



MDSS Updates

2021 COMMUNICABLE DISEASE CONFERENCE

EDWARD F. HARTWICK – MDHHS

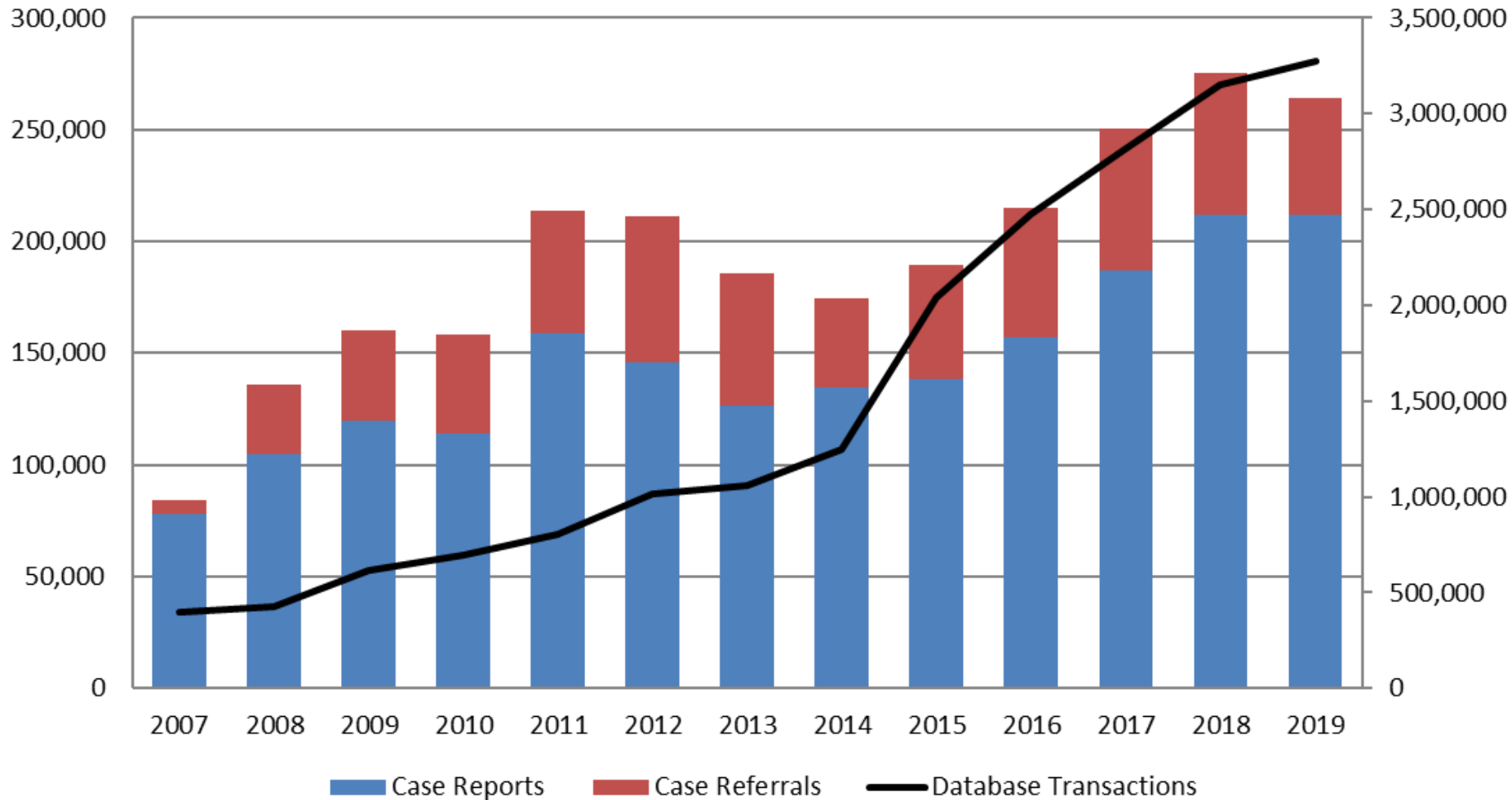
APRIL 21, 2021

MDSS System Use Statistics

Year	Referrals	Individual Case Reports	Transactions	Unique Log Ins
2007	83,876	77,686	400,000	----
2008	136,057	104,616	429,848	783
2009	160,326	119,843	618,731	893
2010	158,225	113,765	697,258	906
2011	213,639	159,185	803,092	982
2012	211,150	146,069	1,018,304	1,126
2013	185,362	126,812	1,059,023	1,155
2014	174,237	134,896	1,245,493	1,218
2015	189,131	138,363	2,037,237	1,255
2016	214,742	156,878	2,472,629	1,304
2017	250,504	187,064	2,819,662	1,352
2018	275,375	211,727	3,148,741	1,374
2019	264,336	211,985	3,277,287	1,512
2020	1,240,688	1,075,193	18,129,183	4,289
4/20/21	546,000	488,482	8,602,049	3,107

