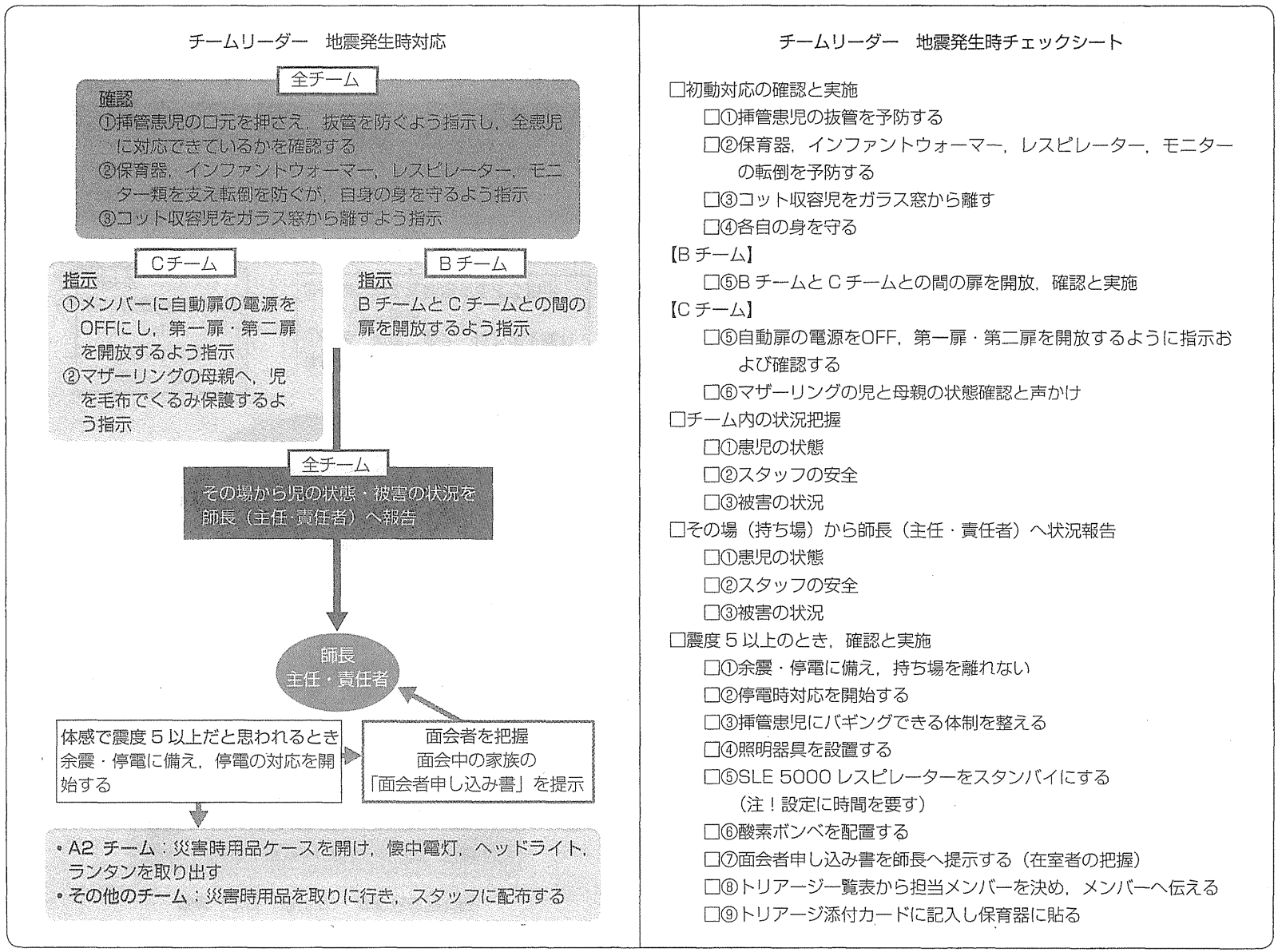



図２②　地震発生時対応のアクションカード（チームリーダー用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」

チームメンバー　地震発生時対応

全チーム

**実施**
**①挿管患児の口元を押さえ，抜管を防ぐ**
**②自分の身を守りながら，保育器，インファントウォーマー，レスピレーター，モニターを支え，転倒を防ぐ**
**③コット収容児をガラス窓から離す**

Cチーム

**自動扉の電源をOFFにし，第一扉・第二扉を開放する**

Bチーム

**Bチームと Cチームとの間の扉を開放する**

各チーム

**その場から児の状態・被害の状況をチームリーダーに報告**

ラジオ付近に居る人はラジオを付ける

問題発生時
速やかに報告，早期対処・早期解決

体感で震度５以上だと思われるとき

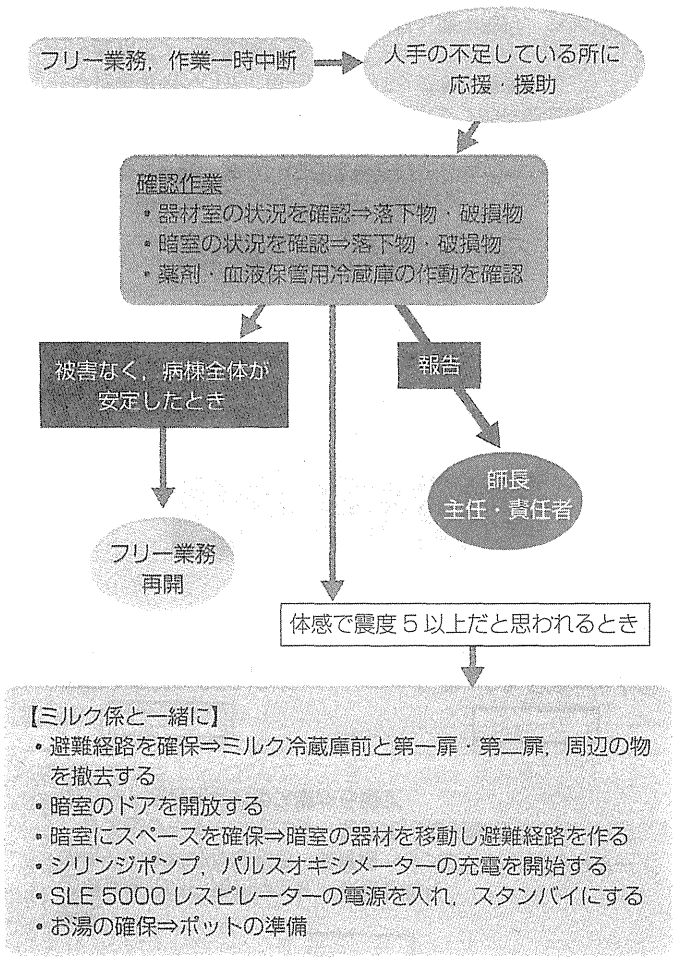
- **余震・停電に備え，持ち場を離れない**
- **落下物に注意する**
- **レスピレーター，モニター，輸液ポンプの作動を確認する**
- **挿管患児の口元に自己膨張式バッグを設置する**
- **酸素ボンベを配置する**
- **照明器具を設置（非常用懐中電灯，懐中電灯，ヘッドライト，ランタン）する**

