purpose of this agreement.
3. Provide and supply all appropriate forms, stationary and other supplies necessary for the performance of the functions of this agreement.
4. The work activities performed by the Contractor, as EHHD sponsored work activities, will have insurance coverage provided by the CONTRACTOR as stated in Section VI Indemnification.
5. EHHD shall maintain all appropriate records of actions taken in performance of this agreement, including, but not limited to, emergency response plans, and training and exercise records. The terms of this section IV.A.S. shall survive the termination of this agreement.

B. The Contractor and EHHD agree that the following services will be provided by the Contractor as required through this agreement:

1. Maintain a responsive and professional public image representing the EHHD in planning for a public health emergency response for the EHHD and the ten towns served by the EHHD.
2. Assume the lead staff role for building and enhancing the public health emergency response capabilities of the EHHD consistent with the guidelines of the Centers of Disease Control and the State of Connecticut Department of Public Health.
3. Develop, orchestrate and assist in trainings, drills and exercises as directed to build the capability of the EHHD to respond to public health emergencies within the EHHD and ESF Regions 3 & 4.
4. Maintain and routinely test a comprehensive local Health Alert Network for the rapid dissemination of public health alerts and emergency risk communications to community providers, partners and volunteers.
5. Develop a strategy for the recruitment and retention of volunteers from community agencies, municipalities, health care providers and lay persons to respond to a public health emergency.
6. Develop and maintain job descriptions and training protocols for identified skilled and non-skilled volunteer positions to carry out activation of local emergency response to

public health emergencies

7. Maintain positive relations with co-workers, partnering agencies and volunteers.
8. Respond to EHHD in a timely manner after being notified by EHHD of a public health emergency or by a Regional Coordinator in the event of a multi-jurisdictional public health emergency.
9. Other Public Health Services as identified by mutual written agreements.

V. TERMINATION OF CONTRACT

EHHD and the Contractor shall each have the right to terminate this agreement by giving the other a minimum 30 day notice, in writing, of intention to terminate.

VI. INDEMNIFICATION

It is understood that EHHD and the Contractor shall hold harmless and indemnify the other against any and all claims, liabilities, damages, costs and expenses, including reasonable attorney fees, that arise from, or are alleged to arise from, the performance of this agreement except for the other's willful misconduct, sole negligence or those actions and inactions that do not arise from the duties enumerated herein. The Contractor shall not commence work under this contract until it has obtained the insurance required under this contract. All coverages shall be with insurance carriers licensed and admitted to do business in the State of Connecticut.

A. The Contractor shall furnish Certificates of Insurance, including Automobile, Commercial General Liability, Professional Liability, and Worker's Compensation insurance in the following amounts:

1. Commercial General Liability Insurance:
The Contractor shall provide Commercial General Liability insurance with a combined single limit of \$1,000,000 per occurrence, \$1,000,000 aggregate for bodily injury and property damage.
2. Commercial Automobile Liability Insurance:
The Contractor shall provide Commercial Automobile Liability insurance with a combined single limit of \$1,000,000 per occurrence, \$1,000,000 aggregate, and shall include coverage for all owned, hired, and non-owned vehicles.
3. Workers Compensation Insurance:
The Contractor shall provide Worker's Compensation Insurance in the required amount as applies to the State of Connecticut and Employers Liability Insurance as follows:
Bodily Injury by Accident -- \$100,000 each accident; Bodily Injury by Disease -- \$500,000 policy limit ; Bodily Injury by Disease-- \$100,000 each employee.
4. Professional Liability Insurance:
The Contractor shall provide Professional Liability insurance with a combined single limit of \$1,000,000 per occurrence, \$1,000,000 aggregate.

Each policy of insurance shall include a waiver of subrogation in favor of the EHHD and

shall provide no less than thirty (30) days notice to the EHHD in the event of a cancellation or change in conditions or amounts of coverage. The Commercial General Liability, Automobile, and Professional Liability shall name the EHHD as an additional insured.

This coverage shall be primary to the additional Insureds, and not contributing with any other insurance or similar protection available to the Additional Insureds, whether other available coverage is primary, contributing or excess.

Proof of Insurance Coverage: The Contractor shall provide the EHHD at the time the contracts are returned for execution, Certificates of Insurance and/or policies, acceptable to the EHHD and the endorsement(s) naming the District as an additional insured.

VII. Miscellaneous

A. This agreement is not assignable by either party.

B. This agreement may be amended only in writing signed by both parties.

VIII. Mediation

A. All claims, disputes or other matters in question between Contractor and EHHD arising out of or relating to this Agreement or breach thereof shall be submitted to non-binding mediation. On the written notice of either party to the other of the election to submit any dispute under this Agreement to mediation, each party shall designate its representative and shall meet at the NDDH offices within ten (10) days after the service of notice. The parties themselves shall then attempt to resolve the dispute within ten (10) days of meeting.

Should the parties themselves be unable to agree on a resolution of this dispute, then the parties shall appoint a third party, who shall be a competent and impartial party and who shall be acceptable to each party, to mediate the dispute. Each party shall pay the fees and expenses of the party mediator and such costs shall be borne equally by both parties.

Upon agreement of the parties, either party may waive the first step in the mediation process and appoint a mutually acceptable mediator.

Any third party mediator designated to serve in accordance with the provisions of the Agreement shall be disinterested and shall be qualified to evaluate the performance of both parties.

This process shall be considered as a condition precedent to moving to court.

B. Court Litigation and Waiver of Jury Trial. Notwithstanding the existence of any provision for arbitration, any dispute arising under this Agreement shall not be submitted to arbitration and the parties shall be left to their remedies at law. It is further expressly agreed that both parties waive and relinquish their right to a trial by jury of any dispute arising out of this Agreement. The intent of the parties is not to have a jury decide any aspect of any dispute

which may arise under this Agreement.

C. Equitable Relief. Nothing herein shall prevent either party from obtaining a court order enforcing the mediation process or such other temporary or equitable relief until such time that the dispute is settled or finally adjudicated.

D. Successors. This Agreement shall be binding upon the heirs, successors, and assigns of the parties. Contractor has no right to assign its obligations under this Agreement without written approval of EHHD.

IX.

By signing below the undersigned acknowledge that they are duly authorized to execute this agreement and agree to the terms and conditions thereof.

Robert L. Miller, EHHD

Susan Starkey, NDDH

Date

Date



Eastern Highlands Health District

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2

Memorandum

To: EHHH Executive Committee
From: Robert L. Miller, Director of Health
CC: Millie Brosseau, Office Manager
Date: May 10, 2020
Re: EHHH Fee Waiver for COVID-19 Related Public Health Reviews

Pursuant to Article V, Section 3 of the Eastern Highlands Health District By-Laws the Executive Committee is empowered to act in the interim between sessions of the full board. In an effort to support and facilitate the expedited re-opening of licensed food establishments within our jurisdiction this office respectfully recommends the following motion by the Executive Committee:

“MOVE, to authorize the Director of Health to waive at his discretion any health district application or service fee related to the COVID-19 pandemic. This includes but is not limited to plan review fees for dining area seating and menu modifications, public health reviews for B100a compliance, and other COVID-19 associated service fees. This authorization shall be effective immediately, and for the duration the Governors state of emergency declaration.”

EHHD Executive Committee
Special Meeting
Minutes -
DRAFT
ZOOM Meeting*
Monday, May 11, 2020

Call to Order at 1:05 PM Vice Chair Elsesser

Present: E Paterson, J Elsesser, M Walter, R Miller

New Business - Authorization to waive any health district related fees associated businesses pursuing COVID related temporary modifications to existing business operations

R Miller provided background on the item and presented a recommended motion.

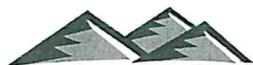
M Walter MOVED, E Paterson seconded to authorize the Director of Health to waive at his discretion any health district application or service fee related to the COVID-19 pandemic. This includes but is not limited to plan review fees for dining area seating and menu modifications, public health reviews for B100a compliance, and other COVID-19 associated service fees. This authorization shall be effective immediately, and for the duration the Governors state of emergency declaration. Motion PASSED unanimously.

Meeting adjourned at 1:17 PM.

Respectfully submitted,

Robert Miller
Secretary

*In accordance with Governor Lamont's Executive Order 7B and social distancing guidelines recommended by the CDC to slow community spread of COVID-19, this meeting is physically closed to the public. The public may join the meeting via telephone. If you plan to join the meeting via phone, please email Millie Brosseau at mbrosseau@ehhd.org or call 860-429-3325 for the call in information.



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**Eastern Highlands Health District
COVID-19
Response Activities Update
June 10, 2020**

Activation of Public Health Emergency Response Plan

Currently implementing a weekly planning cycle with a weekly staff zoom meeting. An Incident Action Plan is updated each week. We participate in twice weekly local public health virtual meetings with DPH.

Contact Tracing

We are investigating all laboratory confirmed and probable cases within our Jurisdiction. As of June 9th, there are approximately 186 cases closed and approximately 10 active cases. We have fully transitioned to the new state-wide web based contact tracing system called *ContaCT*. While we are still in the learning curve for this new system the typical process includes:

- Initial telephone call to a new case uploaded to the system
- Interviewing and completing the online form for a case within 48 hours
- Notifying and completing an online form for all identified contacts within 48 hours
- Activating automated prompts to cases and contacts to provide daily updates on symptoms
- Provide cases and contacts with guidance on isolation and quarantine when needed
- Link individuals with resources if needed to support their home quarantine/isolation
- Notify and coordinate with employers on work place exposures if needed

We currently have 3 regular staff persons conducting tracing on a part-time basis. We have recruited, and activated six (6) medical reserve corps (MRC) volunteers to enhance the contact tracing team. These volunteers are currently undergoing training on the new system. Additional MRC volunteers can be activated and trained as needed to address an anticipated surge some time in the future.

University of Connecticut Storrs Re-population Plan

This office participated as an active member of the University's task force, workgroup on contact tracing. The workgroup was tasked with developing a contract tracing plan for the Storrs and regional campuses. The Governors Reopen CT subcommittee on higher education guidance calls for PCR testing of all students, staff, and faculty upon arrival to campuses in the fall. By way of example assuming a 2% infection rate, it will be necessary to stand up and operationalize contact tracing resources, and support for over 700 cases of COVID-19 within our jurisdiction. This agency continues to work in close partnership with UConn Student Health and Wellness to identify, and stand up the staffing and resources needed to meet this joint community challenge. We will continue to do so over the course of this summer.

Surveillance

Case counts are reported to member towns and other community partners regularly. The DPH secure surveillance tracking system is regularly updated by staff with local case information. State data regarding testing, hospitalizations, and deaths for state, region, and local area is reviewed daily. This data informs the guidance and recommendations provided by this agency.

PPE Distribution

CT DPH tasked local health departments with distributing PPE to local area private healthcare providers. We continue to receive weekly allocations from the DEMHS Region 4 distribution site. To date, we have distributed approximately 29,000 items to 33 area healthcare, and personal care providers in our jurisdiction.

Kinsa Thermometers

We are participating in a DPH initiative to distribute 85,000 “smart thermometers” state-wide. The thermometers are Bluetooth enabled linking to an app on your phone. Temperature and location data is anonymously uploaded to a cloud based database. This provides another tool for the DPH to monitor population health. The thermometers are free of charge, and downloading the app to your phone is voluntary. Our allocation of 200, which we have already received, will be distributed later this summer.

Reopen CT Sector Rules

In an effort to support our local businesses a tremendous amount of staff time is expended working with area businesses providing guidance and support on the application and interpretation of Reopen CT, both phase 1 and phase 2 of the business sector rules; providing modified inspections and infection control guidance for food service establishments (Approximately 155 are currently open, with 85 closed). During this response period, field staff have conducted 15 pre-operational inspection, and responded to 37 complaints regarding violations of the sector rules, or the Governors executive orders.

Governors Executive Orders and other state guidance - Application and Interpretation

In partnership with local area town officials this agency, and pursuant to the Governors executive orders, worked to facilitate the expedited review and approval of outdoor seating. During a May 11th special meeting the Board of Directors, Executive Committee waived all health district fees associated with the pandemic response (The draft meeting minutes are attached.) To date, the staff has reviewed 39 applications for outdoor dining under phase 1 of the sector rules.

We continue to track and review executive orders and state guidelines as they are issued, providing consultation and interpretation support to recreation departments, first responder agencies, youth services agencies, boards of education, town leadership, and other entities as requested. In addition to numerous phone consultations, and emails, this office and staff participates in regular COVID response staff meetings with a number of member towns.

Infection control and exposure assessments for First Responders

This office provides contact exposure, and sick worker guidance and assessments for both essential employers, and first responders. This office is acting as an infection control consult resource for a

number of first responder agencies. We have conducted workplace exposure assessments, and investigations for five (5) first responder agencies and public sector employers in our jurisdiction to date.

Public Health Education, Communications, Messaging

EHHD is aligned with the Governors and CDC Messaging; providing regular public information updates to website, and social media (FB & Twitter).

We push out information and updates on access to testing of general public and first responders.

Agency updates routinely provided to community partners.

Medical Reserve Corps retention and recruitment

We have sworn in 62 new volunteers for a total of 92 on our roster, with another 20 or so in various stages of the vetting process. Six have been active and are undergoing orientation and training on the new contact tracing software. Future missions for the MRC will likely include specimen collection (staffing test sites), and staffing mass vaccination clinics.

COVID-19 Crisis Response Funding for State and Local Health Departments

Local public health departments are receiving COVID-19 Crisis Response Funding from the CDC. We have been allocated \$29,596 to be expended by March 2021. Currently, the funding is reimbursing 100% for over-time, response supplies, and communications. Most of the staff time expended on the response is regular-time, and not covered for re-imburement. Consequently, our reimbursable expenses are relatively small at this time. Despite this, *the crisis funding allocation will be spent down near the beginning of October at our current monthly expenditure rate.* We are nonetheless tracking all COVID related expenses.

We have created an account in the FEMA Grants Portal as a second funding option, in the event health district expenses are reimbursable and the “squeeze is worth the juice”:

Additionally, DPH has informed us that additional funds may become available to local public health for contact tracing, and/or mass vaccination.

Mass Vaccination

Similar to our experience in 2009 during the H1N1 pandemic when the EHHD spearheaded an effort to vaccinate 9000 residents, local public health departments will once again be called onto action to stand up and operationalize a community level mass vaccination campaign to combat COVID-19. Pending the development and mass production of an effective, safe vaccine this campaign could begin as early as this winter. Local public health has participated in a number of preliminary vaccination related planning meetings with DPH. The DPH recently provided CDC guidance on mass vaccination planning. We are initiating efforts to review and update our current mass vaccination plans, ramping up preparedness efforts over the course of the summer. DPH has suggested be prepared to vaccinate 10 to 30 percent of our population (8,000 to 24,000 individuals). *Based on the H1N1 experience, in the absence of substantial additional funding this agency is currently not in a position to mobilize and implement an effective community vaccination initiative.*



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Eastern Highlands Health District COVID-19 Update

Date: 6/16/2020

Time: 0900hrs

Completed by: R Miller

	Cases	Deaths	Hospitalizations
US	2090115	113974	NA
CT	45235	4204	203*
EHHD	208	11	35

By Town:

	Cases	Hospitalized	Deaths		Cases	Hospitalized	Deaths
Andover	9	1		Coventry	41	4	1
Ashford	17	2		Mansfield	32	2	2
Bolton	21	5	3	Scotland			
Chaplin	3	1		Tolland	49	14	4
Columbia	23	5	1	Willington	13	1	

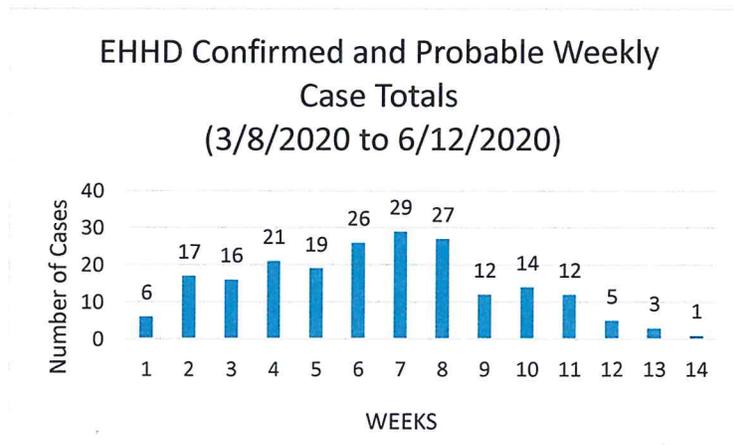
Recent EHHD News:

All case counts include both confirmed and probable cases.

The EHHD is now fully utilizing the new state-wide contact tracing software platform, Contact.

Recent PCR test results of all patients residing in nursing homes in Mansfield and Tolland were negative.

In collaboration with eastern CT health directors, the EHHD recently released guidance regarding re-opening playgrounds.



*This is the current (net) number of hospitalizations. It is not an accumulative count.



