

### BOARD OF HEALTH – Hybrid Meeting In-Person & Zoom Agenda for August 26, 2021 at 9:00 AM

https://us02web.zoom.us/j/83769874342?pwd=VDJKM3dwL2dJdG1OTnNjNzRLVy9OUT09

### 1. Call to Order

- a. Opening ceremonies Pledge Allegiance to the Flag of the United States of America
- b. Roll Call
- c. Approval of the Agenda $^*$
- d. Approval of the Minutes\*
- 2. Public Comment
- 3. <u>Health Officer's Report</u>
- 4. Medical Director's Report

### 5. Committee Reports

- a. Finance Committee Minutes from August 26, 2021 meeting.
- b. Program, Policies, and Appeals Minutes from August 9, 2021 meeting
- 6. Financial Reports
  - a. Approve Payments\*
  - b. Review Financials
- 7. <u>Unfinished Business</u> a.
- 8. <u>New Business</u> a. AAA3C FY22 Provider Allocations\*
- 9. Departmental Reports
  - a. Personal Health & Disease Prevention
  - b. Environmental Health
  - c. Area Agency on Aging
- 10. Adjournment Next meeting: September 23, 2021
- 11. Educational Session



# July 22, 2021 – Board of Health Meeting Minutes

The Branch-Hillsdale-St. Joseph Community Health Agency Board of Health meeting was called to order by Chair, Kathy Pangle at 9:00 a.m. with the Pledge of Allegiance to the Flag of the United States and roll call as follows: Kathy Pangle, Tom Matthew, Jared Hoffmaster (remotely), and Brent Leininger (remotely). Mark Wiley joined the meeting at 9:02 a.m. and Jon Houtz joined the meeting at 9:54 a.m..

Also present from BHSJ: Rebecca Burns, Dr. Vogel, Dr. Luparello, Theresa Fisher, Paul Andriacchi (remotely), Laura Sutter, and Kali Nichols.

Mr. Hoffmaster moved to approve the agenda with the addition of g.) freezer purchase, and h.) approve annual report to the new business section, with support from Mr. Matthew and the motion passed.

Mr. Leininger moved to approve the minutes from the previous meetings with support from Mr. Wiley and the motion passed.

#### Public comment: None

Rebecca Burns, Health Officer, reviewed her monthly report. Items discussed: October BOH Meeting Date Change, Annual Report Final, American Rescue Plan Funds, Vaccinations Continue, Grants to Improve Vaccination Rates, School Year COVID Considerations, COVID-19 Testing, COVID-19 Cases, Health Education and Promotion Updates, Board of Health Education, Returning to Annual Agency Training Days, Committee Meeting Request, Mobile Clinic Van, CPR Certifications, Clinic Changes, Quit Claim Deed, and Strategic Planning.

Dr. Vogel, Medical Director, reviewed the Medical Director's monthly report. This month's report was titled Skin Cancer.

Committee Reports:

- Finance Committee Mr. Hoffmaster moved to approve the minutes from the July 21, 2021 Finance Committee Meeting as presented, with support from Mr. Leininger. A roll call vote was taken and the motion passed 5-0 (Mr. Wiley, yes; Ms. Pangle, yes, Mr. Matthew, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes).
- Program, Policy, and Appeals Committee Did not meet.

Financial Reports/Expenditures

Mr. Leininger moved to approve the expenditures as reported and place the financials on file with support from Mr. Hoffmaster. A roll call vote was taken and the motion passed 5-0 (Mr. Wiley, yes; Ms. Pangle, yes, Mr. Matthew, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes).

**Unfinished Business** 

0 None

New Business:

• Mr. Leininger moved to reschedule the October 28, 2021 Board of Health meeting to November 5, 2021 to allow staff to attend the annual public health conference. The motion received support from Mr. Wiley. A roll call vote was taken and the motion passed 5-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes).

(Mr. Houtz joined the meeting.)

- Mr. Leininger moved to approve the AAA3C provider amendments as presented with support from Mr. Hoffmaster. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes).
- Mr. Leininger moved to approve the FY21 budget amendment #3 with support from Mr. Wiley. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes).
- Mr. Leininger moved to approve the employee health insurance contribution with the employer paying no more than 80% of the total annual cost for the lowest cost plan. The motion was supported by Mr. Houtz. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes)
- Mr. Hoffmaster moved to maintain the current health insurance plans with no changes, with support from Mr. Wiley. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, ves)
- Mr. Leininger moved to approve the FY22 original budget as presented, with support from Mr. Hoffmaster. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes)
- Mr. Leininger moved to accept the quote to purchase a medical grade freezer from Helmer for a total cost of \$5,261.16, with support from Mr. Wiley. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes)
- Mr. Wiley moved to accept the annual report as presented, with support from Mr. Matthew. A roll call vote was taken and the motion passed 6-0 (Mr. Wiley, yes; Ms. Pangle, yes; Mr. Matthew, yes; Mr. Houtz, yes; Mr. Hoffmaster, yes; Mr. Leininger, yes)

**Departmental Reports:** 

- Environmental Health
- Area Agency on Aging
- Personal Health & Disease Prevention

With no further business the meeting was adjourned at 11:08 AM.

**Respectfully Submitted by:** Theresa Fisher, BS



### Health Officer's Report to the Board of Health for August 26, 2021 Prepared by: Rebecca A. Burns, M.P.H., R.S.

### Agency Updates

**COVID Vaccine:** Full FDA approval has now been granted for the Pfizer vaccine for individuals 16 years of age and older. This approval removes the Emergency Use Authorization (EUA) for this vaccine for individuals 16 years of age and older. The vaccine will be marketed as Comirnaty. Comirnaty is a messenger RNA vaccine (mRNA) which does not change an individual's DNA but allows the body to identify the COVID-19 virus signaling the body to fight the virus quickly. The EUA remains for the use in 12-15 year olds and for 3<sup>rd</sup> doses in immune compromised individuals.

3<sup>rd</sup> Dose: Available now for individuals that are immune compromised. BHSJCHA began advertising this week. Individuals can make an appointment using the online scheduler. Only for immune compromised individuals that received Moderna or Pfizer vaccine. **Booster Dose:** Not yet available. Can begin to offer on September 20<sup>th</sup> with priority to residents of long-term care facilities. Individuals must be 8 months past their 2<sup>nd</sup> dose. This only applies to individuals that received Moderna or Pfizer vaccine.

**COVID-19 Vaccination Opportunities:** Individual can schedule a vaccine appointment at <u>www.bhsj.org/scheduling</u>, or can walk-in to one of our community events which are advertised on our social media pages. Our Agency continues to offer multiple opportunities for vaccination every week and in various communities. MDHHS has also provided additional vaccination opportunities in Hillsdale County using a contractor that they have scheduled at the Dollar General stores in Litchfield and Reading.

Annual Report Final: The FY20 Annual Report has been presented to all 3 counties.

American Rescue Plan Funds: As the counties make plans for these funds, Your Local Health Department asks that you keep our Agency in mind. We currently have grant funds that are coming to the Agency for COVID-19 work, for example, work in Case Investigation and Contact Tracing and a separate grant for COVID Immunization, but these funds have specific uses attached. As we look to the future and the public health needs in the tri-county area we would like to be funded to meet those needs. I am available to be present for any discussions at the county level on how some of these dollars can be used for public health and safety and support for our programs targeted at Aging. Thank you.

**Grants to Improve Vaccination Rates:** The work continues for the Health Education & Promotion team in promoting vaccination with community partners who have grant money to put toward improving the rate.

**COVID-19 Testing:** We continue to offer COVID-19 testing at our facility in Coldwater on Thursdays and on Fridays in Three Rivers and Hillsdale. Honu is providing no-cost rapid testing in addition to the PCR test. Providing this opportunity in each county involves no staff time from our Agency team and

supports existing testing available in the community. This arrangement is working out well and individuals are utilizing the testing sites.

**COVID Citizen Communications:** I am receiving many emails and phone calls regarding tri-county residents' thoughts regarding masks in K-12 schools. Both sides of the issue are coming through; individuals concerned that their children are not being protected because masks are not mandated as well as those who oppose a mask mandate for their children. I appreciate receiving citizen feedback and recognize that the thoughts and sentiments of tri-county residents are much like that of other Michiganders.

**COVID-19 Cases:** We are receiving additional data on Delta variant cases in the district. Delta is now the predominant strain and what is driving the current case count. As I have mentioned previously, not every positive test is further sequenced to determine if it is Delta, only some. Test results continue to be elevated. The CDC risk levels have all 3 counties as High Risk. St. Joseph County has been High since August 3<sup>rd</sup>, Branch County has been High since July 21<sup>st</sup>, and Hillsdale has been High risk since August 4<sup>th</sup>. Risk conditions have degraded (gotten worse) in the past month.

**School Year COVID:** We continue our communication with schools in the district. I have outlined our recommendations for all K-12 schools which include universal masking in all school buildings as well as other mitigation strategies such as social distancing, good handwashing, disinfection, contact tracing and staying home when sick. Our process is different as we are now notifying parents of K-12 children if their child has been in close contact and needs to quarantine. Also, this year I've scheduled a weekly meeting for Superintendents to attend if they choose. The first one of these was Wednesday and was well attended.

**Potential COVID Staff Assistance:** We have applied for additional COVID staffing through the CDC Foundation. This is a special staffing effort to respond to COVID that is fully paid for including technical supplies by the CDC Foundation through July 2022. If we are awarded this assistance it will be used to increase our staff temporarily with focus on areas including contact tracing for K-12 this year.

**New Medical Director Onboarding:** Dr. Luparello has been granted Provisional Approval as our next Medical Director by MDHHS. This is exactly what I expected but it is wonderful to have completed that hurdle. She will begin working on a Master in Public Health degree soon which is required to receive full approval.

**Board of Health Education:** The next scheduled Board of Health education is at the September 23<sup>rd</sup> meeting. Are there any requests for training on a specific topic?

**Committee Meeting Request:** A meeting of the Program, Policy & Appeals Committee is needed as the Agency has received a Request for Appeal from a property owner in St. Joseph County. The Finance Committee met today to review AAA 3C contract awards for FY 22.

**Quit Claim Deed:** The quit claim deed for the Hillsdale County building has been filed with the Register of Deeds. I need to follow-up with the attorney from the Northern Health Foundation on the similar document for the St. Joseph County building, as I have not received it yet.

Strategic Planning: This continues to be paused.

**Effectiveness of Masks:** We hear a lot of misinformation on masks. Recently the Kent and Ottawa County health departments requested references on this topic and we shared some. The final compiled list of studies is attached.





# The effectiveness of face masks to prevent SARS-CoV-2 transmission: A summary of literature.

**Executive Summary:** The Kent County Health Department and Ottawa County Department of Public Health with assistance from the Michigan Department of Health and Human Services, health systems, and other local health departments have compiled scientific articles on the effectiveness of wearing masks during the COVID-19 pandemic. While each individual study may have its own strengths and limitations, the evidence presented in these scientific journal articles taken as a whole demonstrate that masks in healthcare and community settings are effective in reducing the risk of exposure to SARS-CoV-2 and transmission of the virus to others. Epidemiological and modeling studies indicate that communities that established mask mandates generally had reduced disease transmission. Controlled studies examining various masks generally show that masks help prevent the spread of virus-laden droplets. Taken together, current scientific data supports the use of masks to reduce the transmission of COVID-19 in the community.

We will continue to review the science and update our recommendations as needed to protect the health of our community.

#### **Reviews and Meta-analyses:**

Chu et al. <u>Physical distancing, face masks, and eye protection to prevent person-to-person transmission</u> of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. Lancet (2020).

The authors identified 172 observational coronavirus studies across 16 countries; 38 of these studies specifically studied face masks and the risk of COVID-19 illness. The authors found that the use of either an N95 respirator or face mask (e.g., disposable surgical masks or similar reusable 12–16-layer cotton masks) by those exposed to infected individuals was associated with a large reduction in risk of infection (up to an 85% reduced risk). The use of face masks was protective for both health-care workers and people in the community exposed to infection.

MacIntyre et al. <u>A rapid systematic review of the efficacy of face masks and respirators against</u> <u>coronaviruses and other respiratory transmissible viruses for the community, healthcare workers and sick</u> patients. International Journal of Nursing Studies (2020).

The authors describe 8 clinical trials evaluating the effectiveness of face masks to reduce respiratory viruses and SARS CoV2 transmission. Their analysis suggests that community mask use by well people could be beneficial, particularly for COVID-19, where transmission may be pre-symptomatic. The studies of masks as source control (where sick persons use masks to reduce spread) also suggest a benefit and may be important during the COVID-19 pandemic in both community and health care settings.

Wang J, Pan L, Tang S, Ji JS, Shi X. <u>Mask use during COVID-19: A risk adjusted strategy</u>. *Environ Pollut*. (2020). 266(Pt 1):115099.

Prior to COVID-19, the authors highlight a large systematic review from 67 studies that showed that wearing masks is one of the important barriers to controlling respiratory viruses transmission; and evidences indicates that N95 respirators were similarly effective to surgical masks (<u>Jefferson et al., 2011</u>). Additionally, the authors summarized that the main transmission routes of SARS CoV-2 include droplet, contact transmissions, and airborne transmissions, which is characterized by high proportion of cases with mild symptom or asymptomatic cases, and the necessity of wearing masks by the public during COVID-19 pandemic has been under-emphasized.





Brainard et al. <u>Facemasks and similar barriers to prevent respiratory illness such as COVID-19: A rapid systematic review</u>. medRxiv (2020).

The authors reviewed 31 clinical trials and observational studies to better understand the value of wearing facemasks in community settings to prevent respiratory illness. The authors report that when both housemates and an infected household member wore facemasks the likelihood of additional household members becoming ill may be modestly reduced by around 19%. The authors go on to conclude that, based on clinical trials, wearing facemasks can be slightly protective against primary infection from casual community contact, and modestly protective against household infections when both infected and uninfected members wear facemasks.

Gandhi et al. <u>Masks Do More Than Protect Others During COVID-19: Reducing the Inoculum of SARS-CoV-2 to Protect the Wearer.</u> J Gen Intern Med (2020);1-4.

The authors suggest that although universal public masking can certainly protect others, the "inoculum" theory (the amount of virus particles one could be exposed to) argues for a major protective effect for the individual. Masks, depending on the material and design, filter out a majority of viral particles and decrease the overall 'dose' of virus particles one could be exposed to. This perspective commentary puts forth another advantage of population-level facial masking for pandemic control with SARS-CoV-2 based on an old but enduring theory regarding viral inoculum.

Howard et al. <u>Face Masks Against COVID-19: An Evidence Review</u>. Proceedings National Academy Sciences (2020).