MDSS System Use Statistics

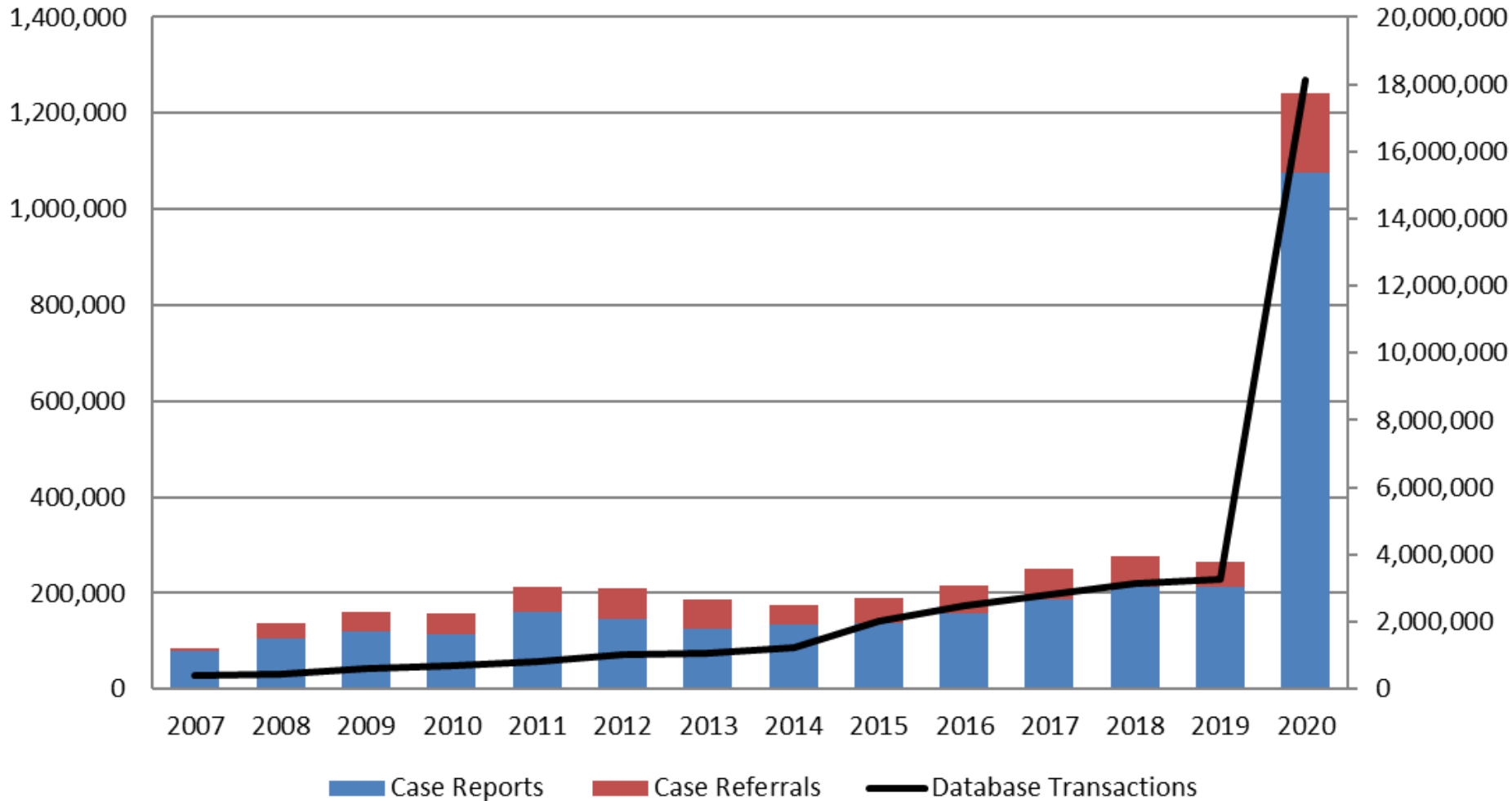
MDSS System Activity



Year	Unique User Log Ins
2007	---
2008	783
2009	893
2010	906
2011	982
2012	1,126
2013	1,155
2014	1,218
2015	1,255
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2018	1,374
2019	1,512
2020	4,289

