

**MCHENRY COUNTY  
TUBERCULOSIS CARE AND TREATMENT BOARD MEETING  
2200 N. SEMINARY AVE. BUILDING A  
WOODSTOCK, ILLINOIS 60098**

**March 21, 2017**

**8:00 AM**

**AGENDA**

1. Call to Order
2. Public Participation
3. Minutes from January 2017 meeting.
4. Consent Agenda
  - A) Disbursements; January-February 2017
  - B) Income and Expense Report; January-February 2017
5. Monthly Report
  - A) TB Nurse Report
  - B) Statistics
  - C) IDPH Report
6. Program Highlights
7. Old Business (For Discussion)
8. New Business (For Discussion)
9. Board Issues (For Discussion)
10. Information and Communication (For Discussion)

*The new face of an old disease: TB over 3 decades.* (February 2017). Retrieved from <http://www.healio.com/pediatrics/respiratory-infections/news/print/infectious-diseases-in-children/%7Bf38683a0-c34b-4497-996b-479538c4d034%7D/the-new-face-of-an-old-disease-tb-over-3-decades>
11. Executive Session
12. Adjournment

**Activities**

11/17/16 NITCA meeting and training

12/19 & 12/21 evening PADS testing

**Webinars viewed by TB staff:**

11/4/16 Treatment of Drug Susceptible TB

11/9/16 Case Studies in Pediatric TB and HIV

11/22/16 TB testing – IBRA

11/3/16 CPR renewal

**Up-coming events**

Annual employee testing held January 10<sup>th</sup> and 13<sup>th</sup>

Outreach TB testing at Home of the Sparrow in February

**Program Highlights**

(A) Staff TB testing- no positives

**OLD BUSINESS:**

(A) Summary of TB Program for new board members

**NEW BUSINESS:**

(A) Proposed revision to stats sheet

(B) Revision to TB stats sheet was approved by board members

**BOARD ISSUES:****INFORMATION:****ADJOURNMENT:**

Marylou Ludicky RN MPH adjourned the meeting at 8:55am; second by Dr. Mowery.

# **MINUTES AND CONSENT AGENDA**

**MCHENRY COUNTY TUBERCULOSIS AND TREATMENT BOARD**

**MEETING MINUTES**

**JANUARY 17, 2017**

**CALL TO ORDER:**

Marylou Ludicky RN MPH called the meeting to order @ 8:10am; TB Board members present were: James Mowery M.D. and Marylou Ludicky RN MPH; Staff present: Michael Hill MPH, MPA, FACHE, CHES, Administrator, Pamela Morzos MS RN Director of Nursing, Susan Karras RN, BSN, MBA, Assistant Director of Nursing, Keri Zaleski Community Information Coordinator, Karen Stephenson TB RN, and Siobain Daughenbaugh TB RN.

**MINUTES:**

Dr. James Mowery made motion to approve TB Board Minutes for November/December 2016; second by Marylou Ludicky RN MPH.

**FINANCIAL STATUS:**

Marylou Ludicky RN MPH reviewed the Disbursements as well as the income and Expense Report for November/December 2016. Dr. James Mowery made motion to approve; second by Marylou Ludicky RN MPH.

**MONTHLY REPORTS:**

Siobain Daughenbaugh TB RN, reviewed TB Nurse Report for November/December 2016.

**Skin Testing**

- In November, 16 clinics were held with 31 clients tested
- In December, 18 clinics were held with 53 clients tested

**Doctor Clinic**

- On November 14<sup>th</sup>, Doctors clinic was held with 15 chest x-rays and 6 charts reviewed.

**Patient Update**

Active pulmonary case from India continues to do very well. Medication has been discontinued due to completion of treatment. Dr. Hafiz will evaluate in January to determine discharge date.

26 year old gentleman with tuberculosis lymphadenitis is doing very well with treatment and tolerated TB meds well. Patient continues to be very compliant. He is in continuation phase.

Temporary patient diagnosed with Gastric TB remains in McHenry County at this time. She continues to take medication prescribed by physician in California with no issues or concerns. Patient is scheduled to return to California in January 2017.

