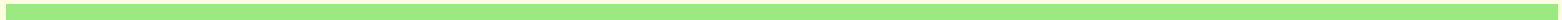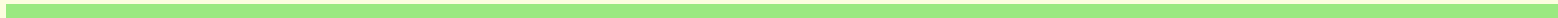# The Michigan Experience

A Community-Based Approach to Implementing HIPAA Transactions on a Common Infrastructure

MHMIS

Mich. Health Management Information System (MHMIS)

- Initiative of the Greater Detroit Area Health Council (GDAHC) since 1994

- Coalition of Payers, Providers and Employers

- 2 Main Goals

  - Implement EDI standards for healthcare transactions

  - Implement common infrastructure for EDI communications

FACTS
State of Michigan - 1999

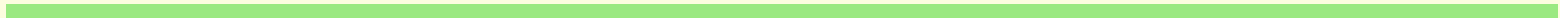- **Hospitals**   171
- Hospitals   109   >100 beds
- Total Covered Lives   > 6.5million
- Total Claims Processed   > 127million
- Paper Claims Rejected   30 – 35%
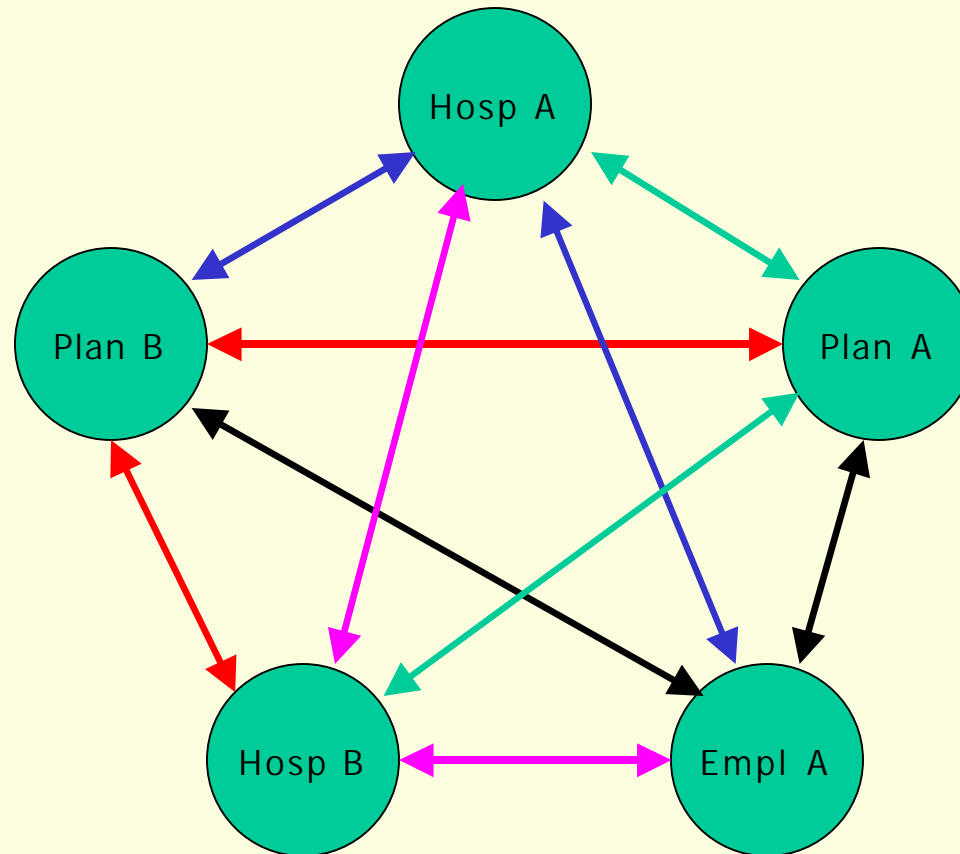
Source: State Insurance Commission

Infrastructure: Needs Defined

- **Security**

- **Reliability**

- **Maintain Industry Relationships**

- **Speed to Implement**

- **Cost**

- **Single connection for all transactions**
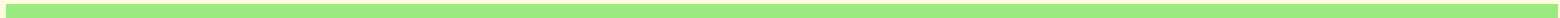
Status Quo - Point to Point