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Activity Report

October 1, 2019 – March 31, 2020

Highlighted Accomplishments/Activities

- See separate report on COVID-19 response activities.
- The Eastern Highlands Health District Board of Directors at their January 16, 2020 regular meeting adopted an operating budget authorizing \$883,540 in spending.
- Efforts to initiate our new Cosmetology Permitting and Inspection program included the following during this period; Completed the development and legal review of our draft ordinance, updated and adopted a fee schedule, and held a public informational session for owners and operators in December. The public hearing scheduled for April is postponed until further notice due to the COVID-19 response.
- Through the end of October and working with DPH and area health districts, implemented a response to an outbreak of Eastern Equine Encephalitis in eastern Connecticut. The response included but is not limited to weekly conference calls with Connecticut Agricultural Experiment Station, DEEP mosquito control program, and DPH; development and distribution of risk communication, and risk reduction messaging for general public and community stakeholders; development and distribution of risk reduction guidance to schools, and recreation departments; consultations with school and town officials; coordinating response with UConn Environmental Health & Safety; and, providing weekly email EEE updates to all community stakeholders.
- Continue to work cooperatively with DEEP on behalf of Tolland providing information and technical support regarding an environmental investigation into sodium chloride contamination in ground water in the Town of Tolland. This includes responding to inquiries and concerns from property owners, updating data sets, and tracking tables, and meeting with town regarding Old Post Road, and participating in a DEEP public forum for Merlot Way area residents in March.
- Supported Town of Coventry as part of DEEP investigation to NaCl contamination in private drinking water well. Completed preliminary assessment of town park well, conducted water testing, and made recommendations on treatment.
- After a number of years of development and a significant investment in resources the Viewpoint Cloud online permit application and payment system was fully launched and became operational in March. Now most health district services can be requested and paid for online. Soon the food establishment license renewal process too will become automated.
- Continued support of the Town of Mansfield as an active member of the Connecticut Water Regional Advisory Committee.



Eastern Highlands Health District

4 South Eagleville Road ♦ Mansfield CT 06268 ♦ Tel: (860) 429-3325 ♦ Fax: (860) 429-3321 ♦ Web: www.EHHD.org

- The Director was appointed to the University of Connecticut Institutional Biosafety Committee. The Committee is tasked with reviewing the safety protocols of research and classroom curriculum involving pathogens and recombinant DNA. The committee meets about every two months.
- During February and March licenses to operate were renewed for approximately 240 food establishments in the health district.
- *Emergency Preparedness Program:* See attached reports titled, “Eastern Highlands Health District Public Health Preparedness Program, October – December 2019” & “Eastern Highlands Health District Public Health Preparedness Program, January – March 2020”
- *Community Health Program:* See attached reports titled, “Eastern Highlands Health District Community Health and Wellness Coordinator Second Quarter October 1 – December 31, 2019”

Plans for the Next Quarter

- See separate report on COVID-19 response activities.
- Re-engage regulated community regarding cosmetology program once the pandemic wanes and businesses have recovered some.
- Progress on expanding the functionality of the ViewPoint Cloud software to include food establishment license renewal, cosmetology, and complaint investigations.
- Continue to provide our core scope of public health services during this declared public health emergency.

Statistical Report (Attached)

Eastern Highlands Health District Public Health Preparedness Program

January-March, 2020

- **PHEP Activities:**

- Public Health Preparedness Program Coordinator (PHEPC) continued work on PHEP/MRC subcontract deliverables & submitted required reports.
- Mass Dispensing preparations including revision of POD plans and modeling programs with DPH
- Reviewed & drafted revision of EHHD PHERP with DOH
- Drafted After-Action Report (AAR) for EHHD response to Eastern Equine Encephalitis
- Researched & recommended Zoom virtual platform for EHHD use
- Shifted from PHEP activities to supporting EHHD COVID response by starting in February. Prepared weekly COVID Incident Action Plans (IAPs) for DOH.

- **Training:**

- Completed week 2 of Exercise Design course at Emergency Management Institute (EMI) in Maryland
- Attended regional training on School Safety by CT State Police
- Online training on CTResponds! software

- **Regional Planning Activities:**

- Led Region 4 (R4) ESF8 Training & Exercise Workgroup; planned for full scale vaccination exercise in fall; co-facilitated Access & Functional Needs (AFN) workshop with R4 ESF8; prepared Multi-Year Training Plan and Continuous Improvement Planning spreadsheet based on past regional exercises; worked with ESF8 leadership to clarify of exercise deliverables
- Participated in R4 & R3 ESF8 meetings, live & virtual
- Promoted an ESF8 regional response to COVID; served as R4 ESF8 Planning lead and liaison to R4 REPT; utilized Veoci and WebEOC for regional information sharing and situational awareness; engaged R4 IMT and R4 EMS agencies
- Provided ESF8 input to DEMHS to develop WebEOC for use by Local Health
- Supported Information Sharing and coordination between R4 partners using Veoci and WebEOC

- **Medical Reserve Corps (MRC)**

- Supported CHWC with administration & coordination of EHHD MRC unit
- Participated in beta testing of CTResponds! volunteer management software
- Worked with R4 MRC fiduciary and R4 MRC units to clarify guidance from CT DPH; conducted MRC Zoom meeting to help coordinate R4 MRC units

- **Community Planning**
 - Supported northeast CT Emergency Management meetings in January & March
 - Interfaced with Region 4 ambulance agencies to monitor operational status
 - Participated in multiple COVID-19 calls and virtual sessions with groups including CT DPH; COCA; DEMHS Regional Emergency Support Team (REPT); UConn; Eastern CT EMS Council; Governor; EHHD EMDs and EHHD school superintendents

- **Plans for Next Quarter:**
 - Continue to support coordinated COVID response for EHHD and R4 ESF8 and partners through information sharing and promoting situational awareness
 - Complete PHEP deliverables per contract by June 30
 - Collaborate with other LHDs and partners to develop regional vaccination strategies for 2020/2021
 - Support CHWC and coordination of R4 MRC units

Eastern Highlands Health District Public Health Preparedness Program

October-December, 2019

- **Activities:**
 - Public Health Preparedness Program Coordinator (PHEPC) continued work on PHEP/MRC subcontract deliverables & submitted progress reports.
 - PHEPC worked with Director of Health (DOH) to complete PHEP portions of local health department annual survey.
 - PHEPC and Community Health and Wellness Coordinator (CHWC) supported planning and delivery of regional “Drive Thru Flu Clinic” dispensing exercise in Groton, serving lead roles in Communications and Vaccination operations. PHEPC utilized Veoci and WebEOC to disseminate information through Veoci and WebEOC to fulfill regional deliverables.

- **Training:**
 - PHEPC attended first week of FEMA’s Master Exercise Practitioner (MEP) at the Emergency Management Institute (EMI) program in Maryland, to improve local ability to design and conduct drills and exercises.
 - PHEPC attended WebEOC training by CT DEMHS.

- **Regional Planning Activities:**
 - Continued collaboration with Region 4 health districts to develop a single plan for CRI Region 4 Mass Dispensing Area (MDA). Led formalization of an Exercise Program for CRI Region 4 MDA. Compiled a CAP reference document from regional exercises since 2012 to identify gaps. Conducted a Training and Exercise Planning Workshop (TEPW) to refine a Multi-Year Training Plan (MYTEP) based on corrective actions, reference documents, and contract deliverables.
 - Participated in Public Health Emergency Preparedness (PHEP) and ESF8 meetings in Region 3 and Region 4.
 - Began groundwork to prepare for regional full scale POD exercise tentatively to be held in October, 2020, including preparation of a Master Task List and timeline leading up to the exercise.

- **Medical Reserve Corps (MRC)**
 - PHEPC and CHWC continued to work together to promote and develop the EHHD MRC unit and develop strategies for volunteer engagement, training, recruitment and retention. Both attended Region 4 MRC leadership meetings and attended the Statewide MRC Implementation Planning Kickoff meeting to support the CT MRC Strategic Plan.
 - PHEPC participated in beta testing of the “CTResponds!” volunteer management system in development by CT DPH.

- CHWC engaged MRC volunteers by providing training opportunities including free nalaxone training, ham radio training, and a Tolland CERT class.
 - CHWC provided MRC information and recruitment information at three district health fairs; hosted three MRC orientations; and recruited four new MRC members.
 - Two EHHD MRC supported First Aid function at the Hartford Marathon; four EHHD MRC supported Groton “Drive Thru” exercise.
 - CHWC sent out holiday cards to MRC volunteers.
- **Community Planning**
 - PHEPC and DOH participated in Mansfield’s Emergency Management meeting.
 - PHEPC collaborated with EMDs in Mansfield, Scotland, Ashford, Chaplin, Willington and others through DEMHS Region 4 ESF5 workgroup.
- **Plans for Next Quarter:**
 - Update the EHHD Public Health Emergency Response Plan (PHERP).
 - Facilitate formation of planning team for regional POD exercise in October, 2020, and conduct planning meetings.
 - Develop an after action report for EHHD’s response to Eastern Equine Encephalitis (EEE).
 - PHEPC to attend second week of MEP training at EMI in February; Support Region 4 ESF8 Access and Functional Needs (AFN) planning workshop.
 - Provide a Psychological First Aid (PFA) class in the Mansfield Town Hall for EHHD MRC volunteers and potential volunteers.

**Eastern Highlands Health District
Community Health and Wellness Coordinator
Second Quarter Report October 1 – December 31, 2019**

Programs and services provided through the EHHD Community Health and Wellness Coordinator efforts were extended to **852 individuals in member towns** this quarter primarily through the *Be Well* newsletter and additional activities provided this quarter.

EHHD Strategic Plan Progress

Action Item	Progress this quarter	Outcome
<p>1b (1) Refine/update grant monitoring network</p>	<p>Did not find any grants this quarter.</p>	<p>The CHWC will look for opportunities for grants for EHHD and will work with CHART to explore opportunities.</p>
<p>1g (1) Explore and expand partnership opportunities</p>	<p>The CHWC attended 3 meetings of the UCONN Bike Friendly Campus group. CHWC attended 2 meeting of the Chaplin School Readiness Council. CHWC attended 2 meeting of Bike Mansfield</p>	<p>CHWC provided feedback to the meetings.</p>
<p>2a (2) Effective communication of health district programs and news with staff and member towns officials</p>	<p>Updated bulletin boards were provided to Tolland and Mansfield Town Hall buildings.</p> <p>CHWC has routinely updated “Hot Topics” section of the EHHD webpage, the health promotion EHHD webpage EHHD Chart Facebook and Twitter</p> <p>CHWC continues to produce quarterly newsletters.</p>	<p>Bulletin boards reflected seasonally appropriate health and safety messages.</p> <p>Topics included info Vaping-induced lung injury, physical activity information. Healthy communities information, tobacco cessation, and food safety information.</p> <p>Newsletters are distributed to member town officials, Be Well Tolland members and residents.</p>
<p>3a (2) Work cooperatively with school food service staff, school nurses and parents’ groups to address nutrition</p>	<p>No activity</p>	

and physical activity for students		
3c (1) Engage in advocacy events and activities	CHWC attended Mansfield Health and Wellness Fair and provided biometric screening and health information to 48 participants CHWC attended Mansfield Senior Health Fair where 35 participants got information on various health issues including flu, fall risk and breast health. CHWC attended the Employee Health Fair for CNC and provided health information.	CHWC will continue to explore ways to support community events
Childhood Lead Activities	CHWC continues to monitor the DPH lead surveillance system (MAVEN) and contact families, medical providers, labs, and DPH as necessary to support the monitoring of elevated lead in resident children.	There were 17 cases being followed in this quarter. 6 events were closed. 27 phone calls were made to families and providers. 10 correspondences completed to families.
Communicable Disease Control	CHWC interviews and follow-up as needed for enteric diseases. Documenting and faxing information to DPH as necessary.	5 calls were made. 1 interviews conducted. 1 site visit conducted.
CHWC Training and Continued Education	Participated in the CDC Emergency Partners Information Connection Call on EVALI 12/04/2019 (0.1 CEU), and IS-200c was completed and certificate obtained.	CHWC will continue to explore opportunities to participate in continuing education when appropriate
Vaccine Program	CHWC completed the application and preparation for CVP program, including writing a protocol for vaccine storage. Joined the CT Immunization Coalition will be attending quarterly meetings	CHWC will continue to maintain and update the vaccine program and will attend the Immunization Coalition meetings

Emergency Preparedness/Response

CHWC has worked with the other unit coordinator to update the volunteer list and communicate to the volunteers various opportunities. CHWC attended Regional MRC meetings to coordinate services and operations. CHWC participated in the Drive thru "Bird-Flu" exercise in Groton. CHWC provided information and recruitment information at 3 health fairs. CHWC hosted 3 orientations recruiting 4 new members. CHWC sent out holiday cards to MRC volunteers.

CHWC attended the MRC Implementation Planning Kickoff meeting 12/16/2019 and provided feedback and documentation to assist implementation of the MRC Strategic Plan.

Regional Asthma Coalition

No news

Employee Wellness Programs

Activities to meet contract deliverables for the current employer groups (Town of Tolland) continue as planned.

Tolland

The 2nd Quarter Educational Program was completed on November 20, 2019 12 people attended. CHWC provided a presentation on Staying Healthy for the Holidays. CHWC promoted a Maintain Don't Gain campaign for the holiday and 6 people participated. 6 Weekly newsletters were created and sent to participants.

Preventive Health Block Grant

CHWC attended October 3rd meeting with UCONN Wellness representative and E.O. Smith staff to work on vaping/tobacco issues with youth in Mansfield. Provided feedback and resources. Followed up vaping meeting with connecting participants with resource in Mansfield Youth Services and resources from the DPH.

CHWC conducted biometric screenings at Mansfield Wellness Fair 10/10/2019. CHWC updated the Healthy Community toolkit, CHWC contacted town recreation departments to inquire about tobacco-free signage. Four towns replied.

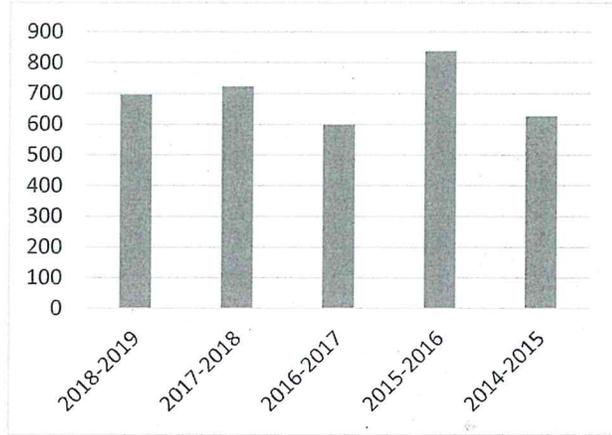
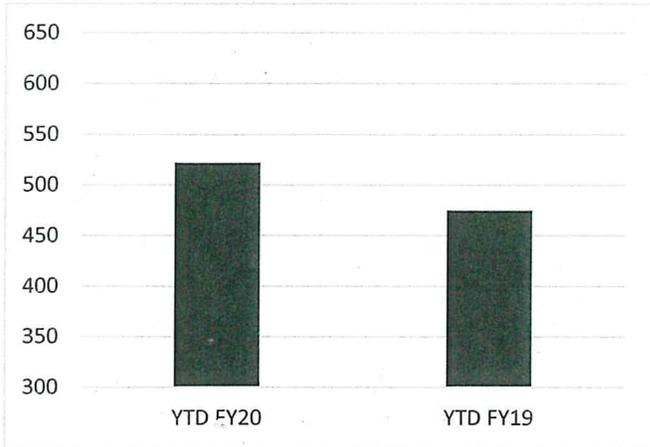
Community Outreach

CHWC attended the Mansfield Health and Wellness Fair. 67 people came to table for information. 48 people were provided biometric screenings. During Chaplin School Readiness meeting in December, CHWC provided information on flu prevention, Importance of not eating raw dough. CHWC continued to update the EHHD Facebook and Twitter accounts with important public health information. October 3rd met with UCONN Wellness representative and E.O. Smith staff to work on Vaping issues. Provided feedback and resources. Followed up vaping meeting with connecting participants with resource in Mansfield Youth Services and resources from the DPH. CHWC promoted the CT DPH Radon Partnership Program and distribution of the free kits.