**MCHENRY COUNTY HEALTH DEPARTMENT**

**TB - DISBURSEMENTS**

**January- February 2017**

**SUMMARY ~ as of 3/7/2017**

| <b>PERSONAL SERVICES:</b> | <b>ACCT#</b> | <b>PAYROLL</b>    |                                  |
|---------------------------|--------------|-------------------|----------------------------------|
| Acevedo, Lola             | 3010         | \$ 5,700.00       |                                  |
| Cazares, Maria            | 3020         | \$ 3,498.34       |                                  |
| Daughenbaugh, Siobain     | 3010         | \$ 8,331.02       |                                  |
| Schoen, Faith             | 3010         | \$ 8,172.00       |                                  |
| Stephenson, Karen         | 3010         | \$ 2,624.60       | Only Feb-17 Payroll booked to TB |
|                           | 3025         | Included in above |                                  |
| FICA                      | 3105         | \$ 2,166.93       |                                  |
| IMRF                      | 3110         | \$ 2,917.58       |                                  |
| INSURANCE                 | 3146         | \$ 4,438.36       |                                  |
| <b>TOTAL PAYROLL</b>      |              | <b>37,848.83</b>  |                                  |

| <b>DESCRIPTION:</b>     | <b>ACCT #</b> | <b>AMOUNT</b>      |
|-------------------------|---------------|--------------------|
| Contractual Services    | 4001          | \$ 199.00          |
| Assoc. Dues/Memberships | 4005          | \$ -               |
| Training                | 4006          | \$ -               |
| Subscriptions           | 4008          | \$ -               |
| Printing                | 4055          | \$ -               |
| Telephone               | 4096          | \$ 55.59           |
| Rent                    | 4101          | \$ -               |
| Maint Agreements        | 4130          | \$ 25.29           |
| Maint Office Equipment  | 4131          | \$ -               |
| Medical                 | 4246          | \$ 620.00          |
| Special Consultants     | 4435          | \$ -               |
| Private Lab Services    | 4442          | \$ 14.94           |
| Refuse disposal         | 4449          | \$ -               |
| Contingent              | 4570          | \$ -               |
| Office Supplies         | 5010          | \$ -               |
| Office Equipment        | 5020          | \$ -               |
| Postage                 | 5030          | \$ 21.27           |
| Mileage                 | 5040          | \$ 255.02          |
| Meeting Expenses        | 5050          | \$ -               |
| Supplies                | 5070          | \$ -               |
| Medical Supplies        | 5080          | \$ -               |
| Medication              | 5085          | \$ 690.59          |
| <b>TOTAL EXPENSES</b>   |               | <b>\$ 1,881.70</b> |