Communication Lines

Transmission of data over a single EDI-facilitated communication line would enable healthcare business partners in Michigan to realize an operational cost savings of more than 22 million dollars.
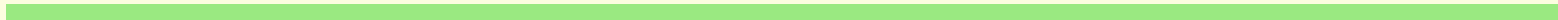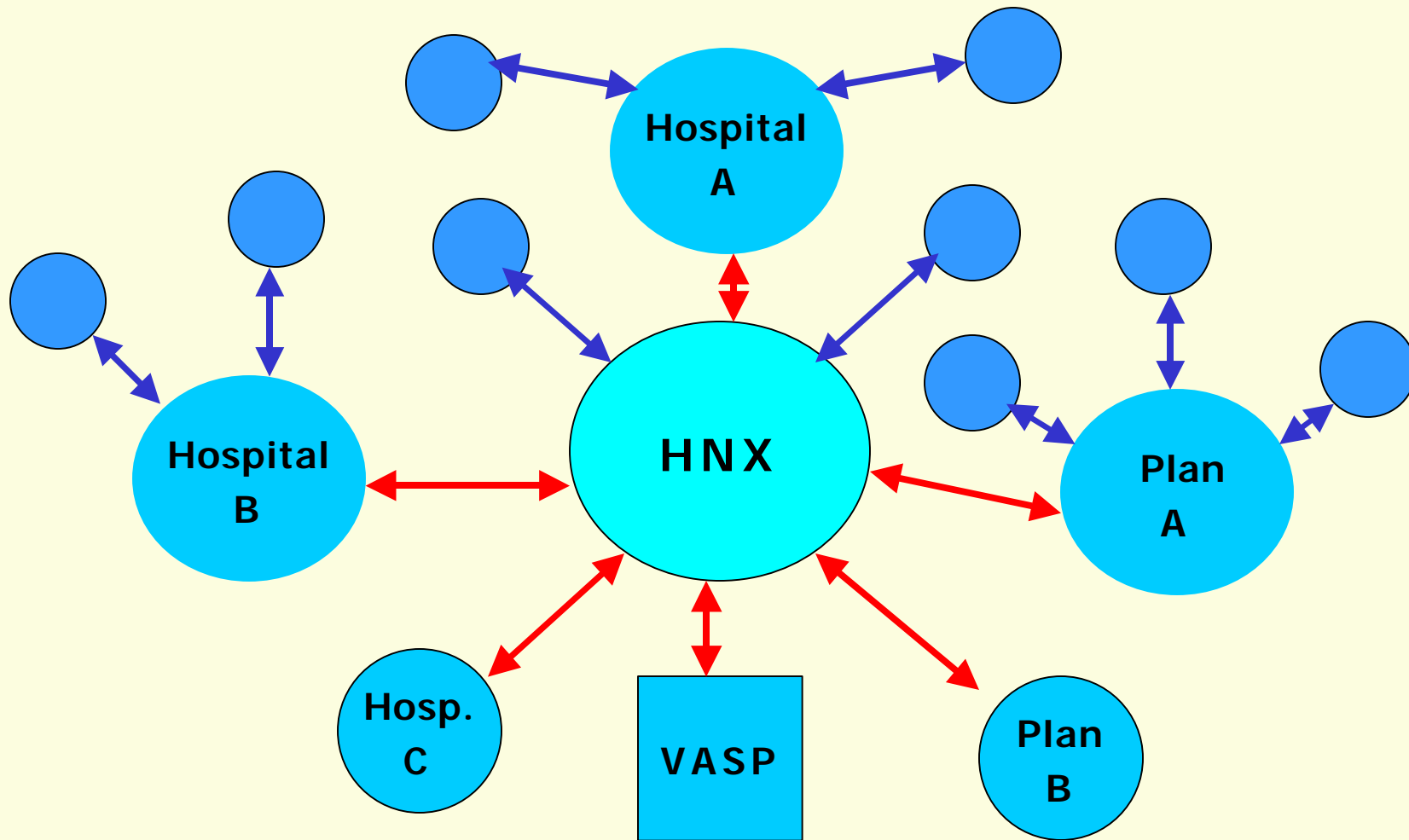
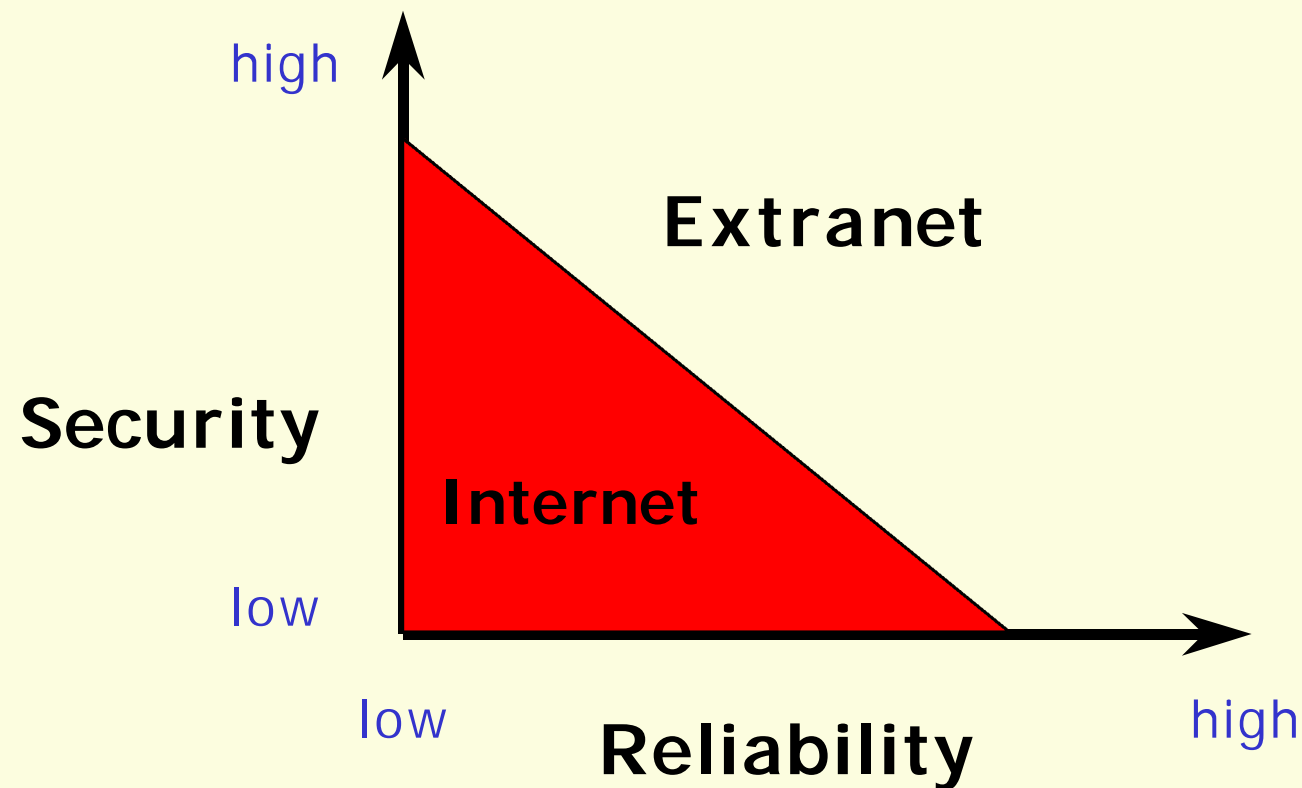The EDI-facilitator would replace multiple point-to-point communication lines.

