

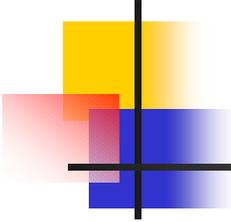
Data Quality Action Team

Report to the IHLC

Stanley P. Griffith, MD, FAAFP

Phoenix, AZ

June 27, 2001

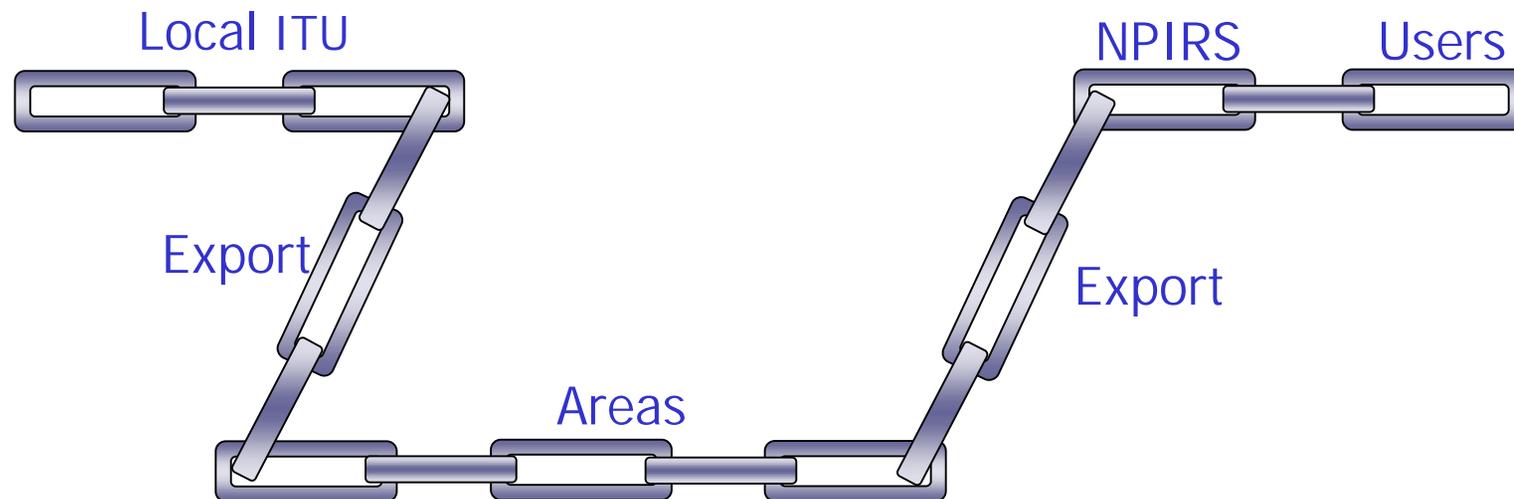


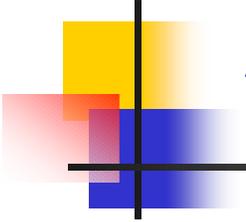
DQA Team

- Background
- The Charge
- Team Members
- Operating Principles
- Progress
- How the IHLC Can Help

"The Chain"

- Data quality is a chain.
- It is no better than its weakest link.



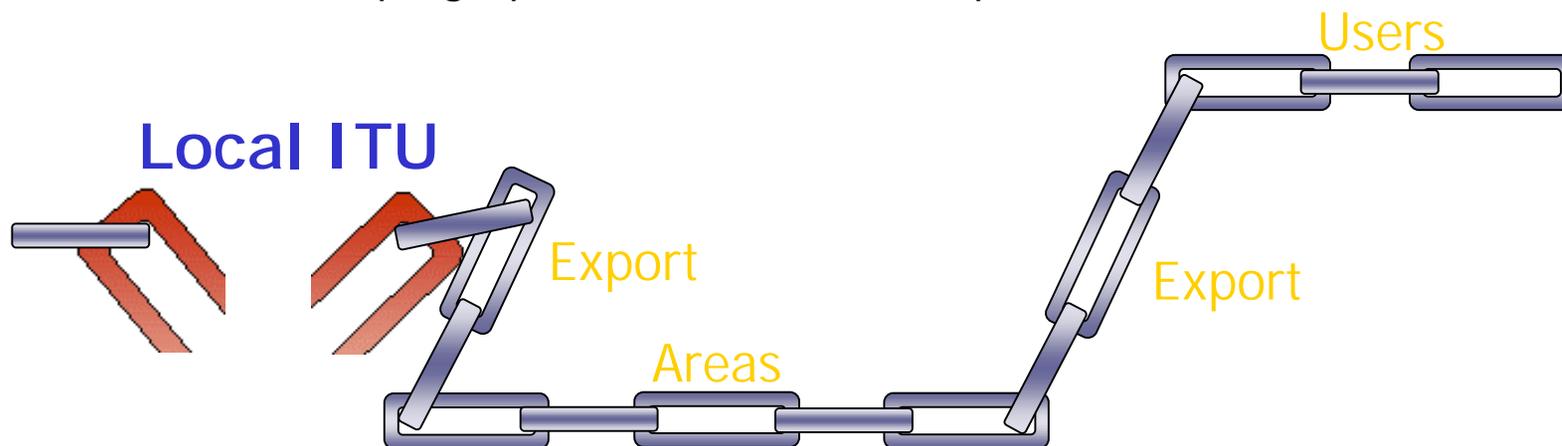


“The Chain”