チームメンバー　地震発生時チェックシート

□初動対応
　□①挿管患児の口元の気管チューブを押さえ，抜管を予防する
　□②保育器，インファントウォーマー，レスピレーター，モニターの転倒を予防する
　□③コット収容児をガラス窓から離す
　□④自分の身を守る
【Bチーム】
　□⑤Bチームと Cチームとの間の扉を開放する
【Cチーム】
　□⑤自動扉の電源を OFF，第一扉・第二扉を開放する
　□⑥マザーリングの児と母親の状態確認と声かけ
□状況把握
　□①受け持ち患児
　□②自分自身
　□③周囲の家族とスタッフ
□その場（持ち場）からチームリーダーへ状況報告
　□①受け持ち患児
　□②自分自身
　□③周囲の家族とスタッフ
□問題発生時，異常時は助けを求める，報告する
□震度５以上のとき
　□①余震・停電に備え，持ち場を離れない
　□②停電時対応を開始する
　□③挿管患児にバギングできる体制を整える
　□④照明器具を設置する
　□⑤SLE 5000 レスピレーターをスタンバイにする
　　（注！設定に時間を要す）
　□⑥酸素ボンベを配置する
　□⑦トリアージ一覧表に従い，トリアージ添付カードに記入し保育器に貼る
　□⑧避難時の担当患児を把握

図２③　地震発生時対応のアクションカード（チームメンバー用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」

フリー業務　地震発生時対応

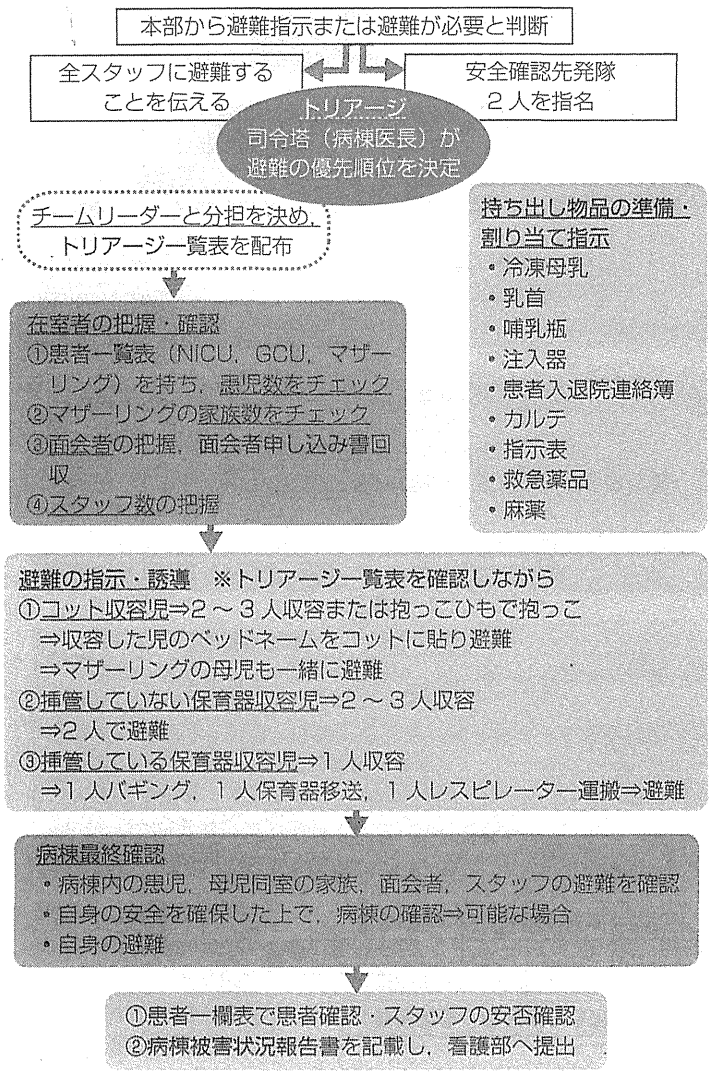



フリー業務　地震発生時チェックシート

□フリー業務，作業中断
□人手不足のところへ応援・援助
□確認
　□①器材室の落下物・破損物
　□②暗室の落下物・破損物
　□③薬剤・血液保管用冷蔵庫，冷凍庫の作動
□師長（主任・責任者）へ報告
　□①器材室の落下物・破損物
　□②暗室の落下物・破損物
　□③薬剤・血液保管用冷蔵庫，冷凍庫の作動
□被害がないとき，フリー業務を再開
□震度５以上のとき
【ミルク係と】
　□①避難経路を確保する
　　・ミルク冷蔵庫前と第一扉・第二扉，周辺の物を撤去する
　　・B チームと C チームとの間の扉を開放し，通路を作る
　　・暗室の器材を移動し，ドアを開放する
　□②シリンジポンプ，パルスオキシメーターの充電を開始する
　□③SLE 5000 レスピレーターをスタンバイにする
　　（注！設定に時間を要す）
　□④ポットにお湯を確保する

図２④　地震発生時対応のアクションカード（フリー業務用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」