**Grand Total \$ 39,730.53**

TUBERCULOSIS CARE AND TREATMENT FY2017

| LINE ITEM                         | DEC         | JAN         | FEB         | MARCH  | APRIL  | MAY    | JUNE   | JULY   | AUG    | SEPT   | OCT    | NOV    | TOTAL        | ANNUAL BUDGET | BALANCE REMAINING | % Expended |
|-----------------------------------|-------------|-------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|---------------|-------------------|------------|
| 7010                              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$250,000.00  | \$18,110.00       | 4.7%       |
| 7090                              | \$180.00    | \$220.00    | \$510.00    |        |        |        |        |        |        |        |        |        | \$890.00     | \$19,000.00   | \$1,810.00        | 4.7%       |
| 9405                              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 9417                              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 9510                              | \$201.40    | \$236.40    | \$203.71    |        |        |        |        |        |        |        |        |        | \$644.70     | \$600.00      | 107.5%            |            |
| 9511                              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$25.00       | 0.0%              |            |
| 9990                              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$106,451.00  | 0.0%              |            |
| TOTAL REVENUE                     | \$564.40    | \$486.49    | \$513.71    | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$376,076.00 | \$374,541.30  | 0.4%              |            |
| 3010-REGULAR SALARIES             | \$17,743.79 | \$9,416.28  | \$13,726.11 |        |        |        |        |        |        |        |        |        | \$40,906.18  | \$166,215.00  | \$125,306.82      | 24.6%      |
| 3020-PART TIME SALARY             | \$2,449.99  | \$1,473.71  | \$1,766.25  |        |        |        |        |        |        |        |        |        | \$5,692.92   | \$20,665.00   | \$14,981.08       | 27.5%      |
| 3024-Health                       | \$1,510.22  | \$1,929.64  |             |        |        |        |        |        |        |        |        |        | \$3,439.86   | \$9,836.00    | \$6,396.14        | 35.0%      |
| 3040-Overtime                     |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 3040-PRINT POOL                   |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 3100-SOC SECURITY SHARES          | \$1,660.30  | \$982.23    | \$1,184.70  |        |        |        |        |        |        |        |        |        | \$3,827.43   | \$15,350.00   | \$11,522.57       | 24.9%      |
| 3110-ILL MUNIC REPT FUND          | \$2,222.68  | \$1,322.48  | \$1,394.10  |        |        |        |        |        |        |        |        |        | \$5,140.26   | \$20,667.00   | \$15,526.74       | 24.9%      |
| 3146-EMPLOYEE HEALTH              | \$2,647.18  | \$1,793.18  |             |        |        |        |        |        |        |        |        |        | \$4,438.36   | \$31,222.00   | \$28,783.64       | 13.4%      |
| PERSONNEL SUBTOTAL:               | \$25,589.18 | \$17,914.52 | \$20,877.31 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$269,889.00 | \$266,450.99  | 23.8%             |            |
| 4001-Contractual Services         |             | \$198.00    |             |        |        |        |        |        |        |        |        |        | \$198.00     | \$25,000.00   | \$24,801.00       | 0.8%       |
| 4005-ASSOC DUES/STAFF             |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$350.00      | \$350.00          | 0.0%       |
| 4005-TRAINING                     |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$1,000.00    | \$1,000.00        | 0.0%       |
| 4008-SUBSCRIPTIONS                |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 4014-PRINTING                     |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$400.00      | \$400.00          | 0.0%       |
| 4084-TELEPHONE                    |             | \$28.30     | \$27.29     |        |        |        |        |        |        |        |        |        | \$56.59      | \$1,800.00    | \$1,744.41        | 3.1%       |
| 4101-RENT                         |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 4130-MAINTENANCE Agreement        |             |             | \$54.29     |        |        |        |        |        |        |        |        |        | \$54.29      | \$62.00       | \$7.71            | 4.5%       |
| 4131-MAINTENANCE OFFICE EQUIP     |             |             | \$372.00    |        |        |        |        |        |        |        |        |        | \$372.00     | \$500.00      | \$128.00          | 0.0%       |
| 4240-MEDICAL                      |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$35,000.00   | \$34,628.00       | 1.1%       |
| 4250-Repair and Maintenance       |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$2,500.00    | \$2,485.06        | 0.6%       |
| 4442-LAR                          |             | \$14.94     |             |        |        |        |        |        |        |        |        |        | \$14.94      | \$50.00       | \$35.06           | 0.0%       |
| 4445-CARAGE DISPOSAL              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$50.00       | \$50.00           | 0.0%       |
| 4970-Contract-Less Dues Expense   |             | \$28.30     | \$438.52    | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$67,962.00  | \$67,295.18   | 1.0%              |            |
| CONTRACTUAL SUBTOTAL:             | \$0.00      | \$28.30     | \$438.52    | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,700.00   | \$1,700.00    | \$0.00            | 0.0%       |
| 5010-OFFICE SUPPLIES              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$1,500.00    | \$1,500.00        | 0.0%       |
| 5020-OFFICE EQUIPMENT             |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$100.00      | \$100.00          | 0.0%       |
| 5030-Postage                      |             |             | \$21.27     |        |        |        |        |        |        |        |        |        | \$21.27      | \$4,000.00    | \$3,744.98        | 6.4%       |
| 5040-MILEAGE                      |             | \$154.44    | \$100.98    |        |        |        |        |        |        |        |        |        | \$255.02     | \$2,000.00    | \$1,744.98        | 6.4%       |
| 5050-MEETING EXPENSE              |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$1,000.00    | \$1,000.00        | 0.0%       |
| 5070-SUPPLIES                     |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$2,000.00    | \$2,000.00        | 0.0%       |
| 5080-MEDICAL SUPPLIES             |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$5,000.00    | \$5,000.00        | 0.0%       |
| 5085-MEDICATION                   |             | \$532.73    | \$197.86    |        |        |        |        |        |        |        |        |        | \$690.59     | \$20,425.00   | \$19,734.41       | 3.4%       |
| 5115-Computer components under 5% |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$500.00      | \$500.00          | 0.0%       |
| 5125-Computer Software under 5%   |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$2,000.00    | \$2,000.00        | 0.0%       |
| 5160-Vehicle                      |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 5210-PUBLICATIONS                 |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| 5999-FRETTY CASH                  |             |             |             |        |        |        |        |        |        |        |        |        | \$0.00       | \$0.00        | \$0.00            | 0.0%       |
| COMMODITIES SUBTOTAL:             | \$0.00      | \$687.17    | \$279.71    | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$38,225.00  | \$37,258.12   | 2.8%              |            |
| TOTAL EXPENSES                    | \$25,589.18 | \$18,506.99 | \$20,975.54 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$376,076.00 | \$371,004.29  | 17.3%             |            |
| NET INCOME                        |             |             |             |        |        |        |        |        |        |        |        |        |              |               |                   |            |
| BANK BALANCE:                     |             |             |             |        |        |        |        |        |        |        |        |        |              |               |                   |            |