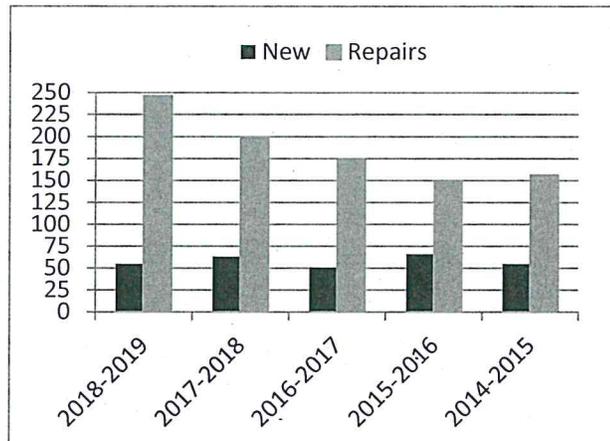
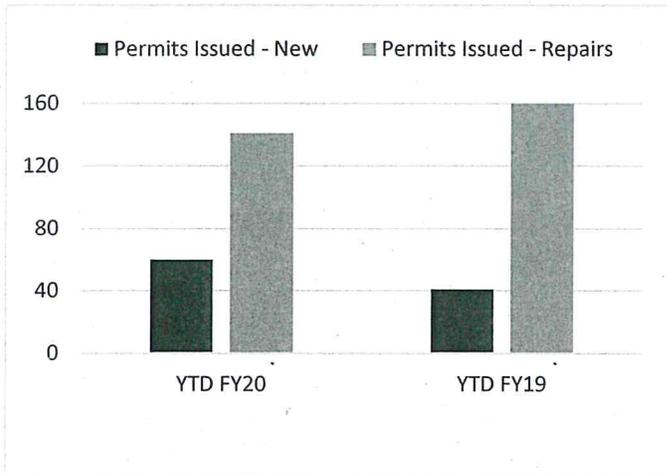
Date	Description	# served	Community
1 st quarter December 2019	Employee Wellness Newsletter (UConn) 182/monthly	185	UConn
1 st quarter December 2019	Employee Wellness Newsletter 60/	60	Andover
1 st quarter December 2019	Employee Wellness Newsletter 60	60	Ashford
1 st quarter December 2019	Employee Wellness Newsletter 200	200	Bolton
1 st quarter December 2019	Employee Wellness Newsletter 30	30	Chaplin
1 st quarter December 2019	Employee Wellness Newsletter 60	60	Columbia
1 st quarter December 2019	Employee Wellness Newsletter 60	60	Coventry
1 st quarter December 2019	Employee Wellness Newsletter 60	60	Scotland
1 st quarter December 2019	Employee Wellness Newsletter 430	430	Tolland
1 st quarter December 2019	Employee Wellness Newsletter 40	40	Willington
November-January (6 weeks in total)	Tolland Be Well Maintain Don't Gain Newsletter week 1-6, 6 individuals	36	Tolland
Meetings/events			
October 10	Mansfield Wellness Fair	68	Mansfield
November 15	Mansfield Senior Wellness Fair	35	Mansfield
November 19	CNC Wellness Fair	26	Tolland
November 20th	2nd Qtr. Be Well Education Program Healthy Holidays	12	Tolland
	Total served		

Quarterly Report January 1, 2020 - March 31, 2020
 Year to Date Histograms with 5 Year Trend Comparisons for Selected Activity Indicators

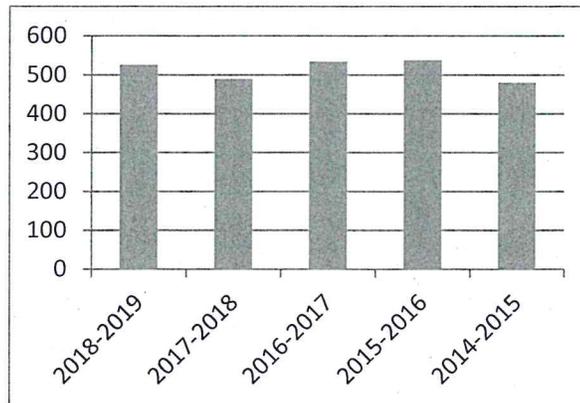
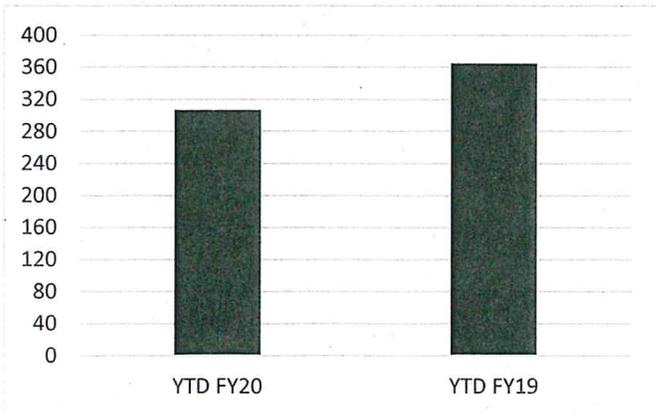
Deep Test Holes



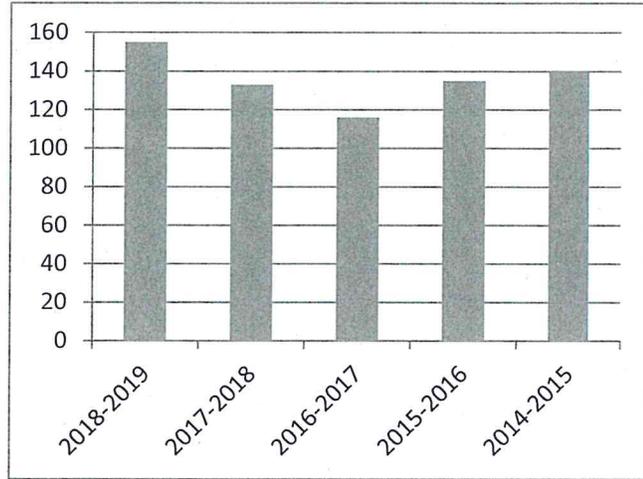
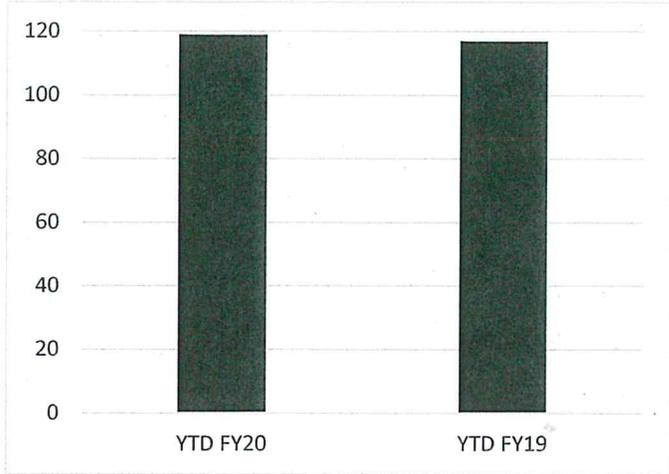
Septic Permits Issued



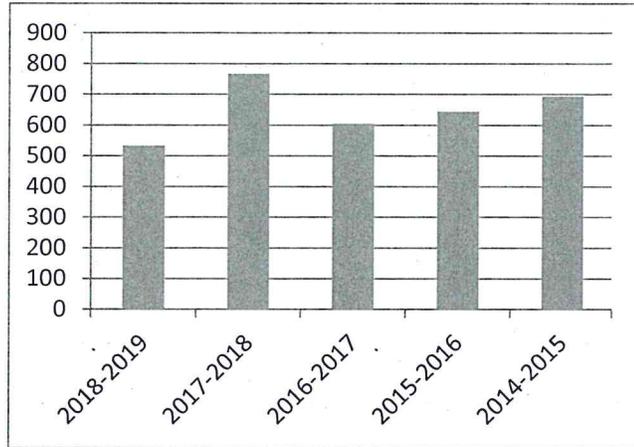
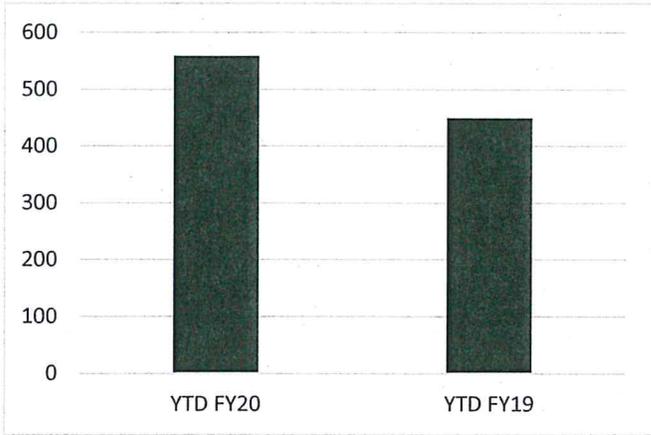
Public Health Reviews



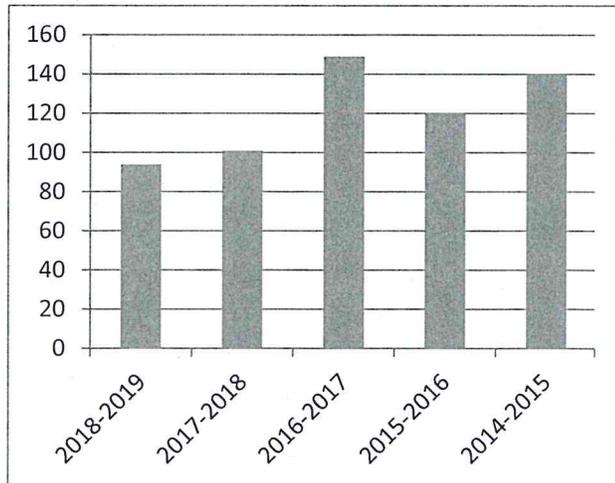
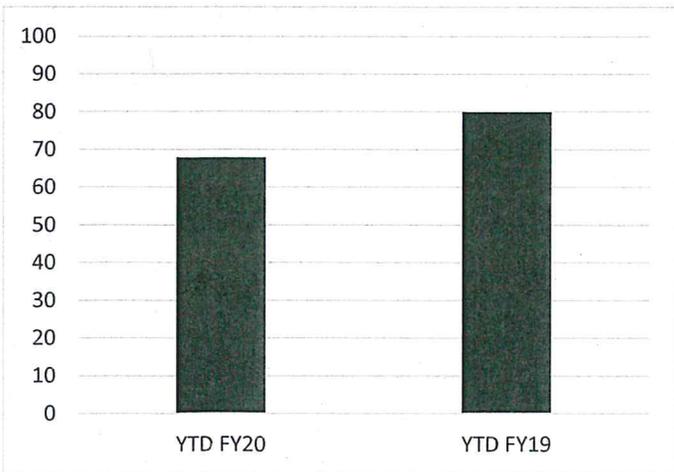
Complaints



Food Service Inspections



Well Permits



EASTERN HIGHLANDS HEALTH DISTRICT THIRD QUARTER FISCAL YEAR 2019-2020

January 1, 2020 - March 31, 2020

Activity Indicators	MONTHS				Total	Current YTD FY20	Previous YTD FY19
	January	February	March				
COMMUNITY HEALTH ACTIVITIES							
<i>Communicable Disease Control</i>							
Case reports reviewed	49	110	92	251	770	751	
Preliminary follow ups	1		1	2	17	10	
Investigations	2	5	3	10	14	9	
<i>Public Health Education</i>							
Programs	(see narrative for program description)						
ENVIRONMENTAL HEALTH ACTIVITIES							
<i>Complaints</i>							
Air Quality	0	1	0	1	2	2	
Animals/Animal Waste	0	0	0	0	4	3	
Activity without Permit	0	0	0	0	0	0	
Food Protection	3	2	1	6	21	15	
Housing Issues	4	3	1	8	31	46	
Emergency Response	1	0	0	1	12	8	
Refuse/Garbage	1	2	1	4	11	4	
Rodents/Insects	0	0	2	2	2	3	
Septic/Sewage	1	2	5	8	36	14	
Other	0	1	0	1	11	8	
Water Quality	0	0	4	4	23	14	
COVID-19	0	0	7	7	7		
Total	10	11	14	35	153	117	
<i>Health Inspection</i>							
Group homes	0	0	0	0	0	1	
Day Care	1	0	0	1	10	3	
Camps	2	1	1	4	6	7	
Public Pool	0	0	0	0	25	5	
Other	0	0	0	0	0	0	
Schools	2	1	1	4	6	4	
Mortgage, FHA, VA	0	0	0	0	0	0	
Bathing Areas	0	0	0	0	0	0	
<i>On-site Sewage Disposal & Wells</i>							
Site inspection	0	0	0	0	752	760	
Deep hole tests	51	68	56	175	716	475	
Percolation tests	72	44	68	184	340	130	
Permits issued, new	6	13	16	35	74	41	
Permits issued, repair	3	4	3	10	218	171	
Site Plans Reviewed	8	13	14	35	234	206	
Public Health Reviews	11	13	24	48	452	365	
<i>Wells</i>							
Well sites inspected	0	0	0	0	26	52	
Well permits issued	3	1	4	8	95	80	
<i>Laboratory Activities (samples taken)</i>							
Potable water	0	0	0	0	32	5	
Surface water	1	1	0	2	314	181	
Ground water	0	0	0	0	0	0	
Rabies	0	0	0	0	2	1	
Lead	0	0	0	0	0	8	
Other	1	0	0	1	44	5	
<i>Food Protection</i>							
Inspections	0	0	0	0	375	303	
Reinspections	76	47	46	169	255	53	
Temporary permit	13	13	8	34	203	158	
Temporary inspections*	0	5	4	9	114	72	
Plan review	0	0	1	1	12	15	
Pre-operational inspections	3	0	3	6	7	22	
Total Inspections	79	52	53	184	751	450	
<i>Lead Activities</i>							
Housing inspection	0	0	0	0	3	3	
Abate plan reviewed	1	0	0	1	1	0	
<i>Miscellaneous Activities</i>							
Planning and Zoning referrals	0	0	0	0	2	2	
Subdivision reviewed (# of lots)	1	0	1	2	6	4	

ANDOVER QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators						
	January	February	March	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	6	
Housing Issues			1	1	9	
Emergency Response				0	1	
Refuse/Garbage				0	4	
Rodents/Insects				0	2	
Septic/Sewage	1	1		2	10	
Other				0	1	
Water Quality				0	4	
COVID-19				0	7	
Total	1	1	1	3	38	
<i>Health Inspection</i>						
Group homes				0	0	
Day Care				0	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	0	0	0	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits	4	1	6	11	0	
Deep hole tests -- number of holes			3	3	186	
Percolation tests -- number of holes		2	1	3	187	
Permits issued, new				0	38	
Permits issued, repair		2		2	10	
Site plans reviewed		1	1	2	37	
Public Health Reviews		3	3	6	50	
<i>Wells</i>						
Well sites inspected				0	0	
Well permits issued	1			1	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water				0	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other			1	1	1	
<i>Food Protection</i>						
Inspections	3	2		5	0	
Reinspections	1		1	2	174	
Temporary permits				0	36	
Temporary inspections				0	9	
Plan reviews				0	1	
Pre-operational inspections				0	6	
<i>Lead Activities</i>						
Housing inspection				0	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	2	

ASHFORD QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators						
	January	February	March	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality		1		1	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	6	
Housing Issues				0	9	
Emergency Response				0	1	
Refuse/Garbage				0	4	
Rodents/Insects				0	2	
Septic/Sewage				0	10	
Other				0	1	
Water Quality				0	4	
COVID-19				0	7	
Total	0	1	0	1	38	
<i>Health Inspection</i>						
Group homes				0	0	
Day Care				0	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	0	0	0	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits	4	7	7	18	0	
Deep hole tests -- number of holes	12	7	3	22	186	
Percolation tests -- number of holes	2	2	3	7	187	
Permits issued, new		1	1	2	38	
Permits issued, repair	1		2	3	10	
Site plans reviewed	2		5	7	37	
Public Health Reviews	2	1	4	7	50	
<i>Wells</i>						
Well sites inspected				0	0	
Well permits issued	1			1	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water				0	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other				0	1	
<i>Food Protection</i>						
Inspections	6	2	4	12	0	
Reinspections		2		2	174	
Temporary permits		1	1	2	36	
Temporary inspections				0	9	
Plan reviews			1	1	1	
Pre-operational inspections			2	2	6	
<i>Lead Activities</i>						
Housing inspection				0	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)		3		3	2	

BOLTON QUARTERLY REPORT
January 1, 2020 - March 31, 2020

Activity Indicators

	January	February	March	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES					
<i>Complaints</i>					
Air Quality				0	1
Animals/Animal Waste				0	0
Activity Without Proper Permits				0	0
Food Protection				0	6
Housing Issues	1			1	9
Emergency Response				0	1
Refuse/Garbage	1			1	4
Rodents/Insects				0	2
Septic/Sewage			1	1	10
Other				0	1
Water Quality				0	4
COVID-19				0	7
Total	2	0	1	3	38
<i>Health Inspection</i>					
Group homes				0	0
Day Care	1			1	1
Camps				0	4
Public Pool				0	0
Other				0	0
Schools				0	4
Mortgage, FHA, VA				0	0
Bathing Areas				0	0
Total	1	0	0	1	9
<i>On-site Sewage Disposal</i>					
Site inspection -- all site visits	5	9	11	25	0
Deep hole tests -- number of holes	3	12	6	21	186
Percolation tests -- number of holes	1	7	2	10	187
Permits issued, new		1		1	38
Permits issued, repair	2		3	5	10
Site plans reviewed	1	2	4	7	37
Public Health Reviews	2	1	1	4	50
<i>Wells</i>					
Well sites inspected				0	0
Well permits issued		1	1	2	8
<i>Laboratory Activities (samples taken)</i>					
Potable water				0	0
Surface water				0	2
Ground water				0	0
Rabies				0	0
Lead				0	0
Other				0	1
<i>Food Protection</i>					
Inspections	7	3	3	13	0
Reinspections	1	1		2	174
Temporary permits		2	1	3	36
Temporary inspections				0	9
Plan reviews			1	1	1
Pre-operational inspections				0	6
<i>Lead Activities</i>					
Housing inspection				0	0
Abate plan reviewed				0	1
MISCELLANEOUS ACTIVITIES					
Planning and Zoning referrals				0	0
Subdivision reviewed (per lot)				0	2