MDSS System Use Statistics

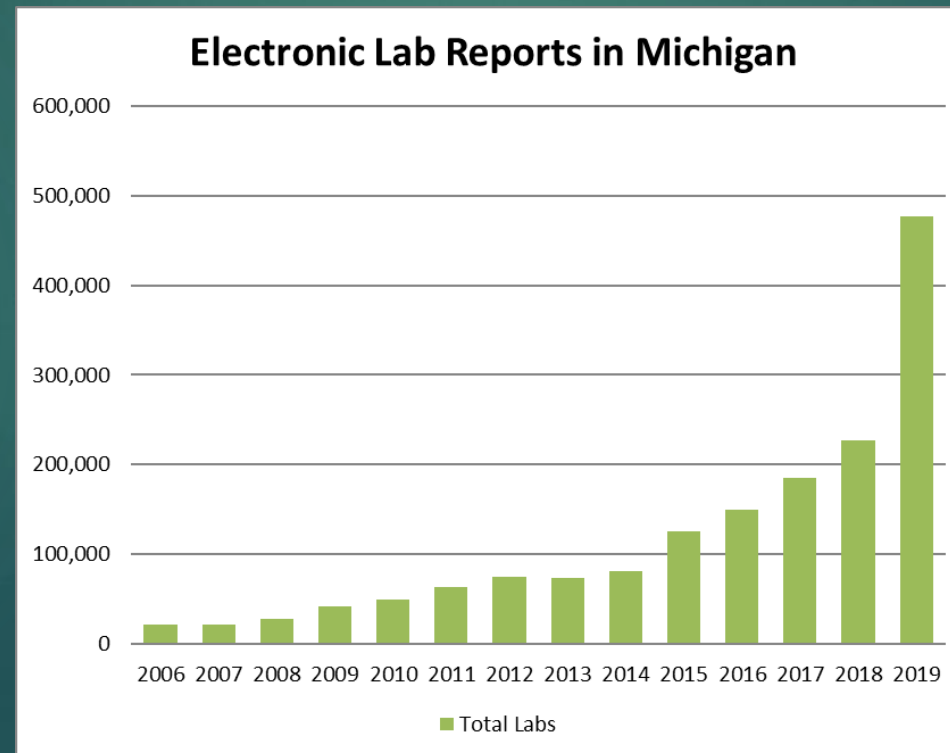
MDSS System Activity



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