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# MONTHLY REPORT

# TB Nurse Report

January/February 2017

## Skin Testing

- In January, 16 clinics were held with 87 clients tested
- In February, 16 clinics were held with 46 clients tested

## Doctor Clinic

- On January 23<sup>rd</sup>, Doctors clinic was held with 18 chest x-rays and 9 charts reviewed.
- No clinic was held in February.

## Patient Update

Active pulmonary case from India will be evaluated at March 6<sup>th</sup> clinic for discharge. No problems or issues to date.

26 y/o gentleman with tuberculosis lymphadenitis completed treatment in January and was discharged by Dr. Hafiz.

## Activities

Annual employee testing held January 1/10, 1/13, 1/17

Head Start Health consortium meeting 1/18/17

PADS testing 1/23/17 & 1/25/17, 2/27/17

## Webinars/Trainings:

|         |   |
|---------|---|
| 1/5/17  | Daily TB Treatment Better than Intermittent   |
| 1/5/17  | Urine TB Test Cuts Mortality in HIV Patients  |
| 1/5/17  | Two Drugs Promising in XDR-TB   |
| 1/6/17  | TB Rates Low in RA Patients Taking Tofacitinib  |
| 1/25/17 | Interface of Molecular & Growth Based   |
| Webinar | Susceptibility Training   |
| 2/2/17  | Three gene signature ID's Active TB<br>TB and Kids the Canadian Problem   |
| 2/15/17 | TB cases among foreign born decline<br>Early ART, TB Prevention Improve HIV Outcomes<br>Multidrug TB Prophylaxis Not Needed in Advanced HIV |
| 2/3/17  | Implementation of 2016 Guidelines<br>Heartland Regional TB center   |

## Up-coming events

Outreach TB testing at Home of the Sparrow in March

CPR training

PADS day and evening site testing

TUBERCULOSIS PROGRAM MONTHLY REPORT FY 2017

EDUCATION

| TB STATISTICS                                    | DEC   | JAN   | FEB   | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|--|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| <b>PRESENTATIONS</b>                             |       |       |       |     |     |     |     |     |     |     |     |     |        |        |
| # of Presentations                               |       |       |       |     |     |     |     |     |     |     |     |     |        |        |
| # of Attendees                                   |       |       |       |     |     |     |     |     |     |     |     |     |        |        |
| <b>1:1 EDUCATION (PUBLIC &amp; HCPs) (HOURS)</b> |       |       |       |     |     |     |     |     |     |     |     |     |        |        |
| Phone contacts                                   | 6.16  | 6.84  | 7.92  |     |     |     |     |     |     |     |     |     | 20.92  | 18.75  |
| Face to Face contacts (@MCDH)                    | 10.09 | 19.92 | 13.83 |     |     |     |     |     |     |     |     |     | 43.84  | 55.58  |
| Case Mangement                                   | 5.25  | 7.09  | 10.75 |     |     |     |     |     |     |     |     |     | 23.09  | 23.84  |
| TB Board Meeting Prep                            |       | 2     |       |     |     |     |     |     |     |     |     |     | 2      | 1      |

TESTING

| TB SKIN TEST STATISTICS              | DEC       | JAN       | FEB       | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17     | YTD 16     |
|--------------------------------------|-----------|-----------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|------------|
| <b>MCDH (Annex B)</b>                |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| # of Clinics                         | 18        | 16        | 16        |     |     |     |     |     |     |     |     |     | 50         | 43         |
| # of IGRAs                           |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| # of skin tests                      | 53        | 87        | 46        |     |     |     |     |     |     |     |     |     | 186        | 224        |
| <b>Outreach Testing</b>              |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| <b>PADS</b>                          |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| RN time                              | 5.5       | 4.5       | 6.5       |     |     |     |     |     |     |     |     |     | 16.5       | 18.5       |
| # of site visits                     | 2         | 2         | 3         |     |     |     |     |     |     |     |     |     | 7          | 6          |
| # of skin tests                      | 6         | 5         | 3         |     |     |     |     |     |     |     |     |     | 14         | 16         |
| <b>Contact Investigation Testing</b> |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| RN time                              |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| # of site visits                     |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| # of skin tests                      |           |           |           |     |     |     |     |     |     |     |     |     |            |            |
| <b>Total Skin Tests</b>              | <b>59</b> | <b>92</b> | <b>49</b> |     |     |     |     |     |     |     |     |     | <b>200</b> | <b>240</b> |

