

Update on Nuclear Test Personnel Review (NTPR) Program

***Brief for: Veterans' Advisory Board on Dose
Reconstruction (VBDR)***

Briefer: Paul K. Blake, Ph.D.

Time: 9:15 PM – 9:45 PM

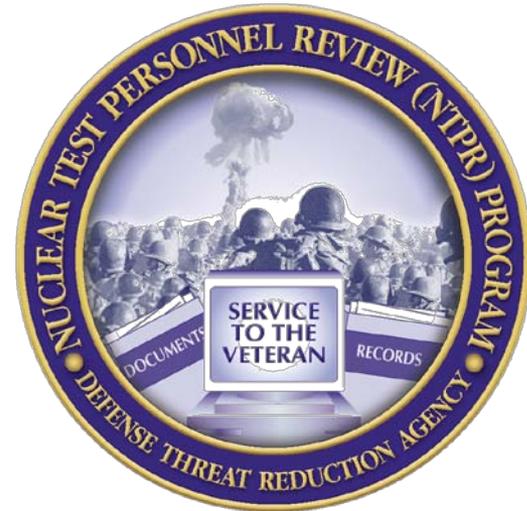
Date: September 10, 2008





Briefing Outline

- Program update (since last VBDR meeting)
- VBDR-DTRA* recommendation status
- The road ahead