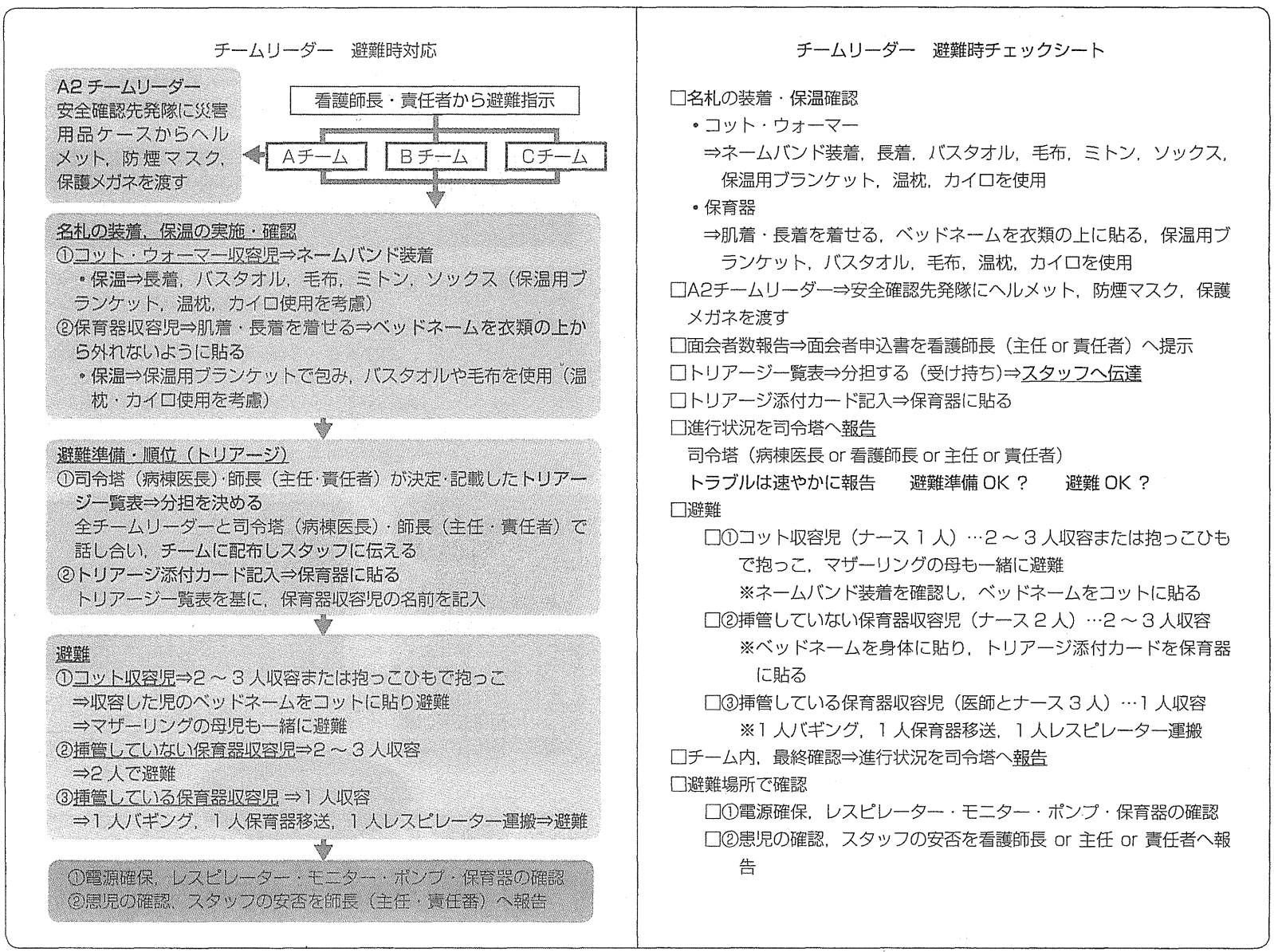
師長（主任・責任者） 避難時対応




師長（主任・責任者） 避難時チェックシート

□全スタッフに避難することを伝える
□安全確認先発隊２人を指名する
□司令塔（病棟医長）が避難の優先順位を決める
□チームリーダーを参集させ，分担を決める
□トリアージ一覧表を配布する
□在室者の把握 □患者一覧表 □マザーリングの家族数
□面会者数（面会者申し込み書回収） □スタッフ数
□避難誘導
□①コット収容児（ナース １ 人）… ２～３ 人収容または抱っこひもで抱っこ，マザーリングの母も一緒に避難
※ネームバンド装着を確認し，ベッドネームをコットに貼る
□②挿管していない保育器収容児（ナース２人）…２～３人収容
※ベッドネームを身体に貼り，トリアージ添付カードを保育器に貼る．
□③挿管している保育器収容児（医師とナース３人）…１人収容
※１人バギング，１人保育器移送，１人レスピレーター運搬
□病棟最終確認
□①患児，母児同室の家族，面会者，スタッフの避難
□②自身の安全を確認し避難
□持ち出し物品
□①入退院連絡簿
□②患者一覧表
□避難場所で確認
□①患者一覧表で患児・スタッフの安否
□②病棟被害状況報告書
□③看護部・災害本部へ報告
□④患児ご家族確認表
□⑤災害時患者受付簿

図３① 避難時対応のアクションカード（看護師長［主任・責任者］用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」




チームリーダー　避難時チェックシート

□名札の装着・保温確認
- コット・ウォーマー
  ⇒ネームバンド装着，長着，バスタオル，毛布，ミトン，ソックス，保温用ブランケット，温枕，カイロを使用
- 保育器
  ⇒肌着・長着を着せる，ベッドネームを衣類の上に貼る，保温用ブランケット，バスタオル，毛布，温枕，カイロを使用

□A2チームリーダー⇒安全確認先発隊にヘルメット，防煙マスク，保護メガネを渡す
□面会者数報告⇒面会者申込書を看護師長（主任 or 責任者）へ提示
□トリアージ一覧表⇒分担する（受け持ち）⇒スタッフへ伝達
□トリアージ添付カード記入⇒保育器に貼る
□進行状況を司令塔へ報告
司令塔（病棟医長 or 看護師長 or 主任 or 責任者）
トラブルは速やかに報告　　避難準備 OK？　　避難 OK？
□避難
　□①コット収容児（ナース1人）…2～3人収容または抱っこひもで抱っこ，マザーリングの母も一緒に避難
　※ネームバンド装着を確認し，ベッドネームをコットに貼る
　□②挿管していない保育器収容児（ナース2人）…2～3人収容
　※ベッドネームを身体に貼り，トリアージ添付カードを保育器に貼る
　□③挿管している保育器収容児（医師とナース3人）…1人収容
　※1人バギング，1人保育器移送，1人レスピレーター運搬
□チーム内，最終確認⇒進行状況を司令塔へ報告
□避難場所で確認
　□①電源確保，レスピレーター・モニター・ポンプ・保育器の確認
　□②患児の確認，スタッフの安否を看護師長 or 主任 or 責任者へ報告

図3②　避難時対応のアクションカード（チームリーダー用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」

チームメンバー　避難時対応

看護師長・責任者から避難指示

全チーム

名札の装着，保温の実施・確認
①コット・ウォーマー収容児⇒ネームバンド装着
・保温⇒長着，バスタオル，毛布，ミトン，ソックス（保温用ブランケット，温枕，カイロ使用を考慮）
②保育器収容児⇒肌着・長着を着せる⇒ベッドネームを衣類の上から外れないように貼る
・保温⇒保温用ブランケットで包み，バスタオルや毛布を使用（温枕，カイロ使用を考慮）

↓

避難準備・順位（トリアージ）
①トリアージ一覧表を確認⇒担当の児を把握
②トリアージ添付カード記入⇒保育器に貼る
トリアージ一覧表を基に，保育器収容児の名前を記入

↓

避難
①コット収容児⇒2～3人収容または抱っこひもで抱っこ
⇒収容した児のベッドネームをコットに貼り避難
⇒マザーリングの母児も一緒に避難
②挿管していない保育器収容児⇒2～3人収容
⇒2人で避難
③挿管している保育器収容児 ⇒1人収容
⇒1人バギング，1人保育器移送，1人レスピレーター運搬⇒避難