- Empiric evidence confirms significant challenges in each and every operational component of our organization
- Problems in each of our “links” must be addressed
- If we are to succeed, no one can be spared their responsibility to improve

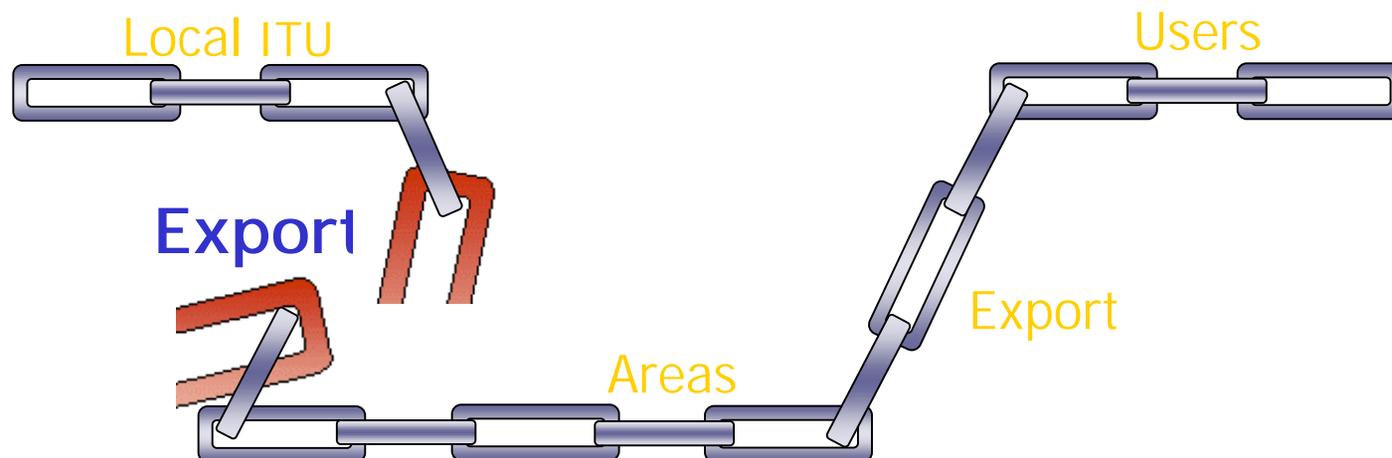
Local Facilities

- Lack of provider training
- Lack of data entry training
- Lack of adequate local technical support
- Prolonged delays in entering data
- Failure to monitor data quality and respond to identified problems
- Inadequate hardware
- Not keeping up with latest versions/patches



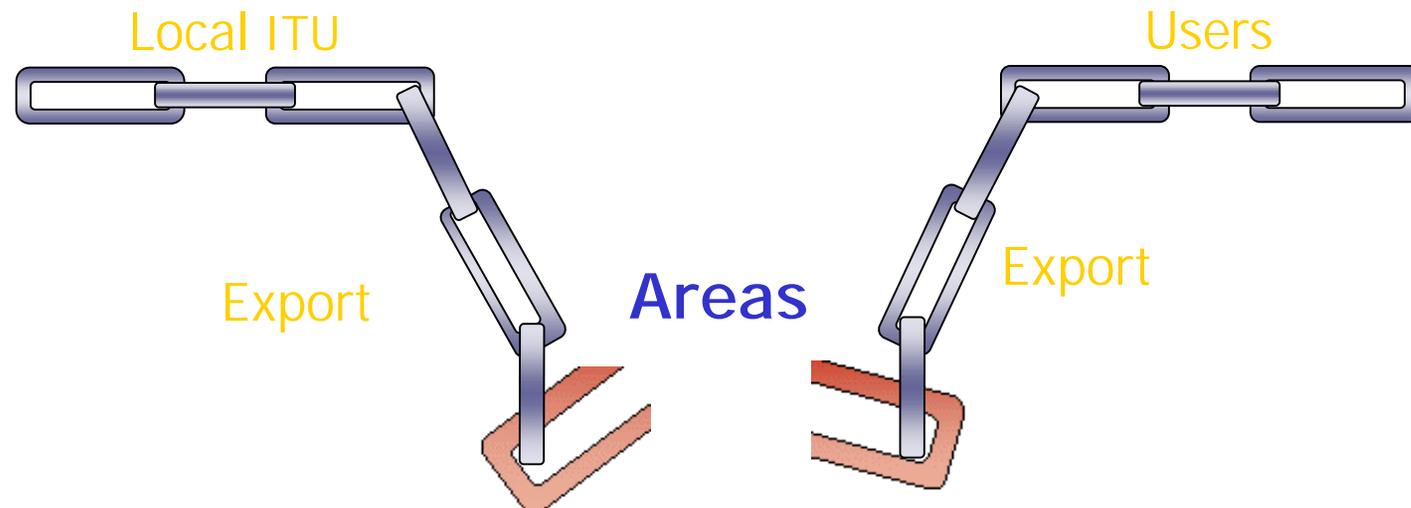
Exporting from Local Facilities

- All needed data elements are not exported
- “Orphan” labs, pharmacy prescriptions, immunizations, etc.
- Non-standard exports from non-RPMS sites
- Non-Y2K compliant exports
- Modified visits
- Historical events