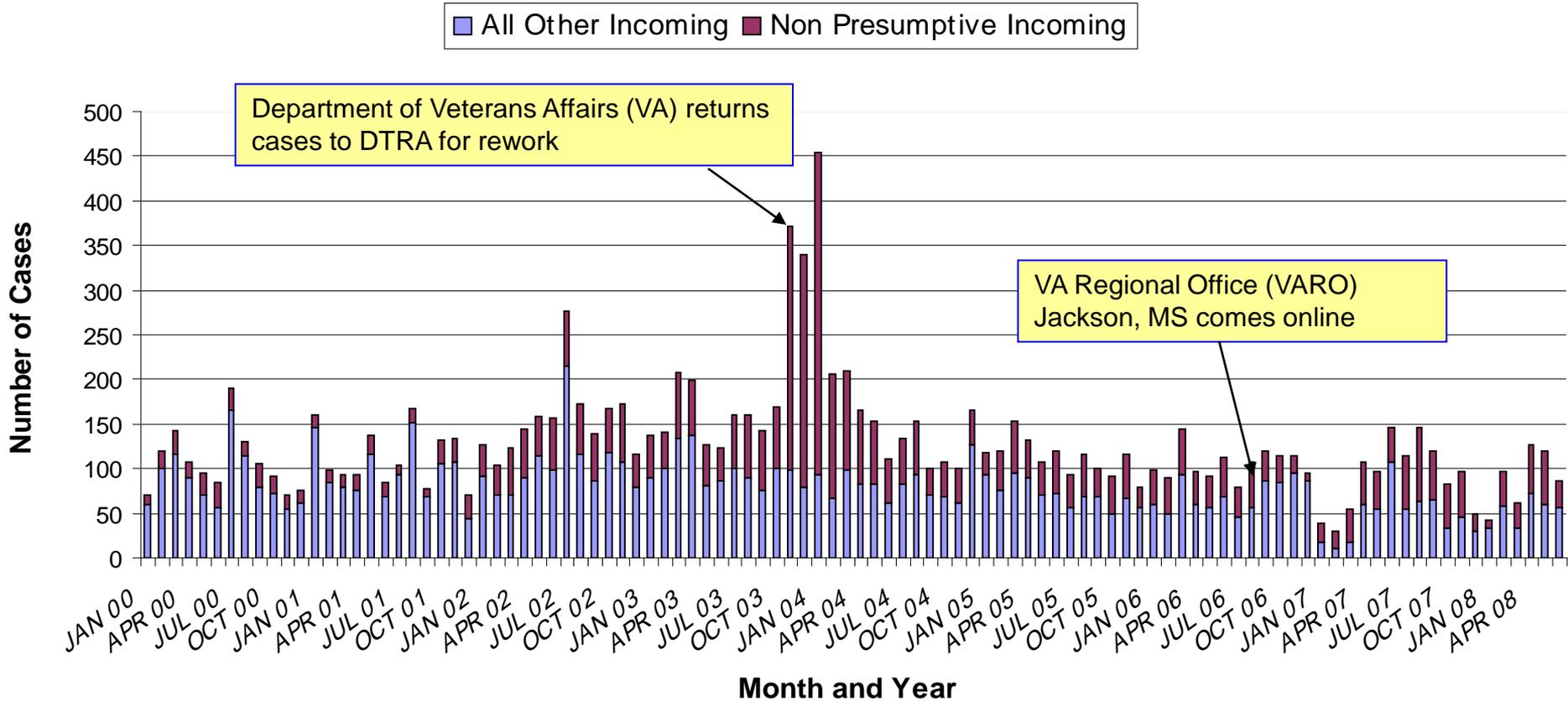


*DTRA: Defense Threat Reduction Agency



Program Update - Incoming Cases

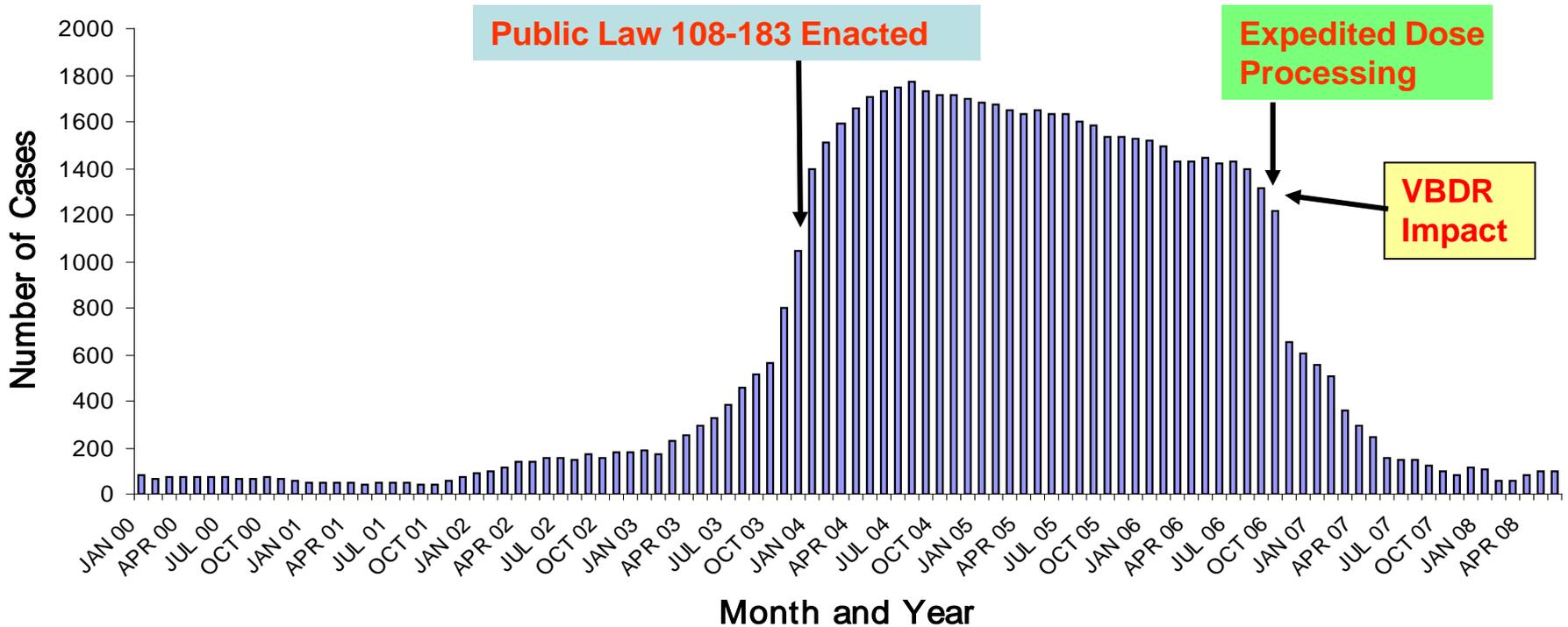
Historical Incoming Case Load (January 2000-June 2008)





Program Update - Case Load History

Historical Actual Non-Presumptive Pending Case Load (January 2000- June 2008)





Program Update – VBDR Impact

- Pending NTPR cases: Approx. 150
- Mean response time: 44 days
- Maximum pending time: 128 days

- VBDR recommendation impact:
 - Faster NTPR (veteran and VA) responses
 - Significant increase in favorable VA medical opinions
 - Significant NTPR cost savings (\$15M)
 - Significant decrease in NTPR Congressional inquiries
 - NTPR achieves optimized, steady-state condition



Program Update - Uncertainty

- NTPR is updating its Radiation Dose Assessment (RDA) Standard Operating Procedures (SOP) chapter entitled, “UA01 - Dose Uncertainty and Upper Bound Determinations.”
 - The update is based on a DTRA Technical Report entitled, “Probabilistic Uncertainty Analysis in NTPR Radiation Dose Assessments” which is undergoing external peer-review.
 - VBDR Subcommittee (SC) No. 1 was been briefed on this initiative in January, April and July 2008.