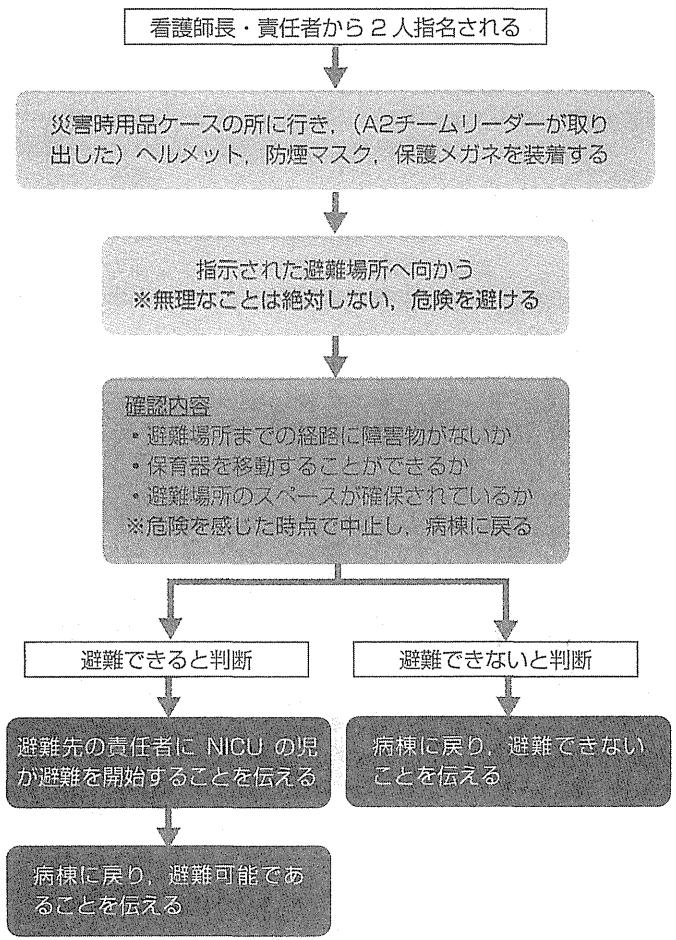
↓

①電源確保，レスピレーター・モニター・ポンプ・保育器の確認
②患児の状態を確認し，リーダーへ報告

チームメンバー　避難時チェックシート

□名札の装着・確認，保温の実施・確認
・コット・ウォーマー
⇒ネームバンド装着，長着，バスタオル，毛布，ミトン，ソックス，保温用ブランケット，温枕，カイロを使用
・保育器
⇒肌着・長着を着せる，ベッドネームを衣類の上に貼る，保温用ブランケット，バスタオル，毛布，温枕，カイロを使用
□トリアージ一覧表
・分担された受け持ち患児，避難の順番・方法⇒把握
・トリアージ添付カード記入⇒保育器に貼る
□進行状況をチームリーダーへ報告
トラブルは速やかに報告　避難準備 OK？　避難 OK？
□避難
□①コット収容児（ナース1人）…2～3人収容または抱っこひもで抱っこ，マザーリングの母も一緒に避難
※ネームバンド装着を確認し，ベッドネームをコットに貼る
□②挿管していない保育器収容児（ナース2人）…2～3人収容
※ベッドネームを身体に貼り，トリアージ添付カードを保育器に貼る
□③挿管している保育器収容児（医師とナース3人）…1人収容
※1人バギング，1人保育器移送，1人レスピレーター運搬
□チーム内，最終確認⇒進行状況をチームリーダーへ報告
□避難場所で確認
□①受け持ち患児の状態を確認しチームリーダーへ報告
□②電源確保，レスピレーター・モニター・ポンプ・保育器の確認

図3③　避難時対応のアクションカード（チームメンバー用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」




安全確認先発隊　避難時チェックシート

□ヘルメット，防煙マスク，保護メガネを装着する
□指示された避難場所へ行く

※危険を避け絶対無理はしない！
※危険を感じた時点で中止し，病棟に戻る！

□確認内容
　□避難場所までの経路に障害物がないか
　□保育器の移動が可能か
　□避難場所のスペースが確保されているか

【避難可能】
□避難先の責任者に，NICU の児が避難することを伝える
□病棟に戻り避難可能であることを伝える

【避難できない】
□病棟に戻り，避難できないことを伝える

図３④　避難時対応のアクションカード（安全確認先発隊用）■は「確認」，　は「指示・実施」，　は「準備」，■は「報告」

月　　日　　曜日　　時　　分
最初に到着した人が取り出し，センターテーブルに置きチェックしていく

記入例；参集者（到着時間，氏名)⇒(20：30，新生児花子)
【参集者氏名】
(①　：　，　　)

Ⅰ．現，勤務帯の責任者に参集を報告し，仕事の依頼を確認してください．　《　》

仕事依頼　あり　　仕事依頼　なし

Ⅱ．依頼された仕事を実施する．　　Ⅱ．実施内容に移る．

Ⅲ．２番目以降に到着した人は，参集者氏名欄に記名し，一番最初の参集者に指示を仰いでください．

何人か集合できたら，参集者の中から「参集者のリーダー」を決め，名前に赤○をつけて，行動を進めてください．

(②　：　，　　)(③　：　，　　)(④　：　，　　)(⑤　：　，　　)
(⑥　：　，　　)(⑦　：　，　　)(⑧　：　，　　)(⑨　：　，　　)
(⑩　：　，　　)(⑪　：　，　　)(⑫　：　，　　)(⑬　：　，　　)
(⑭　：　，　　)(⑮　：　，　　)(⑯　：　，　　)(⑰　：　，　　)
(⑱　：　，　　)(⑲　：　，　　)(⑳　：　，　　)

【実施内容】　実施する内容に記名し，実施し終えたら，実施済みチェックをする．《　✓　》
【　】の数はだいたい必要とする人数ですが，そろわなくても開始してください．

- 落下物・破損物の確認・整理・撤去　(危険は避け無理はしない)《　》
  【　　】【　　】【　　】
- レスピレーター・各種モニター・保育器・ウォーマーなど，本体の接続とコンセントが確実に非常用電源に接続されているか，ならびにパイピングの確認　《　》
  【　　】【　　】
- ミルク加温器，ミルク冷凍庫・冷蔵庫，血液・薬剤保管冷蔵庫，検体用冷蔵庫の作動確認　《　》
  【　　】
- 患児にネームバンドが装着されているか確認し，装着《　》
  【　　】【　　】
- 保温用ブランケット・バスタオル・衣類の設置を確認・配布（児の保温）《　》
  【　　】【　　】
  【　　】【　　】
- 懐中電灯の明るさを確認し，設置する《　》
  【　　】
- 西病棟側の階段扉を開け，移動スペースを作る《　》
  【　　】【　　】
- ストッパーの対角線２点固定を確認《　》
  【　　】【　　】
- レスピレーター SLE5000 の（未使用の物があれば）電源を入れ，スタンバイする《　》
  【　　】【　　】
- 備品を出す（水，手指消毒液，酒精綿，オムツ，ポット，お湯，温枕，カイロ，お尻拭きなど）《　》
  【　　】【　　】
- カルテをまとめる《　》
  【　　】【　　】
- 患児家族への連絡用一覧表作り（電カル作動時はフリーシートをプリントし，使用不可のときは専用用紙を使用する）《　》
  【　　】【　　】
- 未使用のパソコンの電源を切る（節電対策）《　》
  【　　】
- モニターの確認：医師の指示に従う（停電時の対応と節電対策）《　》
  【　　】【　　】
- 高い所の物が落下しないよう，棚を確認《　》
  【　　】

図４　参集者行動チェック表

火災，停電などの発生時に，家族の安全が確認され，出動可能と判断した際に集合することになっている．このほかにも，出動可能な看護師は自主参集としている．

「参集者行動チェック表」（図4）には，責任者からの指示がなくても災害時に必要な実施内容が記載してあり，それにチェックマークを付けることで行動の重複を避けることができる．

## おわりに

「NICU災害時対応マニュアル」は，東日本大震災だけでなく，その前後で時々起こった地震や，停電時の初動対応にも役立っている．幸い，NICU入院児の避難が必要な事態には至っていないが，避難順番のトリアージはいつでも行えるようにしている．夜間や休日に災害が発生した場合，勤務者の負担は大きいが，応援医師と看護師が駆け付けるまでの間は，当直医師と共に冷静に対応する必要があろう．この意味でも，今後はダミー人形を使った実働シミュレーションによる災害訓練を定期的に行ったほうがよいと思われた．

大災害の経験を踏まえ，さらにシミュレーションによる検討を重ね作成した本マニュアルを，各地のNICUでもぜひ参考にしていただきたい．

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第60回日本小児保健協会学術集会　シンポジウム1

東日本大震災の復興支援における小児保健の諸問題と解決

# 岩手県被災地における小児保健医療体制の構築と課題

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## Ⅰ．岩手県の医療施設の被害と影響，および復旧状況

岩手県沿岸部の4医療圏にある12市町村では，医療提供施設（病院，診療所，歯科診療所，薬局）340施設のうち53％に当たる180施設が被災し，医療従事者の死亡・行方不明は医師・歯科医師9人，薬剤師6人，看護職員19人に及んだ。また，社会福祉施設（児童，障がい児（者），高齢者等）396施設のうち35％に当たる139施設が被災し，要援護者の避難時に多数の介護職員が津波の犠牲になった。これに伴い，診療情報も消失して服薬内容の確認に支障を来した。庁舎が津波被害を受けた自治体では住民情報が消失し，安否確認や障がい児（者）と在宅ケア児（者）の把握に時間がかかった。母子健康手帳を流出した人も多かったが，この妊産婦情報は岩手県から周産期医療情報ネットワークシステム事業（“いーはとーぶ”：宮沢賢治による造語で理想郷を意味する）の委託を受けた岩手医科大学のサーバに保有されており，被災地ではこれを妊産婦の安否確認や避難状況の把握，保健指導に役立てたという。また，のちにこの情報を再生し，母子健康手帳に再記載することができた。今後は命を守るまちづくりと，紙ベースの診療録や自治体情報の電子化・クラウド化が必要である。震災から2年後の医療施設の復旧率は病院が100％，診療所が89％となっている（図）。しかし，これには地域差があり，気仙医療圏の陸前高田市では診療所の復旧率が56％と低い。