| POSITIVE SKIN TEST STATISTICS                     | DEC         | JAN         | FEB         | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17      | YTD 16      |
|---|-------------|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-------------|
| Positive skin tests/Outside agency                | 4           | 2           |             |     |     |     |     |     |     |     |     |     | 6           | 7           |
| Positive skin tests /MCDH clinics                 | 1           | 1           | 1           |     |     |     |     |     |     |     |     |     | 3           | 2           |
| Positive skin tests/PADS                          |             |             |             |     |     |     |     |     |     |     |     |     |             |             |
| Positive skin tests /Outreach Sites               |             |             |             |     |     |     |     |     |     |     |     |     |             |             |
| Positive skin tests/Contacts                      |             |             |             |     |     |     |     |     |     |     |     |     |             |             |
| <b>Total</b>                                      | <b>5</b>    | <b>3</b>    | <b>1</b>    |     |     |     |     |     |     |     |     |     | <b>9</b>    | <b>9</b>    |
| <b>County Positive Skin Test Rate<sup>^</sup></b> | <b>1.63</b> | <b>0.98</b> | <b>0.33</b> |     |     |     |     |     |     |     |     |     | <b>2.93</b> | <b>2.93</b> |

| DIAGNOSTIC STATISTICS    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| X-Rays Ordered           | 7   | 4   | 9   |     |     |     |     |     |     |     |     |     | 20     | 12     |
| Sputum Collected         |     | 9   | 9   |     |     |     |     |     |     |     |     |     | 18     | 3      |
| Laboratory Tests Ordered | 4   | 1   | 3   |     |     |     |     |     |     |     |     |     | 8      | 7      |

MD CLINIC (HOURS)

| MD CLINIC (HOURS)                 | DEC | JAN          | FEB          | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17       | YTD 16       |
|-----------------------------------|-----|--------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|--------------|
| Pre Clinic RN Prep Time           |     | 2.83         | 2.5          |     |     |     |     |     |     |     |     |     | 5.33         | 10.5         |
| Pre Clinic Clerical Prep Time     |     | 14.25        | 16.75        |     |     |     |     |     |     |     |     |     | 31           | 44.75        |
| <b>Total Pre Clinic Prep Time</b> |     | <b>17.08</b> | <b>19.25</b> |     |     |     |     |     |     |     |     |     | <b>36.33</b> | <b>55.25</b> |
| <b>Total Clinic Time</b>          |     | <b>2</b>     |              |     |     |     |     |     |     |     |     |     | <b>2</b>     | <b>7</b>     |
| Post Clinic RN Time               |     | 3            |              |     |     |     |     |     |     |     |     |     | 3            | 10           |
| Post Clinic Clerical Time         |     | 18.75        |              |     |     |     |     |     |     |     |     |     | 18.75        | 36.5         |
| <b>Total Post Clinic Contact</b>  |     | <b>21.75</b> |              |     |     |     |     |     |     |     |     |     | <b>21.75</b> | <b>46.5</b>  |
| <b>Total</b>                      |     | <b>40.83</b> | <b>19.25</b> |     |     |     |     |     |     |     |     |     | <b>60.08</b> | <b>146.5</b> |

LTBI

| PREVENTIVE STATISTICS                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| Positive clients transferred into county |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Positive Interviews                      | 7   | 4   | 6   |     |     |     |     |     |     |     |     |     | 17     | 16     |
| Clients Starting LTBI                    | 3   | 1   | 3   |     |     |     |     |     |     |     |     |     | 7      | 7      |

<sup>^</sup>Rate is per 100,000 using the 2015 estimated census population of 307,357 from the US Census Bureau

| CLIENTS STARTING LTBI    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| <b>GENDER</b>            |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Male                     | 1   | 1   | 1   |     |     |     |     |     |     |     |     |     | 3      | 1      |
| Female                   | 2   |     | 2   |     |     |     |     |     |     |     |     |     | 4      | 6      |
| <b>AGE</b>               |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Children (0-18 years)    | 1   |     |     |     |     |     |     |     |     |     |     |     | 1      |        |
| Adult (19-64 years)      | 2   | 1   | 2   |     |     |     |     |     |     |     |     |     | 5      | 7      |
| Senior Adult (65+ years) |     |     | 1   |     |     |     |     |     |     |     |     |     | 1      |        |
| <b>FOREIGN BORN</b>      |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Yes                      | 3   |     | 3   |     |     |     |     |     |     |     |     |     | 6      | 5      |
| No                       |     | 1   |     |     |     |     |     |     |     |     |     |     | 1      | 2      |