CHAPLIN QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators						
	January	February	March	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	6	
Housing Issues				0	9	
Emergency Response				0	1	
Refuse/Garbage				0	4	
Rodents/Insects				0	2	
Septic/Sewage				0	10	
Other				0	1	
Water Quality				0	4	
COVID-19				0	7	
Total	0	0	0	0	38	
<i>Health Inspection</i>						
Group homes				0	0	
Day Care				0	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	0	0	0	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits	2			2	0	
Deep hole tests -- number of holes				0	186	
Percolation tests -- number of holes				0	187	
Permits issued, new				0	38	
Permits issued, repair	1			1	10	
Site plans reviewed			1	1	37	
Public Health Reviews	3	1	2	6	50	
<i>Wells</i>						
Well sites inspected				0	0	
Well permits issued				0	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water				0	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other				0	1	
<i>Food Protection</i>						
Inspections	5	2		7	0	
Reinspections				0	174	
Temporary permits			1	1	36	
Temporary inspections				0	9	
Plan reviews				0	1	
Pre-operational inspections				0	6	
<i>Lead Activities</i>						
Housing inspection				0	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	2	

COLUMBIA QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators

	January	February	March	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES					
<i>Complaints</i>					
Air Quality				0	1
Animals/Animal Waste				0	0
Activity Without Proper Permits				0	0
Food Protection				0	6
Housing Issues				0	9
Emergency Response				0	1
Refuse/Garbage				0	4
Rodents/Insects				0	2
Septic/Sewage				0	10
Other				0	1
Water Quality				0	4
COVID-19				0	7
Total	0	0	0	0	38
<i>Health Inspection</i>					
Group homes				0	0
Day Care	1			1	1
Camps				0	4
Public Pool				0	0
Other				0	0
Schools				0	4
Mortgage, FHA, VA				0	0
Bathing Areas				0	0
Total	1	0	0	1	9
<i>On-site Sewage Disposal</i>					
Site inspection -- all site visits	10	2	14	26	0
Deep hole tests -- number of holes	3		6	9	186
Percolation tests -- number of holes	1		2	3	187
Permits issued, new				0	38
Permits issued, repair	1		3	4	10
Site plans reviewed	1		3	4	37
Public Health Reviews	4			4	50
<i>Wells</i>					
Well sites inspected	1		1	2	0
Well permits issued				0	8
<i>Laboratory Activities (samples taken)</i>					
Potable water				0	0
Surface water				0	2
Ground water				0	0
Rabies				0	0
Lead				0	0
Other				0	1
<i>Food Protection</i>					
Inspections	4	3	2	9	0
Reinspections				0	174
Temporary permits				0	36
Temporary inspections				0	9
Plan reviews				0	1
Pre-operational inspections				0	6
<i>Lead Activities</i>					
Housing inspection				0	0
Abate plan reviewed				0	1
MISCELLANEOUS ACTIVITIES					
Planning and Zoning referrals				0	0
Subdivision reviewed (per lot)			3	3	2

COVENTRY QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators						
	January	February	March	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection		1		1	6	
Housing Issues		1		1	9	
Emergency Response				0	1	
Refuse/Garbage				0	4	
Rodents/Insects				0	2	
Septic/Sewage				0	10	
Other				0	1	
Water Quality				0	4	
COVID-19				0	7	
Total	0	2	0	2	38	
<i>Health Inspection</i>						
Group homes	1			1	0	
Day Care				0	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	1	0	0	1	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits	9	21	9	39	0	
Deep hole tests -- number of holes		19	29	48	186	
Percolation tests -- number of holes		2	2	4	187	
Permits issued, new		1	1	2	38	
Permits issued, repair		4	3	7	10	
Site plans reviewed		4	6	10	37	
Public Health Reviews	3	4	6	13	50	
<i>Wells</i>						
Well sites inspected	1	1	1	3	0	
Well permits issued	2	1		3	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water		1		1	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other		1	1	2	1	
<i>Food Protection</i>						
Inspections	6	5	7	18	0	
Reinspections			2	2	174	
Temporary permits		1		1	36	
Temporary inspections				0	9	
Plan reviews			1	1	1	
Pre-operational inspections			1	1	6	
<i>Lead Activities</i>						
Housing inspection	1			1	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals			1	1	0	
Subdivision reviewed (per lot)				0	2	

MANSFIELD QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators

	January	February	March	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES					
<i>Complaints</i>					
Air Quality				0	1
Animals/Animal Waste				0	0
Activity Without Proper Permits				0	0
Food Protection	2	1	1	4	6
Housing Issues	1		1	2	9
Emergency Response				0	1
Refuse/Garbage		1	1	2	4
Rodents/Insects			1	1	2
Septic/Sewage		1		1	10
Other		1		1	1
Water Quality				0	4
COVID-19			5	5	7
Total	3	4	9	16	38
<i>Health Inspection</i>					
Group homes				0	0
Day Care				0	1
Camps				0	4
Public Pool				0	0
Other	2	1	1	4	0
Schools				0	4
Mortgage, FHA, VA				0	0
Bathing Areas				0	0
Total	2	1	1	4	9
<i>On-site Sewage Disposal</i>					
Site inspection -- all site visits	9	19		28	0
Deep hole tests -- number of holes	3		6	9	186
Percolation tests -- number of holes	1		1	2	187
Permits issued, new			1	1	38
Permits issued, repair		3		3	10
Site plans reviewed	1	3		4	37
Public Health Reviews	5	5	6	16	50
<i>Wells</i>					
Well sites inspected				0	0
Well permits issued				0	8
<i>Laboratory Activities (samples taken)</i>					
Potable water				0	0
Surface water				0	2
Ground water				0	0
Rabies				0	0
Lead	1			1	0
Other	1			1	1
<i>Food Protection</i>					
Inspections	35	17	25	77	0
Reinspections	10	8	3	21	174
Temporary permits		1		1	36
Temporary inspections				0	9
Plan reviews	3			3	1
Pre-operational inspections	1	2		3	6
<i>Lead Activities</i>					
Housing inspection				0	0
Abate plan reviewed				0	1
MISCELLANEOUS ACTIVITIES					
Planning and Zoning referrals	1			1	0
Subdivision reviewed (per lot)				0	2

SCOTLAND QUARTERLY REPORT

January 1, 2020 - March 31, 2020

Activity Indicators						
	January	February	March	<i>Total</i>	<i>District Total</i>	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	6	
Housing Issues				0	9	
Emergency Response				0	1	
Refuse/Garbage				0	4	
Rodents/Insects				0	2	
Septic/Sewage				0	10	
Other				0	1	
Water Quality				0	4	
COVID-19				0	7	
Total	0	0	0	0	38	
<i>Health Inspection</i>						
Group homes				0	0	
Day Care				0	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	0	0	0	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits		4	4	8	0	
Deep hole tests -- number of holes		3	3	6	186	
Percolation tests -- number of holes		1	1	2	187	
Permits issued, new				0	38	
Permits issued, repair	1		1	2	10	
Site plans reviewed	1		1	2	37	
Public Health Reviews				0	50	
<i>Wells</i>						
Well sites inspected				0	0	
Well permits issued				0	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water				0	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other				0	1	
<i>Food Protection</i>						
Inspections			1	1	0	
Reinspections				0	174	
Temporary permits				0	36	
Temporary inspections				0	9	
Plan reviews				0	1	
Pre-operational inspections				0	6	
<i>Lead Activities</i>						
Housing inspection				0	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	2	

TOLLAND QUARTERLY REPORT

January 1, 2020 - March 31, 2020

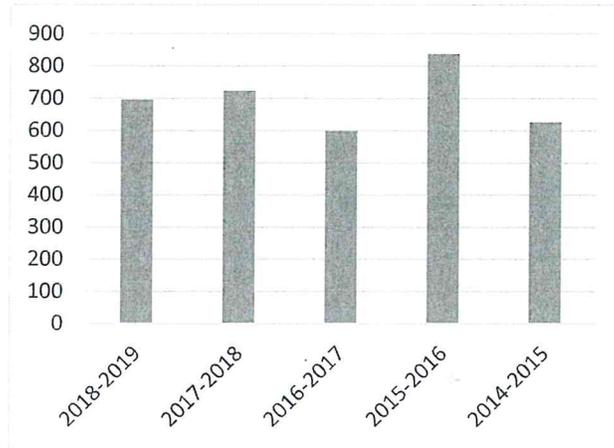
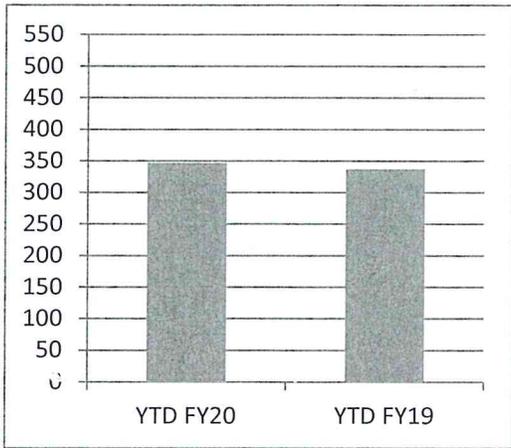
Activity Indicators						
	January	February	March	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection	1			1	6	
Housing Issues				0	9	
Emergency Response	1			1	1	
Refuse/Garbage				0	4	
Rodents/Insects				0	2	
Septic/Sewage	1		4	5	10	
Other				0	1	
Water Quality			3	3	4	
COVID-19			1	1	7	
Total	3	0	8	11	38	
<i>Health Inspection</i>						
Group homes				0	0	
Day Care			1	1	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	0	1	1	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits	10	2	8	20	0	
Deep hole tests -- number of holes	48	3	12	63	186	
Percolation tests -- number of holes		1	4	5	187	
Permits issued, new	1			1	38	
Permits issued, repair	2	5	2	9	10	
Site plans reviewed	3	3	2	8	37	
Public Health Reviews	9	11	3	23	50	
<i>Wells</i>						
Well sites inspected			2	2	0	
Well permits issued	2			2	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water				0	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other				0	1	
<i>Food Protection</i>						
Inspections	9	8	2	19	0	
Reinspections			1	1	174	
Temporary permits				0	36	
Temporary inspections			1	1	9	
Plan reviews				0	1	
Pre-operational inspections				0	6	
<i>Lead Activities</i>						
Housing inspection				0	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	2	

WILLINGTON QUARTERLY REPORT

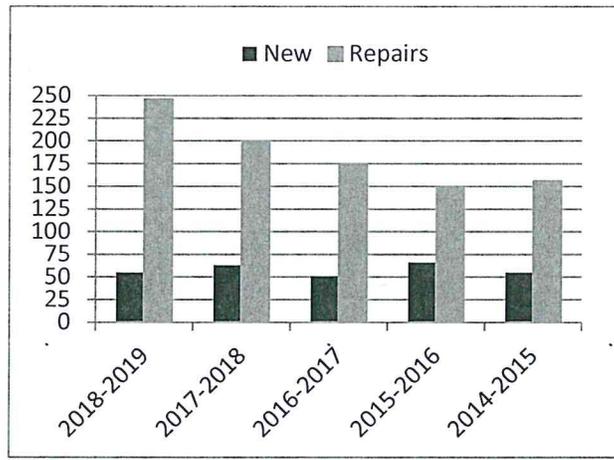
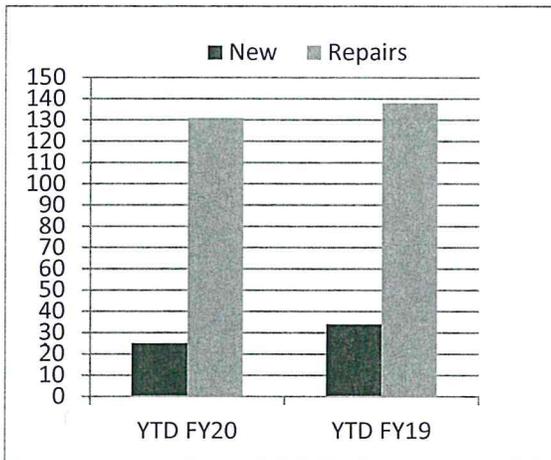
January 1, 2020 - March 31, 2020

Activity Indicators						
	January	February	March	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
<i>Complaints</i>						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	6	
Housing Issues	2	2		4	9	
Emergency Response				0	1	
Refuse/Garbage		1		1	4	
Rodents/Insects			1	1	2	
Septic/Sewage		1		1	10	
Other				0	1	
Water Quality			1	1	4	
COVID-19			1	1	7	
Total	2	4	3	9	38	
<i>Health Inspection</i>						
Group homes				0	0	
Day Care		1		1	1	
Camps				0	4	
Public Pool				0	0	
Other				0	0	
Schools				0	4	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	1	0	1	9	
<i>On-site Sewage Disposal</i>						
Site inspection -- all site visits	2	4	3	9	0	
Deep hole tests -- number of holes	3		3	6	186	
Percolation tests -- number of holes	1		1	2	187	
Permits issued, new	2	1		3	38	
Permits issued, repair		1		1	10	
Site plans reviewed	2	1	2	5	37	
Public Health Reviews	5		5	10	50	
<i>Wells</i>						
Well sites inspected	1			1	0	
Well permits issued		1		1	8	
<i>Laboratory Activities (samples taken)</i>						
Potable water	1			1	0	
Surface water				0	2	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other				0	1	
<i>Food Protection</i>						
Inspections	4	7	2	13	0	
Reinspections	2	2	2	6	174	
Temporary permits			1	1	36	
Temporary inspections				0	9	
Plan reviews				0	1	
Pre-operational inspections			1	1	6	
<i>Lead Activities</i>						
Housing inspection				0	0	
Abate plan reviewed				0	1	
MISCELLANEOUS ACTIVITIES						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	2	

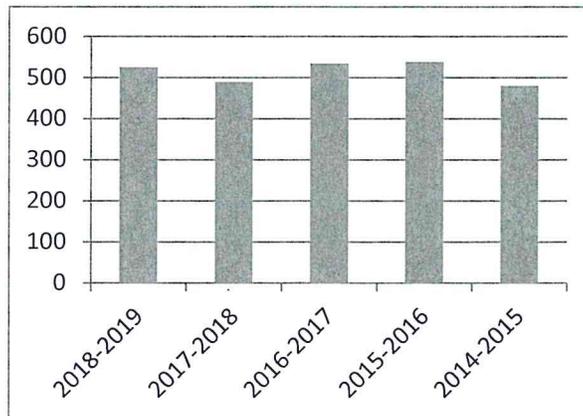
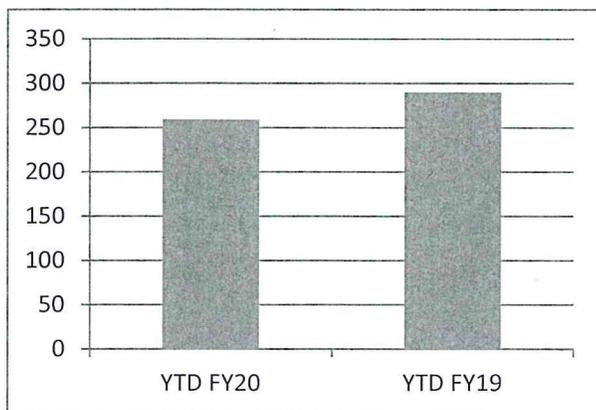
Deep Test Holes



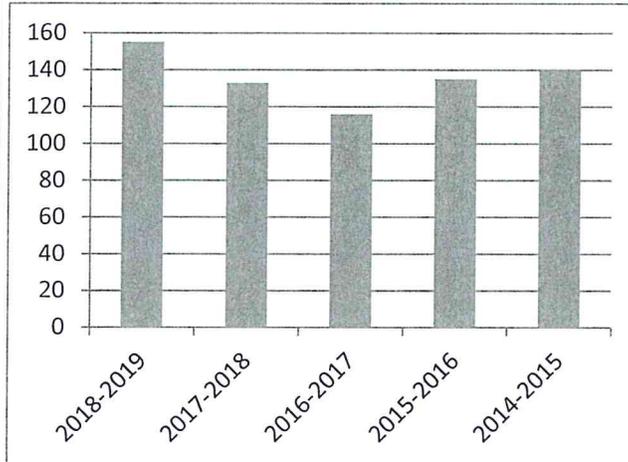
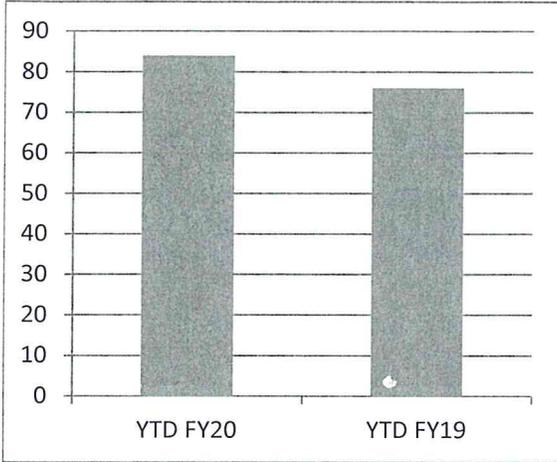
Septic Permits