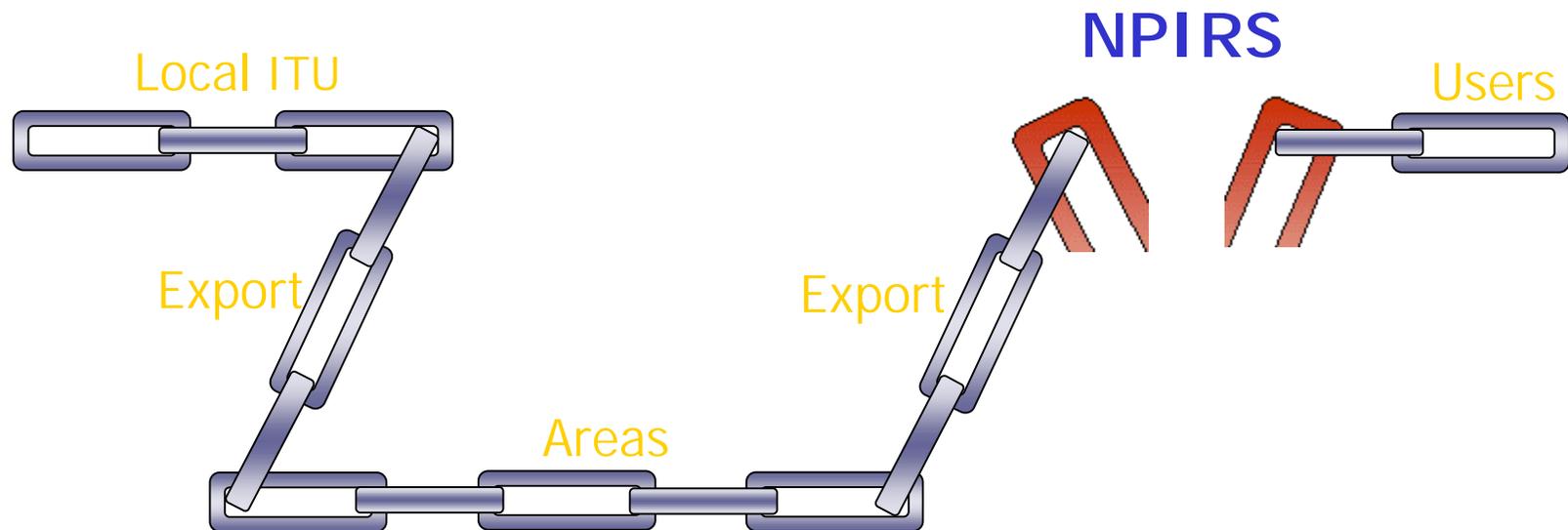
Area Offices

- Poor technical support to local I/T/U's
- Inadequate training
- Failure to adequately monitor local versions/patches status
- Failure to monitor data quality and respond to identified problems
- Inconsistent or poorly documented changes in data at Area level



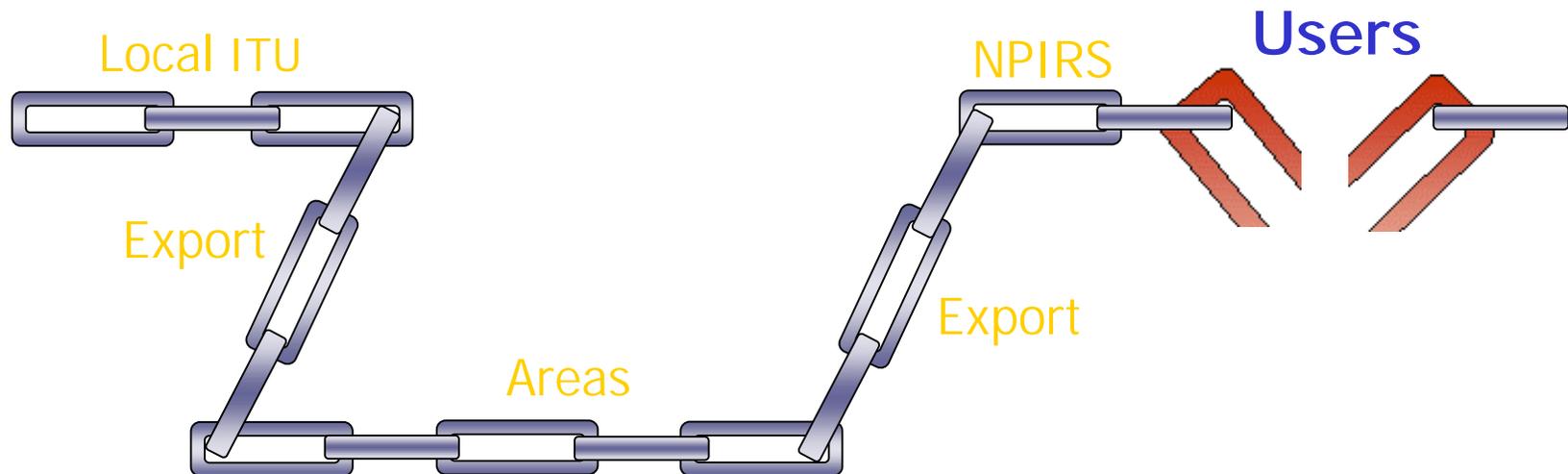
NPIRS

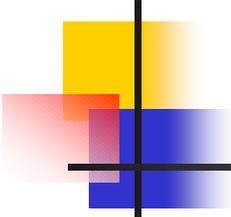
- Inadequate documentation
- Inconsistent, poorly documented changes in data
- No direct user access to data
- Poor process controls
- Poor responsiveness to user requests