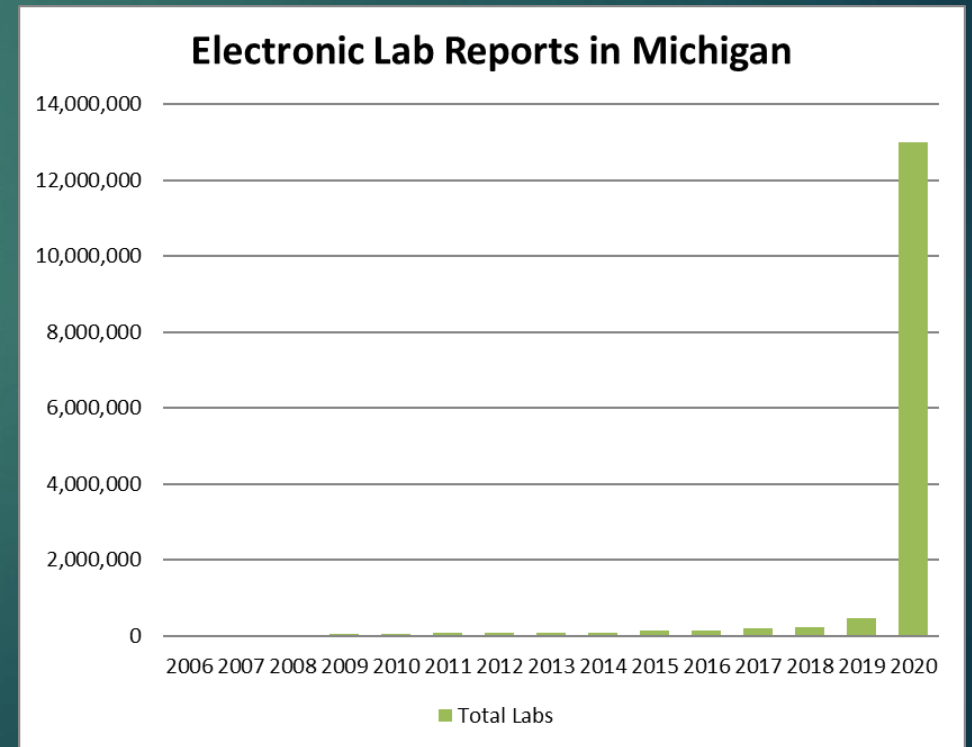
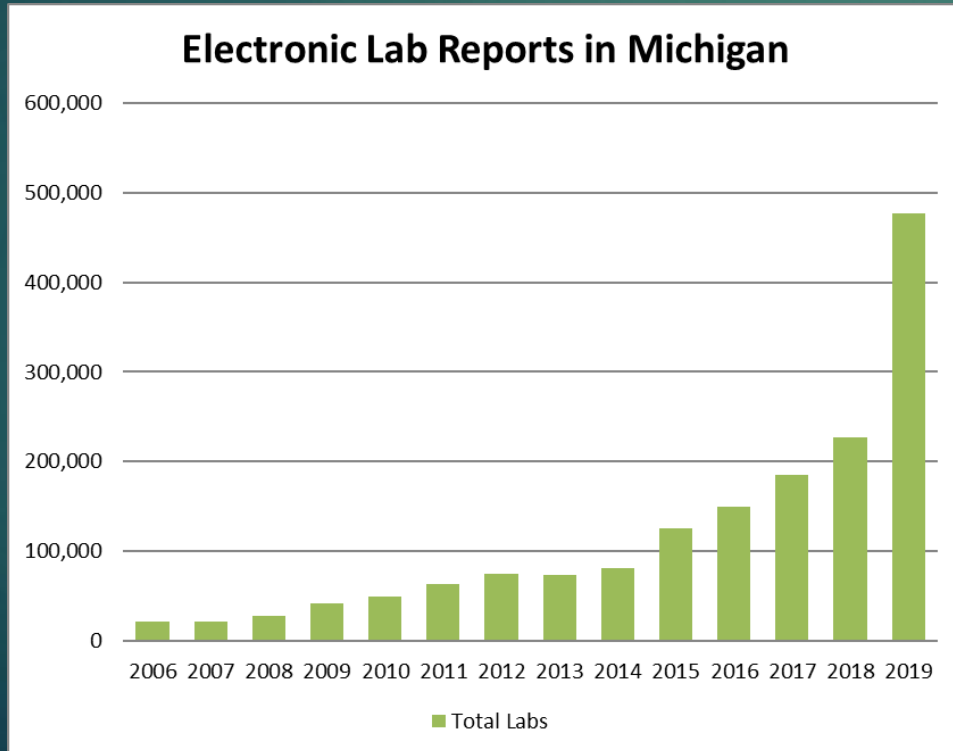
MDSS Electronic Messaging