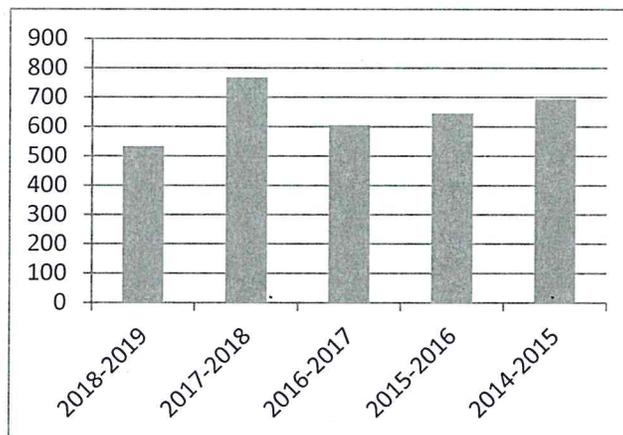
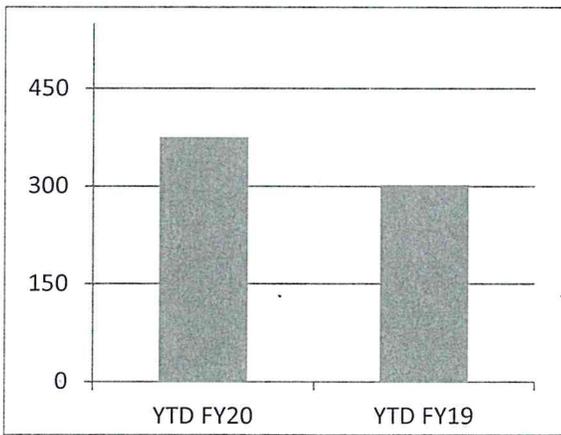
PHR Reviews



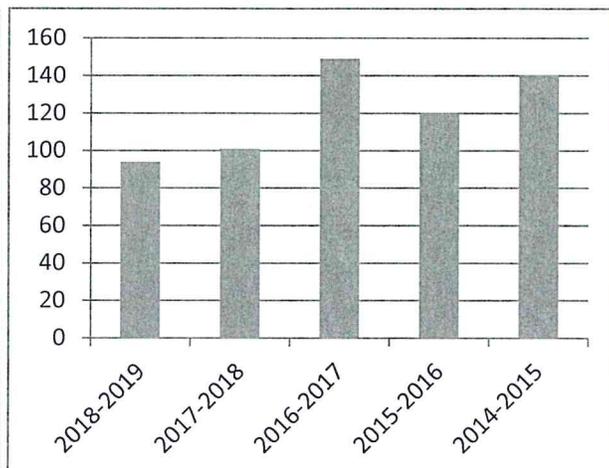
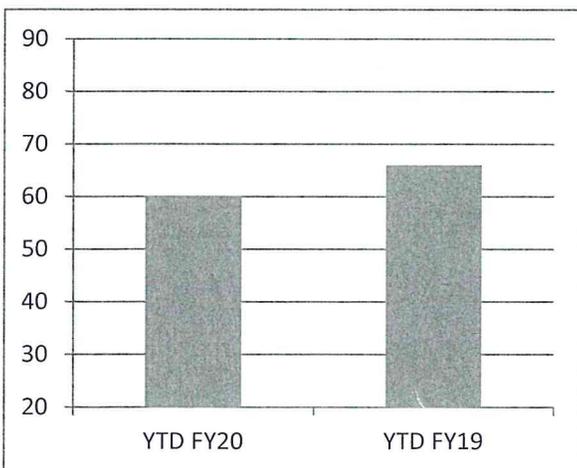
Complaints



Food Service Inspections



Well Permits Issued



EASTERN HIGHLANDS HEALTH DISTRICT SECOND QUARTER FISCAL YEAR 2019-2020

October 1, 2019 - December 31, 2019

ACTIVITY INDICATORS	MONTHS				Total	Current	Previous
	Oct	Nov	Dec	YTD FY20		YTD FY19	
COMMUNITY HEALTH ACTIVITIES							
<i>Communicable Disease Control</i>							
Case reports reviewed	93	96	74	263	519	500	
Preliminary follow ups		1		1	8	10	
Investigations	1		1	2	3	8	
<i>Public Health Education</i>							
Programs	(see narrative for program description)						
ENVIRONMENTAL HEALTH ACTIVITIES							
<i>Complaints</i>							
Air Quality	0	0	1	1	1	2	
Animals/Animal Waste	0	0	0	0	2	3	
Activity without Permit	0	0	0	0	0	0	
Food Protection	3	2	4	9	12	11	
Housing Issues	1	2	8	11	17	28	
Emergency Response	1	2	2	5	8	7	
Refuse/Garbage	1	0	0	1	4	2	
Rodents/Insects	0	0	0	0	0	3	
Septic/Sewage	2	1	5	8	18	8	
Other	2	0	0	2	6	6	
Water Quality	0	10	3	13	16	6	
Total	10	17	23	50	84	76	
<i>Health Inspection</i>							
Group homes	0	0	0	0	0	1	
Day Care	1	2	2	5	7	2	
Camps	0	0	0	0	1	7	
Public Pool	1	0	0	1	13	5	
Other	0	0	0	0	0	0	
Schools	2	0	0	2	2	4	
Mortgage, FHA, VA	0	0	0	0	0	0	
Bathing Areas	0	0	0	0	0	0	
Total	4	2	2	8	23	19	
<i>On-site Sewage Disposal</i>							
Site inspection	101	72	47	220	486	614	
Deep hole tests	66	53	34	153	347	337	
Percolation tests	17	9	12	38	97	101	
Permits issued, new	4	3	4	11	25	34	
Permits issued, repair	19	18	17	54	131	138	
Site Plans Reviewed	22	20	19	61	130	156	
Public Health Reviews	42	36	36	114	259	290	
<i>Wells</i>							
Well sites inspected	6	2	4	12	19	47	
Well permits issued	9	13	11	33	60	66	
<i>Laboratory Activities (samples taken)</i>							
Potable water	8	11	1	20	26	2	
Surface water	0	0	0	0	156	181	
Ground water	0	0	0	0	0	0	
Rabies	0	0	0	0	1	1	
Lead	0	0	0	0	0	0	
Other	9	6	0	15	29	5	
<i>Food Protection</i>							
Inspections	54	47	42	143	259	178	
Reinspections	10	5	11	26	56	38	
Temporary permits	14	16	7	37	103	151	
Temporary inspections	0	15	0	15	60	72	
Plan review	1	2	0	3	7	11	
Pre-operational inspections	7	0	5	12	0	14	
<i>Lead Activities</i>							
Housing inspection	0	0	3	3	3	1	
Abate plan reviewed	0	0	0	0	0	0	
MISCELLANEOUS ACTIVITIES							
Planning and Zoning referrals	0	0	0	0	1	0	
Subdivision reviewed (# of lots)	2	2	0	4	4	2	

ANDOVER QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators

		<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Total</u>	<u>District Total</u>
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
	Air Quality				0	1
	Animals/Animal Waste				0	0
	Activity Without Proper Permits				0	0
	Food Protection				0	9
	Housing Issues				0	11
	Emergency Response				0	5
	Refuse/Garbage				0	1
	Rodents/Insects				0	0
	Septic/Sewage				0	8
	Other				0	2
	Water Quality				0	13
	Total	0	0	0	0	50
Health Inspection						
	Group homes				0	0
	Day Care			1	1	5
	Camps				0	0
	Public Pool				0	1
	Other				0	0
	Schools				0	2
	Mortgage, FHA, VA				0	0
	Bathing Areas				0	0
	Total	0	0	1	1	8
On-site Sewage Disposal						
	Site inspection -- all site visits	6	4	2	12	220
	Deep hole tests -- number of holes	3			3	153
	Percolation tests -- number of holes	1			1	38
	Permits issued, new	1		2	3	11
	Permits issued, repair	1	1	2	4	54
	Site plans reviewed	1	2	2	5	61
	Public Health Reviews	3	3	2	8	114
Wells						
	Well sites inspected	1			1	12
	Well permits issued		2		2	33
Laboratory Activities (samples taken)						
	Potable water				0	20
	Surface water				0	0
	Ground water				0	0
	Rabies				0	0
	Lead				0	0
	Other	2			2	15
	Inspections	2		3	5	143
	Reinspections				0	26
	Temporary permits				0	37
	Temporary inspections				0	15
	Plan reviews				0	3
	Pre-operational inspections				0	12
Lead Activities						
	Housing inspection				0	3
	Abate plan reviewed				0	0
Miscellaneous Activities						
	Planning and Zoning referrals				0	0
	Subdivision reviewed (per lot)				0	4

ASHFORD QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators

		Oct	Nov	Dec	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
	Air Quality				0	1
	Animals/Animal Waste				0	0
	Activity Without Proper Permits				0	0
	Food Protection				0	9
	Housing Issues				0	11
	Emergency Response				0	5
	Refuse/Garbage				0	1
	Rodents/Insects				0	0
	Septic/Sewage			4	4	8
	Other				0	2
	Water Quality				0	13
	Total	0	0	4	4	50
Health Inspection						
	Group homes				0	0
	Day Care				0	5
	Camps				0	0
	Public Pool				0	1
	Other				0	0
	Schools				0	2
	Mortgage, FHA, VA				0	0
	Bathing Areas				0	0
	Total	0	0	0	0	8
On-site Sewage Disposal						
	Site inspection -- all site visits	10	3	4	17	220
	Deep hole tests -- number of holes	8	3		11	153
	Percolation tests -- number of holes	3	1		4	38
	Permits issued, new				0	11
	Permits issued, repair	2	1	1	4	54
	Site plans reviewed	2	1		3	61
	Public Health Reviews	1			1	114
Wells						
	Well sites inspected	1		1	2	12
	Well permits issued	1			1	33
Laboratory Activities (samples taken)						
	Potable water				0	20
	Surface water				0	0
	Ground water				0	0
	Rabies				0	0
	Lead				0	0
	Other		1		1	15
Food Protection						
	Inspections	1	2	3	6	143
	Reinspections	1		1	2	26
	Temporary permits			1	1	37
	Temporary inspections				0	15
	Plan reviews				0	3
	Pre-operational inspections				0	12
Lead Activities						
	Housing inspection				0	3
	Abate plan reviewed				0	0
Miscellaneous Activities						
	Planning and Zoning referrals				0	0
	Subdivision reviewed (per lot)				0	4

BOLTON QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators						
	Oct	Nov	Dec	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	9	
Housing Issues		1		1	11	
Emergency Response			1	1	5	
Refuse/Garbage				0	1	
Rodents/Insects				0	0	
Septic/Sewage		1		1	8	
Other				0	2	
Water Quality			1	1	13	
Total	0	2	2	4	50	
Health Inspection						
Group homes				0	0	
Day Care		1		1	5	
Camps				0	0	
Public Pool				0	1	
Other				0	0	
Schools				0	2	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	0	1	0	1	8	
On-site Sewage Disposal						
Site inspection -- all site visits	7	5	2	14	220	
Deep hole tests -- number of holes	3			3	153	
Percolation tests -- number of holes	1			1	38	
Permits issued, new				0	11	
Permits issued, repair		2		2	54	
Site plans reviewed		1		1	61	
Public Health Reviews	2	2		4	114	
Wells						
Well sites inspected	1			1	12	
Well permits issued	1		2	3	33	
Laboratory Activities (samples taken)						
Potable water				0	20	
Surface water				0	0	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other		3		3	15	
Food Protection						
Inspections	5	2	1	8	143	
Reinspections	3			3	26	
Temporary permits		6		6	37	
Temporary inspections				0	15	
Plan reviews				0	3	
Pre-operational inspections				0	12	
Lead Activities						
Housing inspection				0	3	
Abate plan reviewed				0	0	
Miscellaneous Activities						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	4	

CHAPLIN QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators						
	Oct	Nov	Dec	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection				0	9	
Housing Issues			1	1	11	
Emergency Response				0	5	
Refuse/Garbage				0	1	
Rodents/Insects				0	0	
Septic/Sewage				0	8	
Other				0	2	
Water Quality				0	13	
Total	0	0	1	1	50	
Health Inspection						
Group homes				0	0	
Day Care	1			1	5	
Camps				0	0	
Public Pool				0	1	
Other				0	0	
Schools				0	2	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	1	0	0	1	8	
On-site Sewage Disposal						
Site inspection -- all site visits	1	5	2	8	220	
Deep hole tests -- number of holes		3	3	6	153	
Percolation tests -- number of holes		1	2	3	38	
Permits issued, new				0	11	
Permits issued, repair			1	1	54	
Site plans reviewed	1		1	2	61	
Public Health Reviews	1		3	4	114	
Wells						
Well sites inspected	1	1		2	12	
Well permits issued			1	1	33	
Laboratory Activities (samples taken)						
Potable water				0	20	
Surface water				0	0	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other	2			2	15	
Food Protection						
Inspections	5			5	143	
Reinspections	1	1		2	26	
Temporary permits			2	2	37	
Temporary inspections				0	15	
Plan reviews				0	3	
Pre-operational inspections				0	12	
Lead Activities						
Housing inspection				0	3	
Abate plan reviewed				0	0	
Miscellaneous Activities						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	4	

COLUMBIA QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators

	Oct	Nov	Dec	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES					
Complaints					
Air Quality				0	1
Animals/Animal Waste				0	0
Activity Without Proper Permits				0	0
Food Protection	1			1	9
Housing Issues		1		1	11
Emergency Response				0	5
Refuse/Garbage				0	1
Rodents/Insects				0	0
Septic/Sewage				0	8
Other				0	2
Water Quality				0	13
Total	1	1	0	2	50
Health Inspection					
Group homes				0	0
Day Care				0	5
Camps				0	0
Public Pool				0	1
Other				0	0
Schools				0	2
Mortgage, FHA, VA				0	0
Bathing Areas				0	0
Total	0	0	0	0	8
On-site Sewage Disposal					
Site inspection -- all site visits	26	7	6	39	220
Deep hole tests -- number of holes		23	3	26	153
Percolation tests -- number of holes		1	1	2	38
Permits issued, new				0	11
Permits issued, repair	2	1	2	5	54
Site plans reviewed	1	1	2	4	61
Public Health Reviews	4	3	8	15	114
Wells					
Well sites inspected	1	1	1	3	12
Well permits issued		2	2	4	33
Laboratory Activities (samples taken)					
Potable water				0	20
Surface water				0	0
Ground water				0	0
Rabies				0	0
Lead				0	0
Other		1		1	15
Food Protection					
Inspections	6	3	12	21	143
Reinspections				0	26
Temporary permits	1			1	37
Temporary inspections				0	15
Plan reviews		1		1	3
Pre-operational inspections				0	12
Lead Activities					
Housing inspection				0	3
Abate plan reviewed				0	0
Miscellaneous Activities					
Planning and Zoning referrals				0	0
Subdivision reviewed (per lot)				0	4

COVENTY QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators

	Oct	Nov	Dec	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES					
Complaints					
Air Quality			1	1	1
Animals/Animal Waste				0	0
Activity Without Proper Permits				0	0
Food Protection			1	1	9
Housing Issues			1	1	11
Emergency Response		1		1	5
Refuse/Garbage				0	1
Rodents/Insects				0	0
Septic/Sewage				0	8
Other				0	2
Water Quality				0	13
Total	0	1	3	4	50
Health Inspection					
Group homes				0	0
Day Care				0	5
Camps				0	0
Public Pool				0	1
Other				0	0
Schools				0	2
Mortgage, FHA, VA				0	0
Bathing Areas				0	0
Total	0	0	0	0	8
On-site Sewage Disposal					
Site inspection -- all site visits	13	8	11	32	220
Deep hole tests -- number of holes	27	9	10	46	153
Percolation tests -- number of holes	5	2	1	8	38
Permits issued, new	1	1	2	4	11
Permits issued, repair	3	4	4	11	54
Site plans reviewed	4	4	7	15	61
Public Health Reviews	4	11	5	20	114
Wells					
Well sites inspected	1			1	12
Well permits issued	1	7	4	12	33
Laboratory Activities (samples taken)					
Potable water				0	20
Surface water				0	0
Ground water				0	0
Rabies				0	0
Lead				0	0
Other	1	1		2	15
Food Protection					
Inspections	2	4		6	143
Reinspections			2	2	26
Temporary permits	1	7		8	37
Temporary inspections		9		9	15
Plan reviews		1		1	3
Pre-operational inspections				0	12
Lead Activities					
Housing inspection				0	3
Abate plan reviewed				0	0
Miscellaneous Activities					
Planning and Zoning referrals				0	0
Subdivision reviewed (per lot)	2			2	4