| TREATMENT COMPLETION    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| Clients Completing LTBI | 1   | 1   | 4   |     |     |     |     |     |     |     |     |     | 6      | 5      |
| Failure to Complete     |     | 2   |     |     |     |     |     |     |     |     |     |     | 2      | 16     |
| Moved                   |     | 1   |     |     |     |     |     |     |     |     |     |     | 1      | 2      |
| Lost to F/U             |     |     |     |     |     |     |     |     |     |     |     |     |        | 12     |
| Declined- Personal      |     |     |     |     |     |     |     |     |     |     |     |     |        | 2      |
| Declined-Medical        |     | 1   |     |     |     |     |     |     |     |     |     |     | 1      |        |
| Deceased                |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Other                   |     |     |     |     |     |     |     |     |     |     |     |     |        |        |

**ACTIVE TB**

| ACTIVE TB STATISTICS                           | DEC  | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|--|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| # Active TB Cases Identified                   |      |     |     |     |     |     |     |     |     |     |     |     |        |        |
| County Active TB rate <sup>^</sup>             |      |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Active Cases Transferred OUT of McHenry County |      |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Active Cases Transferred INTO McHenry County   |      |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Total Active TB Caseload <sup>*</sup>          | 1    | 1   |     |     |     |     |     |     |     |     |     |     | 1      |        |
| DOT Visits                                     | 21   | 14  |     |     |     |     |     |     |     |     |     |     | 35     |        |
| DOT Visit/Travel Time (Hours)                  | 10.5 | 6.5 |     |     |     |     |     |     |     |     |     |     | 17     |        |
| # TB Contact Investigations Initiated          |      |     |     |     |     |     |     |     |     |     |     |     |        |        |
| # Suspects Investigated                        |      |     |     |     |     |     |     |     |     |     |     |     |        |        |

<sup>\*</sup>Number does not accumulate, it reflects the number of people for whom the DOT visits and DOT time account for

| TREATMENT COMPLETION                  | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| Cases Completing Active TB Medication |     | 1   |     |     |     |     |     |     |     |     |     |     | 1      |        |
| Failure to Complete                   |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Moved                                 |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Lost to F/U                           |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Declined- Personal                    |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Declined-Medical                      |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Deceased                              |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Other                                 |     |     |     |     |     |     |     |     |     |     |     |     |        |        |

| RESISTANCE CLASSIFICATIONS | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| #MDR Cases Identified      |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| #XDR Cases Identified      |     |     |     |     |     |     |     |     |     |     |     |     |        |        |

**ACTIVE TB STATISTICS**

| LOCATION OF ACTIVE TB IDENTIFIED | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | YTD 17 | YTD 16 |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|--------|
| Pulmonary                        |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Extrapulmonary                   |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| <b>GENDER</b>                    |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Male                             |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Female                           |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| <b>AGE</b>                       |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Children (0-18 years)            |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Adult (19-64 years)              |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Senior Adult (65+ years)         |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| <b>FOREIGN BORN</b>              |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| Yes                              |     |     |     |     |     |     |     |     |     |     |     |     |        |        |
| No                               |     |     |     |     |     |     |     |     |     |     |     |     |        |        |

<sup>^</sup>Rate is per 100,000 using the 2015 estimated census population of 307,357 from the US Census Bureau

## TB report from last NIPHC call on 2/22/2017 from Elaine Darnall

### I. Numbers of Cases

These are preliminary numbers, but for 2016, there were a total of 342 cases of active TB reported, which is 2 cases less than in 2015.

For 2017, there are 26 cases reported and confirmed. Compared to the same week last year, there were only already 34 cases reported.

|               | <u>2016</u> | <u>2017 to date</u> |
|---------------|-------------|---------------------|
| DuPage County | 42          | 3                   |
| Kane County   | 16          |                     |
| Kendall       | 2           |                     |
| Lake County   | 18          |                     |
| McHenry       | 1           |                     |
| Will County   | 5           | 1                   |
| Whiteside     | 1           |                     |
| Winnebago     | 3           |                     |
| Suburban Cook | 83          | 7                   |
| Chicago       | 135         | 12                  |

### II. Drug Resistance

Looking at 2016, of the 342 cases reported, 256 were culture positive. Of those culture positive, 230 (89.8%) have their susceptibilities reported.