This review of the literature offers evidence in favor of widespread mask use to reduce community transmission: masks use materials that obstruct droplets of the necessary size; people are most infectious in the initial period post-infection masks have been effective in reducing transmission of influenza; non-medical masks have been shown to be effective at blocking transmission of coronavirus; and places and time periods where mask usage is required or widespread have shown substantially lower community transmission. The available evidence suggests that near-universal adoption of non-medical masks when out in public, in combination with complementary public health measures could successfully reduce effective-R to below 1.0, thereby stopping community spread.

Matuschek et al. <u>Face masks: benefits and risks during the COVID-19 crisis</u>. Eur J Med Res. 2020 Aug 12;25(1):32.

In this review of the available literature, the authors found that the use of masks that include mouth and nose covering were linked to relevant protection during close contact scenarios by limiting pathogen-containing aerosol and liquid droplet dissemination. Wearing a mask in areas where sufficient distance is not feasible, such as public transportation, most likely reduces the spread of virus-loaded droplets and therefore the risk of transferring SARS-CoV-2. However, the authors note that if masks are not exchanged regularly (or washed properly when made of cloth), pathogens can accumulate in the mask. When improperly used, the risk of spreading the pathogen—including SARS-CoV-2—might be critically increased.

Brooks JT, Butler JC. <u>Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-</u> <u>2</u>. JAMA. 2021;325(10):998–999.

The authors review the data that demonstrate that community mask wearing is an effective nonpharmacologic intervention to reduce the spread of this infection, especially as source control to prevent spread from infected persons, but also as protection to reduce wearers' exposure to infection. The authors conclude that with the emergence of more transmissible SARS-CoV-2 variants, it is even more important to adopt widespread mask wearing as well as to redouble efforts with use of all other nonpharmaceutical prevention measures until effective levels of vaccination are achieved nationally.





Prather KA, Wang CC, Schooley RT. <u>Reducing transmission of SARS-CoV-2</u>. Science. 2020 Jun 26;368(6498):1422-1424.

The authors review the evidence around transmission of SARS-CoV-2 and interventions to reduce its spread. They conclude that places that have been most effective in reducing the spread of COVID-19 have implemented universal masking and suggest that for society to resume, measures designed to reduce aerosol transmission must be implemented, including universal masking and regular, widespread testing to identify and isolate infected asymptomatic individuals.

Liang, M et al. <u>Efficacy of face mask in preventing respiratory virus transmission: A systematic review and meta-analysis</u>. Travel Med Infect Dis. 2020 July-August; 36: 101751

The authors review 21 studies and conclude that the use of masks by healthcare workers (HCWs) and non-healthcare workers (Non-HCWs) can reduce the risk of respiratory virus infection by 80%. This study adds additional evidence of the enhanced protective value of masks, and the authors stress that the use masks serve as an adjunctive method regarding the COVID-19 outbreak.

Abboah-Offei, M et al. <u>A rapid review of the use of face mask in preventing the spread of COVID-19</u>, International Journal of Nursing Studies Advances, Volume 3, 2021

The authors review 58 studies and conclude that regardless of the type, setting, or who wears the face mask, it serves primarily a dual preventive purpose; protecting oneself from getting viral infection and protecting others. Therefore, if everyone wears a face mask in public, it offers a double barrier against COVID-19 transmission.

Coclite, D et al. <u>Face Mask Use in the Community for Reducing the Spread of COVID-19: A Systematic Review</u>. Front Med (Lausanne) 2020; 7: 594269.

The authors review 35 studies, including three randomized controlled trials, 10 comparative studies, 13 predictive models, and nine laboratory experimental studies. The findings of this systematic review and meta-analysis support the use of face masks in a community setting but robust randomized trials on face mask effectiveness are needed to inform evidence-based policies.

Yuxin Wang, Zicheng Deng, Donglu Shi; <u>How effective is a mask in preventing COVID-19 infection? Medical</u> <u>Devices and Sensors</u>, 20 December 2020

The authors review the evidence on COVID-19 transmission and the functions of masks in a respiratory epidemic. Based on the information reviewed, the recommended social distancing range of 1–2 m (CDC, 2020; WHO, 2020) may not necessarily guarantee the epidemic prevention. The authors conclude that wearing mask in public is essential as its effectiveness has been well established by the current studies. Based on the current studies: correctly wearing masks of all kinds, despite their different designs, functions and effectiveness, will to a large degree reduce the overall risks of COVID-19 infection and enhance general protection from coronavirus.





Greenhalgh, T et al.; Face masks for the public during the covid-19 crisis. BMJ 2020; 369

The authors conclude that, in the face of a pandemic the search for perfect evidence may be the enemy of good policy. As with parachutes for jumping out of airplanes, it is time to act without waiting for randomized controlled trial evidence. Masks are simple, cheap, and potentially effective. Worn both in the home (particularly by the person showing symptoms) and also outside the home in situations where meeting others is likely (for example, shopping, public transport), they could have a substantial impact on transmission with a relatively small impact on social and economic life.

Anthony Paulo Sunjaya, Christine Jenkins; <u>Rationale for universal face masks in public against COVID-19</u>. Respirology. 2020 Apr 30

This paper reviews the available evidence surrounding COVID-19 transmission and mitigation methods. The theoretical rationale discussed in the article suggests that along with evidence-based recommendations such as physical distancing and maintaining hand hygiene, universal masking may help in reducing droplet-based transmission of COVID and contribute to flattening and shortening the curve.

Catherine M. Clase, et al; <u>Cloth Masks May Prevent Transmission of COVID-19: An Evidence-Based, Risk-Based</u> <u>Approach</u>. Annals of Internal Medicine, 15 September 2020Volume 173, Issue 6: 489-491

The study reviews the available evidence and indicates that while the researchers don't have enough data to rule that cloth masks stop transmission of respiratory droplets from coming in through a mask, there's "convincing" evidence to say that cloth masks do reduce particles from going out of a mask and contaminating air and surfaces. The researchers explain: "Every virus-laden particle retained in a mask is not available to hang in the air as an aerosol or fall to a surface to be later picked up by touch."

C Raina MacIntyre and S Jay Hasanain; <u>Community universal face mask use during the COVID 19 pandemic</u><u>from households to travellers and public spaces</u>, Journal of Travel Medicine, Volume 27, Issue 3, April 2020

This paper reviews the existing evidence. The paper shows that data from several community RCTs and experimental studies support universal face mask use (UFMU) in community settings where there is a high incidence of COVID-19,4 both inside households and closed venues, in crowded public spaces and public transport, and for travellers passing through airports and spending time on airplanes. If epidemic control is poor, until an effective vaccine is available, UFMU may contribute to reducing transmission, preventing deaths and flattening the curve.

### **Epidemiologic Studies:**

Stutt et al. <u>A modelling framework to assess the likely effectiveness of facemasks in combination with</u> <u>'lock-down' in managing the COVID-19 pandemic.</u> Proc. R. Soc.

The authors use two complementary mathematical modelling approaches to test the effectiveness of facemask wearing by sections of the population in reducing the transmission rate of SARS-Cov-2. Their models show that, when facemasks are used by the public all the time (not just from when symptoms first appear), the effective reproduction number can be decreased below 1, leading to the overall reduction of disease spread.





Mitze et al. <u>Face Masks Considerably Reduce COVID-19 Cases in Germany: A Synthetic Control Method</u> <u>Approach.</u> Institute of Labor Economics (2020).

The authors assessed the impact of mandatory face mask policies in Germany on national case counts reported to federal health authorities. Depending on the region they analyzed, the authors found that face masks reduced the cumulative number of reported COVID-19 cases between 2.3% and 13% over a period of 10 days after they became compulsory. The authors go on to conclude that the introduction of face masks on 6 April reduced the number of new infections over the next 20 days by almost 25%.

Rader B et al. Mask Wearing and Control of SARS-CoV-2 Transmission in the United States. medRxiv (2020).

The authors conducted cross-sectional surveys and used a multivariate logistic model to predict community transmission using state- and week-specific estimates for mask wearing. The authors, controlling for social distancing and other variables, found that a 10% increase in mask wearing was associated with a 3.5-fold increased likelihood of controlling disease transmission. Specifically, communities with high mask wearing adherence and social distancing have the highest predicted probability of a controlled epidemic.

Zhang et al. <u>Identifying airborne transmission as the dominant route for the spread of COVID-19.</u> Proceedings of the National Academy of Sciences (2020), 117 (26) 14857-4863.

The authors quantified the impact of face coverings by projecting the number of new infections based on the data prior to implementing the use of face masks in Italy on April 6 and NYC on April 17. Their analysis indicated that face coverings reduced the number of infections by over 75,000 in Italy from April 6 to May 9 and by over 66,000 in NYC from April 17 to May 9. The authors concluded that wearing of face masks in public corresponds to the most effective means to prevent interhuman transmission, and this inexpensive practice, in conjunction with extensive testing, quarantine, and contact tracing, poses the most probable opportunity to stop the COVID-19 pandemic, prior to the development of a vaccine.

Wang et al. <u>Reduction of secondary transmission of SARS-CoV-2 in households by face mask use,</u> <u>disinfection and social distancing: a cohort study in Beijing, China</u>. BMJ Glob Health (2020).

In this retrospective cohort study, the authors analyzed factors that prevented secondary transmission of COVID-19 among household contacts. The authors found that face mask use by the primary case and family contacts before the primary case developed symptoms was 79% effective in reducing secondary transmission.

Sims MD, et al. <u>Coronavirus Disease 2019 (COVID-19) Seropositivity and Asymptomatic Rates in Healthcare</u> <u>Workers Are Associated with Job Function and Masking</u>, Clinical Infectious Diseases, Volume 73, Issue Supplement\_2, 1 August 2021, Pages S154–S162

This study involved an online assessment that included demographic, clinical, and exposure information and a blood sample was collected from 20 614 employees at Beaumont Health in southeast Michigan. A total of 1818 (8.8%) participants were seropositive between April 13 and May 28, 2020. Among the seropositive individuals, 44% reported that they were asymptomatic during the month prior to blood collection. Among participants reporting direct exposure to a Coronavirus Disease 2019 (COVID-19) positive individual, those wearing an N95/PAPR mask had a significantly lower seropositivity rate (10.2%) compared to surgical/other masks (13.1%) or no mask (17.5%).





infection, Thailand. Emerg Infect Dis (2020).

In this case-control study in Thailand of 211 cases and 839 controls, the authors found that wearing masks all the time during contact was independently associated with a 77% reduced risk of SARS-CoV-2 infection compared with not wearing masks. The authors also found the type of mask worn was not independently associated with infection.

Wilson et al. Factors Influencing Risk for COVID-19 Exposure Among Young Adults Aged 18–23 Years — Winnebago County, Wisconsin, March–July 2020. MMWR Morb Mortal Wkly Rep (2020); 69:1497–1502.

During an outbreak of COVID-19 among young adults in Wisconsin, the authors conducted 30 key informant interviews. Most interviewees reported exposure to misinformation, conflicting messages, or opposing views about the need for and effectiveness of masks. The authors concluded that exposure to misinformation and unclear messages may have been a driver of the outbreak, underscoring the importance of providing clear and consistent messages about the need for and effectiveness of masks.

Leffler et al. <u>Association of country-wide coronavirus mortality with demographics, testing, lockdowns, and public wearing of masks</u>. <u>Am J Trop Med Hyg. 2020 Dec;103(6):2400-2411</u>.

The authors analyzed differences between countries to determine sources of variation in percapita mortality from COVID-19. In countries with cultural norms or government policies supporting public mask-wearing, per-capita coronavirus mortality increased on average by just 15.8% each week, as compared with 62.1% each week in remaining countries. The authors concluded that societal norms and government policies supporting the wearing of masks by the public, as well as international travel controls, are independently associated with lower per-capita mortality from COVID-19.

Lyu et al. <u>Community Use of Face Masks And COVID-19</u>: Evidence From A Natural Experiment Of State Mandates In The US. Health Affairs (2020).

This study, similar to Leffler et al, compares government mandates for face mask use in public issued by fifteen states during April 8 and May 15, 2020. The authors concluded that mandating face mask use in public was associated with a decline in the daily COVID-19 growth rate by 0.9, 1.1, 1.4, 1.7, and 2.0 percentage points in 1–5, 6–10, 11–15, 16–20, and 21 or more days after state face mask orders were signed, respectively. Estimates suggest that as a result of the implementation of these mandates, more than 200,000 COVID-19 cases were averted by May 22, 2020. The findings suggested that requiring face mask use in public could help in mitigating the spread of COVID-19.

Eikenberry et al. <u>To mask or not to mask: Modeling the potential for face mask use by the general public</u> to curtail the COVID-19 pandemic. Infect Dis Model (2020);5:293-308.

The authors use a mathematical model to simulate the impact of universal mask wearing. Hypothetical mask adoption scenarios, for Washington and New York state, suggest that immediate near universal (80%) adoption of moderately (50%) effective masks could prevent on the order of 17-45% of projected deaths over two months in New York, while decreasing the peak daily death rate by 34-58%, absent other changes in epidemic dynamics. In Washington, where baseline transmission is much less intense, 80% adoption of such masks could reduce mortality by 24–65% (and peak deaths 15–69%), compared to 2–9% mortality reduction in New York (peak death reduction 9–18%).





Hendrix MJ, Walde C, Findley K, Trotman R. <u>Absence of Apparent Transmission of SARS-CoV-2 from Two Stylists</u> <u>After Exposure at a Hair Salon with a Universal Face Covering Policy</u> — Springfield, Missouri, May 2020. MMWR Morb Mortal Wkly Rep 2020;69:930-932.

Among 139 clients exposed to two symptomatic hair stylists with confirmed COVID-19 while both the stylists and the clients wore face masks, no symptomatic secondary cases were reported; among 67 clients tested for SARS-CoV-2, all test results were negative. Adherence to the community's and company's face-covering policy likely mitigated spread of SARS-CoV-2.

Guy GP Jr., Lee FC, Sunshine G, et al. <u>Association of State-Issued Mask Mandates and Allowing On-Premises</u> <u>Restaurant Dining with County-Level COVID-19 Case and Death Growth Rates — United States, March 1–</u> <u>December 31, 2020</u>. MMWR Morb Mortal Wkly Rep 2021;70:350–354.

County-level data on state-issued mask mandates and restaurant closures were obtained from executive and administrative orders identified on state government websites. Two outcomes were examined: the daily percentage point growth rate of county-level COVID-19 cases and county-level COVID-19 deaths. Mandating masks was associated with a decrease in daily COVID-19 case and death growth rates within 20 days of implementation.