MANSFIELD QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators						
	Oct	Nov	Dec	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection	2		1	3	9	
Housing Issues			4	4	11	
Emergency Response		1		1	5	
Refuse/Garbage				0	1	
Rodents/Insects				0	0	
Septic/Sewage				0	8	
Other				0	2	
Water Quality		1		1	13	
Total	2	2	5	9	50	
Health Inspection						
Group homes				0	0	
Day Care		1	1	2	5	
Camps				0	0	
Public Pool				0	1	
Other				0	0	
Schools	2			2	2	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	2	1	1	4	8	
On-site Sewage Disposal						
Site inspection -- all site visits	22	20	11	53	220	
Deep hole tests -- number of holes	13	9	3	25	153	
Percolation tests -- number of holes	4	3	2	9	38	
Permits issued, new				0	11	
Permits issued, repair	6	3	3	12	54	
Site plans reviewed	6	2	3	11	61	
Public Health Reviews	3	2	4	9	114	
Wells						
Well sites inspected				0	12	
Well permits issued	2			2	33	
Laboratory Activities (samples taken)						
Potable water	8			8	20	
Surface water				0	0	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other	2			2	15	
Food Protection						
Inspections	26	20	17	63	143	
Reinspections	3	3	4	10	26	
Temporary permits	2		1	3	37	
Temporary inspections				0	15	
Plan reviews	1			1	3	
Pre-operational inspections	3		1	4	12	
Housing inspection			3	3	3	
Abate plan reviewed				0	0	
Miscellaneous Activities						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	4	

SCOTLAND QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators						
		Oct	Nov	Dec	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
Air Quality					0	1
Animals/Animal Waste					0	0
Activity Without Proper Permits					0	0
Food Protection					0	9
Housing Issues					0	11
Emergency Response					0	5
Refuse/Garbage					0	1
Rodents/Insects					0	0
Septic/Sewage					0	8
Other	1				1	2
Water Quality					0	13
Total		1	0	0	1	50
Health Inspection						
Group homes					0	0
Day Care					0	5
Camps					0	0
Public Pool					0	1
Other					0	0
Schools					0	2
Mortgage, FHA, VA					0	0
Bathing Areas					0	0
Total		0	0	0	0	8
On-site Sewage Disposal						
Site inspection -- all site visits		3		1	4	220
Deep hole tests -- number of holes				3	3	153
Percolation tests -- number of holes				1	1	38
Permits issued, new					0	11
Permits issued, repair					0	54
Site plans reviewed					0	61
Public Health Reviews					0	114
Wells						
Well sites inspected					0	12
Well permits issued					0	33
Laboratory Activities (samples taken)						
Potable water					0	20
Surface water					0	0
Ground water					0	0
Rabies					0	0
Lead					0	0
Other					0	15
Food Protection						
Inspections		1			1	143
Reinspections					0	26
Temporary permits		6	1	1	8	37
Temporary inspections			6		6	15
Plan reviews					0	3
Pre-operational inspections					0	12
Lead Activities						
Housing inspection					0	3
Abate plan reviewed					0	0
Miscellaneous Activities						
Planning and Zoning referrals					0	0
Subdivision reviewed (per lot)					0	4

TOLLAND QUARTERLY REPORT

October 1, 2019 - December 31, 2019

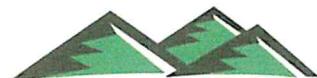
Activity Indicators						
	Oct	Nov	Dec	Total	District Total	
ENVIRONMENTAL HEALTH ACTIVITIES						
Complaints						
Air Quality				0	1	
Animals/Animal Waste				0	0	
Activity Without Proper Permits				0	0	
Food Protection		2	1	3	9	
Housing Issues	1			1	11	
Emergency Response				0	5	
Refuse/Garbage	1			1	1	
Rodents/Insects				0	0	
Septic/Sewage	2		1	3	8	
Other	1			1	2	
Water Quality			1	1	13	
Total	5	2	3	10	50	
Health Inspection						
Group homes				0	0	
Day Care				0	5	
Camps				0	0	
Public Pool	1			1	1	
Other				0	0	
Schools				0	2	
Mortgage, FHA, VA				0	0	
Bathing Areas				0	0	
Total	1	0	0	1	8	
On-site Sewage Disposal						
Site inspection -- all site visits	11	15	6	32	220	
Deep hole tests -- number of holes	12	6	6	24	153	
Percolation tests -- number of holes	3	1	3	7	38	
Permits issued, new	2	2		4	11	
Permits issued, repair	4	3	3	10	54	
Site plans reviewed	6	5	3	14	61	
Public Health Reviews	16	15	11	42	114	
Wells						
Well sites inspected			2	2	12	
Well permits issued	2	2	1	5	33	
Laboratory Activities (samples taken)						
Potable water		9	1	10	20	
Surface water				0	0	
Ground water				0	0	
Rabies				0	0	
Lead				0	0	
Other	2			2	15	
Food Protection						
Inspections	4	10	3	17	143	
Reinspections	1	1	1	3	26	
Temporary permits	2	2	1	5	37	
Temporary inspections				0	15	
Plan reviews				0	3	
Pre-operational inspections				0	12	
Lead Activities						
Housing inspection				0	3	
Abate plan reviewed				0	0	
Miscellaneous Activities						
Planning and Zoning referrals				0	0	
Subdivision reviewed (per lot)				0	4	

WILLINGTON QUARTERLY REPORT

October 1, 2019 - December 31, 2019

Activity Indicators

	Oct	Nov	Dec	Total	District Total
ENVIRONMENTAL HEALTH ACTIVITIES					
Complaints					
Air Quality				0	1
Animals/Animal Waste				0	0
Activity Without Proper Permits				0	0
Food Protection			1	1	9
Housing Issues			2	2	11
Emergency Response	1		1	2	5
Refuse/Garbage				0	1
Rodents/Insects				0	0
Septic/Sewage				0	8
Other				0	2
Water Quality		9	1	10	13
Total	1	9	5	15	50
Health Inspection					
Group homes				0	0
Day Care				0	5
Camps				0	0
Public Pool				0	1
Other				0	0
Schools				0	2
Mortgage, FHA, VA				0	0
Bathing Areas				0	0
Total	0	0	0	0	8
On-site Sewage Disposal					
Site inspection -- all site visits	2	5	2	9	220
Deep hole tests -- number of holes			6	6	153
Percolation tests -- number of holes			2	2	38
Permits issued, new				0	11
Permits issued, repair	1	3	1	5	54
Site plans reviewed	1	4	1	6	61
Public Health Reviews	8	0	3	11	114
Wells					
Well sites inspected				0	12
Well permits issued	2		1	3	33
Laboratory Activities (samples taken)					
Potable water		2		2	20
Surface water				0	0
Ground water				0	0
Rabies				0	0
Lead				0	0
Other				0	15
Food Protection					
Inspections	2	6	3	11	143
Reinspections	1		3	4	26
Temporary permits	2		1	3	37
Temporary inspections				0	15
Plan reviews				0	3
Pre-operational inspections	4		4	8	12
Lead Activities					
Housing inspection				0	3
Abate plan reviewed				0	0
Miscellaneous Activities					
Planning and Zoning referrals				0	0
Subdivision reviewed (per lot)		2		2	4



Eastern Highlands Health District

4 South Eagleville Road ♦ Mansfield CT 06268 ♦ Tel: (860) 429-3325 ♦ Fax: (860) 429-3321 ♦ Web: www.EHHD.org

To: Town Employees Collecting Health District Applications and Fees

From: Millie CW Brosseau
Office Manager

Date: 5/6/2020

Re: Health District Application and Fees – Important Change

Cc: Town CEOs
Robert L. Miller

April 4, 2020 we successfully launched a new online permitting program, View Point Cloud, for environmental health projects. This allows for Health Department applications, permits, and reviews to be submitted and paid for from any computer connected to the internet. The online program is accessed at www.easternhighlandshealthdistrict.viewpointcloud.com. We recommend you add this link to your town website or direct people on your website to ours where they will find the link. Directions for utilizing the program can be found on our website www.ehhd.org as well. I have also enclosed a copy for your reference.

The new permitting program, allows us to receive and process applications in a timely fashion while maintaining social distancing. **Therefore, effective immediately, all applicants are to be referred to the online program. Please do not accept applications and process payments for EHHD at your Town Halls.**

As an alternative, we know there will still be individuals reluctant to apply and/or pay for applications online. For those who wish to submit a paper application or pay for an application with a check or cash, they should be directed to the Mansfield office of Eastern Highlands Health District.

Paper applications and payments may be mailed to EHHD, 4 South Eagleville Road, Mansfield, CT 06268. Alternatively they may be placed in the drop box of the Mansfield Town Hall.

It is important to note, the new system does not allow us to review applications without payment in hand. This means that the **review process for an application will begin once the payment is received at the Mansfield office.**

We recognize this is a change from the way you may have done business in the past. We greatly appreciate your patience and cooperation moving forward. Please let us know if there are ways we may assist with the transition.

If you have any questions, please do not hesitate to call me at 860-429-3325.

Pandemic I: The First Modern Pandemic

BILL GATES

The coronavirus pandemic pits all of humanity against the virus. The damage to health, wealth, and well-being has already been enormous. This is like a world war, except in this case, we're all on the same side. Everyone can work together to learn about the disease and develop tools to fight it. I see global innovation as the key to limiting the damage. This includes innovations in testing, treatments, vaccines, and policies to limit the spread while minimizing the damage to economies and well-being.

This memo shares my view of the situation and how we can accelerate these innovations. The situation changes every day, there is a lot of information available—much of it contradictory—and it can be hard to make sense of all the proposals and ideas you may hear about. It can also sound like we have all the scientific advances needed to reopen the economy, but in fact we do not. Although some of what's below gets fairly technical, I hope it helps people make sense of what is happening, understand the innovations we still need, and make informed decisions about dealing with the pandemic.

Exponential growth and decline

In the first phase of the pandemic, we saw an exponential spread in a number of countries, starting with China and then throughout Asia, Europe, and the United States. The number of infections was doubling many times every month. If people's behavior had not changed, then most of the population would have been infected. By changing behavior, many countries have gotten the infection rate to plateau and start to come down.

Exponential growth is not intuitive. If you say that 2 percent of the population is infected and this will double every eight days, most people won't immediately figure out that in 40 days, the majority of the population will be infected. The big benefit of the behavior change is to reduce the infection rate dramatically so that, instead of doubling every eight days, it goes down every eight days.

We use something called the reproduction rate, or R_0 (pronounced "are-nought"), to calculate how many new infections are caused by an earlier infection. R_0 is hard to measure, but we know it's below 1.0 wherever the number of cases is going down and above 1.0 wherever the number of cases is going up. And what may appear to be a small difference in R_0 can lead to very large changes.

If every infection goes from causing 2.0 cases to only causing 0.7 infections, then after 40 days you have one-sixth as many infections instead of 32 times as many. That's 192 times fewer cases. Here's another way to think about it: If you started with 100 infections in a community, after 40 days you would end up with 17 infections at the lower R_0 and 3,200 at the higher one. Experts are debating now just how long to keep R_0 very low to drive down the number of cases before opening up begins.

Exponential decline is even less intuitive. A lot of people will be stunned that in many places we will go from hospitals being overloaded in April to having lots of empty beds in July. The whiplash will be confusing, but it is inevitable from the exponential nature of infection.

As we get into the summer, some locations that maintain behavior change will experience exponential decline. However, as behavior goes back to normal, some locations will stutter along with persistent clusters of infections and some will go back into exponential growth. The picture will be more complex than it is today, with a lot of heterogeneity.

Have we overreacted?

It is reasonable for people to ask whether the behavior change was necessary. Overwhelmingly, the answer is yes. There might be a few areas where the number of cases would never have gotten large numbers of infections and deaths, but there was no way to know in advance which areas those would be. The change allowed us to avoid many millions of deaths and extreme overload of the hospitals, which would also have increased deaths from other causes.

The economic cost that has been paid to reduce the infection rate is unprecedented. The drop in employment is faster than anything we have ever experienced. Entire sectors of the economy are shut down. It is important to realize that this is not just the result of government policies restricting activities. When people hear that an infectious disease is spreading widely, they change their behavior. There was never a choice to have the strong economy of 2019 in 2020.

Most people would have chosen not to go to work or restaurants or take trips, to avoid getting infected or infecting older people in their household. The government requirements made sure that enough people changed their behavior to get the reproduction rate below 1.0, which is necessary to then have the opportunity to resume some activities.

The wealthier countries are seeing reduced infections and starting to think about how to open up. Even as a government relaxes restrictions on behavior, not everyone will immediately resume the activities that are allowed. It will take a lot of good communication so that people understand what the risks are and feel comfortable going back to work or school. This will be a gradual process, with some people immediately doing everything that is allowed and others taking it more slowly. Some employers will take a number of months before they require workers to come back. Some people will want the restrictions lifted more rapidly and may choose to break the rules, which will put everyone at risk. Leaders should encourage compliance.

Differences among countries

The pandemic has not affected all countries equally. China was where the first infection took place. They were able to use stringent isolation and extensive testing to stop most of the spread. The wealthier countries, which have more people coming in from all over the world, were the next to be affected. The countries that reacted quickly to do lots of testing and isolation avoided large-scale infection. The benefits of early action also meant that these countries didn't have to shut down their economies as much as others.

The ability to do testing well explains a lot of the variation. It is impossible to defeat an enemy we cannot see. So testing is critical to getting the disease under control and beginning to reopen the economy.

So far, developing countries like India and Nigeria account for a small portion of the reported global infections. One of the priorities for our foundation has been to help ramp up the testing in these countries so they know their situation. With luck, some factors that we don't understand yet, like how weather might affect the virus's spread, will prevent large-scale infection in these countries.

However, our assumption should be that the disease dynamics are the same as in other countries. Even though their populations are disproportionately young—which would tend to mean fewer deaths from COVID—this advantage is almost certainly offset by the fact that many low-income people's immune systems are weakened by conditions like malnutrition or HIV. And the less developed a country's economy is, the harder it is to make the behavior changes that reduce the virus's reproduction rate. If you live in an urban slum and do informal work to earn enough to feed your family every day, you won't find it easy to avoid contact with other people. Also, the health systems in these countries have far less capacity, so even providing oxygen treatment to everyone who needs it will be difficult.

Tragically, it is possible that the total deaths in developing countries will be far higher than in developed countries.

What we need to learn

Our knowledge of the disease will help us with tools and policies. There are a number of key things we still don't understand. A number of studies are being done to answer these questions, including [one in Seattle](#) done with the University of Washington. The global collaboration on these issues is impressive, and we should know a lot more by the summer.

— IS THE DISEASE SEASONAL OR WEATHER DEPENDENT?

Almost all respiratory viruses (a group that includes COVID) are seasonal. This would mean there are fewer infections in the summer, which might lull us into complacency when the fall comes. This is a matter of degree. Because we see coronavirus spreading in Australia and other places in the Southern hemisphere, where the seasons are the opposite of ours, we already know the virus is not as seasonal as influenza is.

— HOW MANY PEOPLE WHO NEVER GET SYMPTOMS HAVE ENOUGH OF THE VIRUS TO INFECT OTHERS? WHAT ABOUT PEOPLE WHO ARE RECOVERED AND HAVE SOME RESIDUAL VIRUS—HOW INFECTIOUS ARE THEY?

Computer models show that if there are a lot of people who are asymptomatic but infectious, it is much harder to open up without a resurgence in cases. There is a lot of disagreement about how much infection comes from these sources, but we do know that many people with the virus don't report symptoms, and some portion of those might end up transmitting it.

— WHY DO YOUNG PEOPLE HAVE A LOWER RISK OF BECOMING SERIOUSLY ILL WHEN THEY GET INFECTED?

Understanding the dynamics here will help us weigh the risks of opening schools. It is a complicated subject because even if young people don't get sick as often, they might still spread the disease to others.

– **WHAT SYMPTOMS INDICATE YOU SHOULD GET TESTED?**

Some countries are taking the temperature of lots of people as an initial screening tool. If doing this helps us find more potential cases, we could use it at airports and large gatherings. We need to target the tests we have at the people at greatest risk since we don't have enough tests for everyone.

– **WHICH ACTIVITIES CAUSE THE MOST RISK OF INFECTION?**

People ask me questions about avoiding prepared food or door knobs or public toilets so they can minimize their risk. I wish I knew what to tell them. Judgments will have to be made about different kinds of gatherings like classes or church going and whether some kind of spacing should be required. In places without good sanitation, there may be spread from fecal contamination since people who are infected shed the virus.

– **WHO IS MOST SUSCEPTIBLE TO THE DISEASE?**

We know that older people are at much greater risk of both severe illness and death. Understanding how gender, race, and comorbidities affect this is a work in progress.

The Gates Foundation's role

In normal times, the Gates Foundation puts more than half of its resources into reducing deaths from infectious diseases. These diseases are the reason why a child in a poor country is 20 times more likely to die before the age of five than one in a rich country. We invest in inventing new treatments and vaccines for these diseases and making sure they get delivered to everyone who needs them. The diseases include HIV, malaria, tuberculosis, polio, and pneumonia. Whenever there is an epidemic like Ebola, SARS, or Zika we work with governments and the private sector to help model the risks and to help galvanize resources to create new tools to stop the epidemic. It was because of these experiences that I spoke out about the world not being ready for a respiratory epidemic in my 2015 TED talk. Although not enough was done, a few steps were taken to prepare, including the creation of the Coalition for Epidemic Preparedness Innovation, which I will discuss below, in the vaccine section.