Frame Relay Network

Internet vs. Private Extranet

# The Public Internet side of the Equation

MHMIS

Pro's

- Open availability on a Global scale
- Easy Accessibility
- Ease of WEB Site development
- Minimal basic equipment required

Con's

- Hacking, whacking & cracking is now an international sport
- Extreme difficulty of policing, tracing, and law enforcement in general
- Intermittent throughput reliability
- Currently bandwidth challenged
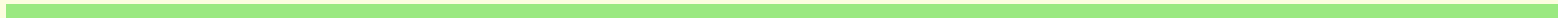
# The Private Extranet Solution

Pro's

- Tight security is possible
- Reliability of throughput is virtually 100% at all times
- Access is completely controllable
- Fully bandwidth expandable

Con's

- Equipment and software can be fairly expensive
- Support Tech Labor is difficult to locate and qualify
- The entire support process is complex and environmentally dynamic
- Errors are costly

MHMIS
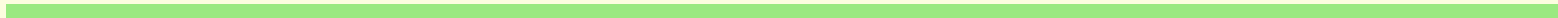
Conclusions

A Private Extranet was our best alternative

- Data is of high financial value

- Security is a primary concern

- Consistent throughput availability is important

- Significant bandwidth is necessary, especially with expansion to clinical data
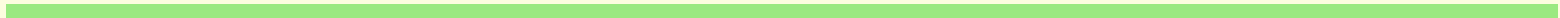
Build Option