Van Dyke ME, Rogers TM, Pevzner E, et al. <u>Trends in County-Level COVID-19 Incidence in Counties With and</u> <u>Without a Mask Mandate — Kansas, June 1–August 23, 2020</u>. MMWR Morb Mortal Wkly Rep 2020;69:1777-1781

Daily county-level COVID-19 incidence (cases per 100,000 population) was calculated using case and population counts accessed from <u>USAFacts</u>for Kansas counties during June 1–August 23. Rates were calculated as 7-day rolling averages. Mandated and nonmandated counties were compared to themselves over time, allowing for the control of constant county-related characteristics (e.g., urbanicity or rurality) that might otherwise confound a comparison between mandated and nonmandated counties. Countywide mask mandates appear to have contributed to the mitigation of COVID-19 transmission in mandated counties. Community-level mitigation strategies emphasizing use of masks, physical distancing, staying at home when ill, and enhanced hygiene practices can help reduce the transmission of SARS-CoV-2.

Lessler, J et al. Household COVID-19 risk and in-person schooling SCIENCE 04 JUN 2021 : 1092-1097

Data from a massive online survey in the United States indicate an increased risk of COVID-19–related outcomes among respondents living with a child attending school in person. School-based mitigation measures are associated with significant reductions in risk, particularly daily symptoms screens, teacher masking, and closure of extracurricular activities. Although in-person schooling is associated with household COVID-19 risk, this risk can likely be controlled with properly implemented school-based mitigation measures.

Payne DC, Smith-Jeffcoat SE, Nowak G, et al; CDC COVID-19 Surge Laboratory Group. <u>SARS-CoV-2 infections</u> and serologic responses from a sample of U.S. Navy Service Members: USS Theodore Roosevelt, April 2020. MMWR Morb Mortal Wkly Rep. 2020;69(23):714-721.

In April, the U.S. Navy and CDC investigated a COVID-19 outbreak aboard the USS Theodore Roosevelt among a convenience sample of 382 service members. The outbreak was characterized by widespread transmission with relatively mild symptoms and asymptomatic infection among this sample of mostly young, healthy adults with close, congregate exposures. Service members who reported taking preventive measures had a lower infection rate than did those who did not report taking these measures (e.g., wearing a face covering, 55.8% versus 80.8%).





Schwartz, K; Lack of COVID-19 transmission on an international flight. CMAJ April 14, 2020 192 (15) E410

This study investigated transmission after a patient was symptomatic with dry cough during a flight from China to Canada. None of the 25 passengers considered "close contacts" aboard the flight contracted the virus. Transmission may have been mitigated by mild symptoms and masking during the flight. This study indicated that droplet transmission was likely more prevalent than airborne transmission.

Hershow RB, Wu K, Lewis NM, et al. Low SARS-CoV-2 Transmission in Elementary Schools — Salt Lake County, Utah, December 3, 2020–January 31, 2021. MMWR Morb Mortal Wkly Rep 2021;70:442–448

In this investigation, COVID testing was offered to 735 school contacts of 51 index patients across 20 elementary schools in communities with high COVID-19 transmission. Five positive cases were identified for a secondary attack rate of 0.7%. Adherence to mask use was high among the schools included, but students' classroom seats were <6 ft apart and a median of 3 ft apart.

Dawson P, Worrell MC, Malone S, et al. <u>Pilot Investigation of SARS-CoV-2 Secondary Transmission in Kindergarten</u> <u>Through Grade 12 Schools Implementing Mitigation Strategies — St. Louis County and City of Springfield, Missouri,</u> <u>December 2020</u>. MMWR Morb Mortal Wkly Rep 2021;70:449–455

In 22 participating K–12 schools implementing multiple COVID-19 mitigation strategies, school-based SARS-CoV-2 secondary transmission was detected in two of 102 tested close contacts of 37 persons with COVID-19. Schools implementing strategies including mask mandates, physical distancing, and increased ventilation had much lower SARS-CoV-2 transmission than in the community.

Gold JA, Gettings JR, Kimball A, et al. <u>Clusters of SARS-CoV-2 Infection Among Elementary School Educators and</u> <u>Students in One School District — Georgia, December 2020–January 2021</u>. MMWR Morb Mortal Wkly Rep 2021;70:289–292

Among nine clusters of SARS-CoV-2 transmission in a Georgia school district during December 1, 2020– January 22, 2021, it was found that five of the clusters involved inadequate mask use by students.

#### **Modeling Studies:**

Victor Chernozhukov, Hiroyuki Kasahara, Paul Schrimpf, <u>Causal impact of masks, policies, behavior on early covid-19 pandemic in the U.S</u>., Journal of Econometrics, Volume 220, Issue 1, 2021, Pages 23-62

This paper quantitatively assesses the impact of various policies adopted by US states on the spread of Covid-19, such as non-essential business closure and mandatory face masks, paying particular attention to how people adjust their behavior in response to policies as well as new information on cases and deaths. The analysis concluded that if the US had on 1 April 2020 universally mandated that employees of public-facing businesses use masks, there could have been nearly 40% fewer deaths by the start of June.

Cheng, Y et al. <u>Face masks effectively limit the probability of SARS-CoV-2 transmission</u>. Science 25 Jun 2021 : 1439-1443

In this work, the authors develop a quantitative model of airborne virus exposure and provide a basis for quantifying the efficacy of face masks. They show that mask efficacy strongly depends on airborne virus abundance. On the basis of direct measurements of SARS-CoV-2 in air samples and population-level infection probabilities, they find that the virus abundance in most environments is sufficiently low for masks to be effective in reducing airborne transmission.





IHME COVID-19 Forecasting Team. <u>Modeling COVID-19 scenarios for the United States</u>. Nat Med 27, 94–105 (2021)

The study finds that achieving universal mask use (95% mask use in public) could be sufficient to ameliorate the worst effects of epidemic resurgences in many states. Universal mask use could save an additional 129,574 (85,284–170,867) lives from September 22, 2020 through the end of February 2021, or an additional 95,814 (60,731–133,077) lives assuming a lesser adoption of mask wearing (85%), when compared to the reference scenario.

Shen, M., Zu, J., Fairley, C.K. et al. <u>Effects of New York's Executive Order on Face Mask Use on COVID-19</u> <u>Infections and Mortality: A Modeling Study</u>. J Urban Health 98, 197–204 (2021)

Modeling results showed that the executive order on face mask use was estimated to avert 99,517 (95% Cls 72,723–126,312) COVID-19 infections and 7978 (5692–10,265) deaths in NYC. If the executive order was implemented 1 week earlier (on April 10), the averted infections and deaths would be 111,475 (81,593–141,356) and 9017 (6446–11,589), respectively. If the executive order was implemented 2 weeks earlier (on April 3 when the Centers for Disease Control and Prevention recommended face mask use), the averted infections and deaths would be 128,598 (94,373–162,824) and 10,515 (7540–13,489), respectively.

Stuart RM, Abeysuriya RG, Kerr CC, et al; <u>Role of masks, testing and contact tracing in preventing COVID-19</u> resurgences: a case study from New South Wales, Australia. BMJ Open 2021;11

The study finds that the relative impact of masks is greatest when testing and tracing rates are lower and vice versa. Our work suggests that testing, tracing and masks can all be effective means of controlling transmission. A multifaceted strategy that combines all three, alongside continued hygiene and distancing protocols, is likely to be the most robust means of controlling transmission of SARS-CoV-2.

Worby, C.J., Chang, HH. <u>Face mask use in the general population and optimal resource allocation during the</u> <u>COVID-19 pandemic.</u> Nat Commun 11, 4049 (2020)

The models explored in this study found: 1) Even limited distribution of masks offering only 25% protection and containment would result in significant drop in death rates, 2) Even if only 10% of people used the masks offering 25% protection, the death rate would drop 5%, 3) If people used homemade masks that offered even 5% protection and containment, death rates would drop from 2.5 to 2.26 percentage points. Places requiring public masking could also expect a 3-5% reduction in deaths.

Scott N, Saul A, Spelman T, Stoove M, Pedrana A, Saeri A, et al. (2021) <u>The introduction of a mandatory mask</u> policy was associated with significantly reduced COVID-19 cases in a major metropolitan city. PLoS ONE 16(7)

This study estimated exponential epidemic growth or decay rates in daily COVID-19 diagnoses using a non-weighted linear regression of the natural logarithm of the daily cases against time. The mandatory mask use policy substantially increased public use of masks and was associated with a significant decline in new COVID-19 cases after introduction of the policy. This study strongly supports the use of masks for controlling epidemics in the broader community.

Rao IJ, Vallon JJ, Brandeau ML. <u>Effectiveness of Face Masks in Reducing the Spread of COVID-19: A Model-Based</u> <u>Analysis</u>. Med Decis Making. 2021 May 27

Authors developed a dynamic disease model to assess the effectiveness of face masks in reducing the spread of COVID-19, during an initial outbreak and a later resurgence, as a function of mask effectiveness, coverage, intervention timing, and time horizon. The model found that even moderately effective face masks can play a role in reducing the spread of COVID-19, particularly with full coverage, but should be combined with social distancing measures to reduce Re below 1.





Kai, D, et al; <u>Universal Masking is Urgent in the COVID-19 Pandemic: SEIR and Agent Based Models, Empirical</u> <u>Validation</u>, Policy Recommendations, Cornell University

The authors present two models for the COVID-19 pandemic predicting the impact of universal face mask wearing. Taken in tandem, our theoretical models and empirical results argue for urgent implementation of universal masking in regions that have not yet adopted it as policy or as a broad cultural norm.

Siddhartha Verma, Manhar Dhanak, and John Frankenfield; <u>Visualizing the effectiveness of face masks in</u> <u>obstructing respiratory jets</u>, Physics of Fluids 32, 061708 (2020)

The authors use qualitative visualizations of emulated coughs and sneezes to examine how material- and design-choices impact the extent to which droplet-laden respiratory jets are blocked. In addition to providing an initial indication of the effectiveness of protective equipment, the visuals used in this study can help convey to the general public the rationale behind social-distancing guidelines and recommendations for using face masks. Promoting widespread awareness of effective preventative measures is crucial, given the high likelihood of a resurgence of COVID-19 infections in the fall and winter.

Bourouiba L. <u>Turbulent Gas Clouds and Respiratory Pathogen Emissions: Potential Implications for Reducing</u> <u>Transmission of COVID-19</u>. JAMA. 2020;323(18):1837–1838

This study investigates how turbulent gas cloud dynamics should influence the design and recommended use of surgical and other masks. These masks can be used both for source control (ie, reducing spread from an infected person) and for protection of the wearer (ie, preventing spread to an unaffected person). Mask efficacy as source control depends on the ability of the mask to trap or alter the high-momentum gas cloud emission with its pathogenic payload. Peak exhalation speeds can reach up to 33 to 100 feet per second (10-30 m/s), creating a cloud that can span approximately 23 to 27 feet (7-8 m). Protective and source control masks, as well as other protective equipment, should have the ability to repeatedly withstand the kind of high-momentum multiphase turbulent gas cloud that may be ejected during a sneeze or a cough and the exposure from them.

Martin Z. Bazant and John W. M. Bush; <u>A guideline to limit indoor airborne transmission of COVID-19</u>. PNAS April 27, 2021 118 (17)

This simulation looking into indoor airborne transmission of COVID-19 investigated how long it would take for there to be a >50% chance of transmission occurring If 1 infectious child attends a class of 25 students. Complete masking increased the time from 3 hours to 120 hours among elementary school children and 2 hours to 89 hours among high school students.

Zhang Y, et al. <u>COVID-19 Projections for K12 Schools in Fall 2021: Significant Transmission without Interventions</u>. medRxiv, August 2021

The authors used an extended Susceptible-Infected-Recovered computational model to estimate the number of new infections during 1 semester among a student population under different assumptions about mask usage, routine testing, and levels of incoming protection. Results indicated that universal masking can reduce student infections by 26-78%, and biweekly testing along with masking reduces infections by another 50%. To prevent new infections in the community, limit school absences, and maintain in-person learning, interventions such as masking and testing must be implemented widely, especially among elementary school settings in which children are not yet eligible for the vaccine.

### **Controlled Experiments:**

Ma QX, Shan H, Zhang HL, Li GM, Yang RM, Chen JM. <u>Potential utilities of mask-wearing and instant</u> hand hygiene for fighting SARS-CoV-2. *J Med Virol* (2020).

In this study, the efficacy of three types of masks were evaluated using the avian influenza virus to simulate the coronavirus. N95 masks, medical masks, and homemade masks made of fourlayer kitchen paper and one-layer cloth could block 99.98%, 97.14%, and 95.15% of the virus in





aerosols. With these data, the authors propose the approach of mask-wearing to slow the exponential spread of the virus.

Leung, N.H.L., Chu, D.K.W., Shiu, E.Y.C. *et al.* <u>Respiratory virus shedding in exhaled breath and efficacy</u> of face masks. *Nat Med* **26**, 676–680 (2020).

The authors tested viral shedding (in terms of viral copies per sample) in nasal swabs, throat swabs, respiratory droplet samples and aerosol samples and compared the latter two between samples collected with or without a face mask. The study demonstrated the efficacy of surgical masks to reduce coronavirus detection and viral copies in large respiratory droplets and in aerosols.

Fischer et al. <u>Low-cost measurement of face mask efficacy for filtering expelled droplets during speech</u>. Science Advances (2020).

The authors demonstrated a simple optical measurement to evaluate the efficacy of masks to reduce the transmission of respiratory droplets during regular speech. In their proof-of-concept study, they compared a variety of commonly available mask types and observed that some mask types such as clothe masks approach the performance of standard surgical masks, while some mask alternatives, such as neck gaiters or bandanas, offer very little protection.

Bae et al. <u>Effectiveness of Surgical and Cotton Masks in Blocking SARS–CoV-2: A Controlled</u> <u>Comparison in 4 Patients.</u> Annal of Internal Medicine (2020).

In this study of only 4 patients, the authors compared disposable surgical masks with reusable 100% cotton masks to filter SARS CoV-2. Neither surgical nor cotton masks effectively filtered SARS–CoV-2 during coughs by infected patients.

Konda A, Prakash A, Moss GA, Schmoldt M, Grant GD, Guha S. <u>Aerosol Filtration Efficiency of Common</u> <u>Fabrics Used in Respiratory Cloth Masks</u>. ACS Nano (2020)14(5):6339-6347.

This study assessed filtration effectiveness of various mask materials. Although the filtration efficiencies for various fabrics when a single layer was used ranged from 5 to 80% and 5 to 95% for particle sizes of <300 nm and >300 nm, respectively, the efficiencies improved when multiple layers were used and when using a specific combination of different fabrics. Filtration efficiencies of the hybrids (such as cotton-silk, cotton-chiffon, cotton-flannel) was >80% (for particles <300 nm) and >90% (for particles >300 nm). Cotton, the most widely used material for cloth masks performs better at higher weave densities (i.e., thread count) and can make a significant difference in filtration efficiencies.

Chan JF, et al. <u>Surgical Mask Partition Reduces the Risk of Noncontact Transmission in a Golden Syrian</u> <u>Hamster Model for Coronavirus Disease 2019 (COVID-19)</u>. Clin Infect Dis. 2020 Nov 19;71(16):2139-2149.