Data "Users"

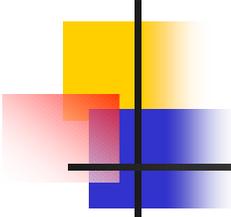
- Unclear, poorly planned questions
- Poor understanding of existing data
- Lack of agreement on what is to be measured
- Inadequate processes to form user consensus on logic
- Failure to provide adequate lead time





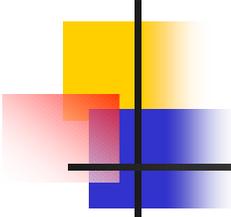
The DQA Team

In late March the ELG and DIR established an action committee to assess and address the highest priority weaknesses in its NPIRS “link.” The membership includes members from OPS, the Stat Officers, Epidemiology, and the ISAC, as well as DIR.



The DQA Team

- DIR's commitment is significant and tangible
- The team has been given adequate authorities to do its job
- Actions are being openly communicated to all throughout the Indian healthcare community
- Focus is on improvements rather than establishing blame
- Firmly committed to promptly identifying needed improvements and accomplishing them

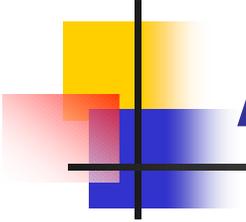


All Must Commit

If DIR's commitment to improvement is not to be wasted,

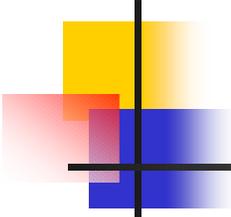
each and every other component within the extended I/T/U community must make a similar, tangible commitment to assess and address those weaknesses that exist in their own spheres of influence.

This will require the establishment of equally tangible action initiatives within their own spheres.



All Must Commit

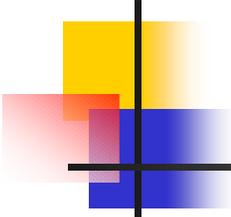
Lacking a similar commitment from the rest of the Indian healthcare community, DIR's efforts alone will not result in the degree of improvement in information critically needed by our extended Indian healthcare community.



An Optimistic View

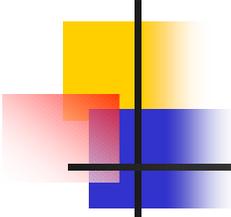
We have a unique opportunity; many, throughout our Indian healthcare systems, now appear to recognize the critical importance of accurate and useful information.

We are hopeful that all will seize this opportunity to work together to make the long and desperately needed improvements in each and every organizational component in our systems.



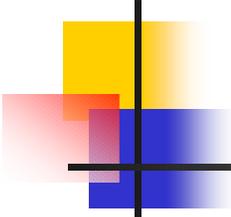
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DQA Team's Charge

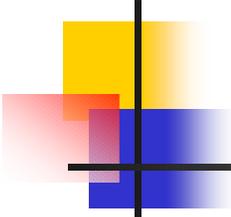
Implement changes to provide accurate, measurable, and timely improvements to national reporting systems.



DQA Team's Charge

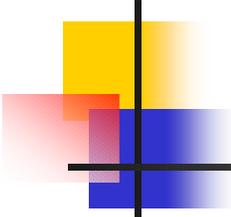
Especially pertinent to recent fund distribution formulas

- LNF
- CHS
- Diabetes
- Alcohol
- Use of the 1998 user pop counts



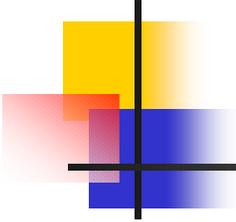
Charge Details

- Assess and ensure availability of data
- Assess availability and adequacy of documentation
- Propose and implement processes to ensure completion of future user counts in an iteratively more timely, accurate, and efficient manner
- Identify where decisions or other related work will be required from others and propose processes for initiating, documenting, and monitoring each of their decisions or deliverables
- Assess and improve communication with our users

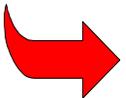


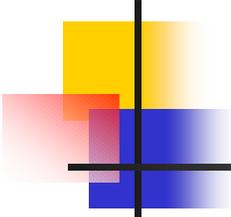
Charge Details

- Improve the responsiveness within ITSC to its customers
- Identify other problems related to national IHS data and propose and/or begin to implement solutions
- Oversee an assessment of overall longer-term solutions and implement initial steps
- Increase the trust of Tribes, Urban, and IHS programs in IHS's national data
- Develop recommendations for transferring team's responsibilities to more permanent organizational components



DQA Team

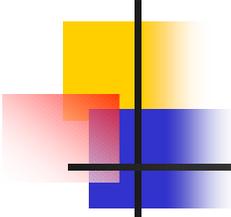
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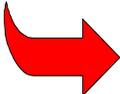
Team Members