Now that the epidemic has hit, we are applying our expertise to finding the best ideas in each area and making sure they move ahead at full speed. There are many efforts going on. More than 100 groups are doing work on treatments and another 100 on vaccines. We are funding a subset of these but tracking all of them closely. It is key to look at each project to see not only its chance of working but also the odds that it can be scaled up to help the entire world.

One urgent activity is to raise money for developing new tools. I think of this as the billions we need to spend so we can save trillions. Every additional month that it takes to get the vaccine is a month when the economy cannot return to normal. However, it isn't clear how countries will come together to coordinate the funding. Some could go directly to the private sector but demand that their citizens get priority. There is a lot of discussion among governments, the World Health Organization, the private sector, and our foundation about how to organize these efforts.

Innovation to beat the enemy

During World War II, an amazing amount of innovation, including radar, reliable torpedoes, and code-breaking, helped end the war faster. This will be the same with the pandemic. I break the innovation into five categories: treatments, vaccines, testing, contact tracing, and policies for opening up. Without some advances in each of these areas, we cannot return to business as usual or stop the virus. Below, I go through each area in some detail.

TREATMENTS

Every week, you will be reading about new treatment ideas that are being tried out, but most of them will fail. Still, I am optimistic that some of these treatments will meaningfully reduce the disease burden. Some will be easier to deliver in rich countries than developing countries, and some will take time to scale. A number of these could be available by the summer or fall.

If in the spring of 2021 people are going to big public events—like a game or concert in a stadium—it will be because we have a miraculous treatment that made people feel confident about going out again. It's hard to know precisely what the threshold is, but I suspect it is something like 95 percent; that is, we need a treatment that is 95 percent effective in order for people to feel safe in big public gatherings. Although it is possible that a combination of treatments will have over 95 percent effectiveness, it's not likely, so we can't count on it. If our best treatments reduce the deaths by less than 95 percent, then we will still need a vaccine before we can go back to normal.

One potential treatment that doesn't fit the normal definition of a drug involves collecting blood from patients who have recovered from COVID, making sure it's free of the coronavirus and other infections, and giving the plasma to people who are sick. The leading companies in this area are working together to get a standard protocol to see if this works. They will have to measure each patient to see how strong their antibodies are. A variant of this approach is to take the plasma and concentrate it into a compound called hyperimmune globulin, which is much easier and faster to give a patient than unconcentrated plasma. The foundation is supporting a consortium of most of the leading companies that work in this area to accelerate the evaluation and, if the procedure works, be ready to scale it up. These companies have developed a [Plasma Bot](#) to help recovered COVID patients donate plasma for this effort.

Another type of potential treatment involves identifying the antibodies produced by the human immune system that are most effective against the novel coronavirus. Once those antibodies have been found, they can be manufactured and used as a treatment or as a way to prevent the disease (in which case it is known as passive immunization). This antibody approach also has a good chance of working, although it's unclear how many doses can be made. It depends on how much antibody material is needed per dose; in 2021, manufacturers may be able to make as few as 100,000 treatments or many millions. The lead times for manufacturing are about seven months in the best case. Our grantees are working to compare the different antibodies and make sure the best ones get access to the limited manufacturing capacity.

There is a class of drugs called antivirals, which keep the virus from functioning or reproducing. The drug industry has created amazing antivirals to help people with HIV, although it took decades to build up the large library of very effective triple drug therapies. For the novel coronavirus, the leading drug candidate in this category is Remdesivir from Gilead, which is in trials now. It was created for Ebola. If it proves to have benefits, then the manufacturing will have to be scaled up dramatically.

The foundation recently asked drug companies to provide access to their pipeline of developed antiviral drugs so researchers funded by the Therapeutics Accelerator can run a screen to see which should go into human trials first. The drug companies all responded very quickly, so there is a long list of antivirals being screened.

Another class of drugs works by changing how the human body reacts to the virus. Hydroxychloroquine is in this group. The foundation is funding a trial that will give an indication of whether it works on COVID by the end of May. It appears the benefits will be modest at best. Another type of drug that changes the way a human reacts to a virus is called an immune system modulator. These drugs would be most helpful for late-stage serious disease. All of the companies that work in this area are doing everything they can to help with trials.

VACCINES

Vaccines have saved more lives than any other tool in history. Smallpox, which used to kill millions of people every year, was eradicated with a vaccine. New vaccines have played a key role in reducing childhood deaths from 10 million per year in 2000 to fewer than 5 million per year today.

Short of a miracle treatment, which we can't count on, the only way to return the world to where it was before COVID showed up is a highly effective vaccine that prevents the disease.

Unfortunately, the typical development time for a vaccine against a new disease is over five years. This is broken down into: a) making the candidate vaccine; b) testing it in animals; c) safety testing in small numbers of people (this is known as phase 1); d) safety and efficacy testing in medium numbers (phase 2); e) safety and efficacy testing in large numbers (phase 3); and f) final regulatory approval and building manufacturing while registering the vaccine in every country.

Researchers can save time by compressing the clinical safety/efficacy phases while conducting animal tests and building manufacturing capacity in parallel. Even so, no one knows in advance which vaccine approach will work, so a number of them need to be funded so they can advance at full speed. Many of the vaccine approaches will fail because they won't generate a strong enough immune response to provide protection. Scientists will get a sense of this within three months of testing in humans by looking at the antibody generation. Of particular interest is whether the vaccine will protect older people, whose immune systems don't respond as well to vaccines.

The issue of safety is obviously very important. Regulators are very stringent about safety, to avoid side effects and also to protect the reputation of vaccines broadly, since if one has significant problems, people will become more hesitant to take any vaccines. Regulators worldwide will have to work together to decide how large the safety database needs to be to approve a COVID vaccine.

One step that was taken after the foundation and others called for investments in pandemic preparedness in 2015 was the creation of the Coalition for Epidemic Preparedness Innovations (CEPI). Although the resources were quite modest, they have helped advance new approaches to making vaccines that could be used for this pandemic. CEPI added resources to work on an approach called RNA vaccines, which our foundation had been supporting for some time. Three companies are pursuing this approach. The first vaccine to start human trials is an RNA vaccine from Moderna, which started a phase 1 clinical safety evaluation in March.

An RNA vaccine is significantly different from a conventional vaccine. A flu shot, for example, contains bits of the flu virus that your body's immune system learns to attack. This is what gives you immunity. With an RNA vaccine, rather than injecting fragments of the virus, you give the body the genetic code needed to produce lots of copies of these fragments. When the immune system sees the viral fragments, it learns how to attack them. An RNA vaccine essentially turns your body into its own vaccine manufacturing unit.

There are also at least five leading efforts that look promising and that use other approaches to teach the immune system to recognize and attack a viral infection. CEPI and our foundation will be tracking efforts from all over the world to make sure the most promising ones get resources. Once a vaccine is ready, our partner GAVI will make sure it is available even in low-income countries.

A big challenge for vaccine trials is that the time required for the trials depends on finding trial locations where the rate of infection is fairly high. While you are setting up the trial site and getting regulatory approval, the infection rate in that location could go down. And trials have to involve a surprisingly large number of people. For example, suppose the expected rate of infection is 1 percent per year and you want to run a trial where you would expect 50 people to be infected without the vaccine. To get a result in six months, the trial would need 10,000 people in it.

The goal is to pick the one or two best vaccine constructs and vaccinate the entire world—that's 7 billion doses if it is a single-dose vaccine, and 14 billion if it is a two-dose vaccine. The world will be in a rush to get them, so the scale of the manufacturing will be unprecedented and will probably have to involve multiple companies.

I am often asked when large-scale vaccination will start. Like America's top public health officials, I say that it is likely to be 18 months, even though it could be as short as nine months or closer to two years. A key piece will be the length of the phase 3 trial, which is where the full safety and efficacy are determined. When the vaccine is first being manufactured, there will be a question of who should be vaccinated first. Ideally, there would be global agreement about who should get the vaccine first, but given how many competing interests there are, this is unlikely to happen. The governments that provide the funding, the countries where the trials are run, and the places where the pandemic is the worst will all make a case that they should get priority.

TESTING

All of the tests to date for the novel coronavirus involve taking a nasal swab and processing it in a Polymerase Chain Reaction (PCR) machine. Our foundation invested in research showing that having patients do the swab themselves, at the tip of the nose, is as accurate as having a doctor push the swab further down to the back of your

throat. Our grantees are also working to design swabs that are cheap and able to be manufactured at large scale but work as well as ones that are in short supply. This self-swab approach is faster, protects health care workers from the risk of exposure, and should let regulators approve swabbing in virtually any location instead of only at a medical center. The PCR test is quite sensitive—it will generally show whether you have the virus even before you have symptoms or are infecting other people.

There has been a lot of focus on the number of tests being performed in each country. Some, like South Korea, did a great job of ramping up the testing capacity. But the number of tests alone doesn't show whether they are being used effectively. You also have to make sure you are prioritizing the testing on the right people. For example, health care workers should be able to get an immediate indication of whether they are infected so they know whether to keep working. People without symptoms should not be tested until we have enough tests for everyone with symptoms. Additionally, the results from the test should come back in less than 24 hours so you quickly know whether to continue isolating yourself and quarantining the people who live with you. In the United States, it was taking over seven days in some locations to get test results, which reduces their value dramatically. This kind of delay is unacceptable.

There are two types of PCR machines: high-volume batch processing machines and low-volume machines. Both have a role to play. The high-volume machines provide most of the capacity. The low volume machines are better when getting a result in less than an hour is beneficial. Everyone who makes these machines, and some new entrants, are making as many machines as they can. Adding this capacity and making full use of the machines that are already available will increase the testing capacity. The foundation is talking to the manufacturers about different ways to run the big machines that could make them more than twice as productive.

Another type of test being developed is called a Rapid Diagnostic Test (RDT). This would be like an in-home pregnancy test. You would swab your nose the same way as for the PCR test, but instead of sending it into a processing center, you would put it in a liquid container and then pour that liquid onto a strip of paper that would change color if it detects the virus. This form of test may be available in a few months. Even though it won't be as sensitive as a PCR test, for someone who has symptoms it should be quite accurate. You would still need to report your test result to your government since they need visibility into the disease trends.

A lot of people talk about the serology test, where you give blood and it detects whether you have antibodies against the virus. If you do, it means you have been exposed. These tests only show positive results late in your disease, so they do not help you decide whether to quarantine. Also, all the tests done so far have problems with false positives. Until we understand what level of antibodies is protective and have a test with almost no false positives, it is a mistake to tell people not to worry about their exposure to infection based on the serology tests that are available today. In the meantime, serology tests will be used to see who can donate blood and to understand the disease dynamics.

A lot of countries did a good job focusing the PCR capacity on the priority patients. Most countries had their government play a central role in this process. In the United States, there is no system for making sure the testing is allocated rationally. Some states have stepped in, but even in the best states, the access isn't fully controlled.

Testing becomes extremely important as a country considers opening up. You want to have so much testing going on that you see hot spots and are able to intervene by changing policy before the numbers get large. You don't want to wait until the hospitals start to fill up and the number of deaths goes up.

Basically, there are two critical cases: anyone who is symptomatic, and anyone who has been in contact with someone who tested positive. Ideally both groups would be sent a test they can do at home without going into a medical center. Tests would still be available in medical centers, but the simplest is to have the majority done at home. To make this work, a government would have to have a website that you go to and enter your circumstances, including your symptoms. You would get a priority ranking, and all of the test providers would be required to make sure they are providing quick results to the highest priority levels. Depending on how accurately symptoms predict infections, how many people test positive, and how many contacts a person typically has, you can figure out how much capacity is needed to handle these critical cases. For now, most countries will use all of their testing capacity for these cases.

There will be a temptation for companies to buy testing machines for their employees or customers. A hotel or cruise ship operator would like to be able to test everyone even if they don't have symptoms. They will want to get PCR machines that give quick results or the rapid diagnostic test. These companies will be able to bid very high prices—well above what the public health system would bid—so governments will have to determine when there is enough capacity to allow this.

One assumption is that people who need to get tested will isolate themselves and quarantine those in their household. Some governments police this carefully, whereas others simply assume people will follow the recommendation. Another issue is whether a government provides a place for someone to isolate themselves if they can't do it at their home. This is particularly important if you have older people in close quarters at your house.

CONTACT TRACING

I mentioned in the testing section that one of the key priorities for testing is anyone who has been in close contact with someone who has tested positive. If you can get a list of these people quickly and make sure they are prioritized for a test like the PCR test (which is sensitive enough to detect a recent infection), then these people can isolate themselves before they infect other people. This is the ideal way of stopping the spread of the virus.

Some countries, including China and South Korea, required patients to turn over information about where they have been in the last 14 days by looking at GPS information on their phone or their spending records. It is unlikely that Western countries will require this. There are applications you can download that will help you remember where you have been; if you ever test positive, then you can voluntarily review the history or choose to share it with whoever interviews you about your contacts.

A number of digital approaches are being proposed where phones detect what other phones are near them. (It would involve using Bluetooth plus sending a sound out that humans can't hear but that verifies that the two

phones are reasonably close to each other.) The idea is that if someone tests positive then their phone can send a message to the other phones and their owners can get tested. If most people voluntarily installed this kind of application, it would probably help some. One limitation is that you don't necessarily have to be in the same place at the same time to infect someone—you can leave the virus behind on a surface. This system would miss this kind of transmission.

I think most countries will use the approach that Germany is using, which requires interviewing everyone who tests positive and using a database to make sure there is follow-up with all the contacts. The pattern of infections is studied to see where the risk is highest and policy might need to change.

In Germany, if someone is tested and confirmed positive, the doctor is legally required to inform the local government health office. The doctor must provide all personal data—name, address, phone number—so that the health office can contact the person and ensure they isolate themselves.

Then the local health office begins the process of contact tracing. They interview the infected person, find out how to contact all the people he or she has met in the past couple of weeks, and contact those people to ask them to self-isolate and get a test.

This approach relies on the infected person to report their contacts accurately, and also depends on the ability of the health authorities to follow up with everyone. The normal health service staff can't possibly do all this work even if the case numbers are fairly low. Every health system will have to figure out how to staff up so that this work is done in a timely fashion. Everyone who does the work would have to be properly trained and required to keep all the information private. Researchers would be asked to study the database to find patterns of infection, again with privacy safeguards in place.

OPENING UP

Most developed countries will be moving into the second phase of the epidemic in the next two months. In one sense, it is easy to describe this next phase. It is semi-normal. People can go out, but not as often, and not to crowded places. Picture restaurants that only seat people at every other table, and airplanes where every middle seat is empty. Schools are open, but you can't fill a stadium with 70,000 people. People are working some and spending some of their earnings, but not as much as they were before the pandemic. In short, times are abnormal but not as abnormal as during the first phase.

The rules about what is allowed should change gradually so that we can see if the contact level is starting to increase the number of infections. Countries will be able to learn from other countries that have strong testing systems in place to inform them when problems come up.

One example of gradual reopening is Microsoft China, which has roughly 6,200 employees. So far about half are now coming in to work. They are continuing to provide support to employees who want to work at home. They insist people with symptoms stay home. They require masks and provide hand sanitizer and do more intensive

cleaning. Even at work, they apply distancing rules and only allow travel for exceptional reasons. China has been conservative about opening up and has so far avoided any significant rebound.

The basic principle should be to allow activities that have a large benefit to the economy or human welfare but pose a small risk of infection. But as you dig into the details and look across the economy, the picture quickly gets complicated. It is not as simple as saying “you can do X, but not Y.” The modern economy is far too complex and interconnected for that.

For example, restaurants can keep diners six feet apart, but will they have a working supply chain for their ingredients? Will they be profitable with this reduced capacity? The manufacturing industry will need to change factories to keep workers farther apart. Most factories will be able to adapt to new rules without a large productivity loss. But how do the people employed in these restaurants and factories get to work? Are they taking a bus or train? What about the suppliers who provide and ship parts to the factory? And when should companies start insisting their employees show up at work?

There are no easy answers to these questions. Ultimately, leaders at the national, state, and local levels will need to make trade-offs based on the risks and benefits of opening various parts of the economy. In the United States it will be tricky if one state opens up too fast and starts to see lots of infections. Should other states try to stop people moving across state boundaries?

Schools offer a big benefit and should be a priority. Large sporting and entertainment events probably will not make the cut for a long time; the economic benefit of the live audience doesn’t measure up to the risk of spreading the infection. Other activities fall into a gray area, such as church services or a high school soccer game with a few dozen people on the sidelines.

There is one other factor that is hard to account for: human nature. Some people will be naturally reluctant to go out even once the government says it is okay. Others will take the opposite view—they will assume that the government is being overly cautious and start bucking the rules. Leaders will need to think carefully about how to strike the right balance here.

Conclusion

Melinda and I grew up learning that World War II was the defining moment of our parents’ generation. In a similar way, the COVID pandemic—the first modern pandemic—will define this era. No one who lives through Pandemic I will ever forget it. And it is impossible to overstate the pain that people are feeling now and will continue to feel for years to come.