Noncontact transmission was found in 66.7% (10/15) of exposed naive hamsters. Surgical mask partition for challenged index or naive hamsters significantly reduced transmission to 25% (6/24, P = .018). Surgical mask partition for challenged index hamsters significantly reduced transmission to only 16.7% (2/12, P = .019) of exposed naive hamsters.

Kähler CJ, Hain R. Fundamental protective mechanisms of face masks against droplet infections. J





Aerosol Sci. 2020 Oct;148:105617. doi: 10.1016/j.jaerosci.2020.105617.

The authors conducted two sets of experiments. In the first sets of the experiments, the flow field generated by coughing without and with a surgical mask was examined as coughing sets the air strongly in motion and because coughing is a typical symptom of COVID-19. In the second set of experiments, common household materials currently used by the population to make simple masks at home were tested and a surgical mask were tested to visualize their filtering properties. Based on their findings, the authors stated that wearing simple homemade or surgical face masks in public is highly recommended if no particle filtrating respiratory mask is available. Firstly, because they protect against habitual contact of the face with the hands and thus serve as self-protection against contact infection. Secondly, because the flow resistance of the masks ensures that the air remains close to the head when breathing, speaking, singing, coughing and sneezing, thus protecting other people if they have sufficient distance from each other.

Ruba AL, Pollak SD. <u>Children's emotion inferences from masked faces: Implications for social interactions during COVID-19</u>. PLoS One. 2020 Dec 23;15(12)

The study recruited a racially diverse sample of school-aged (7- to 13-years) children from publicly funded after-school programs. Children made inferences from facial configurations that were not covered, wearing sunglasses to occlude the eyes, or wearing surgical masks to occlude the mouth. Children were still able to make accurate inferences about emotions, even when parts of the faces were covered.

Anfinrud P, Stadnytskyi V, Bax CE, Bax A. <u>Visualizing speech-generated oral fluid droplets with laser light</u> <u>scattering</u>. N Engl J Med 2020;382:2061-2062.

The study used a laser to produce flashes as fluid droplets entered the air while a subject was speaking. When observed, between 227 and 347 oral fluid droplets flashed when participants said the words "stay healthy" without a mask. When the same phrase was spoken with a mask, "the flash count remained close to background level.

Onur Aydin,O, et al. <u>Performance of fabrics for home-made masks against the spread of COVID-19</u> <u>through droplets: A quantitative mechanistic study</u>, Extreme Mechanics Letters, Volume 40, 2020

The study found that cloth face coverings, particularly masks with multiple layers, have over 70% blocking efficiency. Multiple-layered fabric was found to stop droplets with more than 94% efficiency, which is equitable to that of medical masks.

Clapp PW, Sickbert-Bennett EE, Samet JM, et al. <u>Evaluation of Cloth Masks and Modified Procedure</u> <u>Masks as Personal Protective Equipment for the Public During the COVID-19 Pandemic</u>. JAMA Intern Med. 2021;181(4):463–469

The objective of this study was to evaluate the fitted filtration efficiency (FFE) of various consumer-grade and improvised face masks, as well as several popular modifications of medical procedure masks that are intended to improve mask fit or comfort. Simple modifications can improve the fit and filtration efficiency of medical procedure masks; however, the practical effectiveness of consumer-grade masks available to the public is, in many cases, comparable with or better than their non-N95 respirator medical mask counterparts.

Jonathan R. Tomshine JR et al. <u>Combined Effects of Masking and Distance on Aerosol Exposure</u> <u>Potential</u>, Mayo Clinic Proceedings, Volume 96, Issue 7, 2021, Pages 1792-1800

The objective of this study was to quantify the efficacy of masking and "social distancing" on the transmission of airborne particles from a phantom aerosol source (simulating an infected individual) to a nearby target (simulating a healthy bystander) in a well-controlled setting. Compared with a baseline of 1-foot separation with no masks employed, particle count was reduced by 84% at 3 feet of separation and 97% at 6 feet. A modest decrease in particle





count was observed when only the receiver was masked. The most substantial exposure reduction occurred when the aerosol source was masked (or both parties were masked). When both the source and target were masked, particle count was reduced by more than 99.5% of baseline, regardless of separation distance or which type of mask was employed.

### AUGUST 26, 2021 HEALTH PROMOTION & EDUCATION – BOARD OF HEALTH REPORT FOR AUGUST, 2021

Health Promotion & Ed. Team Activities: The month of August has been an especially busy period for the Health Promotion & Education staff. After a year's hiatus due to the pandemic, the Branch County Fair was able to take place earlier this month. The H. P. & Ed. team, along with support from our other departments, represented the health agency at our booth during the week-long event. Furthermore, in recognition of all the help that the BHSJCHA received from community volunteers at our Covid testing clinics earlier this year, the H.P. & Ed. team held an appreciation BBQ at Heritage Park in Coldwater on July 13<sup>th</sup> to show our extreme gratitude for the help these individuals provided not only to us, but to the entire community. The H.P. & Ed. Team also completed a two-week Quality Improvement training course earlier this month that was held by MPHI and hope to utilize these skills to affect positive change at the systemic level of the agency. Finally, along with the support of our administrative and IT departments, the H.P. & Ed. Staff will be helping to revamp the BHSJCHA website to make it more accessible, useful, and appealing to the community members that we serve. We look forward to being apart of this exciting project!

**MALPH Wellbeing Grant Update:** The Michigan Association for Local Public Health (MALPH) has offered a "mini-grant" program aimed at educating employees of the importance in maintaining a healthy state of personal, physical, and mental health during these stressful times. BHSJCHA applied for, and was awarded, this funding opportunity in June and will be hosting an all-staff "wellbeing" event on September 10<sup>th</sup> at the ProMedica Coldwater Hospital conference room.

**Grant Updates:** The H.P. & Ed. team is also involved in several other ongoing grant projects and campaigns:

 HRSA - The Rural Community Opioid Response Planning Grant: This grant was awarded to BHSJCHA in Sept. of 2020 and has since completed a community needs assessment and gap analysis, an action plan, a strategic plan, and recently completed the Memorandum of Understanding for this grant that will secure the collaborative partnerships of our consortium member organizations as we move into the new fiscal year. BHSJCHA also applied for the next stage of this grant (Implementation) in April and is currently awaiting the results of that application.

- "Wear One" Campaign: The H.P. & Ed. Team was also able to assist our clinical staff with the "Wear One" campaign, which provides STD information and condoms for our community members at no charge.
- MPHI "Creating an Age-Friendly Public Health System in Michigan" Update: BHSJ, in partnership with the Area Agency on Aging (AAA 3C) & Region 2 Area Agency on Aging (R2AAA) applied for and were awarded this grant in May of 2021. We will be using the available funds to review and revise our current practices and policies as they relate to the aging population in hopes of creating a more age-friendly public health system. Currently, we are in the process of policy review, and the creation of surveys that will be utilized to gather information from both our community members, as well as our own staff.

COVID-19 Vaccination Efforts: The BHSJCHA employees continue to work tirelessly in their efforts to vaccinate as many community members as possible, and to do whatever we can to support the health and safety of the individuals within our three counties. The H.P. & Ed. Team continues to identify community resources, organizations, and events in an effort to more effectively deliver our message to the community members that we serve. In hopes of achieving this, we have recently sent letters to elected officials within our jurisdiction, as well as the superintendents and athletic directors of the various school districts; these letters were sent to notify these individuals that the health agency would be happy to support their organizations, in any capacity that we can, with regards to all Covid-related endeavors that they may undertake. Furthermore, the H.P. & Ed. Team has also created a partnership with United Healthcare and United Way (St. Joseph Co.) in hopes to increase the vaccination rates across all three counties.

**Community Events:** We have participated, or will be participating in the following events:

Date	Event
8/3	St. Joseph County Project Connect
8/8 - 8/15	Branch County Fair
8/13	Volunteer Appreciation BBQ
8/14	Huss Project-Community Carnival
9/10	All-Staff Well-Being Event
9/18	Branch County Pride Event
9/19 – 9/25	St. Joseph County Fair

### Medical Director's Report to the Board of Health H. Lauren Vogel, D.O., M.P.H. August 2021 – Herd Immunity – Will We Get There?

Epidemiologists refer to 'herd immunity' as a concept describing protection from an infectious disease that occurs when a sufficient proportion of a population can no longer acquire or transmit infection, either through vaccination or immunity resulting from previous infection. [1] The percent of persons in a population immune to an infection that generate herd immunity is based upon a measure of contagiousness for the infective agent (usually a virus). Populations may be defined by geographic, ethnic and social boundaries.

Our health district could be considered a population but interaction among other adjacent populations affect our specific boundary. Unprotected close association, travel and lack of safe social distancing are the prime modifiers affecting any defined population.

Calculation of the infective agent's basic reproduction number ( $R_0$ ) represents an estimate of the contagiousness and the number of secondary infections that will occur when a susceptible population is exposed to one initial infection.  $R_0$  is not a measure of disease severity. [2] This information is largely obtained through contact tracing. An  $R_0$  greater than 1 means that infections will increase after exposure while an  $R_0$  of less than 1 indicates that infections will decrease. For any virus, the  $R_0$  is variable and can change over time especially as mutations arise.

The higher the  $R_0$  the larger the percentage of persons immune to the infection are required to prevent transmission. As an example, measles  $R_0$  is 12-18 and indicates that one infected person will infect 12-18 others and that approximately 95% of the population must be immune to prevent infection spread. Varicella has an  $R_0$  around 10-12. For COVID-19 the  $R_0$  has varied from 1.5 to 11.0 based on several published studies. Of the early estimates, studies were in the range of 2.2-3.6 before the emergence of the Delta variant [3]. For our district the earlier calculation was about 1.8. Calculations for the delta variant are now around 9-11, the same as varicella.

With an  $R_0$  of 9 about 90% of the at risk population must become immune to produce herd immunity. (Pi = >1-1/ $R_0$ ) The calculations do not take into account for persons in a population that are immune from recovery of the virus or that a vaccine is less than 100% effective. It also does not include the fact that immunity is not fully protective as demonstrated by lack of immunity in those recovered or vaccinated and exposed to the Delta variant.

According to the CDC (July 25), Michigan residents and especially those in our district are significantly under vaccinated (<50%). Even if we assume that 20% of residents have achieved immunity from natural infection but were not symptomatic and were not identified [4] we are not close to the 90% immunity for herd protection and this is based upon information from the current Delta variant. Statistics is a numbers game but the current Delta surge allows for some assumptions.

The importance for herd immunity is to protect those that cannot get vaccinated; This includes those severely immunosuppressed and the child population too young for vaccination against covid19. There are two methods to achieve herd protection. One, vaccinate the necessary population before more serious variants occur and two, get the infection, survive and become immune – this is the hard

and dangerous way to achieve community protection and is not a good example of public health action especially since the developing variants can reinfect those already immune.

Evolution of a new variant can change all of the numbers. The evolution will come from the unvaccinated population but as the Delta variant has demonstrated it will also involve those deemed immune.

Disease	Ro	Threshold	Disease	Ro	Threshold
Measles **	12-18	92-94%	Smallpox **	3-6	71-83%
Pertussis **	12-15	92-94%	Covid19 - Alpha **	3-5	75-80%
Varicella **	10-12	90-92%	Tuberculosis **	2-6	50-80%
Mumps **	10-12	90-92%	HIV/AIDS	2-5	50-80%
Covid19 - Delta **	9-10	80-89%	Rabies **	2-4	50-75%
Rubella **	5-7	80-86%	Ebola **	1-3	31-44%
Polio **	5-7	80-86%	Seasonal flu **	1-2	17-29%
R <sub>0</sub> - Infect	tivity, not s	everity   Thre	shold - percent required	for protec	tion
	** Ava	uilable vaccine	proved to be effective	2	

### Infectivity Table (R<sub>0</sub>) [5] [6]

# REFERENCE

[1] Kiwan A. Path. Understanding The Journey To Herd Immunity. February 2021. <u>https://www.path.org/articles/understanding-journey-herd-immunity/</u>. Accessed June 2021.
[2] Achaiah NC. et.al. NLM.NIH. R0 and Re of COVID-19: Can We Predict When the Pandemic Outbreak will be Contained? November 2020. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7751056/</u>. Accessed June 2021.

[3] Park M. et.al. A Systematic Review Of Covid19 Epidemiology Based On Current Evidence. J Clin Med. 2020;9(4):967. doi: 10.3390/jcm9040967.

[4] Covid-19: Do many people have pre-existing immunity?. BMJ. September 2020. <u>https://www.bmj.com/content/370/bmj.m3563</u>. Accessed June 2021.

[5] RO: How Scientists Quantify the Intensity of an Outbreak Like Coronavirus and Its Pandemic Potential. U/M School of Public Health. February 2020. <u>https://sph.umich.edu/pursuit/2020posts/how-scientists-quantify-outbreaks.html</u>. Accessed August 2021.

[6] Basic Reproduction Number. Wikipedia. August 2021. https://en.wikipedia.org/wiki/Basic\_reproduction\_number. Accessed August 2021.



# August 26, 2021 – Board of Health Finance Committee Meeting **Minutes**

The meeting was called to order at 8:32 AM by Jon Houtz, with roll call as follows: Jon Houtz, Jared Hoffmaster, and Brent Leininger (remote).

Also present from BHSJ: Rebecca Burns, Theresa Fisher, and Laura Sutter.

Public comment:

o None

New Business:

• Mr. Houtz moved to recommend that the full Board approve the AAA 3C FY22 Provider Allocations as presented with support from Mr. Hoffmaster. The motion passed unopposed.

With no further business the meeting was adjourned at 8:45 AM.

Respectfully Submitted by: Theresa Fisher, BS  $\mathcal{H}_{\mathcal{F}} \mathcal{F}_{\mathcal{H}}$ 



# August 9, 2021 – Board of Health Program, Policy, and Appeals Committee Meeting Minutes

The meeting was called to order at 1:00 p.m. by Chairman, Kathy Pangle, with roll call as follows: Kathy Pangle, Tom Matthew, and Mark Wiley.

Also present from BHSJ: Rebecca Burns, and Theresa Fisher.

New Business:

- An HR update was provided to the Committee. No action was taken.
- Information was provided to the Committee on COVID-19 Federal, State, and Local Orders to prevent transmission of the virus. No action was taken.
- Information was provided to the Committee on Closure of Contamination Sites & Requests for local regulation to prevent the installation of drinking water wells. No action was taken.

With no further business the meeting was adjourned at 2:47 PM.