小児科常勤医がいる沿岸部の災害拠点病院（久慈，宮古，釜石，大船渡の各県立病院）は震災前に津波到達地点よりも高台・内陸へ移転が終わり，津波被害を免れた。このため，これらの災害拠点病院では救急病床を確保するために，震災翌日から入院中または新規の中等・重症患者を内陸部の医療施設へ搬送した。小児科関連の搬送内訳は，津波肺炎を含む小児6人（うち新生児1人），および震災後7日間で妊婦29人であり，震災前からの周産期・小児医療連携が有効に機能した。しかし，激甚災害にもかかわらず重症患者の搬入は少なく，震災による小児重症患者は岩手県全体で津波肺炎の1例だけであった。また，小児の救急患者は震災後3日間で1日平均15人，震災後7日間でも1日平均25人と，普段よりも少なかった。これは成人も同様で，震災後3日間の救急患者は1日200人前後と少なかった。この理由は津波による死亡が多かったためで，その数は岩手県で約5,700人に達した。交通手段がなかったことも受診控えにつながったと思われる。

小児医療施設（小児科常勤医のいる病院と小児科を標榜している診療所）の被害については，津波により病院1ヶ所，診療所2ヶ所が診療不能となった（図）。現在はこれらも仮設で診療を再開している。また，ほかの病院1ヶ所は耐震構造に問題があり，入院を一時制限した。しかし，陸前高田市では震災前から小児医療資源が少なく（病院1ヶ所，小児科医1人），震災前に小児医療を担ってきた一般診療所も休院・廃院となり，小児保健医療に従事する医師が不足して，内陸部や県外の小児科医による支援が行われている。沿岸部における休院・廃院や人口流出，内陸部からの支援

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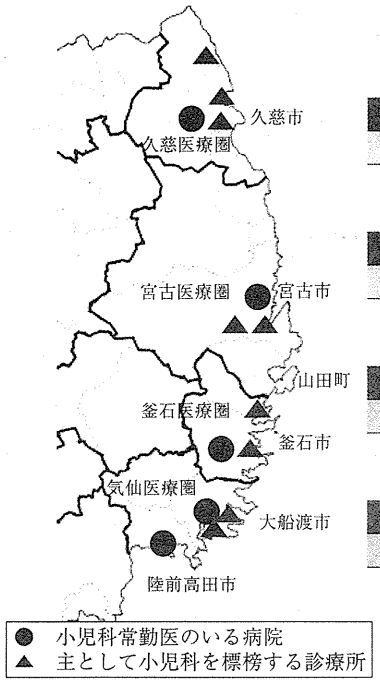


| 久慈 | 震災前 | 被災 | 休廃止 |
|---|---|---|---|
| 病院 | 4 (1) | 2 (0) | 0 (0) |
| 診療所 | 20 (3) | 1 (0) | 0 (0) |

| 宮古 | 震災前 | 被災 | 休廃止 |
|---|---|---|---|
| 病院 | 6 (1) | 3 (0) | 0 (0) |
| 診療所 | 39 (2) | 16 (0) | 3 (0) |

| 釜石 | 震災前 | 被災 | 休廃止 |
|---|---|---|---|
| 病院 | 6 (1) | 6 (1) | 0 (0) |
| 診療所 | 20 (2) | 15 (1) | 3 (0) |

| 気仙 | 震災前 | 被災 | 休廃止 |
|---|---|---|---|
| 病院 | 3 (2) | 2 (1) | 0 (0) |
| 診療所 | 37 (2) | 22 (1) | 6 (0) |

( ) は小児科常勤医のいる病院数と
主として小児科を標榜する診療所数

図　岩手県沿岸部医療施設の復旧状況（2013年3月）

などによる影響は近隣医療圏へ波及し，もともと小児科常勤医が少ない病院では小児科医不足が顕在化している。

## Ⅱ．小児保健医療支援の経過と現状

### 1．岩手県内の小児科医による支援

震災後，被災地では予防接種と乳幼児健診を中止していたが，2011年４月から医療施設ごとに個別接種，個別健診が始まり，６月から市町村が行う集団接種，集団健診に移行した。山田町と陸前高田市では小児科医が不足していたため，2011年５月26日から2013年３月まで岩手県医師会の依頼を受けた岩手県小児科医会が内陸部の小児科医を派遣し，乳幼児健診と学校検診に従事した。

陸前高田市では常勤小児科医がいる唯一の県立高田病院が被災し，小児の仮設診療所も少ないため，2011年８月７日から岩手県医師会高田診療所が開設された。この仮設診療所へは岩手県小児科医会が内陸部の小児科医を募り，現在も小児診療が継続されている。

### 2．日本小児科学会による支援

日本小児科学会は，2011年５月９日から2012年４月１日までの間，小児医療資源が不足している気仙医療圏で支援活動を行い，これには全国の小児科医，計89人に参加していただいた。

### 3．東日本大震災小児医療復興新生事務局の設立

岩手県は日本小児科学会の支援が終了したあとの2012年４月から，応援医師の全国公募を開始した。しかし，応募者がいても希望期間が重複して断らざるを得ない状況もあった。このため，日本小児救急医学会は関係者間を調整し，2012年12月に岩手県と宮城県と福島県が合同で東日本大震災小児医療復興新生事務局を設立して，小児科医の全国公募を開始した。岩手県は要支援医療機関として県立大船渡病院と県立高田病院および近隣医療圏の後方支援病院を選定し，2013年１月から11月までの間に45件の支援活動が行われている。

### 4．被災地再生に向けた長期的な支援活動

2011年10月に日本小児科学会に気仙地区小児保健医療支援プロジェクト・ワーキンググループ（WG）（大阪大学教授，中村安秀委員長ほか８人）が発足した。本WGは学会から派遣を行っていた気仙医療圏（大船渡市，陸前高田市）をモデル地区として，他の被災地にも波及可能な介入の確立を目的としたものである。具体的には，震災後のワクチン接種の遅延と流行性疾患への不安を受けて，2012年１月にロタウイルスワクチンの無料接種を開始した。これは高い接種率（2012年の推定接種率92％）で行われており，気仙医療圏のロタウイルス胃腸炎による入院患者数が減少し

ている。また，限られた医療資源の適正配置による疲弊のない時間外診療提供システムの提案や，子育て世代の声を集めるシンポジウムの支援を行った。本WGは時限付きのため2012年３月で解散したが，モデル地区の長期展望に添った介入を考えるコンソーシアムとして，同じメンバーにより真の復興が達成されるまで，息の長い活動を続けることになった。

2013年３月には大分大学小児科による気仙医療圏の支援活動が開始された。被災地を「子どもを産み，育てやすい街，元気な街」として再生することを目標に，新たな小児医療・保健システムの構築を目指している。