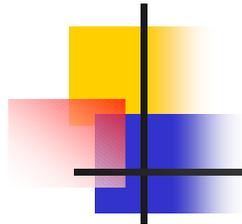
- Stanley P. Griffith, MD*, ITSC, Albuquerque
- Karen Carver, PhD, ITSC, Albuquerque
- Debra Heller, PhD, OPS, Rockville
- Stephanie Klepacki, ITSC, Albuquerque
- Joan Christy, ITSC, Albuquerque
- Patricia Osborne, MS, Phoenix Area, Phoenix
- Roger Gollub, MD, Albuquerque Area, Albuquerque
- Keith Longie, ISAC Representative, Phoenix Area, Phoenix

*Team leader



DQA Team

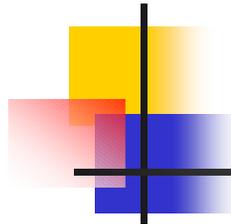
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Iterative process

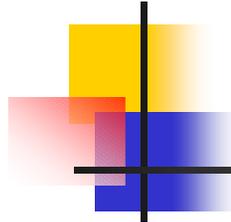
We are seeking progressively better numbers;

we can't wait for perfection.



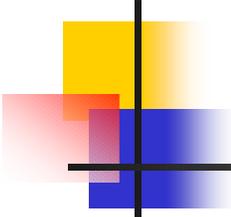
Accurate Numbers

We are seeking accurate and honest numbers,
not numbers all will “like.”



Focus on Improvements

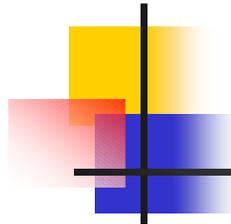
We are focusing on improving - the future,
not on attributing blame - the past.



Program Defines Logic

The program tells NPIRS what they want counted and how they want them counted;

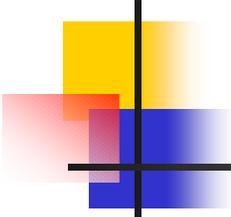
NPIRS' job is to accurately count as instructed.



Openness

In order to build trust, our work will be conducted as much in the open as possible;

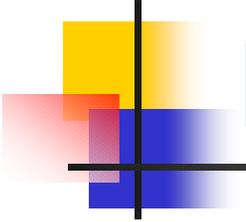
the errors we will make will be in being too open.



Assess Data Quality

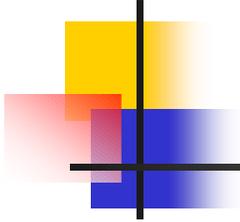
We must be able to accurately assess and then inform about the quality of data that NPIRS receives;

we must assist Areas and local facilities to improve their data.



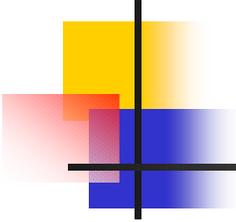
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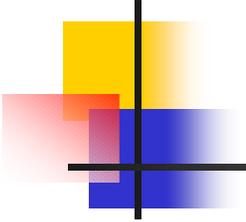
Three months ago, the DQA Team set up a list of short-term goals it wished to accomplish within its first six months.

We have worked closely with Rus Pittman, Director, ITSC, and NPIRS staff to already accomplish the following:



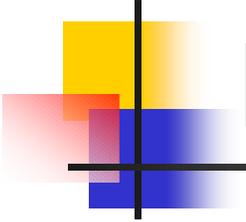
Progress

- Backup, inventory, and document
- Communicating with all and coordinating with related groups
- Providing user access to NPIRS data
- Unduplicating patients in reports
- Re-instituting regular production of workloads and user pops
- Implementing a new National Data Warehouse



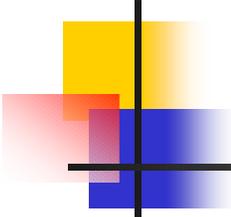
Inventory Existing Data

- Implemented a systematic backup strategy including off-site backups
- Identified missing pieces of data related to the FY99 and future user pops; assessing impact on those counts
- Proceeding with an assessment of older data and archiving procedures



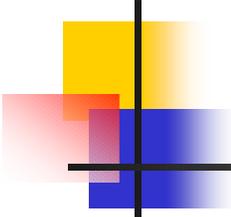
Documentation

- Data, database design, production processes, programs
- Focused on documentation related to:
 - User pops and the portion of workload reports needed for user pops
 - Documentation needed by IBM in its assessment of the NPIRS database.
- Producing complete documentation, understandable to both “techies” and users



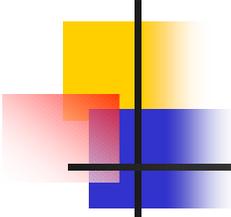
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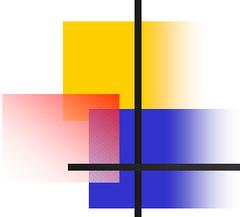
Communication

- Established an Internet site available to the entire I/T/U community that openly shares our mission, goals, project plan, task status, status reports, meeting minutes, background information, etc.
- Informed users about this site
 - Area Directors
 - Area Executive Officers
 - Area ISCs
 - Local Site Managers
 - Area Statistical Officers
 - Data Management Committee members