Respectfully Submitted by: Theresa Fisher, BS

]	uly 1 through July 31, 2021	
2nd Story Marketing, LLC.	LARA Grant Marketing	\$2,850.00
A+ Nursing	Care Management	\$240.00
Abila	Quarterly Subscription	\$5,689.01
ACD.Net	Telephones 3 offices	\$2,437.53
Action Quick Print Plus	Permits & Covid Flyers	\$96.00
Adams Outdoor	Advertising - Medical Marijuana 3 Invoices	\$2,250.00
AFLAC	Payroll Deduction	\$1,181.74
Alerus Financial (Retirement)	Payroll Deduction	\$2,526.00
Alex Bergmooser	Reimbursements	\$31.13
Amazon	CSHCS Client - Humco Glycerin	\$306.96
Amazon	Medical Supplies - 3 invoices	\$474.80
Amazon	Office Supplies - 1 invoice	\$40.09
Armstrong Health Care	WIC / AAA Contractual Consultant	\$4,067.72
Blue Cross Blue Shield	Health Insurance	\$51,814.83
Branch County Commission COA	Home & Community Based Services	\$3,031.79
Branch County Complex	Rent - Coldwater Office	\$14,662.40
CAA of South Central	Home & Community Based Services	\$5,735.83
Carol Drews	Fuel Reimbursement for Mobile Unit	\$454.90
CDW Government Inc.	Computer Supplies - 6 Invoices	\$5,972.84
Century Bank - Master Card		\$2,037.71
Century Bank Basic Flex Health Plan	Payroll Deduction	\$1,192.32
Century Bank EFPTS	Federal & Fica Taxes	\$46,951.26
Century Bank Mers	MERS DB /Retirement	\$667,732.54
Century Bank State	Michigan Tax	\$7,852.57
Charter Communications	Sturgis Internet & Phone Line	\$137.97
Cintas	Lab Coats/Rugs - Cleaning	\$121.34
City of Coldwater	Water Lab Test	\$260.00

July 1 through July 31, 2021

City of Jonesville	Water Lab Test	\$160.00
City Of Three Rivers	Water / Sewage	\$155.27
Coldwater Media Group	Advertising	\$567.00
Companion Life Insurance Co.	Life Insurance Premiums	\$994.67
Connect America	Care Management	\$19.00
Cribs for Kids	70 Cribette Play Yards & Fleese Sacks	\$11,516.61
Crossroads Health & Home Services	Care Management	\$1,112.24
CSHCS Client	Out of Pocket Expense - 2 Invoices	\$261.45
Cummins Bridgeway LLC	Generator Maintenance - Annual Fee	\$438.97
Current Office Solutions	Copier Charges & Office Supplies - 7 Invoices	\$6,908.93
Dell	Computer Supplies	\$1,806.00
Dr. Nichole Ellis	CSHCS Client - Copay	\$105.00
Dr. Vogel	Medical Director - Contractual	\$4,325.21
Dr. Luparello	Medical Director - Contractual	\$4,273.36
EffecTV	6/1/21-8/31/21 Advertising	\$4,000.00
Fisher Welding, Inc.	Repair Auger	\$100.00
Fridgefreeze	Vaccine Refrigerator	\$3,700.00
Frontier	Sensaphone & Fax Line Service	\$618.43
GDI	Building Cleaning Expense - TR	\$1,749.00
GDI	Building Cleaning Expense - HD	\$2,649.00
GDI	Building Supplies Expense - TR	\$65.99
GlaxoSmithKline	Medical Supplies 1 Invoices	\$5,597.44
Graphics 3	Printing - 4 Invoices	\$2,413.90
Heartsmart.com	AED	\$56.00
Hillsdale Board Of Utilities	Building Expense - HD	\$2,539.67
Hillsdale County Register of Deeds	Register Deed	\$30.00
Hillsdale County Treasurer	Building Supplies Expense - HD - Gas 2 month	\$225.57

July 1 through July 31, 2021

50		
Hillsdale Media Group	Advertising	\$567.00
HomeJoy Care-N-Assist	Care Management	\$2,123.95
Hospital Network Health	Medical Waste Removal	\$440.00
Indiana Michigan Power	Building Expense - TR	\$653.35
Kalamazoo County Human Service	Ombudsman	\$500.00
Karri Doty	Contracted Services	\$3,398.28
Katelyn Hamlin	Contracted Services	\$1,609.50
Legal Service Of South Central Mi.	Older Adult Legal Assistance	\$890.00
Mackenzie Rickman	Reimbursements	\$50.06
Malph	10/1/20-9/30/21 Malph Dues	\$50.00
Maplecrest	Rent - Sturgis Office	\$620.00
Marana Group	Postage Pick Up Service	\$284.00
Maxim Healthcare Staffing Services Inc.	Contracted Services	\$11,796.04
Medical Care Alert	Care Management	\$209.60
MediSys	Billing Service	\$794.19
Merck & Company	Medical Supplies - 2 Invoices	\$861.40
Mers 5% Alerus Financial DC	Defined Contributions 5% EES	\$10,296.23
Michigan Center for Rural Health	RCOR Planning	\$2,000.00
Michigan Public Health	Workforce Contract	\$1,954.77
Michigan State Disbursement Unit	Payroll Deduction	\$380.22
Nationwide	Payroll Deduction	\$2,330.00
OfficeTeam	Contracted Covid	\$9,284.90
Prompt Care	Drug Testing - 3 Employees	\$207.00
Rebecca Fitzmaurice	Out of Pocket Reimbursement	\$59.32
Refund to Client	Refund to Client - 2 Clients	\$155.49
Republic Waste Services	Building Expense - TR Quarterly	\$150.00
Richard Clark	Building Cleaning Expense - Sturgis	\$325.00

Richard Clark	Building Cleaning Expense - CW	\$1,800.00
Riley Pumpkin Farm	TR Building Expense - Summer Care	\$450.00
Rosati Schultz Joppich Amtsbueshler	Attorney	\$1,395.00
Ruth Brown	Contractual	\$2,856.00
Sanofi Pasture	Medical Supplies - 1 Invoice	\$3,409.27
SEMCO Energy	Building Expense - TR	\$63.60
Shred It	Document Destruction	\$180.00
St Joseph County COA	Home & Community Based Services	\$33,107.29
St Joseph Trans Authority	Older Adult Transportation	\$1,827.26
Staples	Office Supplies - 4 Invoices	\$674.11
State Of Michigan	Food Licenses Surcharge	\$6,960.00
State Of Michigan	Approp. Match Dental Clinic	\$23,976.46
State Of Michigan EGLE	Water Lab Test	\$54.00
Stratus Video	6/21 Translator	\$502.44
Three Rivers Health	Rent - Dental Clinic	\$2,775.00
Thurston Woods	Home & Community Based Services	\$2,456.63
Uline	Office Supplies	\$334.26
United States Postal Service	Postage	\$3,002.18
Verizon	Cell Phones	\$994.20
VRI Lifeline Of Michigan	Care Management	\$577.00
Wal Mart	Covid Clinic Supplies	\$17.12
Xmission	Email Provider	\$580.00
Total Paid		\$1,026,520.11

July 1 through July 31, 2021

### Branch-Hillsdale-St Joseph Community Health Agency Balance Sheet As of 7/31/2021

Assets		
Cash on Hand		4,388.65
Cash with County Treasurer		4,520,971.88
Community Foundation Grant		309,955.94
Accounts Receivable		88,673.55
Due from Dental DAPP		23,976.46
Due from Branch County		53,485.75
Due from State		(703,503.31)
Due from Other Funding Sources		226,566.64
Prepaid Expenses		104,729.22
Biologic Inventory		84,067.08
Total Assets		4,713,311.86
Liabilities		
Accounts Payable		243,052.64
Payroll Liabilites		133,663.06
Capital Improvements		25,000.00
Deferred Revenue		1,418,367.10
Deferred Revenue BR		35,657.00
Deferred Revenue HD		39,062.00
Deferred Revenue SJ		51,283.00
Biologics		84,067.08
Total Liabilities		2,030,151.88
Net Assets		
Operation Fund Balance		900,228.34
Restricted Fund Balance		437,151.41
Designated Fund Balance		1,345,780.23
Total Net Assets		2,683,159.98
Total Liabilities and Net Assets		4,713,311.86
Prior Year Fund Balance	Comparison at 7/31/2020:	
	Operation Fund Balance	568,641.29
	<b>Restricted Fund Balance</b>	441,604.32

Total Fund Balance	\$ 2,759,643.89
Designated Fund Balance	1,749,398.28
Restricted Fund Balance	441,604.32
Operation Fund Balance	508,041.29

### BHSJ Community Health Agency Schedule of Cash Receipts and Disbursements February 28, 2021 thru July 31, 2021

Plus: Cash Receipts	\$ 541,765.32
Less: Cash Disbursements For Payroll/AP	\$ (570,712.10)
2/28/2021 Cash Balance	\$ 3,961,146.32
Plus: Cash Receipts	\$ 1,095,594.79
Less: Cash Disbursements For Payroll/AP	\$ (500,209.66)
3/31/2021 Cash Balance	\$ 4,556,531.45
Plus: Cash Receipts	\$ 1,208,125.34
Less: Cash Disbursements For Payroll/AP	\$ (657,784.61)
4/30/2021 Cash Balance	\$ 5,106,872.18
Plus: Cash Receipts	\$ 586,165.15
Less: Cash Disbursements For Payroll/AP	\$ (520,740.93)
5/31/2021 Cash Balance	\$ 5,172,296.40
Plus: Cash Receipts	\$ 548,307.83
Less: Cash Disbursements For Payroll/AP	\$ (659,133.45)
6/30/2021 Cash Balance	\$ 5,061,470.78
Plus: Cash Receipts	\$ 959,998.90
Less: Cash Disbursements For Payroll/AP	\$ (1,190,541.86)
7/31/2021 Cash Balance	\$ 4,830,927.82

### BRANCH HILLSDALE ST JOSEPH COMMUNITY HEALTH AGENCY

# Expense by Program - 7/1/2021 - 7/31/2021

	Program	Program Title	Current Month	Year to Date	Total Budget - Amendment2	Percent Total Expended Amend2
#	353	CRFLCT Contact Tracing	340.50	323,115.31	323,148.00	99.98%
#	354	CRF LHD Testing	2.13	151,671.90	152,122.00	99.70%
#	362	COVID Immunizations	699.14	120,675.19	121,280.00	99.50%
*	008	Salary & Fringe Payoff	291.36	78,015.31	85,000.00	91.78%
*	029	Dental Clinic - Hillsdale	1,440.31	6,987.56	8,000.00	87.34%
*	325	CSHCS	19,790.46	159,643.49	187,311.00	85.22%
	021	Dental Clinic - Three Rivers	2,775.00	27,750.00	33,300.00	83.33%
	745	Type II Water	7,303.60	68,934.75	84,242.00	81.82%
	032	Emergency Preparedness	11,711.36	120,020.75	151,624.00	79.15%
	201	CSF Carseats	606.34	12,064.43	15,250.00	79.11%
	338	Immunization Vaccine Handling	(9,895.64)	237,252.44	300,270.00	79.01%
	038	COVID-19	244.03	191,516.37	243,000.00	78.81%
	605	General EH Services	3,193.42	27,855.13	35,350.00	78.79%
	714	Onsite Sewage Disposal	30,337.41	264,619.98	335,826.00	78.79%
	721	Drinking Water Supply	30,337.41	264,619.98	335,826.00	78.79%
	331	STD	13,355.03	95,632.54	123,056.00	77.71%
	321	CHC Tele-A-Health	1,934.68	25,168.47	32,603.00	77.19%
	704	Food Service	38,315.01	315,470.48	414,849.00	76.04%
	024	MERS Pension Underfunded Liability	626,159.93	633,761.39	845,750.00	74.93%
	345	Lead Testing	1,747.27	17,335.52	23,633.00	73.35%
	341	Infectious Disease	21,712.19	181,998.55	252,069.00	72.20%
	012	Area Agency on Aging	140,645.65	1,049,235.38	1,458,951.00	71.91%
	108	WIC Breastfeeding	7,946.74	67,858.80	96,013.00	70.67%
	109	WIC	62,297.79	633,060.22	910,267.00	69.54%
	351	CELC Infection Prevention	4,140.57	62,276.36	91,194.00	68.28%
	326	Vision (ELPHS)	1,777.30	63,753.98	95,543.00	66.72%
	327	Hearing (ELPHS)	1,279.13	57,242.56	88,243.00	64.86%
	035	Vector Borne Disease Surveillance	7,925.78	18,562.94	29,229.00	63.50%
	200	ELPHS Marketing	4,590.94	21,339.39	34,656.00	61.57%
	332	HIV Prevention	1,436.36	16,910.46	27,500.00	61.49%
	101	Workforce Development	2,523.62	27,042.02	44,135.00	61.27%
	275	Medical Marijuana SJ	948.30	5,008.73	8,402.00	59.61%
	115	MCH Enabling Women	13,052.19	32,756.83	55,375.00	59.15%
	329	MCH Enabling Children	2,065.55	22,968.37	39,034.00	58.84%
	010	Agency Support	19,803.95	16,510.50	28,748.00	57.43%
	360	CRFIMM - Immunization COVID Response	37.09	34,698.81	62,026.00	55.94%
	352	ELCCT Contact Tracing, testing doord, violation	55,649.26	472,744.02	852,661.00	55.44%

230	Medical Marijuana HD	2,502.07	7,480.47	14,034.00	53.30%
107	Medicaid Outreach	(1,481.57)	10,693.42	20,289.00	52.70%
138	Immunization IAP	73,334.86	343,729.32	656,433.00	52.36%
212	Medical Marijuana BR	4,834.60	11,617.88	23,152.00	50.18%
014	VOCA	9,223.34	99,391.86	226,878.00	43.80%
363	363 CVDIMS Covid Immz Supplemental	61,668.25	269,227.79	619,393.00	43.46%
400	HRSA 20RCORP	4,164.86	74,931.46	197,642.00	37.91%
723	PFAS Response - White Pigeon	98.72	4,966.14	23,029.00	21.56%
722	PFAS Response	5.32	59.95	1,028.00	5.83%
023	Capital Expenditures	0.00	0.00	239,000.00	0.00%
112	CSHCS Medicaid Outreach	0.00	0.00	21,600.00	0.00%
370	ELC COVID CT/Wraparound	0.00	0.00	161,036.00	0.00%
361	CVIS Covid/Flu Immz	0.00	0.00	54,526.00	0.00%
	Total Total Expense	1,282,871.61	6,748,177.20	10,283,526.00	<u>66.67</u> %

The Agency is currently 16.66% under budget.