### ５．子どものこころのケア

震災による孤児と遺児は岩手県でそれぞれ94人と487人に達した。被災地では高校生以下の子ども92人に１人が両親または片親を亡くしたことになる。ほかにも，被災した子どものこころのケアに対する重要性は震災後早期から叫ばれており，多くのチームが活動してきた。岩手県には震災前から児童精神科医が少なく，特に被災地の医療施設には専門医がいなかったが，岩手県は2011年３月に「いわて子どものこころのサポートチーム」を結成し，公立学校へ臨床心理士の派遣事業を行っている。また，同年６月から宮古市，釜石市，大船渡市の３ヶ所に「こどものこころケアセンター」を順次設置した。ここは法務省，日本児童青年精神医学会，東京都立小児総合医療センターの児童精神科医の協力を得て運営されており，新規相談者数（平均相談回数）は2011年度が108人（2.6回），2012年度が99人（4.4回）であった。同地域で高校生以下の子ども1,000人当たり4.7人が利用したことになる。沿岸３地域のケアセンターに加え，2013年５月には子どものこころのケアを中長期的に担う全県的な拠点施設，「いわてこどもケアセンター」が岩手医科大学に開設された。岩手県は保健・医療・福祉特区の認定を受け，これらの分野に重点的に取り組むとする復興推進計画を発表している。

## Ⅲ．今後の課題

震災後２年９ヵ月が経過した現在，沿岸部では土地や資材，人手が不足しており，住宅再建，産業・生活再建が遅れている。このため，親世代のみならず子世代へのメンタルヘルスの影響が懸念され，人口流出も問題となっている。岩手県内の専門家チームによる「こころのケア」は充実してきたが，今後は支援活動が終了してもその担い手が増え，小児保健医療が震災前にも増して充実することを切望している。

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**Original article**

# Can Japan Contribute to the Post Millennium Development Goals? Making Human Security Mainstream through the TICAD Process

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**Abstract:** In 2013, the fifth Tokyo International Conference on African Development (TICAD V) will be hosted by the Japanese government. TICAD, which has been held every five years, has played a catalytic role in African policy dialogue and a leading role in promoting the human security approach (HSA). We review the development of the HSA in the TICAD dialogue on health agendas and recommend TICAD's role in the integration of the HSA beyond the 2015 agenda. While health was not the main agenda in TICAD I and II, the importance of primary health care, and the development of regional health systems was noted in TICAD III. In 2008, when Japan hosted both the G8 summit and TICAD IV, the Takemi Working Group developed strong momentum for health in Africa. Their policy dialogues on global health in Sub-Saharan Africa incubated several recommendations highlighting HSA and health system strengthening (HSS). HSA is relevant to HSS because it focuses on individuals and communities. It has two mutually reinforcing strategies, a top-down approach by central or local governments (protection) and a bottom-up approach by individuals and communities (empowerment). The "Yokohama Action Plan," which promotes HSA was welcomed by the TICAD IV member countries. Universal health coverage (UHC) is a major candidate for the post-2015 agenda recommended by the World Health Organization. We expect UHC to provide a more balanced approach between specific disease focus and system-based solutions. Japan's global health policy is coherent with HSA because human security can be the basis of UHC-compatible HSS.
**Key words:** Japan, human security concept, health systems strengthening, primary health care, universal health coverage

## INTRODUCTION

The year 2013 can be a landmark year for global health trends because the 5th Tokyo International Conference on African development (TICAD V) will be held in Yokohama, Japan, followed by a high-level panel on the post-2015 Millennium Development Goals (MDG) agenda in the United Nations [1]. This is expected to cast light on global health in the post-MDG agendas.

Since its first launch in 1993, TICAD, which is co-hosted by the government of Japan, the United Nations Development Programme (UNDP), and the World Bank, has aimed primarily at promoting policy dialogue on Africa with action-oriented results as opposed to the pump-priming of pledges [2]. Thus far, TICAD has been held every five years with several additional meetings (Table 1).

TICAD has played a leading role in promoting the human security concept in policy dialogue on Africa. As stated above, TICAD is not a pledge conference, thus it may not be appropriate to evaluate it from the financial aspect. It is, however, necessary to examine the relationship between global health and TICAD to understand its catalytic function.

In this article, we briefly review the development of the human security concept in the TICAD health agenda dialogue, and finally recommend a role for TICAD in the integration of the human security concept in the post-2015 agenda.

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## AGENDA ON HEALTH AND INTEGRATION OF HUMAN SECURITY IN THE TICAD DIALOGUE

Looking back on TICAD's dialogue, health in Africa has not been the main agenda. Its momentum in relation to health has grown gradually.

In the Tokyo declaration adopted in TICAD I (1993), health was treated as an ad-hoc topic. The statement mentioned that investment priority should be given to nutrition, health, and education with special reference to the improvement of the situation of woman and children. In addition, the threat posed by the HIV/AIDS pandemic was recognized [3].

In TICAD II (1998), the statement items in "Towards the 21st century," included health through all life stages and an increase of access to primary health care [4].

The term "Human Security" was first adopted in TICAD III [5]. In the Chair's summary of TICAD III, the three pillars of Japanese assistance in Africa were announced including: "human centered development," "poverty reduction through economic growth," and "consolidation of peace." Under the item "human centered development," besides underscoring the seriousness of HIV/AIDS as one of the most serious threats to African development and the serious impact of tuberculosis, malaria, and polio, the importance of primary health care (PHC), and the development of a regional health system as well as health education to deal with infectious diseases was recognized.

The year 2008 was a very special year for global health trends because the G8 Toyako Summit, Japan and the TICAD IV were both co-hosted by the Government of Japan. A strong momentum for global health that focused on Africa was developed and which kept MDGs 4, 5, and 6 high on the agenda. The momentum was developed by the Takemi Working Group (TWG), which was chaired by Prof. Keizo Takemi [6]. The high-level working group, which was comprised of scholars, government officials, and practitioners from a diverse range of sectors in Japan, was managed by the Japan Center for International Exchange (JCIE). The group held several dialogues on global health. The TWG membership included officers from the Japan International Cooperation Agency (JICA), which is in charge of handling Japan's overseas domestic aid activities, alongside officers from the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare, Japan. Over the course of dialogues, focus was set primarily on Sub-Saharan Africa because the *Millennium Development Goals Report, 2007* revealed that Sub-Saharan African countries had fallen far behind in the achievement of MDG 4, 5, and 6 [6]. At that time, since health systems strengthening was considered a key to empowering individuals and communities [7], the focus of the topic gradually evolved to health system strengthening with human security. The TWG proposed several recommendations to the Government of Japan that emphasized these two points of focus [7, 8]. In TICAD IV, their recommendations were also reflected in the "Yokohama Action Plan," which indicated that the TICAD process should focus on the notion of "human security" for the achievement of the MDGs [9].

In the TICAD V Preparatory Senior Officials' Meeting held in Burkina Faso (November, 2012), which was attended by the delegations of African countries and TICAD co-organizers (the Government of Japan, the African Union Commission, the United Nations, the United Nations Development Programme and the World Bank), participants commended African countries for having achieved remarkable economic and social development, but stressed that they are still faced with various development challenges, including growing economic disparity and insufficient progress towards achieving the MDGs [10].

## THE RELEVANCE OF HUMAN SECURITY TO HEALTH SYSTEM STRENGTHENING

The human security approach has particular adaptability with regard to the promotion of health system strengthening because of its focus on comprehensive health care services for improving the health and wellbeing of individuals and communities [11]. Human security builds on two kinds of mutually reinforcing strategies: protection and empowerment. Protection shields people from dangers, while empowerment enables people to develop their potential and to participate fully in decision-making [12]. According to the Takemi schema (Fig. 1) of health system strengthening in Japan's post World War II period [13], protection equates to a top-down approach. Empowerment, in contrast, is a bottom-up approach. The top-down approach can be made by central or local governments, while the bottom-up approach can be achieved by individuals and communities. Both are therefore required in a variety of situations and are mutually reinforcing. The Takemi schema is a dual approach in that it is both top-down and bottom-up and as such aims to protect communities as it empowers [13]. Tall and Jimba modified this dual approach into a model that fits the situation of Africa, with a structure that is almost same as the Takemi schema [14].