Program Update - Quality

- NTPR initiated double-blind RDA intercomparisons in June 2007 and January, April, and July 2008:
 1. NTPR health physicist
 2. Non-NTPR health physicist #1
 3. Non-NTPR health physicist #2
- VBDR SC1 and SC3 have noted a continued improvement. This improvement is due to:
 - Significant progress in NTPR documentation (RDA SOP)
 - NTPR training for Non-NTPR health physicists



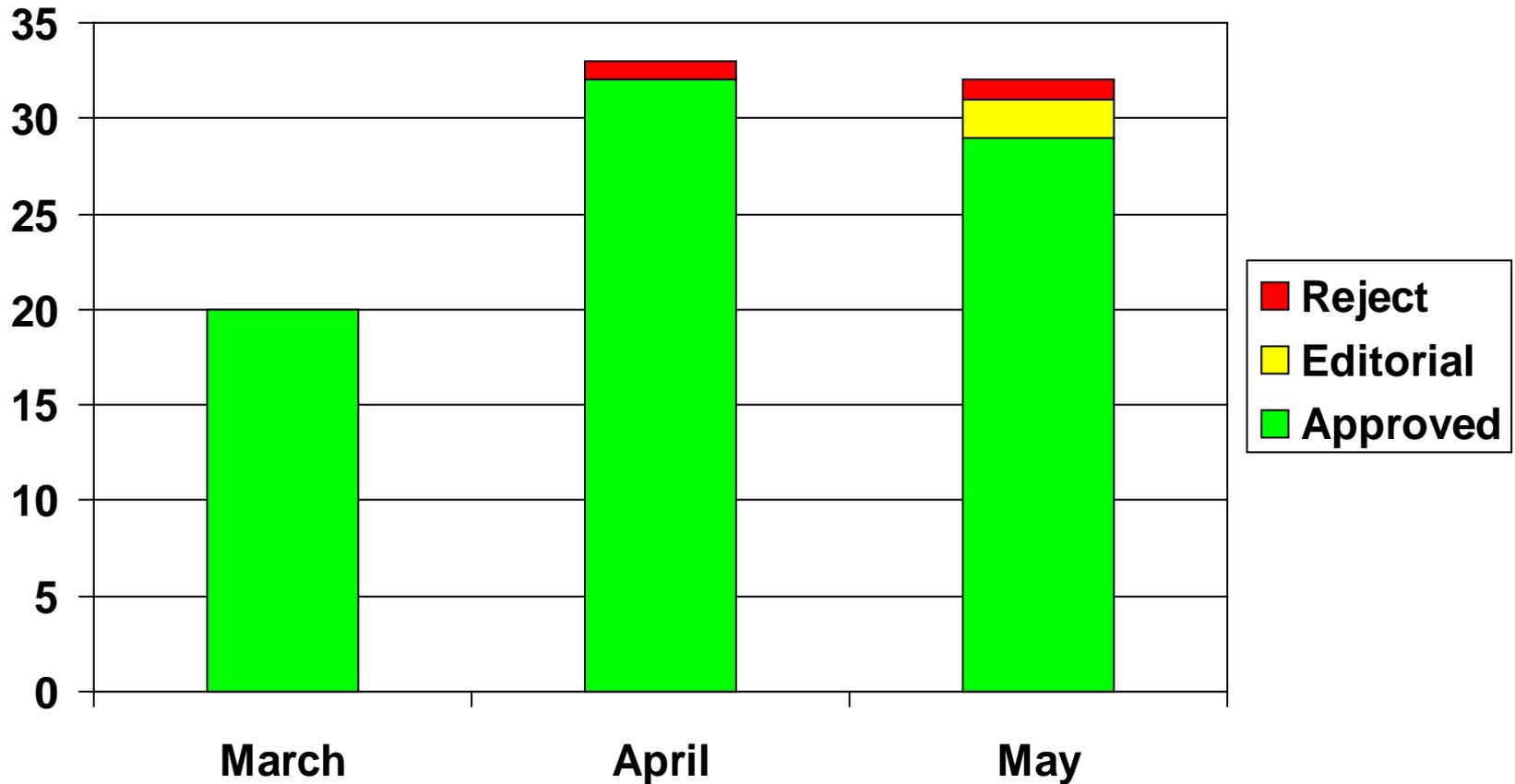
Program Update - Quality

- Independent review of expedited RDAs has been implemented:
 - The DTRA health physicist's decision to expedite an RDA is now captured in a Decision Summary Sheet (DSS).
 - The DSS and other documentation supporting this decision is now being reviewed by a non-DTRA health physicist. This adds 1-2 weeks to the process.