\*10/12 Months = 83.33%

\*\*9/9 Months = 100%

# 3/3 Months = 100% \*CRF Ended 1/31/2021

\*\*9-Month Program

# 3-Month Program

RU 008: 91.78%	Over budget due to annual Sick Time Payout. Will fall in line as year progresses
RU 029: 87.34%	Over budget due to increased costs for cleaning supplies. Will monitor.
RU 325: 85.22%	Budget for RU 325 must be fully expended before expenses can be charged to RU 112. When looking at these 2 budgets together as one the program is under spent at 76.42%

	CRF - 3 Month Grant Programs Ended 1-31-31						
RU 353: 99.98%	3-Month Program - Within budget, Grant Deadline was Feb 15th						
RU 354: 99.70%	3-Month Program - Within budget, Grant Deadline was Feb 15th						
RU 360: 55.91%	3-Month Program - Within budget, Grant Deadline was Feb 15th						



### FISCAL YEAR 2021-2022 PROVIDER ALLOCATIONS

2%

-3%

Presented to the Board of Health Finance Committee on August 26, 2021 Contracts will be renewed pending providers submission of accurate budget(s).

Contracts will be renewed pending providers submission of accurate budget(s).								
PROVIDER NAME		FY20-21*	PROPOSED FY21-22**	olo Difference				
Branch Area Transit Authority	Ī							
Transportation	\$	18,600	\$ 18,600	0%				

Thurston Cares Adult Day Services		
Adult Day Services	\$ 40,711	\$ 41,711
Caregiver Education, Support & Training	1,200	1,200
TOTAL	\$ 41,911	\$ 42,911

Branch County Commission On Aging		
Case Coordination & Support	\$ 5,455	\$ 6,005
Caregiver Education, Support & Training	6,432	5,500
Chore Services	2,500	2,500
Disease Prevention/Health Promotion	3,700	3,695
Friendly Reassurance	1,950	1,950
Home Care Assistance	46,144	47,040
In-Home Respite	12,823	10,254
Medicare/Medicaid Assistance Program	9,234	8,824
Gap Filling	1,000	1,000
Transportation	5,200	5,200
TOTAL	\$ 94,438	\$ 91,968

Community Action Agency (Branch County)			_
Congregate Meals	\$ 48,214	\$ 40,240	
Home Delivered Meals	150,84	150,502	
Gap Filling	1,00	1,000	)
TOTAL	\$ 200,054	\$ 191,742	

Kalamazoo Human Services Dept AAA Region 3A			
Long Term Care Ombudsman Program	\$ 2,000	\$ 2,000	0%

Legal Services of South Central MI				_
Lega	I Services \$	10,000	\$ 10,250	3%

Presented to the Board of Health Finance Committee on August 26, 2021 Contracts will be renewed pending providers submission of accurate budget(s).

Contracts will be renewed pending providers submission of accurate budget(s).							
PROVIDER NAME	FY20-21*	PROPOSED FY21-22**	olo Different				

t. Joseph County Commission On Aging		
Caregiver Education, Support and Training	5,434	5,500
Case Coordination & Support	7,534	8,284
Chore	3,500	3,500
Congregate Meals	87,253	55,561
Disease Prevention/Health Promotion	5,153	5,100
Friendly Reassurance	2,650	2,650
Home Care Assistance	63,250	65,039
Home Delivered Meals	171,068	193,077
Home Repair	3,480	3,480
In-Home Respite	15,177	15,680
Kinship Support	3,500	3,500
Medicare/Medicaid Assistance Program	6,814	9,224
Counseling	3,190	0
Gap Filling	1,000	1,000
TOTAL	\$ 379,003	\$ 371,595
	r	
St. Joseph County Transportation Authority		
Transportation	\$ 24,100	\$ 22,600

-6%

-2%

\*FY20-21 award amounts reflected are Original (not amendments just made)

\*\*FY21-22 Proposed amounts reflect full year fed/state funding anticipated and provider input

NOTE: We are still anticipating American Rescue Plan Act (ARPA) funding from AASA. Once received, we will present plans & additional allocations to the Finance Committee and the Board of Health in an effort to allow providers to access the funding as quickly as possible. This will likely happen earlier than our 1x per year budget amendment process. We feel it's a proactive and necessary extra step.



### Personal Health and Disease Prevention: August 26, 2021

#### **Communicable Disease:**

Last month I was talking about cases being relatively low throughout the tri-county area as we were transitioning our case investigators to focus on vaccination outreach.

The past month has taken a huge turn and we are back full force assigning cases to our investigation team. We have had to increase staff on the weekends so we can keep up with responding. The cases we are seeing are outbreaks along with high community transmission. Cases continue to be reluctant to provide close contact information during the interview process. Identified breakthrough cases have increased in the past month as well.

Schools are an entirely different challenge this year with various policy in place throughout our jurisdiction and some lack of mitigation measures. We are working to possibly hire a School Coordinator to help with this large role we play with school aged students. When things started to slow down, we lost a few case investigators so we are actively trying to fill one of those positions as well. Rebecca and I have tried our best to work together on organizing how we respond to schools this year compared to how we previously would. We hope this will be a better flow for the schools as well.

#### **Immunizations/STD/HIV:**

We have been in the community vaccinating probably 4-5 days every week for the past month or so. With the help of the Michigan National Guard this gave us a huge opportunity to be able to attend several additional locations and events that we may not have been able to attend with our own small team.

Carol has also worked events, visits schools, long-term care facilities, and homes to vaccinate with our mobile unit. We are still trying to find someone who can assist her as a full-time clerk.

We have several jobs posting available right now for different roles throughout the clinic! Hiring new staff has been a real struggle for us the past few months.

### Women, Infant, and Children (WIC):

We continue to see 1-year old children in office and have also now opened up to all new clients. The plan is to continue gradually opening up services in specific groups until we are at full capacity again inhouse. The extension is now through November but I foresee it being extend until at least the end of this year. Our WIC team and breastfeeding peers have also been attending several community events and fairs to promote offered services.

### Children's Special Health Care Services (CSHCS), Lead, and Hearing & Vision:

During the month of July, the CSHCS team was prepping for our bi-annual hearing clinic that we partner with the University of Michigan on. We have also been prepping for the fair events at each county where we will be representing for Kids Day.

Hearing and vision tech will return the end of August for the new school year.

### Kali Nichols MPH Personal Health & Disease Prevention Director

### Branch - Hillsdale - St. Joseph Community Health Agency Personal Health and Disease Prevention

July-21 B Animal Bite/Rabies potential exposure Campylobacter	<b>2</b> -	2020- HD 8	SJ	Total	BR	FYTD 20				2019-20		
Animal Bite/Rabies potential exposure	2		35	TOLAL		HD	SJ	Total	BR	HD	SJ	Total
	-	8			DR	שח	33	TOLAI	DK	שח	33	Total
			-	10	34	48	1	83	29	48	2	79
	-	3	2	5	-	8	10	18	6	5	9	20
Chicken Pox		1		1	-	1	-	1	-	1	-	1
Chlamydia	16	10	19	45	100	90	148	338	84	81	141	306
Coccidioidomycosis	-	-	-	-	-	-	-	-	-	1	1	2
Colds W/O Fever	-	-	16	16	740	595	1,145	2,480	572	284	1,023	1,879
CRE Carbapenem Resistant Enterobac.	-	-	-	-	-	1	-	1	-	1	2	3
Cryptosporidiosis	-	-	-	-	-	1	1	2	3	1	-	4
Ehrlichiosis, Anaplasma	-	-	-	-	-	-	-	-	-	-	1	1
Flu Like Disease	1	-	3	4	867	189	560	1,616	1,390	1,099	1,653	4,142
GI Illness	5	25	3	33	1,483	924	1,245	3,652	2,017	1,176	1,804	4,997
Giardiasis	-	-	-	-	-	-	-	-	3	2	5	10
Gonorrhea	1	8	10	19	42	59	86	187	38	39	60	137
Guillian-Barre Syndrome	-	-	-	-	-	-	-	-	1	-	-	1
H. Influenzae Disease - Inv.	-	-	-	-	-	1	-	1	-	1	3	4
Head Lice	-	-	-	-	133	46	239	418	236	90	317	643
Hepatitis A	-	-	-	-	-	-	-	-	1	-	-	1
Hepatitis B - Acute	-	-	-	-	-	-	1	1	-	-	2	2
Hepatitis B - Chronic	-	-	-	-	1	-	2	3	-	1	-	1
Hepatitis C - Acute	-	-	-	-	3	2	2	7	2	-	4	6
Hepatitis C - Chronic	4	1	-	5	20	6	7	33	19	16	25	60
Histoplasmosis	-	-	-	-	-	-	-	-	-	1	1	2
HIV/AIDS	-	1	-	1	-	1	-	1	2	-	-	2
Impetigo	-	-	-	-	10	3	4	17	7	3	18	28
Influenza	-	-	-	-	-	-	-	-	205	644	87	936
Legionellosis	-	-	-	-	-	-	-	-	-	2	1	3
Lyme Disease	-	1	-	1	-	4	-	4	1	-	5	6
Menengitis - Aseptic	-	-	-	-	-	-	-	-	1	-	-	1
Mononucleosis	-	-	-	-	3	4	5	12	6	9	19	34
Mycobacterium - Other	-	-	-	-	-	4	2	6	-	3	3	6
Norovirus	-	-	-	-	-	1	1	2	-	-	1	1
Novel Coronavirus	184	51	76	311	4,481	4,111	5,550	14,142	428	250	462	1,140
Pertussis	-	-	-	-	-	1	-	1	-	1	2	3
Pink Eye	-	-	2	2	13	13	42	68	120	57	173	350
Q Fever	-	-	-	-	-	-	-	-	-	-	1	1
Salmonellosis	-	-	-	-	6	1	3	10	6	7	4	17
Scabies	-	-	-	-	6	-	-	6	2	2	4	8
Shiga Toxin-prod. (STEC)	-	-	-	-	-	1	-	1	2	4	2	8
Shigellosis	-	-	-	-	-	-	-	-	-	-	2	2
Shingles	-	-	-	-	-	-	-	-	2	1	1	4
Staphylococcus Aureus Infect.	-	-	-	-	-	1	-	1	1	-	-	1
Strep Invasive Gp A	-	-	-	-	-	-	1	1	4	3	4	11
Strep Pneumonia Inv Ds.	-	-	-	-	1	1	4	6	4	2	3	9
Strep Throat	-	-	1	1	163	103	188	454	312	288	424	1,024
Syphilis To Be Determined	-	-	-	-	-	1	-	1	2	-	-	2

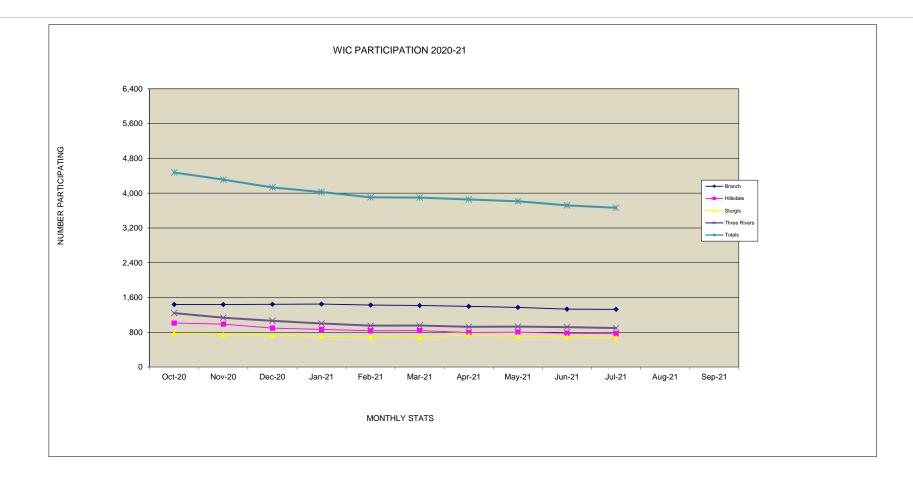
## Branch - Hillsdale - St. Joseph Community Health Agency Personal Health and Disease Prevention