24 (10.4%) are resistant to INH only

2 (0.9%) are resistant to RIF only

3 (1.3%) are MDR- (resistant to both INH and RIF)- 2 in Chicago, 1 in Cook Co.

### III. Dead at Diagnosis or Died on Therapy

Of the 342 cases reported in 2016, 33 cases were either dead at dx, or died during therapy, compared to 23 total in 2015.

# **PROGRAM HIGHLIGHTS**

# **OLD BUSINESS**

# **NEW BUSINESS**

# **BOARD ISSUES**

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# **INFORMATION**

# The new face of an old disease: TB over 3 decades

Infectious Diseases in Children, February 2017

*To mark our 30th anniversary, Infectious Diseases in Children will be examining some of the chronic conditions and infectious diseases that have impacted pediatric care over the past 3 decades.*

In 1986, the CDC reported that tuberculosis cases increased in the United States for the first time since national reporting had begun in 1953: 22,725 cases compared with a record low of 22,201 cases the year before.

In the late 1980s, TB had been relegated to an afterthought in public health in the Western world. Following decades of steady decline and widespread discussion of imminent disease eradication, the deadly impact of TB in previous years had been largely forgotten — until a secondary disease emerged on the scene.

The onset of the HIV epidemic in the U.S., coupled with increases in medically underserved and immigrant populations, marked the beginning of a resurgence in TB that would last through the early 1990s. During that period, the U.S. saw more than 100,000 additional cases of TB beyond what would have been predicted based on the declines of the previous decades.

Following a renewed commitment to combatting TB by numerous federal agencies and state health departments, the number of cases of TB in the U.S. decreased annually from 26,673 cases in 1992 to 9,406 in 2014. However, in 2015, the number of cases in the U.S. swung higher again — only slightly, to 9,557.

## A global epidemic with domestic implications

In 2015, two-thirds of the reported cases of TB in the U.S. were among foreign-born individuals. To **Jeffrey Starke, MD**, professor of pediatrics at Baylor College of Medicine and director of the Children's Tuberculosis Clinic at Texas Children's Hospital, the persistence of TB disease among immigrant populations is unsurprising. Starke told *Infectious Diseases in Children* that, consistent with estimates of the worldwide prevalence of latent TB infection (LTBI), between 20% and 30% of the 1 million people who legally immigrate to the U.S. each year are likely to be infected with TB.



Jeffrey Starke

"If we really want to eliminate TB in this country, which is our stated goal, we have to address not just TB disease but we have to address TB infection," Starke said. Now, with a regimen for treating LTBI that requires only 12 weekly doses of isoniazid and rifapentine, as opposed to older regimens that required 9 months of daily medication, Starke said that he is hopeful that more widespread treatment of latent infection is forthcoming.

**David Cohn, MD**, professor of medicine at the University of Colorado Denver and previous director of the Denver Metro Tuberculosis Clinic, also cited the inability to treat LTBI as one of the greatest failures of TB control over the past 30 years, not just in the U.S., but globally.



David Cohn

"Though one-third of the world population has TB infection, less than 1% of the people infected are being treated for latent TB infection," Cohn said. "When you are an endemic country with limited budgets and limited resources, you put your resources into treatment of active disease — after that, you have no money left to treat latent infection. That is not the case in the U.S. We have more money and resources, but even here, we're not doing a very good job."

Since a person infected with TB often goes decades before becoming sick and contagious, it is a particularly tricky disease to control across international borders.

"You cannot control tuberculosis in the United States if you do not control it globally," **Dean Schraufnagel, MD**, professor in the department of medicine at the University of Illinois at Chicago, told *Infectious Diseases in Children*.

Globally, the impact of TB is immense. TB is now the single greatest infectious disease killer in the world: 10.4 million people became sick with TB disease in 2015, and in the same year, TB was responsible for 1.8 million deaths.

International efforts to combat TB since the early 1990s have led to decreasing rates of TB prevalence and mortality. Between 1990 and 2015, global TB mortality rates fell by an estimated 47% and TB prevalence fell by an estimated 40%.

"Those numbers don't tell you about the millions and millions and millions of people who have died in that time or the millions of children who have been orphaned," Starke said.

### **Evolving challenges**

Two grave new challenges have entered the TB landscape in the last 30 years: TB/HIV coinfection and multi-drug-resistant TB.