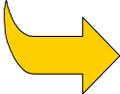


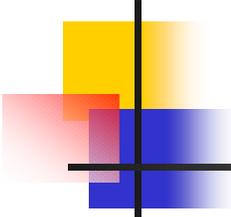
Coordination

- Established links to the Office of Program Statistics “Patient Care Workgroups”
- Defined relationships with the Data Management Committee Workgroups
 - MPI
 - Data requirements
 - Data transport
- Established links to clinical measurement initiatives
 - GPRA
 - ORYX
 - Epi data projects



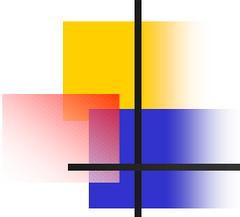
Progress

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-  ■ **Providing user access to NPIRS data**
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NPIRS Access

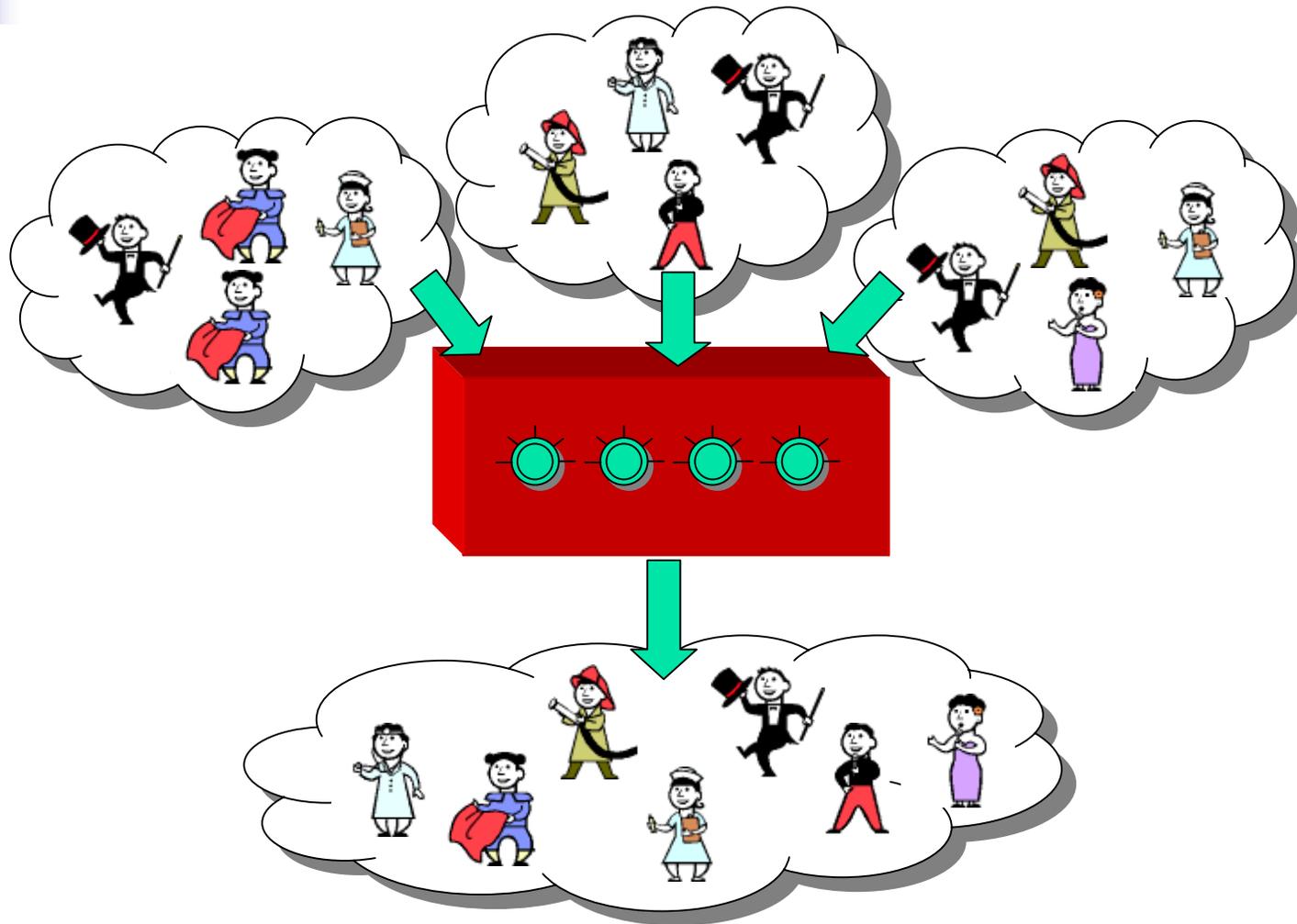
- Provided access for the DQA Team to the NPIRS database
- Worked with OPS to create narrowly defined, initial draft policy
 - Non-research access of authorized programmatic officials (IHS Director or his designees) to the NPIRS database for internal program use only.
- Ready to implement tools to allow initial access to the NPIRS database for the following:
 - Area Stat Officers
 - HQ Epi Program

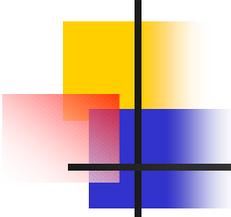


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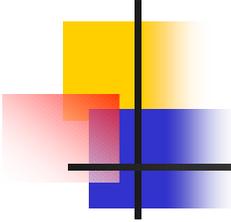
Unduplication Process