All VFC Deses Given       574       378       -       769       1,721       7,33       4,899       -       0,039       21,267       7,651       5,167       -       8,500       20,718         Waivers       6       -       -       6       37       22       8       24       91       36       53       1       47       137         ADULT IMMUNIZATIONS       -       6       381       16,552       12,860       14       22,285       51,731       1,08       444       11       448       2,199         All AVP Dese Given       19       1       .       10       40       197       31       .       14       22,35       51,731       1,08       444       11       448       2,199         All AVP Dese Given       1       1       40       197       31       .       14       14       143       444       13       448       2,199         All AVP Dese Given       1       .     <		Jul-21				YTD 2020-21					YTD 2019-2020					
# Vaccines Given CIIA104061143131.7171.4668771.5944.681.1771.292.246.443.344AII YF C Doses Given5743783781.7217.394.9890.30321.6777.6515.10718.50020.718Waivers606.701.7217.394.9891.721.289.13.531.14.71.37ADUIT DIMUNIZATIONE1.106.702.870.106.702.870.112.22851.7311.0884.441134.442.19ADVA Does Given19110.16.702.871.281.2851.7311.0884.441.134.442.19ADVA Does Given19110.16.702.871.2851.7311.0884.441.134.442.19ADVA Does Given19110.1 <t< td=""><td></td><td>BR</td><td>HD</td><td>ST</td><td>TR</td><td>Total</td><td>BR</td><td>HD</td><td>ST</td><td>TR</td><td>Total</td><td>BR</td><td>HD</td><td>ST</td><td>TR</td><td>Total</td></t<>		BR	HD	ST	TR	Total	BR	HD	ST	TR	Total	BR	HD	ST	TR	Total
All VFC Dases Given $674$ $374$ $.$ $760$ $1,721$ $7,33$ $4,890$ $$ $0,030$ $21,267$ $7,051$ $5,167$ $$ $8,00$ $20,716$ Waivens $6$ $$ $$ $6$ $37$ $22$ $8$ $24$ $91$ $26$ $53$ $.1$ $47$ $137$ ADULT INMUNIZATIONS $undow 100$ $10$ <td>CHILD IMMUNIZATIO</td> <td>NS</td> <td></td>	CHILD IMMUNIZATIO	NS														
Waivers66772824913653147137ADUCT INMUNIZATIONSWarchen Given27776673816,5821,2851,412,28557,311,084441134444,19ADLAT MOMINIZATIONSWarchen Given27776673816,5821,2857,311,086,441.134,441,29ALLAT MACINATIONSWarchen Given277.06.76.71.0	# Vaccines Given CHA	104	95	-	114	313	1,717	1,466	87	1,594	4,864	1,177	1,229	294	644	3,344
ADULT IMMUNIZATIONS       Automine Given       237       77       .       67       381       16.582       12.850       14       22.285       51.731       1.088       444       113       484       2.129         All AVP Dases Given       19       11       .       10       40       197       91       .       147       435       266       164       .       229       659         TRAVEL VACCINATIONS       Value of the second s	All VFC Doses Given	574	378	-	769	1,721	7,339	4,889	-	9,039	21,267	7,051	5,167	-	8,500	20,718
# Vachnes Given       237       77        67       381       16.582       12.850       14       22.285       51.731       1.088       444       113       448       2.129         All AVP Dases Given       19       11        10       40       197       91        14.7       435       266       164        220       659         TRAVEL VACCINATIONS             9         9         COMMUNICABLE DISEASE	Waivers	6	-	-	-	6	37	22	8	24	91	36	53	1	47	137
All AVP Dases Given1911104019791-147435266164223659TRAVEL VACCINATIONSBranch Office999COMMUNICABLE DISEASETB Tests Done94316798411174629199999999999999999999999999910 <th< td=""><td>ADULT IMMUNIZATIO</td><td>ONS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	ADULT IMMUNIZATIO	ONS														
TRAVEL VACCINATIONS           Branch Office         . <td># Vaccines Given</td> <td>237</td> <td>77</td> <td>-</td> <td>67</td> <td>381</td> <td>16,582</td> <td>12,850</td> <td>14</td> <td>22,285</td> <td>51,731</td> <td>1,088</td> <td>444</td> <td>113</td> <td>484</td> <td>2,129</td>	# Vaccines Given	237	77	-	67	381	16,582	12,850	14	22,285	51,731	1,088	444	113	484	2,129
Branch Office         .         <	All AVP Doses Given	19	11	-	10	40	197	91	-	147	435	266	164	-	229	659
COMMUNICABLE DISEASE           COMMUNICABLE DISEASE           TB Tests Done         9         4         -         3         16         79         84         -         11         174         82         91         -         39         212           New STD on Rx         -         -         -         -         1         -         -         1         -         -         -         -         -         -         -         -         -         -         -         -         1         1         1         1         -         -         -         -         -         -         -         -         1         1         1         1         1         -         3         212           New STD Investigations         17         18         -         23         64         143         150         -         26         1         27         34           Kew STD Investigations         17         18         -         3         1         2         2         10         15         6         1         27         34            17         18         18	TRAVEL VACCINATIO	NS			Γ											
TB Tests Done94310796411174629139212New LTBI on Rx<	Branch Office	-	-	-	-	-	-	-	-	-	-	9	-	-	-	9
TB Tests Done94310796411174629139212New LTBI on Rx<																
New LTBI on Rx						40	70				474					
Image: symbol index symbol i			4	-	3				-						39	212
STD treatments         .	New LTBI on Rx	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-
New STD Investigations         17         18         .         29         64         143         150         .         236         529         122         124         .         231         477           HIV Testing         .         .         .         .         3         3         1         2         2         10         15         .         6         1         27         34           ENROLLMENTS            2           1         3         26         4          12         42           REFERRAL SERVICE            233         78         233         67         133         511         204         340         12         103         659           MIIP referrals         1         3         5         24         33         78         233         67         133         511         204         340         12         103         659           MIIP referrals         12         3         140         295         337         401         1,033         86         102         431         501           School Age <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>04</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>04</td> <td></td>						-		04						-	04	
HIV Testing		-	-	-												
NROLLMENTS         Medicaid & Michild       -       -       -       2       .       -       1       3       26       4       -       12       42         REFERAL SERVICE         MCDC Referrals       1       3       5       24       33       78       233       67       133       511       204       340       12       103       659         MIP referrals       12       3       18       23       56       164       41       189       204       598       34       27       151       196       408         Program         Preschool       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       -       1       -       1       2       828       923       -       1,783       3,534       1,08       795       -       1,999       3,882         Vision Screens       Pre-school       140       -       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -			18	-								122				
Medicaid & Michild         -         -         -         2         -         1         3         26         4         -         12         42           REFERRAL SERVICE           MCDC Referrals         1         3         5         24         33         78         233         67         133         511         204         340         12         103         659           MIHP referrals         12         3         18         23         56         164         41         189         204         598         34         27         151         196         408           Program         Preschool         140         -         140         295         337         -         401         1,033         86         102         -         313         501           School Age         -         1         0         1         2         828         923         -         1,783         3,534         1,088         795         -         1,999         3,882           Vision Screens         -         1         2         2,249         1,700         -         3,194         7,143         3,151         2,139         - <t< td=""><td>HIV Testing</td><td>-</td><td>-</td><td>-</td><td>3</td><td>3</td><td>1</td><td>2</td><td>2</td><td>10</td><td>15</td><td>-</td><td>6</td><td>1</td><td>27</td><td>34</td></t<>	HIV Testing	-	-	-	3	3	1	2	2	10	15	-	6	1	27	34
REFERRAL SERVICE         MCDC Referrals       1       3       5       24       33       78       233       67       133       511       204       340       12       103       659         MIHP referrals       12       3       18       23       56       164       41       189       204       598       34       27       151       196       408         Program       Pre-school       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       -       1       2       828       923       -       1,783       3,534       1,088       795       -       1,999       3,882         Vision Screens       Pre-school       140       -       -       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       -       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850       518       516       518 <t< td=""><td>ENROLLMENTS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	ENROLLMENTS															
MCDC Referrals       1       3       5       24       33       78       233       667       133       511       204       340       12       103       659         MIHP referrals       12       3       18       23       56       164       41       189       204       598       34       27       151       196       408         Program       Pre-school       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       .       1       .       1       2       828       923       .       1,783       3,534       1,088       795       .       1,999       3,882         Vision Screens       Pre-school       140       .       351       362       .       493       1,206       102       86       .       1,999       3,882         School Age       .       1       .       362       .       493       1,206       102       86       .       330       518         School Age       .       1       .       2       1,700       .       3,194	Medicaid & Michild	-	-	-	-	-	2	-	-	1	3	26	4	-	12	42
MCDC Referrals       1       3       5       24       33       78       233       667       133       511       204       340       12       103       659         MIHP referrals       12       3       18       23       56       164       41       189       204       598       34       27       151       196       408         Program       Pre-school       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       .       1       .       1       2       828       923       .       1,783       3,534       1,088       795       .       1,999       3,882         Vision Screens       Pre-school       140       .       351       362       .       493       1,206       102       86       .       1,999       3,882         School Age       .       1       .       362       .       493       1,206       102       86       .       330       518         School Age       .       1       .       2       1,700       .       3,194																
MIHP referrals       12       3       18       23       56       164       41       189       204       598       34       27       151       196       408         Program       Pre-school       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       -       1       -       1       282       923       -       1,783       3,534       1,08       795       -       1,999       3,882         Vision Screens       -       140       -       1       2,249       1,700       -       493       1,206       102       86       -       330       518         School Age       -       1       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Service       -       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Service       -       1       2       1,1       -       <										100				10	100	
Program         Pre-school       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       -       1       -       1       2       828       923       -       1,783       3,534       1,088       795       -       1,999       3,882         Vision Screens       Pre-school       140       -       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       -       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services       -       3       5       12       11       -       3       26       10       22       -       1       333       5       12       11       -       3       26       10       22       -       1       333         School Age       2       -       3       5       12       11       -       3       26       10       22       <																
Pre-school       140       -       -       140       295       337       -       401       1,033       86       102       -       313       501         School Age       -       1       -       1       2       828       923       -       1,783       3,534       1,088       795       -       1,999       3,882         Vision Screens       -       140       351       362       -       1,783       3,534       1,088       795       -       1,999       3,882         Vision Screens       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       1       0       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         School Age       2       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services       3       5       12       11       -       3       26      10       22       -	MIHP referrals	12	3	18	23	56	164	41	189	204	598	34	27	151	196	408
School Age       -       1       2       828       923       -       1,783       3,534       1,088       795       -       1,999       3,882         Vision Screens         Pre-school       140       -       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       -       1       -       1       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services       -       -       3       5       12       11       -       3       26       10       22       -       1       333         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619	Program															
Vision Screens         Pre-school       140       -       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       -       1       -       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services         Diagnostics       2       -       3       5       12       11       -       3       26       10       22       -       1       333         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619	Pre-school	140	-	-	-	140	295	337	-	401	1,033	86	102	-	313	501
Pre-school       140       -       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       -       1       -       1       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services       -       -       3       5       12       11       -       3       26       10       22       -       4,560       9,850         Children's Special Health Care Services       -       -       3       5       12       11       -       3       26       10       22       -       1       33         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619	School Age	-	1	-	1	2	828	923	-	1,783	3,534	1,088	795	-	1,999	3,882
Pre-school       140       -       -       140       351       362       -       493       1,206       102       86       -       330       518         School Age       -       1       -       1       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services       -       -       3       5       12       11       -       3       26       10       22       -       4,560       9,850         Children's Special Health Care Services       -       -       3       5       12       11       -       3       26       10       22       -       1       33         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619																
School Age       -       1       -       1       2       2,249       1,700       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Children's Special Health Care Services       -       -       3,194       7,143       3,151       2,139       -       4,560       9,850         Diagnostics       2       -       -       3       5       12       11       -       3       26       10       22       -       1       33         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619																
Children's Special Health Care Services         Diagnostics       2       -       -       3       5       12       11       -       3       26       10       22       -       1       33         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619		140	-	-	-				-							
Diagnostics       2       -       -       3       5       12       11       -       3       26       10       22       -       1       33         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619	School Age	-	1	-	1	2	2,249	1,700	-	3,194	7,143	3,151	2,139	-	4,560	9,850
Diagnostics       2       -       -       3       5       12       11       -       3       26       10       22       -       1       33         Assessments-Renewal       16       25       -       28       69       170       215       -       239       624       173       198       -       248       619	Children's Special Health (	Care Serv	ices													
Assessments-Renewal 16 25 - 28 69 170 215 - 239 624 173 198 - 248 619			-	-	3	5	12	11	-	3	26	10	22	-	1	33
			25	-					-					-		
	Assessments-New	2	11	-	8				-				46		51	138

#### WIC CLINIC CASELOAD STATISTICS PER CLINIC

	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	20-21 YTD	20-21 Avg	19-20 Avg	18-19 Avg	17-18 Avg	
BRANCH	1,438	1,438	1,444	1,449	1,425	1417	1396	1373	1332	1,327			14,039	1,404	1,337	1,247	1,315	
HILLSDALE	1,013	988	895	867	834	838	796	804	778	767			8,580	858	1,004	988	1,115	
STURGIS	783	749	729	706	692	687	736	706	691	672			7,151	715	810	766	768	
THREE RIVERS	1,241	1,136	1,064	1,003	952	954	926	930	918	897			10,021	1,002	1,127	982	1,024	
Totals	4,475	4,311	4,132	4,025	3,905	3,896	3,854	3,813	3,719	3,663			39793	3,979	4,286	3,988	4,223	

This reflects WIC clients who have enrolled and are using their WIC benefits. These are the numbers that our funding is dependent upon. We need to maintain a caseload at 97% or greater than our assigned caseload.



## Branch-Hillsdale-St. Joseph Community Health Agency Environmental Public Health Services Report for the August 26, 2021 Board of Health Meeting Prepared by Paul Andriacchi R.E.H.S, Director of Environmental Health

### **Food Service Sanitation**

A couple of years ago, MDARD approached all the local health departments about the possibility of conducting the food service inspections at the county fairs, which had previously always been done by MDARD staff. We decided that we would take on one of our three county fairs and did the inspections for the 2019 fair. Of course, last year, Covid hit and the fair did not happen.



However, this year our staff conducted the food service inspections at the Branch County Fair again. There were 25 temporary food licenses issued and we did inspections on an additional 3 STFU units. For the most part the inspections went well, however there were a couple of vendors that sent the money for their temporary food licenses to MDARD. Unfortunately, MDARD didn't inform us that they received the applications and fees. However, our staff was able to contact MDARD and get the vendors licensed through our department.

There is a new restaurant that recently opened up in Sturgis called the Bread and Butter Kitchen. They have taken over the space previously occupied by the Boundary Waters Café. They served breakfast and lunch along with a variety of baked goods. I would encourage you to support one of our new businesses.

### **General Programs**

Work in the Vector Borne Disease Surveillance Program for this year was concluded last week. The 3 technicians that worked the grant this year did a total of 420 mosquito trappings, 40-1000 meter tick drags, 3 radio interviews about the program and vector borne disease prevention, 3 press releases also related to vector borne disease prevention and distributed informational pamphlets about the program at 4 festival events. This year we have collected an unusually large number of mosquitoes but the good news is that none of the mosquitoes were of the species associated with the Zika virus. The tick collections we did this year also did not produce any of the target species (black-legged ticks) that are associated with Lyme disease.

Our field staff is getting very close to completing all of our seasonal inspections which includes: campgrounds, septage haulers, land application sites, children's camps and outdoor pools. There are a couple of the campgrounds associated with our county fairs that cannot be done until the week of the fair. The St. Joseph County and Hillsdale County Fairs are both in September so those inspections will be completed then.