The government of Japan has made global health a high priority in its foreign policy agenda and it has been among the strongest advocates for human security.

The government of Japan thus welcomed the TWG recommendation. Interestingly, in the Kyushu-Okinawa G8 summit held in 2000, infectious diseases were picked up as

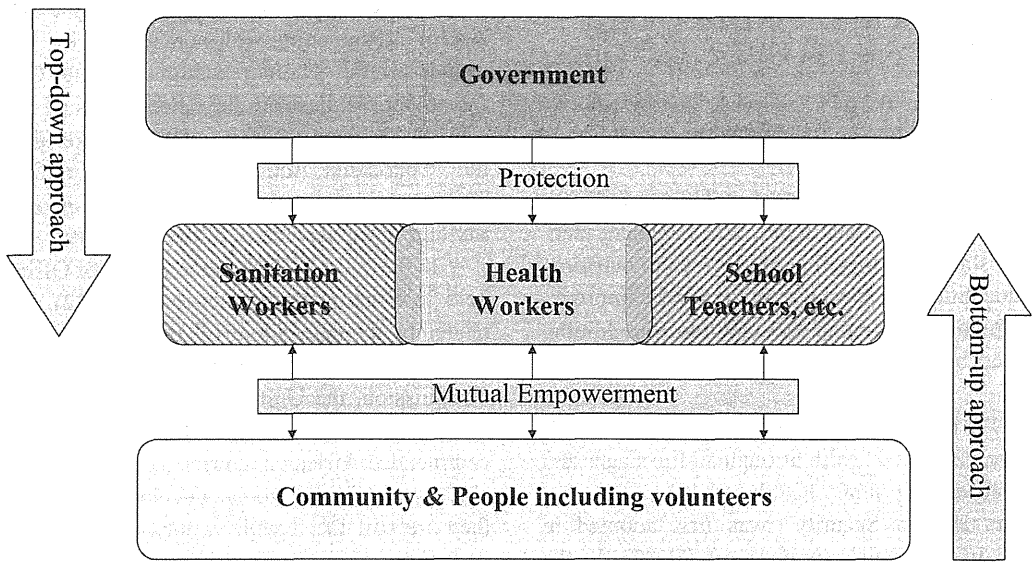


Fig. 1. Takemi's schema on health system strengthening—Two sided strategy—
Source: Modified from Takemi K. Japan's Role in Global Health and Human Security. 2008. http://www.jcie.or.jp/cross/globalhealth/cgh-jc01.pdf

a threat with the potential to reverse decades of development and rob an entire generation of hope for a better future, upholding the importance of human security [15]. The Japanese foreign minister of the day declared Japan's commitment to the support of global health through the human security approach with a mention of the vital importance of not only focusing on the health and protection of individuals, but also striving to empower individuals and communities through the strengthening of health systems [7, 16].

In February 2008, the G8 health experts group (GHEG) meeting was organized among G8 member countries. In its dialogue process, respect for human security was affirmed and its importance for global health was stipulated in the report entitled "Toyako Framework for Action on Global Health," which was welcomed by the chair's summary of G8 Toyako Summit [17, 18].

## THE post-2015 AGENDA

Now that the year 2015 is approaching, the post-2015 agenda should be carefully considered. Universal health coverage (UHC) is, thus far, a major candidate for the post-2015 agenda since the WHO emphasizes its importance as a single overarching health agenda that makes sense [19]. We support this recommendation because UHC is deemed to be able to provide a more balanced approach between specific disease focus and system-based solutions including PHC [20], and the human security approach would be more effective for covering vulnerable groups that have been excluded from UHC and for fragile countries with weak health systems. One of the weaknesses of PHC is the legacy that the system failed to integrate HIV/AIDS care, which was a major component of MDG 6. We expect UHC to essentially be PHC with HIV/AIDS countermeasures (MDG 6). If MDG 6 is successfully integrated into PHC by UHC, it would make PHC the winning method for integrating health system strengthening with regard to MDGs 4, 5, and 6.

One of major success stories with regard to UHC is Japan. Its successes have been detailed and analyzed in several articles [21–23]. Many factors are suggested to have contributed to the establishment of UHC and improvement of health of Japanese people including public health policies, high literacy and education levels, traditional diet and exercise, economic growth, and a stable political environment with a social, democratic movement [22–24]. In the period following World War II until the mid-1960s, Japan reduced mortality rates due to infectious diseases in children under the age of five and of adult mortality due to tuberculosis. While improvement of nutrition and environmental conditions are primary contributors to health, we speculate that the "selection and concentration strategy" contributed strongly to this success after 1961, at which time UHC was launched and treatment costs of patients with TB were treated as a public expense [25]. As the Takemi schema shows, while local health workers made a conscious effort to deliver services to community people based on the egalitarian principles of treatment, the central government developed the strategy of nationwide utiliza-

tion of UHC [25]. However, we should keep in mind that, in spite of Japan's success with regard to UHC development, the country still faces its own challenges. With its rapidly aging society and the burden of the Great East Tohoku disasters, UHC in Japan is losing its affordability to all people and has required structural reform [26].

The introduction of UHC to global health needs to be considered a dynamic issue and it would be very difficult to provide a one size fits all solution for impoverished countries in Africa and beyond. Africa has its own unique health problem with the high level of HIV/AIDS [27]. In addition to the burden of HIV/AIDS, recent reports indicate that the number of people with undiagnosed hypertension and diabetes is greater than the number of people living with HIV/AIDS [28, 29]. Japan's healthcare challenge is that it must adapt to the pressures of a rapidly aging population. In this regard, we see some similarity as to the issues that must be tackled. Thus, we recommend the UHC for the post-2015 agenda. The lessons Japan has learned from tackling the dynamic challenges of its aging population would apply well to Africa and provide a good opportunity for mutual learning. As Shibuya et al. pointed out in their four key policy recommendations, reconsidering the meaning of global health in aging populations and identifying areas in which Japan has greater expertise is a key facet of the strategic agenda [26].

In this regard, the series of dialogues in TICAD and subsequent meetings should be respected since we see a clue in the implementation of the human security concept.

It is widely recognized that in order to deliver both preventive and curative healthcare services in an efficient and effective manner, health system strengthening with local ownership, local diagnosis and local capacity building is required. For that purpose, a two-sided strategy is needed to both strengthen the state's capacity to deliver prevention and curative health services and to empower community-based health workers, volunteers and parents [20]. In Sub-Saharan African countries, in particular, donors and partners must coordinate and harmonize their approaches to UHC in order to avoid duplication and fragmentation. Thus, the human security approach should not be an additional effort, it should be integrated into efforts towards UHC.

As Vega pointed out [30], for the achievement of sustainable UHC, two inter-related components are required: access to coverage for necessary health services and access to coverage with financial protection. This challenge can be discussed in the coming TICAD and subsequent meetings with a view to the human security approach (protection and empowerment).

Japan's global health policy has been consistent from the Okinawa G8 summit in 2000, through the Toyako G8 Summit and TICAD IV in 2008 to TICAD V in 2013 because it has been based on the human security concept with a special emphasis on bottom-up, comprehensive, multisectoral, and participatory approaches that allow it to transform legacy PHC into effective UHC.