- PROS
  - exactly tailored to healthcare industry needs
  - less complex & lower cost
  - governed by MHMIS/HIAG & participants

- CONS
  - little technical expertise
  - no infrastructure @ MHMIS for ops
  - learning curve - slower implementation

ANX Model

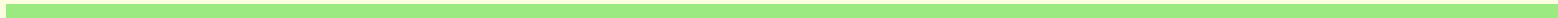- Multiple service providers are certified by an ANX eBusiness which ensures their compliance with service quality requirements

- All providers are required to interconnect with each other, maintaining the flexibility of the Internet. Any subscriber can reach any other subscriber over a single link

- ANX network is, in fact, a multiple-provider VPN service

Why the ANX model is right for the healthcare industry

- HIPPA security and privacy requirements are addressed in the ANX model.

- Provides guaranteed service availability and accountability

- Provides network layer security avoiding application redevelopment

- Extensive cost savings for all trading partners

- Multiple bandwidth options
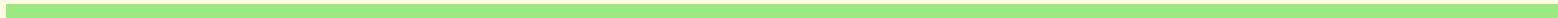
Decision Solution
HNX @ ANX

- Proven Model in Full Operation

  – over 750 trading partners in automotive sector

- Security Meets/Exceeds Fed Requirements

- Opportunity to "re-brand" the ANX

- Will Adapt Structure and Rules for Healthcare

- MHMIS Lead Partner in Rollout
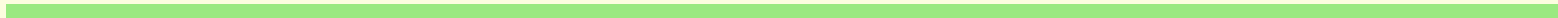
What is the HN X

- Fully managed private business to business Extranet with performance guarantees

- Uses frame relay technology

- Uses IP/Sec for security (encryption & authentication)

- Uses TCP/IP for communication

- Encourages competition among CSPs
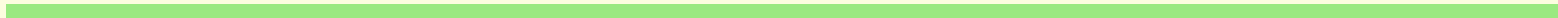
Getting on the HNX

- Contact ANX eBusiness to Get Subscribed
    - About 1 day

- Choose a Certified Service Provider

- Get Necessary Router, Security Software

  and Connection

- Hook Up With Trading Partners
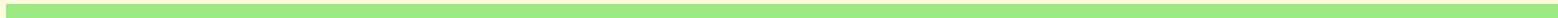
Costs

- Getting Subscribed - Depends on volume.

  $4k - $8k

- Router, gateway, security software - depends

- Connections

  ➢ Dedicated line $1,200/mo & up.

  ➢ Dial up $100/ mo & up

- Changing systems and processes to

  e-commerce - ?????

HNX – Current Status

- **Payers**: 4 trading, 4 more in process

- **Provider systems**: 2 trading, 5 more in process

- **Employers**: 3 trading, one more in process

- **Gov't agencies**: Medicaid trading, 1 more in process

- **Clearing houses and ancillary organizations**: 3 trading and 2 more in process
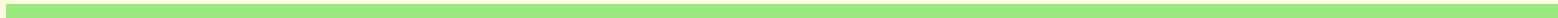
Healthcare EDI Transactions

- Significant cost reduction opportunity

- Emergence of HIPAA has reinforced and accelerated effort

- Ranking of Importance

  1. Eligibility inquiry and response (270/271)

  2. Enrollment (834)

  3. Remittance advice (835)

  4. Claim (837)

  5. Referral (278)
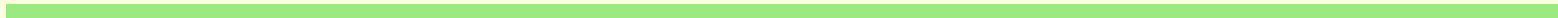
Manual vs. Electronic Processing

	claims submission	claims payment	employee enrollment	claims status request	patient referral	insurance eligibility
manual cost	$10.00	$10.00	$20.00	$6.00	$20.00	$6.00
electronic cost	2.00	2.00	2.00	0.25	2.00	0.25
potential savings	$8.00	$8.00	$18.00	$5.75	$18.00	$5.75

- Modern Healthcare, June 2000, "eDoc version 1.0"
- First Consulting Group White Paper, March, 2000
   "Update on HIPAA - The Health Insurance Portability and Accountability Act"
- Healthcare Informatics, June, 2000, "Claims Processing Speeds Up"
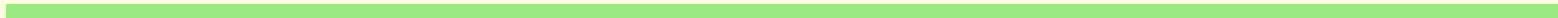
Uniform Electronic Transactions Potential Volumes