The heavy cost of the pandemic for lower-paid and poor people is a special concern for Melinda and me. The disease is disproportionately hurting poorer communities and racial minorities. Likewise, the economic impact of

the shutdown is hitting low-income, minority workers the hardest. Policymakers will need to make sure that, as the country opens up, the recovery doesn't make inequality even worse than it already is.

At the same time, we are impressed with how the world is coming together to fight this fight. Every day, we talk to scientists at universities and small companies, CEOs of pharmaceutical companies, or heads of government to make sure that the new tools I've discussed become available as soon as possible. And there are so many heroes to admire right now, including the health workers on the front line. When the world eventually declares Pandemic I over, we will have all of them to thank for it.



For Immediate Release
June 4, 2020

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DPH RELEASES ANNUAL FISH CONSUMPTION ADVISORY
KEY UPDATES INCLUDE THREE RIVERS IN THE WILLIMANTIC AND MANSFIELD AREAS
AND THE CONNECTICUT RIVER

Hartford - The Connecticut Department of Public Health (DPH) today announced the release of an updated *If I Catch It, Can I Eat It? A Guide to Safe Eating of Fish Caught in Connecticut*, found at <https://portal.ct.gov/fish>. DPH has updated the guide in response to new sampling data that indicate higher levels of per- and polyfluoroalkyl substances (PFAS) in bass from three rivers in the Willimantic and Mansfield areas. In addition, the guide has updated advice in response to a decrease in polychlorinated biphenyl (PCB) levels in carp from the Connecticut River.

“The purpose of this DPH guide is to give advice on how to safely eat fish caught in Connecticut,” stated Acting DPH Commissioner Deidre S. Gifford, MD, MPH. *“Fish are a good source of protein and omega 3 fatty acids, a nutrient thought to be protective against heart disease and beneficial to the developing fetus. As a result, DPH recommends that the public continue to eat fish. However, certain guidelines should be followed in order to eat fish safely.”*

DPH’s updated advisories are as follows:

Three rivers in the Willimantic and Mansfield areas: (Natchaug, Shetucket and Willimantic)

The Natchaug River: from the dam at the Willimantic Reservoir (Northern Boundary) downstream to where it forms the Shetucket River. The advisory extends about a half mile down the Shetucket River to Plains Road. The Willimantic River: where it meets the Shetucket and Natchaug Rivers upstream to the dam at Pine Street. Signs will be posted in these areas in the near future.

DPH advises not to eat more than one meal per month of bass taken from these waterbodies. This advisory was developed to protect the public from elevated levels of PFAS in bass from

these waterbodies. Fish in the Natchaug River were tested when PFAS contamination was discovered in groundwater and one drinking water well near the Eastern Connecticut Fire School.

The Connecticut River:

DPH is pleased to report that PCB levels in Common Carp declined such that a consumption advisory for carp is no longer necessary for the Connecticut River. It is important to note that there is still a consumption advisory for catfish in the Connecticut River due to elevated levels of PCBs in this fish species. DPH advises that high risk populations (pregnant women, women planning on becoming pregnant within a year, women that are nursing, and children under 6 years old) consume only one meal per month of catfish from the Connecticut River while the general population can consume up to one meal per week of catfish from the same waterbody.

Within the updated guide are other pre-existing statewide advisories worth noting:

Freshwater fish: The advice for freshwater fish caught in Connecticut for pregnant women and children (high risk groups) is to eat no more than one meal per month. For all other groups, the advice is to eat no more than one meal per week of freshwater fish. This statewide advice is due to mercury contamination found in Connecticut freshwater fish. This statewide advisory does not apply to sunfish or trout as there are no consumption limits for these fish species.

Long Island Sound: There are guidelines for high risk groups as well as the general population that recommends limiting or avoiding Striped Bass and Bluefish caught in Long Island Sound due to PCB contamination. People in the high risk group should not consume Bluefish (over 25 inches long) and all Striped Bass and the general population should not eat more than 1 fish meal per month of these fish species. For Bluefish 13-25 inches long and all Weakfish caught in Long Island Sound, DPH advises that all groups should not eat more than 1 fish meal per month.

The *If I Catch It, Can I Eat It?* Guide has a listing of the waterbodies and species in Connecticut with specific consumption recommendations. For more information visit <https://portal.ct.gov/fish> or contact call DPH's Environmental Health Program at 860.509.7293.

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The Coronavirus Swamps Local Health Departments, Already Crippled by Cuts

Many state and municipal health departments saw budget and staffing cuts a decade ago that were never restored.

By Julie Bosman and Richard Fausset

March 14, 2020

CHICAGO — A widespread failure in the United States to invest in public health has left local and state health departments struggling to respond to the coronavirus outbreak and ill-prepared to face the swelling crisis ahead.

Many health departments are suffering from budget and staffing cuts that date to the Great Recession and have never been fully restored. Public health departments across the country manage a vast but often invisible portfolio of duties, including educating the public about smoking cessation; fighting opioid addictions; convincing the reluctant to vaccinate their babies; and inspecting restaurants and tattoo parlors.

Now, these bare-bones staffs of medical and administrative workers are trying to answer a sudden rush of demands — taking phone calls from frightened residents, quarantining people who may be infected, and tracing the known contacts and whereabouts of the ill — that accompany a public health crisis few have seen before.

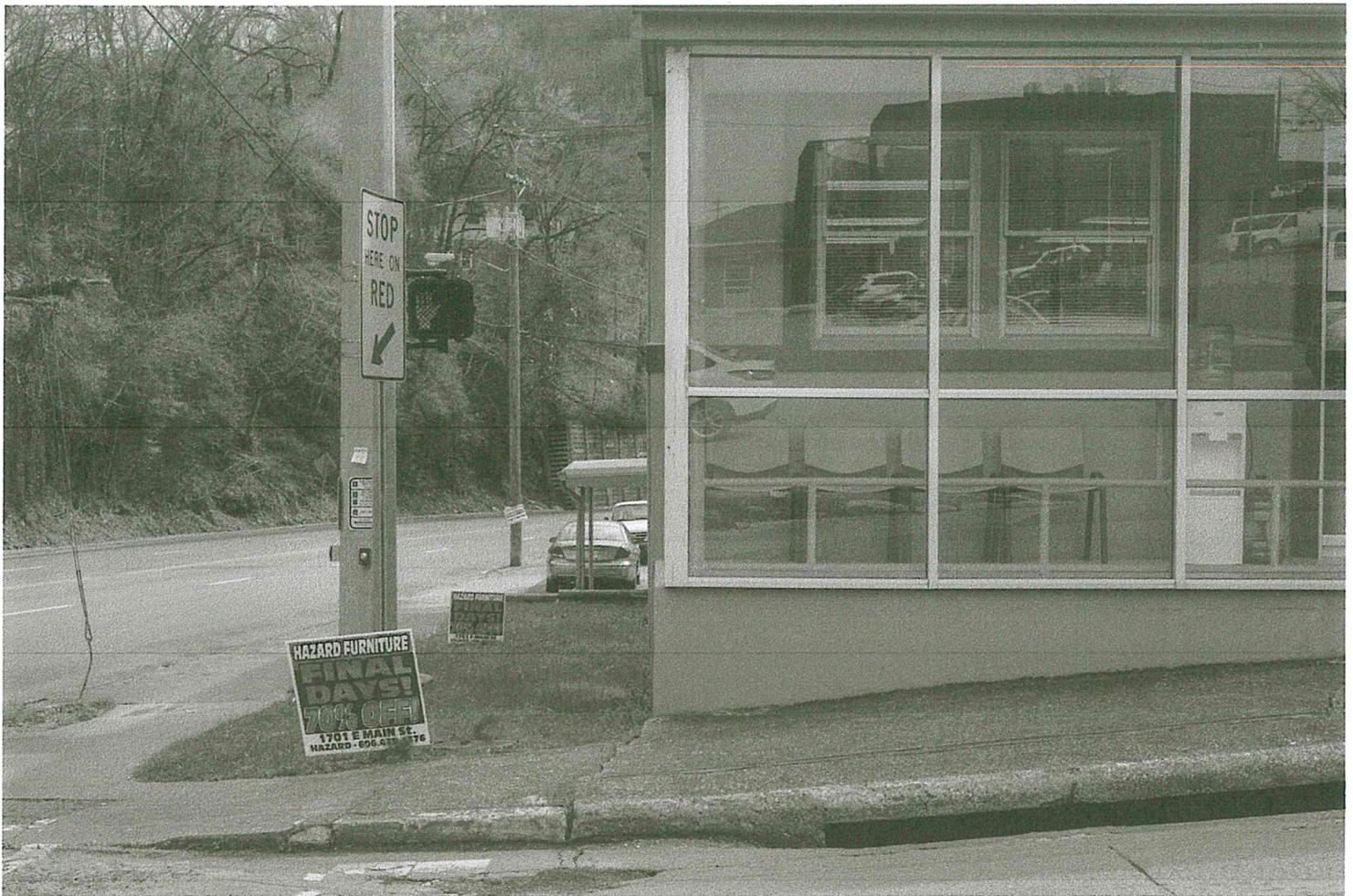
Nationwide, local and state health departments have lost nearly a quarter of their work force since 2008, according to the National Association of County and City Health Officials. As the nation's local and state public health officials confront a pandemic that has paralyzed much of the world, many of them have made their situation plain: They are heading into a crisis without the resources they need.

"We've had to deal with budget cut after budget cut," said A. Scott Lockard, director of the Kentucky River District Health Department, which serves seven counties in rural eastern Kentucky. "Our staffing level is much less now than what it was previously. People are wearing several different hats and sharing job responsibilities for things that they were not doing before, so we're already operating at peak efficiency and we have no capacity when something like this happens."

With the virus now consuming all attention, key functions have been put on hold. Some health departments are now making reductions in home health care and education on unwanted teenage pregnancy and other core issues. In Wayne County, Ohio, the health department called off upcoming seminars to vaccinate people in Amish communities, where parents are often reluctant to immunize their children.

"Local health departments in the state of Ohio are underfunded," said Nicholas Cascarelli, the commissioner for the Wayne County Health Department in Ohio, near Akron. "We're kind of quiet and we go about our business. But when stuff like this happens, people notice."

Since the coronavirus outbreak began, many of the nation's thousands of health departments have coped by pulling their entire staffs into the effort. For smaller departments, there is little wiggle room.



The Perry County Health Department in Hazard, Ky. Mike Belleme for The New York Times

Cindy Kinnard, the director of public health in Kewaunee County, a mostly rural Wisconsin community on the shore of Lake Michigan, said her 23 years at the department have usually felt short-staffed.

At its height, the department had eight employees. Now it is down to six, hardly enough to handle the flood of tasks in this moment, she said.

“We’re getting a lot of telephone calls and a lot of questions,” she said. “We are definitely understaffed for it.”

On Friday, President Trump declared a national emergency over the coronavirus pandemic, pledged up to \$50 billion in aid and appeared to strike a deal with House Democrats to provide other assistance, offering some hope of an injection of resources that could provide temporary relief.

He had previously authorized an \$8.3 billion supplemental package for coronavirus issues; state and local health agencies will receive \$950 million under the law.

“It’s definitely going to help,” said John Auerbach, president and chief executive of Trust for America’s Health, who suggested that some states could use the funds to attempt to quickly hire more epidemiologists or increase laboratory capacity.

Still, the money comes as local health workers already are fully engulfed in the immediate crisis. And Mr. Auerbach said that the money, which must be spent on coronavirus-related actions, will not solve long-term problems many agencies face. “The money will run out and the core budget will be what remains,” he said.

A panel of experts studying the public health system in the United States, convened by Resolve, a nonprofit public policy group, recently found that the country would need an additional \$4.5 billion annual investment to protect national security and “create the conditions in which people can be as healthy as possible.”

And a study by the Trust for America’s Health, a nonprofit public health advocacy group in Washington, found in 2019 that “chronic underfunding has presented a consistent obstacle” to the nation’s public health systems.

“Since 2008, they’ve really been hit hard, and the vast majority of them have not recovered,” said Adriane Casalotti, chief of government and public affairs for the National Association of County and City Health Officials. “That’s apparent in both budgets and also in their work force.”

Mr. Lockard, the director of the public health system in eastern Kentucky, said his department had roughly 300 employees in the early 2000s but was now down to 110 workers.

They were doing what they could, he said. But it was not going to be easy. "It shows that our public health infrastructure has been severely weakened over the years," he said. "We have much fewer people to respond when we have a situation like this."



Joyce Hurt works for the Perry County Health Department. Mike Belleme for The New York Times

A staff of 30 clinical nurses was now down to eight. His preparedness planner left 14 months ago, he said, because of budget cuts. His sole epidemiologist, he said, was "completely overwhelmed." The area was still dealing with one of the most intense flu seasons seen in years.

On the federal level, the Centers for Disease Control and Prevention, the nation's main public health agency, has seen its budget fall 10 percent over the last decade, adjusting for inflation, according to the Trust for America's Health report. The C.D.C. saw a 2 percent increase in its budget program funding between the 2018 and 2019 fiscal years, after accounting for interagency transfers and one-time funding, and as measured in inflation-adjusted dollars.

And while the report found that total state spending on public health increased 2 percent in the 2018 fiscal year, 17 states and the District of Columbia cut public health funding that year, while 21 percent of local health departments reported reductions in budgets for the 2017 fiscal year.

The federal Public Health Emergency Preparedness program, which helps state and local health departments prepare for and respond to emergencies, including outbreaks of infectious diseases, has also seen funding reductions, falling from \$940 million in the 2002 fiscal year to \$617 million in the 2019 fiscal year, according to statistics compiled by the Trust for America's Health.

The Coronavirus Outbreak >

Frequently Asked Questions and Advice

Updated June 12, 2020

- **Does asymptomatic transmission of Covid-19 happen?**

So far, the evidence seems to show it does. A widely cited paper published in April suggests that people are most infectious about two days before the onset of coronavirus symptoms and estimated that 44 percent of new infections were a result of transmission from people who were not yet showing symptoms.

Recently, a top expert at the World Health Organization stated that transmission of the coronavirus by people who did not have symptoms was "very rare," but ~~the International Health Regulations~~

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Some of the states hardest hit by the coronavirus run the gamut in terms of public health emergency preparedness, according to rankings by Trust for America's Health, with Washington State in a top category of preparedness, California in the middle, and New York in the bottom.

Still, even Washington State's system has been hampered by a lack of resources needed for upkeep, equipment and the flexibility to respond to emergencies. In recent weeks, state lawmakers there discussed adding \$5 million to the budget to aid the state's coronavirus response. That later rose to \$100 million. Then, this week, just as lawmakers were finalizing the budget, they doubled the new funding to \$200 million.

Around the country, some public health systems are actually in stronger shape than in years past. Amelia Clark, administrative officer of the Spokane Regional Health District in eastern Washington, said her agency had grown to 263 employees from 221 employees 10 years ago.

"Washington's done a pretty good job of funding public health," she said.

Still, the Spokane agency has been contracting with retired public health workers in recent days to help handle what is expected to be a wave of coronavirus cases. By the end of a week in which cases of the virus in the United States rose above 2,100 and schools and offices closed, the stress on local health care systems was already being felt.

A website for the Kentucky Cabinet for Health and Family Services suggests that residents call an 800 number if they are feeling ill "but would not have sought care if not for Covid-19."

Numerous attempts to call the number on Thursday were met with a busy signal. On Friday, calls went through, and a recording was available offering details on the virus and tips for not contracting it. There was also an option to speak with a health care specialist. One of them picked up after a one-hour hold time.

"The biggest problem off the top is there's sort of like a surge capacity," said Dr. Marcus Plescia, chief medical officer for the Association of State and Territorial Health Officials. "This all-hands-on-deck metaphor, of people getting pulled off of all sorts of things to work on this, some of that's OK. But the problem is you're pulling across all of these programs, all of which have been cut and chopped away at over the last few years, so there's not the same capacity as there once was."



"It shows that our public health infrastructure has been severely weakened over the years," Mr. Lockard said. Mike Belleme for The New York Times

State public health departments, Dr. Plescia said, were staffed with some excellent workers. The issue is that there are not enough of them. Now the coronavirus was going to put the model to the ultimate test. "Everybody's been saying that this is a problem, that we haven't been investing in public health, and now we're seeing how that might play out to be a bigger issue," he said.

Dr. Boris Lushniak, the dean of the School of Public Health at the University of Maryland, said he was concerned that in the coming weeks and months, the demands on local and state public health workers would become difficult to sustain.

"We can project out what's going to happen in the next few weeks," he said. "We are going to get an influx of diagnostics. It's here, there's no stopping it, it is spreading person to person. And as the numbers surge up, that puts more pressure on the states and locals."

On Thursday afternoon, Debra Nagel, a nurse who specializes in communicable disease and preparedness, answered the phone at the Jasper County Health Department in Rensselaer, Ind., and said she would be happy to briefly chat about her department's response to the coronavirus outbreak.

"I think the main challenge is —" she said, stopped short by another phone trilling in the background.

"I guess I don't really have the time to talk," she said. "I'm the only one here."

She apologized and hung up.

Julie Bosman reported from Chicago, and Richard Fausset from Atlanta. Mike Baker contributed reporting from Seattle.