Since the 1980s, HIV infection has contributed to major increases in the global incidence of TB and resulted in a massive coepidemic. An estimated 12% of the 9.6 million new TB cases in 2014 were among patients who were HIV-positive. TB is now the leading cause of death among people living with HIV: Of the 1.2 million HIV-positive people who died in 2014, 400,000 died from TB. Given the increased incidence, severity and mortality associated with TB disease among HIV-positive individuals, treatment of latent TB infection among HIV-positive individuals is considered critical.

In 1995, WHO conducted the first international survey of drug-resistant tuberculosis, of which there have now been five.

Thanks to this progress in global surveillance, Cohn said, "now we know how extensive the problem of MDR-TB is."

In 2015, an estimated 480,000 people became ill with MDR-TB and an additional 100,000 people became ill with disease resistant to rifampicin. In other words, approximately 5% of new TB cases were caused by multidrug- or rifampicin-resistant strains. An estimated 21% of people with previously treated TB cases had multidrug- or rifampicin-resistant disease.

MDR-TB is grossly underdiagnosed, with only an estimated one quarter of drug-resistant cases detected and reported. In 2015, among those MDR-TB cases that were detected, only 50% of patients were successfully treated. In contrast, the overall treatment success rate for people newly diagnosed with TB was 86% in 2013. With new treatment regimens for MDR-TB that shorten the length of treatment from 18 to 24 months to 9 to 12 months and include drugs with fewer side effects, Cohn predicts that cure rates will improve, but, "we still have a long way to go."

In addition to the challenges posed by MDR-TB and TB/HIV coinfection, combatting TB over the next few decades requires intensive effort in fighting childhood TB, on which there has been little progress. WHO estimated that 1 million children became sick with TB in 2015, and that 210,000 children died from the disease. "The childhood mortality rate is the same as it was before we even had chemotherapy," Starke said.

Childhood TB functions differently from adult TB, and policies centered on adult disease are often of little help in combatting the disease in children. For example, WHO recommends diagnosing TB via microscopy of sputum, a method that will successfully identify 70% of adult TB cases while leaving most childhood cases undetected. "They set a policy that ensured the exclusion of children from tuberculosis control," Starke said.

In 2011, the European CDC held an international meeting on childhood TB that, Starke said, felt like a major turning point in granting childhood TB the attention it requires. "I am way more optimistic that we are going to make progress over the next 5 to 10 years than I have been at any other time in the last 30."

### **Advances in diagnostics, treatment, research**

Cohn, Schraufnagel and Starke agreed that one area of major progress over the past 30 years is TB diagnostics. The GeneXpert MTB/RIF (Cepheid) assay, can detect the presence of TB bacteria as well as resistance to rifampicin in a sputum sample in under 2 hours.

"It is being implemented all over the world, in all parts of Africa, and not just in the big cities and not just in the big hospitals," Cohn said.

For detecting LTBI, interferon-gamma release assays (IGRAs) represent a significant advance over TB skin tests, which had been the standard for nearly a century, because they do not require a patient to return to have the results read and lead to fewer false-positive results.

Drug development has progressed over these few decades, but slowly. Fluoroquinolones have been introduced as second-line treatments for MDR-TB. Additionally, bedaquiline and delamanid, both introduced in the past 5 years for treating highly drug-resistant disease, were the first TB drugs with a novel mechanism of action to be developed in 50 years. Rifapentine, which is related to rifampicin, was approved in 1998 and has been helpful in treating people with latent infection. Overall, though, standard treatment remains the same as 30 years ago.

"In the last 30 years, there have only been four new drugs approved for the treatment of tuberculosis," Cohn said. "There are several more in the pipeline, but it's been too few and it's been too slow. In contrast, there have been over 35 new drugs or drug combinations approved for the treatment of HIV infection during the same time period."

Over these decades, research on a new vaccine has been ongoing but without success yet. Bacillus Calmette-Guérin (BCG) vaccine, used in most high-burden countries, is nearly 100 years old and estimates of its effectiveness vary widely.

Despite setbacks, the fight against TB appears to be newly revitalized. In 2014, WHO launched the End TB Strategy, which aims to reduce TB deaths by 95% and to cut new cases by 90% between 2015 and 2035. It is an ambitious goal, but making progress toward eradicating the disease requires such ambition.

"Treatment is prevention; control is long-term elimination," Schraufnagel said. "If we can eliminate it, we can get rid of that scourge forever. That would be enormous." – *by Sarah Kennedy*

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**Disclosures:** Cohn, Schraufnagel and Starke report no relevant financial disclosures