Per person per year averages:

- Enrollments (834) – 4-6

- Eligibility queries (270) and responses (271) – 6–10

- Referrals (276) – 2-4

- Claims (835) and remittance advices (837) – 10-15

- Claim status inquiry (276) and response (277) – 4-6

Totals: 22 – 41 transactions per person per year
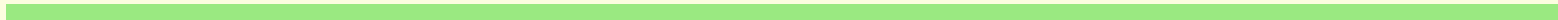
Savings Potential - Claims

An organization submits or processes 500,000 claims annual

- 50% are not EDI formatted (250,000)

- Average cost per manual claim $ 10.00 *

- Average cost of electronic claim $ 2.00 *

- Compute   250,000 annual claims

    X $8.00 savings per claim

    = $2,000,000 potential savings

* Source Healthcare Industry

MHMIS

Savings Potential - Referrals

An organization submits or processes 500,000 claims annually

- 10% require referral authorization (50,000)

- Average cost per manual referral $ 20.00 *

- Average cost of electronic referral $ 2.00 *

- Compute   50,000 annual referrals

  X $18.00 savings per referral

  = $900,000 potential savings

* Source Healthcare Industry

Potential State-Wide Savings
($,000's)

Transaction	Current EDI %	40% EDI	100% EDI
Claims Submits	30%	$ 424,921	$ 1,062,304
Claims Payment	30%	$ 424,921	$ 1,062,304
Referrals	0%*	$ 47,804	$ 119,509
Enrollment	30%*	$ 58,763	$ 146,907
Inquiries	0%*	$ 30,541	$ 76,353
Eligibility	10%*	$ 15,271	$ 38,177
		$1,002,222	$ 2,505,553

• Best estimate based
on limited market data

* Source - CareTech Solutions 2000

HIPAA Transactions

- **Eligibility (270/271):** production since 1996 (v.3061), on HNX since 11/99, v. 4010 in test

- **Enrollment (834):** production since 2/01 on HNX (v. 3061), v. 4010 in test

- **Remittance Advice (835):** v. 4010 in test

An Example

DaimlerChrysler will send over 5.3 million 834 transactions (enrollment adds, deletes and changes) annually to just its top 5 plans in Michigan

HIPAA Transactions

- **Claim (837):** v. 4010 in test

- **Claim Inquiry (276/277):** In development

- **Auths & Certs (278):** In development. Looking to establish common community website for collection

HIPAA Mandated Transactions

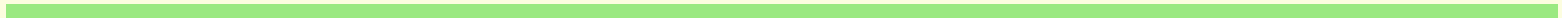## Eligibility Verification (270/271) Version 4010