Program Update - Quality

- External DSS Review Summary (March – May 2008)





Program Update - Connectivity

- Per DTRA-VA agreement at last VBDR meeting, DTRA & VARO Jackson (centralized VA radiogenic disease claim office) are establishing a NTPR-Virtual Private Network (VPN) connection:
 - Allows for secure digital (Adobe PDF) exchange of data.
 - Speeds up veteran support (since postal time is eliminated)
 - Allows for weekly case status exchange



VBDR-DTRA Recommendations

- 18 Recommendations:
 - June 2006: 4 recommendations
 - November 2006: 2 recommendations
 - March 2007: 3 recommendations
 - April 2007: 3 recommendations
 - September 2007: 6 recommendations
- Status (as of April 2008 – Last VBDR Mtg.):
 - 11 Completed
 - 7 Ongoing



Ongoing DTRA Recommendations

- Ongoing Recommendations:
 - VBDR-DTRA recommendation #3
 - VBDR-DTRA recommendation #6
 - VBDR-DTRA recommendation #7
 - VBDR-DTRA recommendation #14
 - VBDR-DTRA recommendation #15
 - VBDR-DTRA recommendation #16
 - VBDR-DTRA recommendation #17



Recommendation #3 Status

- June 2006: “NTPR undertake a comprehensive analysis of uncertainties for all beta dose exposure scenarios.”
- Status: NTPR has completed a comprehensive RDA uncertainty analysis. An external peer-review entity (NCRP) has completed its review of the NTPR technical basis document entitled, “Skin Doses from Dermal Contamination.” Based on the peer-review, this document will be revised and NTPR RDA SOP updated appropriately. SC1 was briefed in January, April and July 2008 on these actions.



Recommendation #6 Status

- Nov 2006: “After NTPR’s implementation of the QA Plan, Program and Procedures Manual...NTPR submit the following key QA tracking results to Subcommittee 3 on a quarterly basis: performance and QA metrics, QA corrective actions, and audit reports.”
- Status: NTPR now provides VBDR SC3 this information on a quarterly basis. SC3 was briefed in April and July 2008.



Recommendation #7 Status

- March 2007: “That a detailed Standard Operating Procedure (SOP), including incorporated Standard Methods (SMs), be developed that ensure the appropriate treatment of upper bounds...
- Status: NTPR RDA SOP released October 2007. The uncertainty chapter (UA01- Dose Uncertainty and Upper Bound Determinations) was released March 2008. This chapter is being updated to reflect DTRA Technical Report entitled, “Probabilistic Uncertainty Analysis in NTPR Radiation Dose Assessments.”



Recommendation #14 Status

- September 2007: “NTPR discontinue the use of default upper bound factors for...non-expedited radiation dose assessments and develop procedures to perform full probabilistic uncertainty analyses for these assessments. NTPR standard operating procedures should specify whether uncertainty estimates from individual sources are independent or correlated and when and how uncertainties should be propagated.”
- Status: NTPR initiated a comprehensive RDA uncertainty analysis in late 2007. RDA SOP includes section on treatment of uncertainties.



Recommendation #15 Status

- September 2007: “NTPR ensure its external review entity conducts spot checks of specific calculations and computer programs (e.g., MathCAD template output).”
- Status: An external review entity continues to spot check NTPR RDAs and has initiated a comprehensive validation and verification of the NTPR MathCAD template.



Recommendation #16 Status

- September 2007: “NTPR document its justification to expedite a case in the case file and that external Quality Assurance (QA) audits comment on appropriateness of the decision to expedite.”
- Status: NTPR initiated a Decision Summary Sheet in March 2008 that fulfills this recommendation. NTPR external audits comment on the appropriateness of the decision to expedite.



Recommendation #17 Status

- September 2007: “NTPR expand its technical bases and criteria for expedited case processing.”
- Status: NTPR has published a new RDA SOP Chapter, entitled “RA03 – Radiation Dose Assessment for Expedited Cases” that fulfills this recommendation.



VBDR Recommendation Status

- DTRA accepted all 18 VBDR recommendations (June 2006 – September 2007).
- All recommendations have been acted on.
- DTRA supports all continuing recommendations (e.g. provide quarterly NTPR quality metric summaries to VBDR SC3).



The Road Ahead

- Update 32 CFR 218, “DTRA Dose Reconstruction Policy”
- Support potential VBDR transition