#### **EH Service Statistics Report**

#### **BRANCH - HILLSDALE - ST. JOSEPH COMMUNITY HEALTH AGENCY**

YTD 2020/2021

YTD 2019/2020

JULY

ENVIRONMENTAL HEALTH SERVICE REPORT 2020/2021

## Inspection Type Count by County

For Date Range: 7/1/2021 - 7/31/2021 and Program: Food Service

County	Inspection Type	Count	
	Temporary		1
Branch	Complaint		3
	Consult		1
	Follow-Up		2
	Routine		18
	STFU/Mobile		1
	Temporary		6
Hillsdale	Follow-Up		1
	Pre-opening/New		2
	Progress Note		1
	Routine		11
	Temporary		5
St. Joseph	Follow-Up		1
	Pre-opening/New		4
	Routine		20
	STFU/Mobile		6
	Temporary		17
	Total number of inspections	:	100

# **Inspection Type Count**

For Date Range: 7/1/2021 - 7/31/2021 and Program: Food Service

Inspection Type Count	
Complaint	3
Consult	1
Follow-Up	4
Pre-opening/New	6
Progress Note	1
Routine	49
STFU/Mobile	7
Temporary	29
Total number of inspections	100

# **Establishment Inspection Report**

For Date Range: 7/1/2021 - 7/31/2021 and Program: Food Service

For Date Range: 7/1/2021 -	7/31/2021 and	Program: Fo	od Service				
Name	Location	Date	Inspection Type	#P #	Pf # P/Pf Fixed During Inspect	ଭ	ore
ADVENTURE ZONE, INC	COLDWATER	7/1/2021	Routine	0	1	0	0
Amaz'n Nutrition	Three Rivers	7/27/2021		0	0	0	0
AMIGO CENTRE (Food)	Sturgis	7/13/2021	Routine	0	0	0	0
ARBY'S	THREE RIVERS	7/26/2021	Routine	0	0	0	2
Bellic River Group DBA Bens Soft Pretzel	Shipshewana	7/23/2021	STFU/Mobile	0	0	0	0
Bread and Butter Kitchen	Sturgis	7/28/2021	Pre- opening/New	0	0	0	0
Bronson Kiwanis Club	Bronson	7/16/2021	Temporary	0	0	0	0
Burger King #1416	Three Rivers	7/1/2021	Pre- opening/New	0	0	0	2
Burr Oak Fire Department		7/30/2021	Temporary	0	0	0	0
Burr Oak United Methodist Kitchen	Burr Oak	7/30/2021	Temporary	0	0	0	0
Burr Oak United Methodist Kitchen	Burr Oak	7/30/2021	Pre- opening/New	0	0	0	0
CAABC	Coldwater	7/9/2021	Temporary	0	0	0	0
Castaway Lounge LLC	Coldwater	7/8/2021	Routine	0	0	0	2
CAVONIS	HILLSDALE	7/19/2021	Routine	0	1	0	1
Centreville Lions Club	Centreville	7/9/2021	Temporary	0	0	0	0
CITY OF HILLSDALE - SANDY BEACH	HILLSDALE	7/28/2021	Pre- opening/New	1	1	0	1
Coach Eby Youth & family Center	COLDWATER	7/22/2021	Routine	0	0	0	0
COLDWATER BURGER KING #4652	COLDWATER	7/6/2021	Complaint	0	0	0	0
CONEY HUT DRIVE INN	JONESVILLE	7/13/2021	Routine	1	1	0	0
CONEY HUT DRIVE INN	JONESVILLE	7/23/2021	Follow-Up	1	1	2	0
COTTAGE INN PIZZA	COLDWATER	7/22/2021	Routine	0	1	0	4
CRYSTAL MAGIC	JONESVILLE	7/30/2021	Progress Note	0	0	0	0
Culver's of Three Rivers	Three Rivers	7/26/2021	Routine	0	0	0	0
DQ GRILL & CHILL	Three Rivers	7/21/2021	Routine	0	0	0	2
EAGLES LODGE 1314	Sturgis	7/28/2021	Follow-Up	2	2	0	2
El Camino Real	Three Rivers	7/27/2021	Routine	0	1	1	1
El Taco Loco	Sturgis	7/30/2021	Temporary	0	0	0	0
EL TACO LOCO II	COLDWATER	7/16/2021	Temporary	0	0	0	0

Name	Location	Date	Inspection # Type	¢P #	Pf # P/Pf Fixed During Inspec	Co	ike)
En Gedi Music Fest	Sturgis	7/23/2021	Temporary	0	0	0	0
FIESTA MEXICANA	Sturgis	7/14/2021	Routine	0	3	0	6
FIRM FOUNDATION MINISTRIES	CENTREVILL E	7/9/2021	Temporary	0:	0	0	0
FIRST BAPTIST CHURCH	COLDWATER	7/29/2021	Routine	0	0	0	0
Fisher's Ice Cream	Goshen	7/30/2021	Temporary	0	0	0	0
Five Lakes Coffee	Sturgis	7/21/2021	Routine	0	0	0	0
Five Lakes Coffee INC	STURGIS	7/21/2021	Routine	0,	0	0	0
Grambys Homestyle Restaurant	Sturgis	7/14/2021	Routine	0	1	0	2
HANDMADE SANDWICHES 8 BEVERAGES	HILLSDALE	7/7/2021	Routine	1	1	0	3
Hank's Tavern On The River	Three Rivers	7/22/2021	Routine	0	0	0	1
Hawaiian Shaved Ice	Sturgis	7/16/2021	Temporary	0	0	0	0
Hawkins Famous Fish & More	Fort Wayne	7/8/2021	Temporary	0	0	0	0
HEALTHIES OF HILLSDALE	HILLSDALE	7/7/2021	Routine	0	0	0	2
Hillsdale County ISD - YAP	Hillsdale	7/27/2021	Pre- opening/New	0	0	0	0
Hooser Mama Food Truck	Auburn	7/15/2021	Temporary	0.	0	0	0
Jack Bain Family Concessions	White Lake	7/30/2021	Temporary	0	0	0	0
JERRY PRICE FISKE - FRENCH FRIES - HILLSDALE		7/30/2021	Temporary	0	0	0	0
JOHNNY T'S BISTRO	HILLSDALE	7/6/2021	Routine	0	0	0	2
Kentucky Fried Chicken Coldwater	COLDWATER	7/22/2021	Routine	1	0	1	2
Kernal Poppers	White Pigeon	7/9/2021	STFU/Mobile	0	0	0	0
King Arthur's Trolley	Fort Wayne	7/29/2021	Temporary	0	0	0	0
KLINES RESORT (Food)	Three Rivers	7/21/2021	Routine	0	0	0	0
La Michoacana	Ligonier	7/20/2021	Temporary	0	0	0	0
La Pena	Sturgis	7/16/2021	Temporary	0	0	0	0
Lake Area Christian Scool	STURGIS	7/30/2021	Temporary	0	0	0	0
LITTLE CAESARS #1200-002	Sturgis	7/21/2021	Routine	0	1	1	3
Los Tequilas	Coldwater	7/12/2021	Complaint	0	0	0	0
Los Tequilas	Coldwater	7/14/2021	Follow-Up	0	0	0	0
Los Tequilas	Coldwater	7/15/2021	Follow-Up	0	0	0	0
Los Tequilas	Coldwater	7/26/2021	-	0	0	0	0
MASONVILLE PLACE	COLDWATER	7/29/2021		0	0	0	2

Name		Date	Inspection Type	#P #		ed Co	ĸe
MCDONALDS OF COLDWATER	COLDWATER	7/22/2021	Routine	0	0	0	2
MCDONALD'S OF QUINCY	QUINCY	7/13/2021	Complaint	0	0	0	0
MCDONALD'S OF QUINCY	QUINCY	7/13/2021	Routine	0	1	1	2
McDONALDS OF THREE RIVERS #2196	Three Rivers	7/27/2021	Routine	0	0	0	2
Mema Kitchen	Three Rivers	7/20/2021	Temporary	0	0	0	0
MESSIAH LUTHERAN CHURCH	Constantine	7/28/2021	Routine	0	0	0	0
MR GYROS	COLDWATER	7/11/2021	Routine	0	0	0	1
New Jerusalem Baptist Church	Three Rivers	7/3/2021	Temporary	0	0	0	0
Olde Time Waffle cone	Constantine	7/4/2021	STFU/Mobile	0	0	0	0
OLIVIA'S CHOP HOUSE	JONESVILLE	7/14/2021	Routine	0	0	0	0
Oxender Enterprise	Lagrange	7/30/2021	Temporary	0	0	0	0
Pigeon Inn	White Pigeon	7/20/2021	Routine	0	1	0	0
PIPER'S GRINDERS GALORE	Constantine	7/28/2021	Routine	0	0	0	1
Prop Blast Cafe	COLDWATER	7/28/2021	Routine	1	1	0	0
READING PIZZA BARN	READING	7/20/2021	Routine	1	0	0	0
READING UNITED METHODIST CHURCH	READING	7/20/2021	Routine	0	0;	0	1
SHORT'S ROOT BEER DRIVE-IN	COLDWATER	7/13/2021	Routine	3	2	1	4
Small Town Girl Concessions	Coldwater	7/1/2021	STFU/Mobile	0	1	1	0
SOMERSET BEACH CAMPGROUND	SOMERSET CENTER	7/6/2021	Routine	0	0	0	1
Sparkle Inc.	Colon	7/4/2021	Temporary	0	0	0	0
St. Edward's Catholic Church	Mendon	7/27/2021	Pre- opening/New	0	0	0	0
St. Joseph County COA @ Kline's Resort	Three Rivers	7/21/2021	Routine	0	0	0	0
Sturgis Biggby Coffee #484	Sturgis	7/21/2021	Routine	1	0	0	0
Taco Bell #32989	COLDWATER	7/1/2021	Routine	0	0	0	0
Tacos Guerrense's	Constantine	7/9/2021	Temporary	0	0	0	0
Tacos Guerrense's	Constantine	7/23/2021	Temporary	0	0	0	0
TASTY TWIST	COLDWATER	7/22/2021	Routine	1	1	1	1
THE GREAT WALL	HILLSDALE	7/28/2021	Routine	0	3	1	1
The Oriental (2)	Three Rivers	7/9/2021	STFU/Mobile	0	0	0	0
The Panini Grille LLC	Centreville	7/9/2021	STFU/Mobile	0	0	0	0
The Pretzel Wagon 3	Constantine	7/4/2021	STFU/Mobile	0	0	0	0

Name	Location	Date	Inspection Type	#P #	Pf # P/Pf Fixed During Inspec	C	ore
Tropical Smoothie Cafe	Coldwater	7/19/2021	Routine	1	0	1	0
UNION CHURCH OF QUINCY	QUINCY	7/20/2021	Routine	0	0	0	0
Waldron Fire Department	Waldron	7/24/2021	Temporary	0	0	0	0
WHITE OAKS GOLF CLUB	Hillsdale	7/7/2021	Routine	0	0	0	1
White Pigeon Township Fire Department	White Pigeon	7/9/2021	Temporary	0	0	0	0
WING HOUSE	COLDWATER	7/14/2021	Routine	0	0	0	0
YMCA CAMP EBERHART (Food)	Three Rivers	7/19/2021	Routine	0	1	0	0
ZHENG'S SUPER GRAND BUFFET	COLDWATER	7/8/2021	Routine	0	1	0	2
Zilantros Mexican Street Food	Hudson	7/8/2021	Temporary	0	0	0	0
Zilantros Mexican Street Food	Hudson	7/29/2021	Temporary	0	0	0	0

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Food Inspection Codes:

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P-This indicates a priority violation which is a violation which includes a quantifiable measure to show control of hazards such as cooking, cooling, reheating and handwashing. It is in general terms a violation that can potentially lead directly to an illness.

Pf-This is a priority foundation violation which is a violation that supports a priority violation. For example, the lack of soap or towels at a handwash sink is a Pf. This supports the priority violation of not washing hands.

C-This is a core violation-This is an item the usually relates to general sanitation, operational controls and maintenance of facilities and equipment.

8/17/2021 12:45:40 PM



August 26, 2021 Director's Report

### **Enclosures:**

- 1. AASA correspondence dated August 5, 2021: regarding AASA's assessment observation of AAA IIIC staff & compliance/standards review. *No findings*.
- 2. FY2021-2022 Provider Allocations \*

## Updates:

- 1. Services to Victims of Elder Abuse Program Updates
  - Feedback from the Division of Victim Services regarding the March Contract Review has not been received yet.
  - Welcome Sean Marshall, our new Victim Specialist! Sean comes to us from another aging network agency where he worked in the MI Choice Waiver program. He's shown great initiative and attention to detail and we are glad to have him on our team!
- 2. We are on a roll... Please join me in welcoming Vanessa Squier as our new Social Work Care Consultant. Vanessa comes with over 15 years of long-term care experience and has a great approach with participants already. We are still searching for a Nurse Care Consultant & Program Specialist... Stay tuned...
- 3. The FY2022 Provider Allocations are presented today for action. We've taken into consideration federal/state laws, AASA guidance/requirements, local planning documents, service delivery experience (including waiting lists for services) and provider input. We are anticipating ARPA (American Rescue Plan Act) funds to be awarded but have not received a firm allocation. As such, we will share our plans and allocation requests as soon as we are able. This may cause us to award funds outside our normal budget amendment time frame... Extra steps, but worth it for our providers who would like to provide services sooner rather than later!
- 4. Each summer the Medicare/Medicaid Assistance Program (MMAP) hosts an Annual Recognition & Training Event to recognize individual and team efforts related to our outreach goals, hours of counseling and overall performance. Here are the results of our region's EXTRAORDINARY WORK!!! Congratulations!!!

Region IIIC was recognized as: "Team of the Year"; "Regional Coordinator of the Year" (Lisa Redmond); and "Most Worthy Mention – MMAP Navigator Award".

Our Branch County MMAP site received *several* awards including: "Site Coordinator of the Year" (Debbie Ambrose); MMAP Hours Award (Lucinda Wakeman); and "MMAP Counseling Award" (Lucinda Wakeman).



GRETCHEN WHITMER GOVERNOR STATE OF MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES LANSING AGING & ADULT SERVICES AGENCY

ELIZABETH HERTEL DIRECTOR

August 5, 2021

Rebecca Burns Branch-St. Joseph Community Health Agency Area Agency on Aging 3-C 570 N Marshall Rd. Coldwater MI 49036

Dear Ms. Burns:

On April 16, 2021, staff from the Michigan Department of Health and Human Services, Aging & Adult Services Agency (AASA) accompanied Branch-St. Joseph Community Health Agency, Area Agency on Aging (AAA) 3-C staff on a virtual assessment of the Community Action Agency, Senior Nutrition Program. AASA reviewed AAA 3-C's use of the assessment schedule and tool, contracting standards, service definitions and standards, and assessment procedures.

AAA 3-C staff were thorough and offered to provide technical assistance to the subcontractor as requested. AASA found the assessment to be compliant with all respective operating standards.

We appreciate the time and cooperation provided by AAA 3-C staff involved in the assessment visit. If you have any questions regarding this matter, please contact your field representative, Cindy Albrecht, at <u>albrechtc@michigan.gov</u> or 517-230-8615.

Sincerely,

Cindy Musterm

Cindy Masterson, Director Operations and Aging Network Support Division

CM/ca/cll

cc: Laura Sutter, AAA 3-C Director Steve Betterly, Manager, AASA Technical Assistance & Quality Improvement Section Cindy Albrecht, AASA Field Representative Ashley Ellsworth, AASA Field Representative



GRETCHEN WHITMER GOVERNOR STATE OF MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES AGING & ADULT SERVICES AGENCY LANSING

ELIZABETH HERTEL DIRECTOR

August 25, 2021

Rebecca Burns, Health Officer Branch-St. Joseph Area Agency on Aging 570 N. Marshall Road Coldwater, MI 49036

Dear Ms. Burns:

On July 20, 2021, staff from the Aging & Adult Services Agency (AASA) conducted a virtual assessment of the Branch-St. Joseph Area Agency on Aging, (IIIC AAA). Areas of operation covered during the assessment included the following: Area Agency on Aging Fiscal Year 2020 Program Outcome Assessment Guide, Fiscal Year 2021 Area Agency Assessment Guide, and a review of changes, improvements and/or corrections made since the previous assessment.

AASA has concluded the assessment and there are no findings or recommendations.

We appreciate the time and cooperation provided by you and your staff. If you have any questions, please contact your AASA field representative, Ashley Ellsworth at ellswortha2@michigan.gov or 517-294-9680.

Sincerely,

Cinely Musterson

Cindy Masterson, Director Operations & Aging Network Support Division

CM/ae/cll

cc: Laura Sutter, Director, Region IIIC AAA Steve Betterly, Manager, Technical Assistance & Quality Improvement Section Ashley Ellsworth, AASA Field Representative