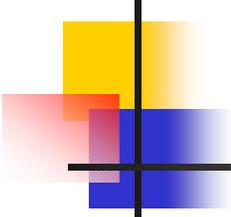
There Isn't "One Best Answer"

- There are as many methods as there are experts
- Each expert will argue passionately his/her method is "best"
- And, of course, each is right. Unfortunately each "best" method is different!
- Lacking one best answer, *how* we choose a method is at least as important as *what* we choose



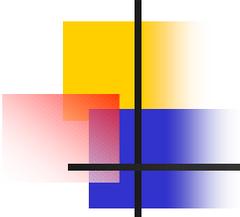
The Process Must Be Inclusive

- Since unduplication will affect all Areas, we wanted to establish a fair system for selecting the process
- Consulted with our experts in HQ and in all Areas
- Good response from Areas
- “Gold standard” established by these wide-based experts
- The dials on the “black box” are being set to closely match this “gold standard”



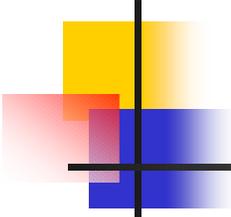
The Process Must Be Open

- Unduplication will be an iterative process; we will consult with HQ and Area experts each step of the way
- First iterations on this process (“the numbers”) and notes on outstanding issues are published on the DQA team’s web page
- Soliciting review and comments from our HQ and Area experts



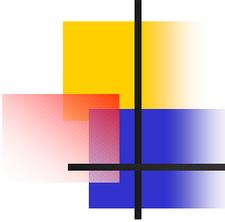
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Workloads and User Pops

- Identified and implemented several data fixes.
- Implemented a process to manage and track the review and decisions by OPS on the highest priority issues affecting workload and user pop reports
- Planning underway for re-export of registration files
- Work underway to choose and implement better unduplication methods for patients and visits

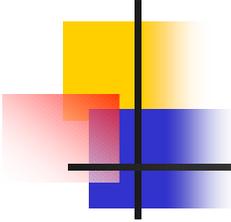


Workload and User Pops

As a result we will soon be ready to publish

- First iteration of FY 1999, 2000, and 2001-to-date **workload reports** for Area stat officer review
- First iteration of FY 1999, 2000, and 2001-to-date **user pops** for internal DQA team review

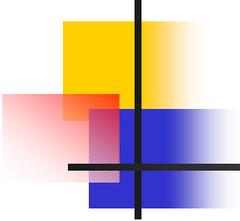
These numbers may not yet be sufficiently accurate for official use. Because of fixes, they are better than they were 3 months ago. By reviewing and working on them with our Area Stat Officer colleagues now, we expect they will be even more accurate by this fall.



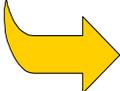
Workload and User Pops

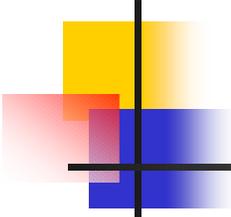
Our goals...

- Resume regular production of workload and user pop reports from current NPIRS database
- Over time continue to help make these reports and the underlying data more accurate
- Put in place a system that will allow us to monitor and maintain accuracy once we have resumed regular production



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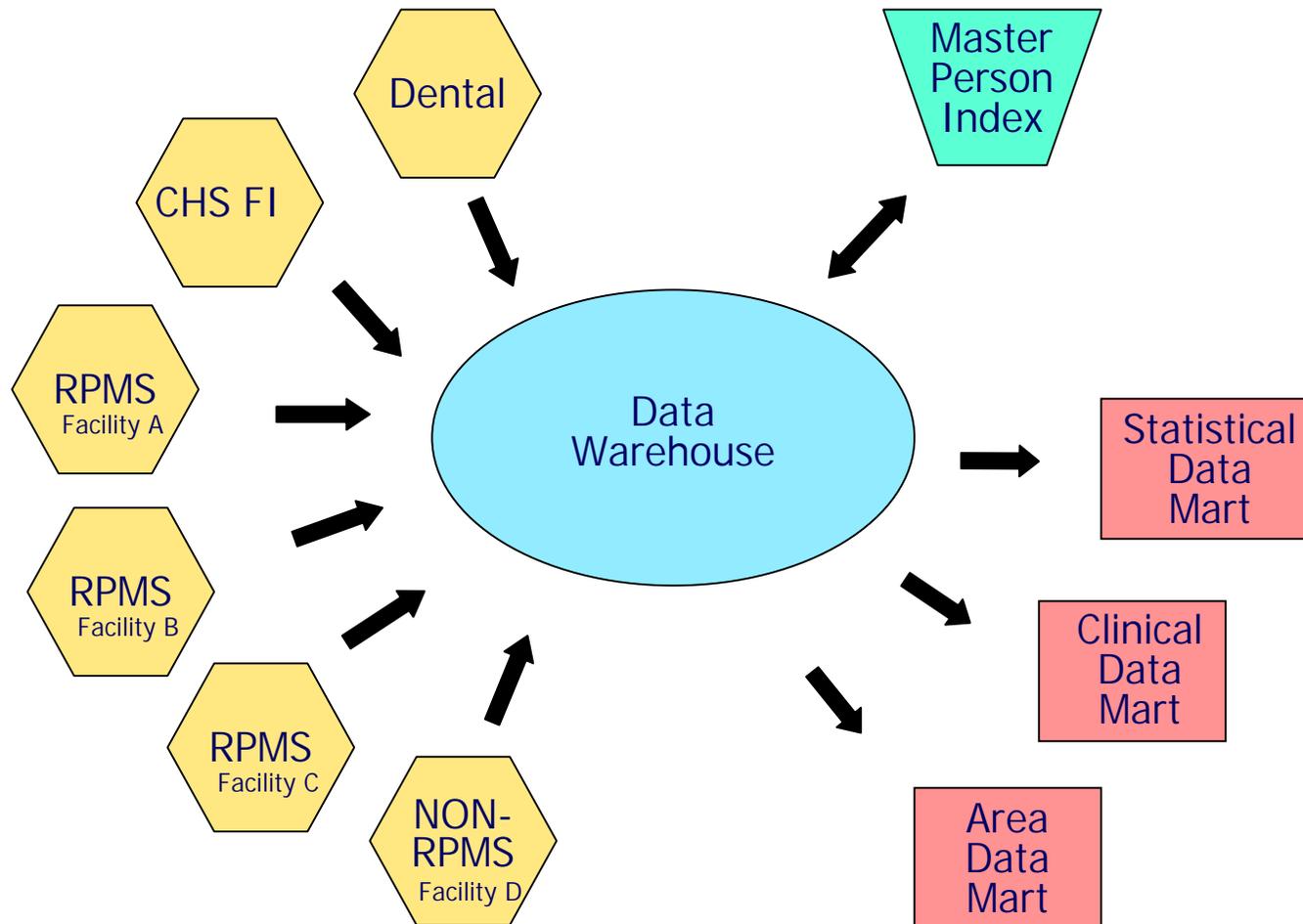