	11/00	01/01	03/01	05/01	07/01	09/01	11/01	01/02	03/02	05/02	07/02	09/02	11/02

Code Review

WEDI

MHMIS

Pilot Testing

WEDI

MHMIS

Payer Readiness

WEDI

MHMIS

Production

WEDI

MHMIS

270/271

Model

Doctor XRAY Lab Doctor XRAY Lab

Hospital A Sponsor

MI Medicaid

Medicaid Vendor

$

HMO Sponsor

HNX

CSP CSP CSP

Professional Association

Doctor XRAY Lab Doctor

Doctor XRAY Lab Doctor

Clearing House

$

Hospital B Sponsor

Doctor XRAY Lab Doctor XRAY

Clearing House

$

BCBSM Sponsor

XRAY Lab Doctor XRAY Lab

Medicare

HIPAA Mandated Transactions

Enrollment (834) Version 4010

	11/00	01/01	03/01	05/01	07/01	09/01	11/01	01/02	03/02	05/02	07/02	09/02	11/02

Code Review

WEDI

MHMIS

Pilot Testing

WEDI

MHMIS

Payer Readiness

WEDI

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Production

WEDI

MHMIS
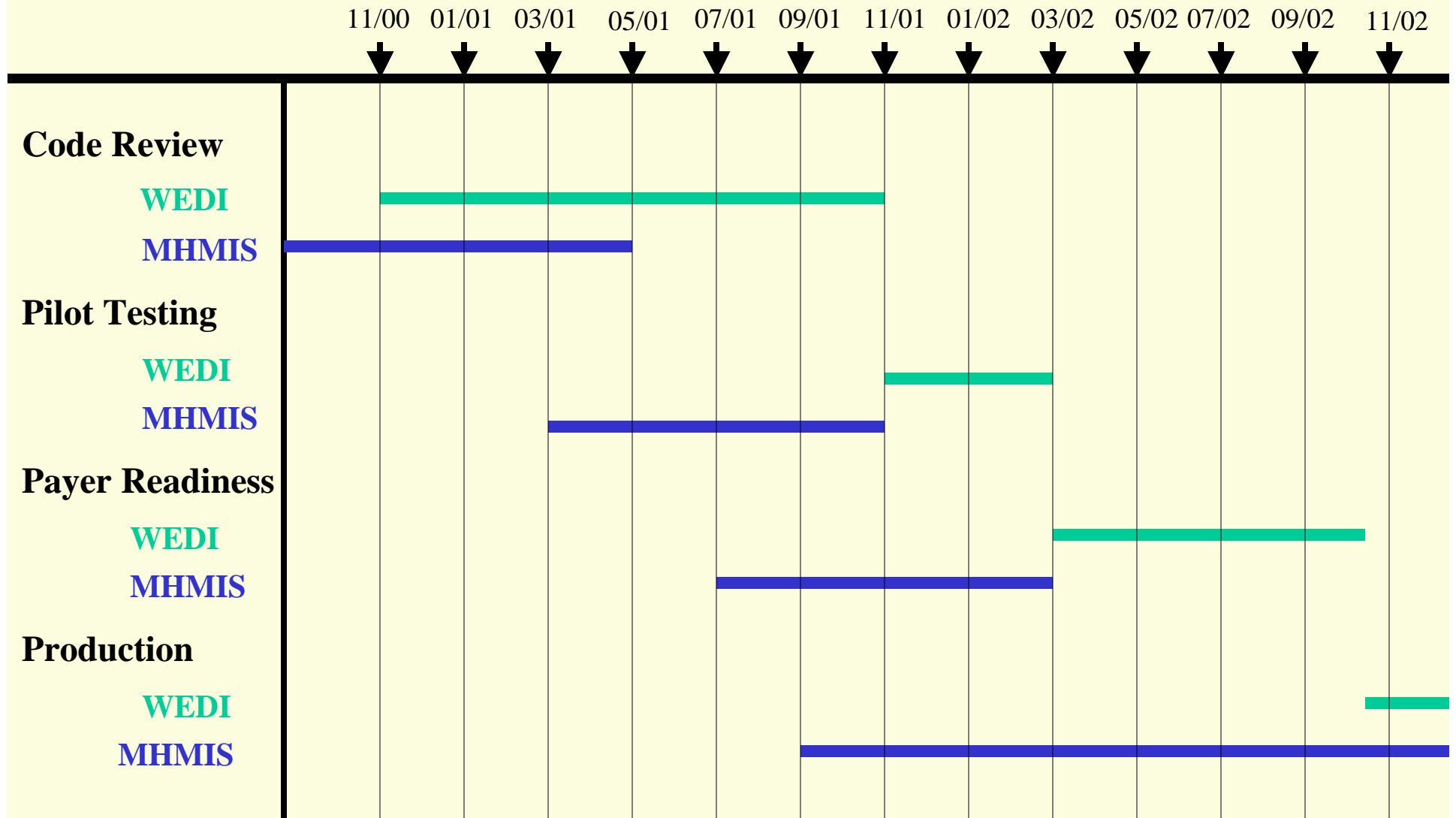
HIPAA Mandated Transactions

Claims Submission and Remittance (837/835) Version 4010

	11/00	01/01	03/01	05/01	07/01	09/01	11/01	01/02	03/02	05/02	07/02	09/02	11/02