## CHALLENGES TO BE CONSIDERED

For the reasons noted above, there is a great opportunity for Japan's global health policy and its domestic experiences of developing UHC to contribute to Africa. We should, however, consider several challenges with respect to its applicability, sustainability and outcome in the African setting.

First, the applicability of the human security model (Takemi's dual approach) to Africa should be carefully discussed. The promotion of the human security approach may not be well accepted given the promotion of a rights-based approach by several stakeholders including the United Nations Children's Fund (UNICEF), the United Nations Population Fund [31], Sweden [32] and the United Kingdom [34]. Although the applicability of the HS model is recognized with a level of expectation [34], it should be a matter of discussion in TICAD V policy dialogues and subsequent meetings. While we see some similarity between the rights-based approach and HSA, including top-down and bottom-up approach [31], we speculate that the rights-based approach, a kind of legal-based and normative approach, may not be effective when "instant choices need to be made between two fundamentally bad options." In contrast, HSA might assist decision-making by "identifying the least objectionable option" [12]. In addition, we should consider the coherence of UHC with existing social franchising systems and conditional cash transfer [35–37], both of which are considered to be innovative and of great impact to health in Africa. A system of UHC with HSA integrated with social franchising and conditional cash transfer could be recognized as being favorable.

Second, the sustainability of UHC should be considered. Looking back on the history of PHC, the lesson of selective PHC is deemed to be important. Criticisms of PHC included that it was too broad and there were doubts over its feasibility. Selective PHC, which consisted of GOBI (growth monitoring, oral rehydration therapy, breastfeeding, and immunization) approaches, was advocated by UNICEF and supported by several donors. However, the scheme has been criticized for its narrow focus on technocentric approaches [38], which did not encourage community participation and which were unable to take a central position in the global health community. As a result, the PHC concept and its implementation fluctuated and com-

Table 1 Brief overview of the TICAD Process

| Year | Title of conferences and meetings | Date | Venue | Summary |
|---|---|---|---|---|
| 1993 | **TICAD I** First Tokyo International Conference on African Development | October 5–6 | Tokyo, Japan | Co-organizers vowed to resuscitate the decline in development assistance for Africa which had followed the end of the Cold War.<br>"Tokyo Declaration on African Development," guidelines for African development were adopted. The emphasized priorities are:<br>Importance of 'Africa's ownership' of its development as well as of the 'partnership' between Africa and the international community.<br>Harnessing of Asian experience for the benefit of African development. |
| 1998 | **TICAD II** Second Tokyo International Conference on African Development | October 19–21 | Tokyo, Japan | Primary Theme: Poverty Reduction and Integration into the Global Economy<br>"African Development Towards the 21st Century: the Tokyo Agenda for Action" was adopted.<br>Ownership and partnership were the underlying principles.<br>Expressed commitment to the agreed goals and priority actions in the following areas:<br>Social development: education, health and population, and other measures to assist the poor.<br>Economic development: private sector development, industrial development, agricultural development, external debt.<br>Foundations for development: good governance, conflict prevention and post-conflict development. |
| 2001 | TICAD Ministerial Meeting | December 3–4 | Tokyo, Japan | Substantive discussions took place on TICAD II review and on NEPAD (the New Partnership for Africa's Development), the development initiative by African people themselves. |
| 2003 | **TICAD III** Third Tokyo International Conference on African Development | September 29–October 1 | Tokyo, Japan | Succeeded in bringing together international support for African development, NEPAD in particular, and expanding partnership within the international community. In addition, at TICAD III priority challenges were specified in the various development areas, and a new initiative toward future African development was adopted.<br>The three pillars of Japan's assistance for Africa was announced including "human centered development", "poverty reduction through economic growth" and "consolidation of peace".<br>"The TICAD Tenth Anniversary Declaration," which confirmed approaches to development including consolidation of peace and human security was adopted. |
| 2008 | **TICAD IV** Fourth Tokyo International Conference on African Development | May 28–30 | Yokohama, Japan | "Yokohama Declaration" accompanied by "Yokohama Action Plan" was adopted.<br>Action to be taken by 2012 was described in "Yokohama Action Plan". |
| 2010 | Second TICAD Ministerial Follow-up Meeting | May 2–3 | Arusha, Tanzania | Discussion focused on progress in the implementation of the Yokohama Action Plan as TICAD IV follow-up, as well as MDGs. |
| 2011 | Third TICAD Ministerial Follow-up Meeting | May 1–2 | Dakar, Senegal | Political and financial issues in Africa were also discussed. |
| 2012 | Fourth TICAD Ministerial Follow-up Meeting | May 5–6 | Marrakech, Morocco | The "Kan commitment" was mentioned. |
| 2012 | TICAD V Preparatory Senior Officials' Meeting | Nov 15–17 | Ouagadougou, Burkina Faso | Remaining development challenges including MDGs were mentioned. |

The items were modified from the web http://www.mofa.go.jp/region/africa/ticad/meeting.html (accessed on Apr 15, 2013)

mon interest was lost. The sustainability of UHC may be associated with health finance and management capacity, which is another challenge. Once UHC is prioritized and targeted for the post-MDG agenda, it is less likely to fluctuate than PHC. However, the global health community has been swinging like a pendulum from a vertical approach (selective PHC and the MDGs), to a horizontal approach (health system strengthening and PHC). Even if the UHC concept achieves mainstream acceptance among the global health community, the direction of the stream should be carefully monitored through the TICAD dialogue processes and the World Health Assembly agendas, which cover a variety of items but which do not always reflect international health issues in terms of disease burden [39].

Third, the outcomes achieved through TICAD should be considered. As the TICAD monitoring process reported, the renovation of more than 1,000 health facilities and the training of more than 100,000 health workers have already been achieved. These indicators were set in reflection on the "Yokohama Action Plan" and "Toyako Framework for Action on Global Health". In a sense, Japan may have achieved accountability to the global health community, however these achievements and inputs including an ongoing model project named "EMBRACE" (Ensure Mothers and Babies Regular Access to Care) [40], and education services in poor countries from 2011 to present (continuing to 2015) [41] have been made based on a large amount of donor funds, including Japan's pledge of US$ 8.5 million at the UN MDG Summit in September 2010, named the "Kan commitment," from the name of the prime minister of the day [42]. The Kan commitment was not restricted to TICAD actions. The problem, however, is that this achievement came at the cost of such a large amount of input. As noted above, the main objective of TICAD is to promote output-oriented policy dialogue, not the pump-priming of the pledges, which are necessary to sustain high-input programs.

Japan has gained newer accountability for establishing the means by which this achievement can vitalize communities in the light of the human security concept. In the coming TICAD V and follow-up meetings, the direction of policy dialogue should focus on how to bring about outcome and establish accountability in African countries while best utilizing existing outputs along with evaluating the appropriateness and effectiveness of these inputs; even though evaluating outcomes will be difficult due as it will take longer to confirm the actual outcomes.

## CONCLUSION

Japan's health system experiences and the global health policy presented by the Ministry of Foreign Affairs and JICA are consistent with the human security concept. The human security concept can be the basis of health system strengthening, which complements UHC. It is also Japan's challenge to incorporate PHC into health system strengthening and infectious disease control activities, to strengthen newborn and child health activities, and to contribute to UHC development. In the coming TICAD dialogue, the human security approach should be strengthened with a view to the post-2015 agenda.

## CONTRIBUTION

Takahashi K and Kobayashi J made a significant contribution to the writing of the manuscript. Nomura M made a significant contribution to the writing of the Table 1. Kakimoto K and Nakamura Y supervised all parts of the manuscript.

## CONFLICT OF INTEREST STATEMENT

None declared.

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