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Totals	20,880	20,670	27,548	41,176	49,421	63,662	74,884	72,600	80,436	125,294	150,011	185,211	226,313	477,173
Change from Previous		-1.01%	33.28%	49.47%	20.02%	28.82%	17.63%	-3.05%	10.79%	55.77%	19.73%	23.46%	22.19%	110.85%



MDSS Electronic Messaging

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Totals	20,880	20,670	27,548	41,176	49,421	63,662	74,884	72,600	80,436	125,294	150,011	185,211	226,313	477,173	12,995,646
Change from Previous		-1.01%	33.28%	49.47%	20.02%	28.82%	17.63%	-3.05%	10.79%	55.77%	19.73%	23.46%	22.19%	110.85%	2,623.47%



MDSS in 2020

- ▶ January 2020 – Plan to do development releases every other month
- ▶ Beginning in March, MDSS started into a weekly release cycle
 - ▶ Weekly releases focused on adapting the system to changes presented by COVID
 - ▶ Automatic deduplication of cases based on algorithm
 - ▶ Adapting Lab Holding Area for COVID
 - ▶ Set Case Status based on test type/coding
 - ▶ Updated patient matching to be more restrictive
 - ▶ Background processing updates
 - ▶ Expansion of system resource availability
 - ▶ Updated Geocoder
 - ▶ Extensibility with outside systems such as TraceForce and PEG
- ▶ By Fall, MDSS was able to cut back to bi-weekly releases. The goal for 2021 is to go to monthly releases

Struggles in 2020

- ▶ System Usage was up dramatically
 - ▶ Almost triple user base, but active users during the day much higher
 - ▶ Input into database (transactions) had been steadily growing between 10-20% most years in the 2010s, saw a 453% increase in 2020.
 - ▶ MDSS processed over 11 years' worth of ELR in 2020 (using 2019) as a base and we received about 27 years' worth
- ▶ System slowness was seen with growing pains
 - ▶ Adjustments to ELR processing began in May as MDSS began receiving more data than it could process in day
 - ▶ Positive/Indeterminate ELRs were given priority and negatives slowed
 - ▶ More Frequent crashes in August, November and December.
 - ▶ August crashes found to be due to a server setting limiting RAM usage
 - ▶ November/December crashes due to database server running out of resources, solved with replacement server

Upcoming Development in 2021

- ▶ Influenza case automation
- ▶ Hepatitis B automated deduplication
- ▶ Case Versioning
- ▶ eCR processing
- ▶ Death status information from EDRS
- ▶ System development expected thru Summer 2022
 - ▶ New features
 - ▶ No major overhauls

MDSS Modernization

- ▶ Phase 1 – Gathering Business Requirements/Gap Analysis by BerryDunn
 - ▶ December 2020 – April 2021
 - ▶ Final product delivery will help determine course of MDSS Modernization
 - ▶ Big THANK YOU to all you were able to participate
- ▶ Phase 2 – System Redevelopment
 - ▶ March 2021 – December 2022
 - ▶ Contract Awarded to Altarum Institute
 - ▶ Funded by CDC ELC Enhanced Detection Grant

MDSS Modernization

- ▶ Complete redevelopment of MDSS
 - ▶ BerryDunn Report will provide structure around functionality
 - ▶ All existing functionality will be replicated if still needed
 - ▶ Interoperability and modularity are central tenets
 - ▶ More customization and automation
- ▶ Expect more communications soon
 - ▶ Kickoff meeting 4/21/21
 - ▶ Early development will focus on underlying structure
 - ▶ Additional Requirements Gathering are likely

Questions?

Thank you!