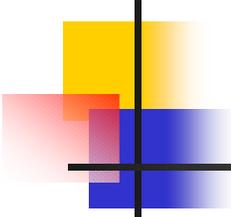
National Data Warehouse

While we are working to “tweak” NPIRS to better meet our immediate, short-term needs,

we must also begin to design and work to replace it with a new, state-of-the-art national data repository

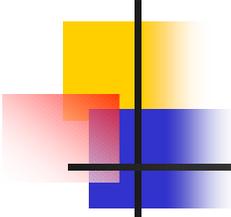
National Data Warehouse





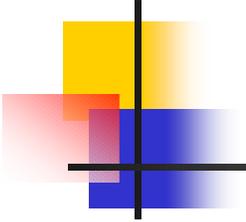
The Data Warehouse will

- Be designed to take advantage of the latest in technologies and design features
- Collect and store information exactly as it is received from the field
- Provide accurate and intelligent information about the data it receives:
 - Record counts
 - Timeliness of data
 - Less than expected counts based on historical benchmarks
 - Missing data in fields, erroneous codes



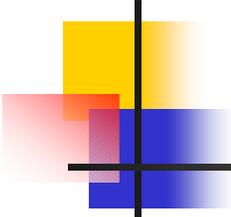
The Data Warehouse will

- This DW will supply data to various data marts from which more targeted information can be gathered
 - Statistical - workload and user pop reports
 - Clinical – GPRA, ORYX, Epidemiology
 - Area
- Employ a Master Person Index (MPI)
- Employ healthcare industry standards for data transport and messaging

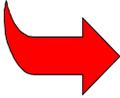


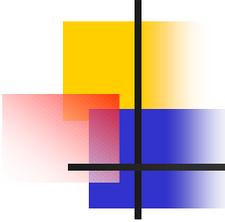
Initial Pilot Data Warehouse

- Project lead – Rus Pittman, Director, ITSC
- Working with two major contractors: IBM and SAS
- Three Areas - Albuquerque, Nashville, Phoenix
- FY 97 data to present
- Fairly complete spectrum of data content
- Test this system by producing workload and user pop reports and a few selected clinical measures.
- Implement a file tracking and verification interface



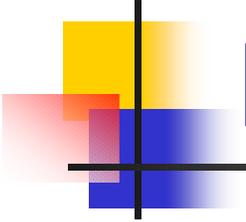
DQA Team

- Background
- The Charge
- Team Members
- Operating Principles
- Progress
-  ■ How the IHLC Can Help



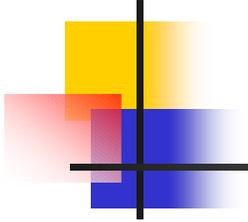
How Area Directors Can Help

- **Improve local data capture**
 - Data entry staff trained in medical terminology
 - Professional coders
 - Routine auditing of data entry, clinical recording
 - Training for data entry, coding, clinical, and other staff
- **Area level**
 - Monitor error logs
 - Monitor transmission logs
 - Assist us in setting up an enhanced file tracking and verification system
- **Implement current & newly available systems**
 - PCC+
 - Patient Chart
 - Other RPMS/PCC systems (Diabetes Management, Lab, etc.)
- **Other**
 - Unduplicating patient records



How Area Directors Can Help

- **Personally contact Tribal non-RPMS programs to solicit their participation in the registration re-export**
 - Stat Officer workgroup will provide briefing materials
 - ITSC will provide consultation on technical requirements



Questions?