Code Review
  WEDI
  MHMIS

Pilot Testing
  WEDI
  MHMIS

Payer Readiness
  WEDI
  MHMIS

Production
  WEDI
  MHMIS
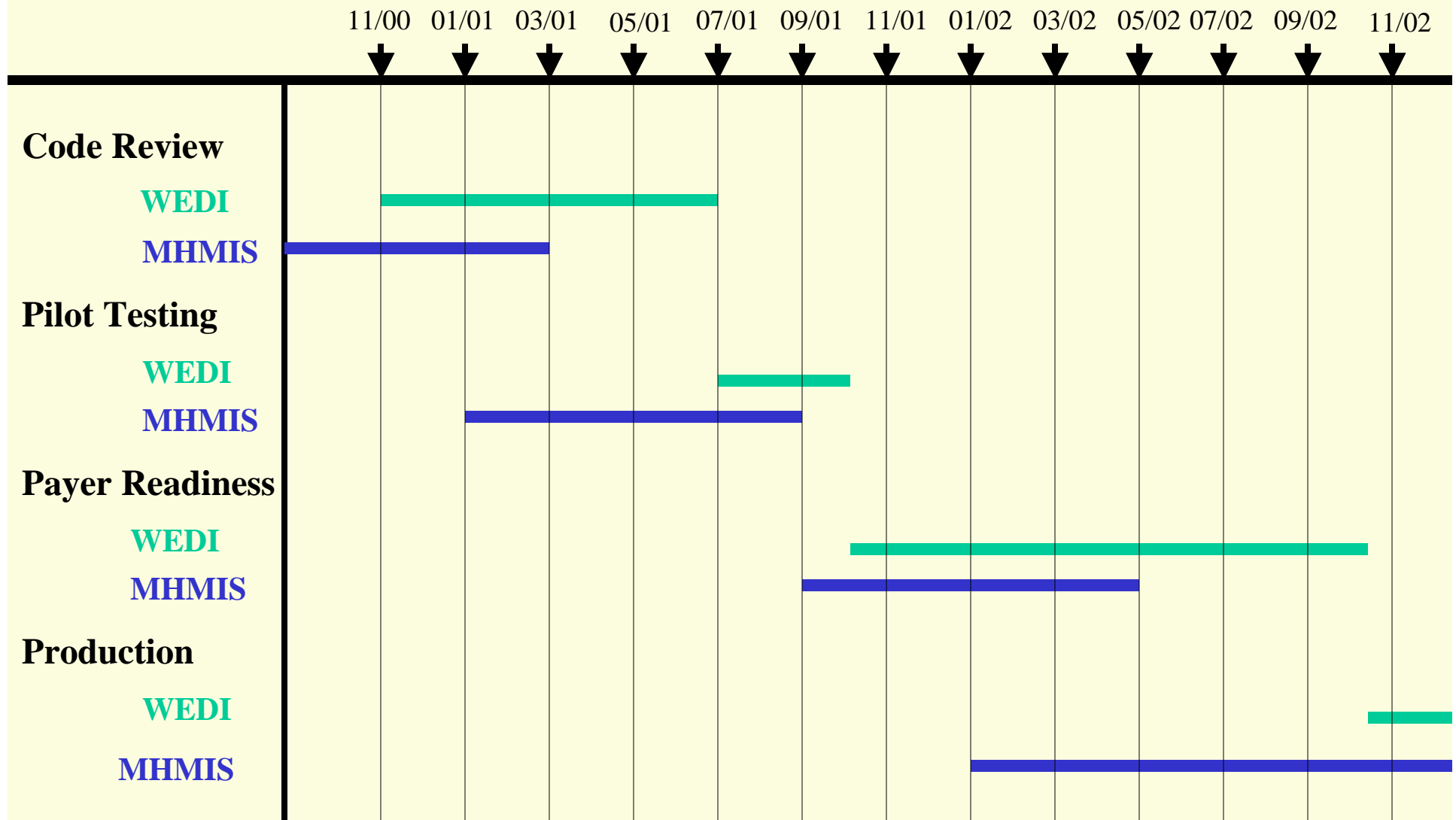
Future Traffic

- Medical Data

- Supplies Inventory and Ordering

- Quality Assurance Data and Information

- E-mails and Research Information
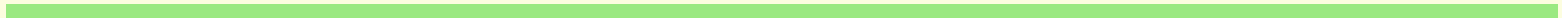
- Video "Grand Rounds" and consultations
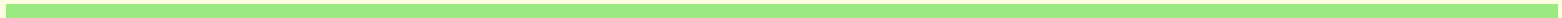
Michigan Experience
Conclusions

- Collaboration successfully driven by plan sponsors

- Common infrastructure must be "neutral" and not retain any data

- Collaborative detailed review of transactions identifies and resolves issues

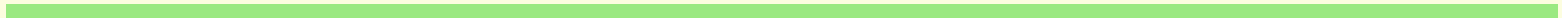- Joint implementation and testing saves significant time

Michigan Experience
Our Mantra

- **Collaborate** on transaction standards and infrastructure

  - **Cooperate** on implementation and testing

    - **Compete** on service timeliness and quality

QUESTIONS??